

DOCKETED	
Docket Number:	24-BSTD-01
Project Title:	2025 Energy Code Rulemaking
TN #:	255324-4
Document Title:	Staff Supplement to 2025 CASE Report - Multifamily Envelope
Description:	N/A
Filer:	Javier Perez
Organization:	California Energy Commission
Submitter Role:	Commission Staff
Submission Date:	3/28/2024 4:36:52 PM
Docketed Date:	3/28/2024



**Staff Supplement to California Statewide Codes and Standards
Enhancement (CASE) Team Measure Proposal for Multifamily Envelope**

Date: March 28, 2024

Pages: 3

Author: Michael Shewmaker

Description of Proposed Regulatory Changes

The measure change proposal submitted by California Statewide Codes and Standards Enhancement (CASE) Team and titled “Multifamily Envelope” proposes to make the following changes to the 2025 Standards:

1. Cool Roof – Prescriptive Requirements

- For Option B (high performance attics):
 - Low-sloped roofs: *no proposed changes*
 - Steep-sloped roofs: increase Aged Solar Reflectance (ASR) requirement to ASR=0.25, and Thermal Emittance (TE) to TE=0.80 in Climate Zones 10, 11, 13 & 15.
 - Staff agrees with the proposed changes to the U-factor requirement in Table 170.2-A and have incorporated substantively similar changes into the proposed 2025 Express Terms.
 - Staff does not agree with the proposed changes to the Thermal Emittance (TE), and instead left the TE at the current level of TE=0.75. This was done in an effort to simplify the code requirements by limiting the number prescriptive values, and to continue to allow asphalt shingles to be installed prescriptively.
- For Option D (non-attic roofs):
 - Low-sloped roofs: extend the current requirements of ASR=0.63 and TE=0.75 to Climate Zones 2, 4, 6-8 & 9-15.
 - Steep-sloped roofs: *no proposed changes*

- Staff agrees with the proposed changes to Table 170.2-A and have incorporated substantively similar changes into the proposed 2025 Express Terms.

2. Mandatory Wall U-factors

- Reduce the mandatory maximum Wall U-factor requirements as follows:
 - For 2x4 wood framed walls, the U-factor requirement would be reduced to U-0.095 for all Climate Zones.
 - Staff agrees with the proposed changes to Section 160.1(b) and have incorporated substantively similar changes into the proposed 2025 Express Terms.
 - For wood framed walls 2x6 or greater, the U-factor requirement would be reduced to U-0.069 for all Climate Zones.
 - Staff agrees with the proposed changes to Section 160.1(b) and have incorporated substantively similar changes into the proposed 2025 Express Terms.
 - For metal framed walls, the U-factor requirement would be reduced to U-0.148 for all Climate Zones.
 - Staff agrees with the proposed changes to Section 160.1(b) and have incorporated substantively similar changes into the proposed 2025 Express Terms.

3. Windows – Prescriptive U-factor and RSHGC Requirements

- Reduce the prescriptive U-factor requirements for the ‘All Other Fenestration’ window category:
 - For new construction, the current prescriptive U-factor (U) requirement would be reduced to U=0.28 in Climate Zones 1, 3-5, 11 & 13-16.
 - Staff agrees with the proposed changes to Table 170.2-A and have incorporated substantively similar changes into the proposed 2025 Express Terms.

- For alterations, the current prescriptive U-factor requirement would be reduced to $U=0.28$ in Climate Zones 1, 3-5, 11, & 13-16.
 - Staff agrees with the proposed changes to Table 180.2-B and have incorporated substantively similar changes into the proposed 2025 Express Terms.
- Remove the prescriptive RSHGC requirement, for all window categories, in Climate Zones 1, 3, 5 & 16 for multifamily building four or more habitable stories.
 - Staff agrees with the proposed changes to Table 170.2-A and have incorporated substantively similar changes into the proposed 2025 Express Terms.

Staff Analysis and Conclusion

Staff analyzed the submitted proposal and reached the following conclusions for the measures included in the 2025 Express Terms:

- Based on the evidence presented in the proposal, the measures, as proposed, is cost effective and the author has appropriately followed the Energy Commission's Life Cycle Cost methodology.
- Measure costs premiums presented in the proposal are reasonable and appropriate for the measure proposed.
- Measure energy savings presented in the proposal have been appropriately modeled and are credible.
- Measure environmental impacts presented in the proposal are reasonable and appropriate for the measure proposed.