

Date of Hearing: January 20, 2022

ASSEMBLY COMMITTEE ON APPROPRIATIONS

Chris Holden, Chair

AB 1227 (Levine) – As Amended January 3, 2022

Policy Committee: Natural Resources

Vote: 8 - 2

Urgency: No

State Mandated Local Program: No

Reimbursable: No

SUMMARY:

This bill requires the California Energy Commission (CEC) to consider changes to its “cool roof” replacement building standard. Specifically, this bill:

- 1) Requires the CEC, during one or more of the next four code adoption cycles, to consider amendments to the roof replacement building standards for alterations to existing low-rise, steep sloped residential buildings, to be included in California Code of Regulations (CCR) Title 24 building standards with the goal of increasing the value of the minimum aged solar reflectance (SR) up to 0.40 and expanding the range of climate zones in which the minimum aged SR values are prescribed.
- 2) Requires the CEC, in determining whether to make the amendments, to assess if there is an adequate supply of compliant product in the climate zones for which the CEC is considering the amendments.
- 3) Provides any new requirement must be cost-effective and prohibits imposing new standards if the cost of compliance exceeds the actual energy cost savings achieved through compliance.

FISCAL EFFECT:

Any costs associated with this bill are absorbable and part of the CEC’s duty to promulgate building energy efficiency standards (Energy Resources Program Account).

However, CEC notes a requirement to consider an increase in values for cool roofs could cause a delay or eliminate consideration of other proposed measures that could provide greater GGRF reductions or energy efficiencies.

COMMENTS:

Background and Purpose. The California Energy Code is part of regulations known as Title 24 and is also known as Building Energy Efficiency Standards for Residential and Nonresidential Buildings. The code contains energy conservation standards applicable to most residential and nonresidential buildings throughout California, including schools. The CEC updates building energy efficiency standards through a three-year adoption cycle that involves a significant stakeholder process and requires CEC to consider the cost-effectiveness and energy efficiency of any updates. The CEC has existing authority to accomplish the goals of this bill if it so determined.

The term “cool roof” refers to a roofing product with high SR and thermal emittance (TE) properties. SR refers to a materials ability to reflect the sun’s solar energy back into the atmosphere. TE provides a means of quantifying how much of the absorbed heat is rejected for a given material. Both properties are measured from 0 to 1, with higher values indicating cooler roofing. Energy savings from cool roofs can be as high as 20%, depending on materials, climate zone and electricity rates.

Because energy use depends partly on climate conditions, the CEC established 16 climate zones used with both the low-rise residential and the non-residential Title 24 energy standards. The climate zones are based on energy use, temperature, weather and other factors.

The 2022 update on building energy efficiency standards makes a number of changes to the cool roofing requirements. For alterations to low-sloped residential buildings, the CEC added zone 4 and zones 6 through 15, and increased the aged SR to 0.63 and TE to 0.75. For steep-sloped new and altered nonresidential buildings, the CEC raised both the aged SR and TE to 0.25 and 0.80, respectively, in climate zones 2 and climate zones 4 through 16.

The 2022 update goes before the Building Standards Commission in February 2022, for approval, then to the Office of Administrative Law. The target effective date is January 1, 2023,

According to the author:

This bill directs the CEC to, by 2033, increase the minimum aged (long-term) SR requirement for steep roofs on residential buildings across California (building climate zones 1 – 16) to 0.40. Current prescription is 0.20 for nonresidential buildings in all climate zones and 0.20 for low-rise residential buildings in zones. The bill provides the commission an “off ramp” if the supply of such shingles wouldn’t be adequate or cost effective.

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