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

Date: March 28, 2024

Pages: 3

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Description of Proposed Regulatory Changes

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

1. Opaque Assemblies – Reduce Prescriptive U-factors for Walls and Roofs
 - For Metal Building Roofs/Ceilings the current prescriptive U-factor would be reduced to U-0.038 in all climate zones.
 - Staff agrees with the proposed changes to Table 140.3-B and have incorporated substantively similar changes into the proposed 2025 Express Terms.
 - For Wood Framed and Other Roofs/Ceilings the current prescriptive U-factors would be reduced to U-0.047 in Climate Zones 6-8, and U-0.028 in all other Climate Zones.
 - Staff agrees with the proposed changes to Table 140.3-B and have incorporated substantively similar changes into the proposed 2025 Express Terms.
 - For Metal Building Walls, the current prescriptive U-factor would be reduced to U-0.098 in Climate Zones 1, 3, 6 & 7, U-0.050 in Climate Zone 15, and U-0.053 in all other Climate Zones.
 - Staff agrees with the proposed changes to Table 140.3-B and have incorporated substantively similar changes into the proposed 2025 Express Terms.

- For Mass Light Walls, the current prescriptive U-factors would be reduced to U-0.170 in Climate Zone 1, U-0.227 in Climate Zone 3, U-0.196 in Climate Zone 4, U-0.364 in Climate Zones 5-9, and U-0.138 in all other Climate Zones.
 - Staff agrees with the proposed changes to Table 140.3-B and have incorporated substantively similar changes into the proposed 2025 Express Terms.
- For Mass Heavy Walls, the current prescriptive U-factors would be reduced to U-0.211 in Climate Zones 1 & 12, U-0.575 in Climate Zones 2-5 & 10, U-0.650 in Climate Zones 6-9, U-0.160 in Climate Zones 11, 14 & 15, U-0.184 in Climate Zone 13, and U-0.153 in Climate Zone 16.
 - Staff agrees with the proposed changes to Table 140.3-B for Climate Zones 1 and 11-16 and have incorporated substantively similar changes into the proposed 2025 Express Terms.
 - Staff does not agree with the proposed changes to Table 140.3-B for Climate Zones 2-10, and instead left the prescriptive U-factor requirements for those Climate Zones at their current levels. This was done to avoid adding a requirement for continuous insulation on heavy mass walls where it is not already required.
- For Wood Framed and Other Walls, the current prescriptive U-factors would be reduced to U-0.078 in Climate Zone 1, U-0.102 in Climate Zones 3, 6 & 7, U-0.095 in Climate zones 5 & 8, U-0.042 in Climate Zone 11, U-0.038 in Climate Zone 15, and U-0.053 in all other Climate Zones.
 - Staff agrees with the proposed changes to Table 140.3-B and have incorporated substantively similar changes into the proposed 2025 Express Terms.

2. Vestibules – Add a Mandatory Requirement for New Construction

- Add a mandatory requirement for vestibules for public entrances in nonresidential buildings for Occupancy Types: A, B, E, I, and M.

- Staff agrees with the proposed changes to Section 120.7 and have incorporated substantively similar changes into the proposed 2025 Express Terms.
- 3. Windows – Add Mandatory U-factor Requirements for New Construction and Additions, as well as Alterations
 - For New Construction and Additions, add a mandatory U-factor requirement of $U=0.47$ for all Climate zones.
 - Staff agrees with the proposed changes to Section 120.7 and have incorporated substantively similar changes in the proposed 2025 Express Terms.
 - For Alterations, add a mandatory U-factor requirement of $U=0.58$ for all Climate Zones.
 - Staff agrees with the proposed changes to Section 141.0(b) and have incorporated substantively similar changes in 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 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.