Re: Albuquerque Proposed Ordinance 20-12 Related to Building Energy Efficiency

Dear Albuquerque City Council,

Thank you for the opportunity to comment on proposed Ordinance 20-12 (introduced April 20, 2020), which would update Albuquerque’s building energy code by adopting the 2018 International Energy Conservation Code (IECC). While moving forward to the 2018 IECC is a positive step, the proposed ordinance includes a weakening amendment to the model code that would exempt all roof replacements from its requirements. This weakening amendment will lead to continued energy waste and greater carbon emissions from existing buildings, and would represent a roll-back from current requirements under both the New Mexico and Albuquerque codes. We encourage the City Council to remove this weakening amendment from the proposed ordinance for the reasons stated below.

1. Roof Replacements Offer a Critical Opportunity to Improve the Energy Efficiency of Existing Buildings

Proposed ordinance 20-12 would amend C503.1 of the IECC by adding “roof replacement” as an additional exception to the alteration requirements (see page 42 of the proposal). We urge you to delete this language. This modification to the proposed ordinance would be in line with Mayor Tim Keller’s pledge of supporting the goals under the Paris Climate Agreement and his actions in joining the Climate Mayors and working to strengthen local efforts at reducing greenhouse gas emissions.

Existing buildings account for about 40 percent of U.S. energy consumption and greenhouse gas emissions, and building energy codes are the most effective policy tool for addressing this source of pollution. While most of the attention surrounding the model energy code relates to new construction, the energy code also is an important policy tool that leverages the natural cycle of building upgrades and component replacements in an effort to cost-effectively improve energy efficiency in existing buildings. These provisions are in Chapter 5 of the Commercial and Residential sections of the IECC and have been implemented in most every local and state jurisdiction without issue.

Nationally, approximately 2.5 billion square feet of commercial, low-slope roofs are replaced or recovered each year on existing buildings. Replacing a typical existing roof with an energy code-compliant roof reduces whole building energy use by an average of 5.7%. Taking advantage of the normal rate of re-roofing (i.e., roof coverings have an average lifespan of 15-20 years), improving these roofs to the minimum required by current code would result in a national, ten-year cumulative energy cost
savings of more than $12 billion and a cumulative CO$_2$ emissions reduction of more than 100 million metric tons (equal to the annual emissions of 24.8 coal-fired power plants or 21.4 million cars).\textsuperscript{1}

From a technical perspective, it should be noted that the 2018 IECC requirements applicable to roof replacements only apply to existing roofs where the insulation is located entirely above the roof deck. This roof configuration can be easily and cost-effectively upgraded when the existing roof system is replaced. The model code language does not apply to roof repairs, roof recovers, and roof replacements where the insulation is not located above the roof deck. Therefore, the 2018 IECC language already incorporates reasonable limitation’s for requiring energy-efficient upgrades to existing buildings. As such, the amendment to section C503.1 included in the current version of the proposed ordinance is unnecessary and should be deleted.

Finally, it is also important to note that in July of 2019 (for the fifth year in a row) and by unanimous vote, the U.S. Conference of Mayors endorsed efforts to significantly strengthen and rely on the IECC, in its entire form, as a key component of sound energy and environmental policy.\textsuperscript{2} The U.S. Conference of Mayors’ resolution demonstrates the broad local support for the 2018 IECC and moving forward on energy efficiency.

2. Information About the Polyisocyanurate Insulation Manufacturers Association

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.

Thank you for the opportunity to submit these comments. Please contact myself (jkoscher@pima.org) and Jeff Mang (jeff.mang@hoganlovells.com) should additional information be helpful to your consideration of our proposed modification.

Sincerely,

Justin Koscher
President

cc: Councilor Brook Bassan
Councilor Isaac Benton
Councilor Cynthia Borrego
Councilor Diane Gibson
Councilor Don Harris
Councilor Trudy Jones
Councilor Klarissa J. Pena
Councilor Lan Sena
Mayor Tim Keller
Land Clark, Chief Building Official
Kelsey Rader, Sustainability Officer

\textsuperscript{1} Jerry Phelan et al., Energy and Environmental Impact Reduction Opportunities for Existing Buildings with Low-Slope Roofs, (Bayer Materials Science, April 2009). This report is the most comprehensive analysis available evaluating the cost-effectiveness of roof insulation upgrades in existing buildings. Ten different DOE commercial building prototypes in 13 locations and 5 climate zones were modeled using DOE’s EnergyPlus software and RS Means construction cost data. The EnergyPlus software simulates the energy use and interactions for the entire building, not just the performance of the roof. https://cdn.ymaws.com/www.polyiso.org/resource/resmgr/report/bayer_report.pdf

\textsuperscript{2} https://www.usmayors.org/the-conference/resolutions/?category=a0D4N00000FCe8zUAD&meeting=87th%20Annual%20Meeting; https://newbuildings.org/us-conference-of-mayors-unanimously-resolves-to-support-advancements-to-the-2021-iecc/