

**From:** [Mike Ryan](#)  
**To:** [James, Mary, RLD](#)  
**Cc:** [Maribel Munoz](#); [Jackson C. Johns](#); [Robert Caranta](#)  
**Subject:** [EXT] Supplemental Comments for 7/13/2020 Hearing on 2018 IECC adoption  
**Date:** Tuesday, July 28, 2020 3:28:41 PM  
**Attachments:** [image001.png](#)

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July 28, 2020

Ms. Mary James  
NM Regulation and Licensing Dept.  
Construction Industries Commission

Sent via email to [mary.james2@state.nm.us](mailto:mary.james2@state.nm.us)

Please accept these comments on the adoption of the 2018 IECC as a supplement to our initial comments emailed on June 15, 2020:

National Roofing has been in business in New Mexico for over 40 years and is very much in support of robust energy performance requirements. As a design professional, I personally would prefer to adopt the 2015 IECC since New Mexico currently uses that version of the code, and code interpretations are easier when using the same cycle.

However, if it is determined that we would be better served with the 2018 IECC for residential and commercial construction, we would support that decision with the revisions suggested in the 6/15 email (and copied below) regarding allowing flexibility in energy requirements for **roof replacement** projects (no changes suggested for new construction since building design can efficiently accommodate space required for additional insulation).

Thank you for your consideration,

STAFF ARCHITECT | CTO  
**MICHAEL RYAN**

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**From:** Mike Ryan <[MikeR@nationalroofing.com](mailto:MikeR@nationalroofing.com)>  
**Sent:** Monday, June 15, 2020 1:44 PM  
**To:** James, Mary, RLD <[Mary.James2@state.nm.us](mailto:Mary.James2@state.nm.us)>

**Cc:** Clark, Land <[lclark@cabq.gov](mailto:lclark@cabq.gov)>; Tom Johns <[Tom@NationalRoofing.com](mailto:Tom@NationalRoofing.com)>; Jackson C. Johns <[jackson@nationalroofing.com](mailto:jackson@nationalroofing.com)>; Ortiz, Patricia <[paortiz@cabq.gov](mailto:paortiz@cabq.gov)>; Jen <[director@aiaabq.org](mailto:director@aiaabq.org)>  
**Subject:** [EXT] Comments for 7/13/2020 Hearing on 2018 IECC adoption

Ms. James,

Please email me other comments received on the adoption of the 2018 IECC.

Please also add the comments below to those for consideration, and reply via email that they have been received. Thank you for the consideration.

COMMENTS:

The 2018 IECC [RE] seems more focused on residential construction types in the Midwest and Northeast (pitched roof houses with attics) and less focused on construction types commonly found in the Southwest (low slope roofs with exposed primary structure or plastered ceilings). This is most evident in Section R402.2.1 and R402.2.2 where, for attic spaces, a reduction in insulation value is allowed over 100% of the ceiling areas, but only for 20% of the total insulated ceiling areas where no attic exists. A deference for pitched roof/attic construction is also evident with the 2018 code which eliminated the separate designation for “Insulation entirely above deck” from Table R402.1.2.

The 2018 IECC seems to acknowledge the importance of continuous insulation and allows a reduction in total required R Value when continuous insulation is installed on the vertical surfaces. It also allows reductions in attic space insulation when the insulation continuous to the outer face of the exterior walls. However, above-deck insulation does not generate the same level of credit even though it is often the only practical way to achieve additional insulation in a low slope Roof Replacement scenario.

POSSIBLE CHANGES:

1. For states like New Mexico that currently adopt the 2009 IECC, the insulation requirement will go from R20 above deck (or R38 total ceiling insulation plus insulation above deck) to R49 in Climate Zone 4B with the adoption of the 2018 IECC. The only relief to the R49 requirement for “Ceilings without attic spaces” seems to be in R402.2.2 where a reduction to R30 is provided for a maximum of 500 square feet of insulated ceiling area in the house.

Proposal: Allow the reduction to R30 over 100% of the insulated ceiling areas in R402.2.2 when continuous insulation is provided on the roof deck of low slope roofs. Allow additional reductions if additional above-deck insulation requires the modification of parapet heights or removal and replacement of windows.

Reason: Many houses in the Southwest have exposed structure and/or hard ceilings in every room of the house. Increasing the requirement to R49 during a Roof Replacement can be prohibitively expensive and impractical when there is no access to the ceiling cavity or when the added insulation thickness conflicts with existing building geometry. While parapet heights and roof joist depth can be designed to accommodate the thickness required for this much insulation in new construction, Roof Replacement projects often do not have enough above-deck height at curbs, parapets and high walls with fenestration to accommodate the additional +/-5” of insulation required by the new code

(R20 required by 2009 IECC = 3.5", R49 required by 2018 IECC = 8.6").

2. Table R402.1.2 does not offer a simple way to reduce requirements of the 'Ceiling R-Value' when continuous insulation above deck is provided. Although a 'U-Factors Alternate Approach' is allowed (see table R402.1.4), the calculations are often beyond the expertise of the roof contractors executing Roof Replacement work, and verifying the existing assemblies at every space below a roof to determine coefficient of heat transmission is often impractical and destructive.

Proposal: Table R402.1.2; Change Climate Zone 3 Ceiling R-Value from "38" to "38 or 17+17" and Climate Zones 4-7 Ceiling R-Value from "49" to "49 or 27 + 17".

Reason: Continuous insulation is allowed at Wood Frame Walls and a credit should be provided when one is able to install continuous insulation above the roof deck. Proposal reduces requirement for roofs by about 10%; the same percentage as allowed for walls. This allows more flexibility to meet the new energy requirements on Roof Replacement projects.



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