



August 28, 2023

California Energy Commission
715 P Street
Sacramento, CA 95814

Subject: Comments on Docket 22-BSTD-01 – Multifamily Envelope

Dear California Energy Commissioners and Staff:

The Asphalt Roofing Manufacturers Association (ARMA) is a trade association representing North America's asphalt roofing manufacturing companies and their raw material suppliers. The association includes the majority of North American manufacturers of asphalt shingles and asphalt low-slope roof membrane systems.

ARMA appreciates the opportunity to participate in the pre-rulemaking phase of the 2025 California Code of Regulations, Title 24, Part 6 standards development process. The following comments are offered in response to the Multifamily Envelope presentation provided during the August 17th pre-rulemaking workshop and the final CASE Multifamily Envelope report. ARMA's comments address the impact of the proposed cool roof changes on product availability, aesthetic options, and alignment with existing provisions,

PRODUCT AVAILABILITY

ARMA is concerned that **the final CASE Multifamily Envelope report incorrectly assumes ready availability of products which satisfy the proposed requirements for steep-slope roofs.** The report cites compliant products' presence in the CRRC Rated Roof Product Directory as primary evidence of availability. ARMA has previously pointed out that, although the Directory is a database of products which have successfully completed the CRRC product rating process, it is not a list of products currently available in California. The fact that presence in the Directory does not equate to availability in California is emphasized by results of CRRC's annual Random Product Testing program, which led to removal of about 80% of products selected by CRRC for validation of ratings in 2021, 2022, and so far in 2023 because the products were not available to be tested.

To provide better information about product availability, **ARMA conducted a survey of California professional roofing material distributors which encompassed at least one hundred individual distributor locations.** Results of the survey indicate widespread availability of asphalt shingles which meet the current requirements (e.g., ASR of 0.20) and very limited availability of asphalt shingles with an ASR of 0.30. An obvious inference is that availability of shingles which meet the proposed requirement (e.g., ASR of 0.25) will lie between these two extremes. Based on the aforementioned survey results, we believe **an assumption of widespread availability of products meeting the proposed requirements is not reasonable.**



ARMA’s focus on professional roofing distribution is an important improvement in data quality relative to past information sources which have often relied on building material outlets which cater to the do-it-yourself segment. Professional roofing distributors have better knowledge than sources such as “big box” outlets due to their specific business interest in roofing. Also, the data provided through the ARMA survey represents a much wider selection of distribution outlets than did prior data collection efforts. The concern of professional roofing distributors about product availability as reflectance requirements increase should be given careful consideration. **ARMA believes compliant products are not as readily available as indicated in the final CASE report and recommends retention of the current requirements.**

AESTHETIC OPTIONS

The final CASE Multifamily Envelope report acknowledges that **builders have “concerns for consumer aesthetic preferences”** and that manufacturers and designers see **“the current trend in most U.S. steep-slope roofing markets is to construct with darker color materials”**

Distributors have experience with available aesthetic options that meet a solar reflectance of 0.25 or a solar reflectance index (SRI) of 23 due to reflectivity provisions for nonresidential steep-slope roofs which went into effect with the 2022 edition of the California Energy Code. This experience informed their responses to the ARMA survey, in which they **expressed concerns about a substantially reduced palette of available colors associated with an increase in aged solar reflectance requirements.**

Although it has limited utility in determining product availability, the CRRC Rated Roof Products Directory is a useful tool to understand color options associated with the proposed requirements. The CASE team used this approach to create Table 6 in their final Multifamily Envelope report, and their observations illustrate the aesthetic challenges the proposal creates, especially for asphalt shingles. ARMA reexamined the Directory on August 16, 2023, and observed 186 rated asphalt shingles, 57 of which met the proposed steep-slope SRI requirement of 23. Seventy-five percent of the 57 compliant asphalt shingles are described as off white, bright white, gray, or tan. This simple exercise illustrates that **there are very few color options in the darker color realm preferred by customers for the most economically advantageous steep-slope roofing product type.** Retaining the multifamily steep-slope reflectivity requirements at current levels is recommended by ARMA to preserve important aesthetic options which are desired by building owners.

ALIGNMENT WITH EXISTING PROVISIONS

The CASE team report states that the proposed measures are “aligned with the 2022 Title 24 single family residential requirements for steep-sloped roof option and nonresidential prescriptive requirements for low-sloped roof option” (p. 10). This statement is correct for the proposed low-slope provisions but does not seem correct for steep-slope. The proposed multifamily steep-slope reflectivity requirements diverge from the existing single-family residential requirements, which are an aged solar reflectance of 0.20, a thermal emittance of 0.75, and a solar reflectance index of 16. ARMA requests that the CEC confirm or correct our understanding on this matter. **Maintaining the current alignment between the single-family residential and multifamily residential steep-slope provisions by making no change to the multifamily requirements seems the more logical and practical course of action** given the very small projected 30-year LSC savings.



SUMMARY

ARMA does not agree with the final CASE report positions that compliant steep-slope asphalt roofing products are readily available and that compliant products are readily available in colors preferred by building owners. ARMA especially objects to reliance on the CRRC Rated Roof Products Directory as evidence of product availability, an approach which has been repeatedly demonstrated to be improper. Finally, ARMA is puzzled by the assertion that the proposed increase in multifamily steep-slope reflectivity requirements improve alignment with 2022 provisions for single-family residential buildings. Retention of current requirements for steep-slope roofs on multifamily buildings is recommended.

In closing, ARMA thanks the CASE team members for their efforts and looks forward to working cooperatively with CEC staff as this development cycle moves forward.

Sincerely,

A handwritten signature in cursive script that reads "Aaron R. Phillips".

Aaron R. Phillips
Vice President of Technical Services