

DOCKETED

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**Owens Corning Comments on 2025 CEC Pre-Rulemaking_Buried
Ducts**

Additional submitted attachment is included below.



October 23, 2023

California Energy Commission
Attention: Docket No. 22-BSTD-01
715 P Street Sacramento, California 95814

RE: 2025 Energy Code Pre-Rulemaking – Buried Ducts vs. Mandatory Roof Deck Insulation

Commissioners:

Owens Corning is a global leader in building materials, systems and solutions, including insulation. Our products are largely a result of our applied Building Science and Sustainability efforts which drive our innovation and our global operations. Owens Corning product specifications and operational activities are specifically undertaken with a measurable awareness towards natural resources stewardship as an integral part of our self-imposed sustainability journey. Thus, it is with long-term resource sustainability, durability, occupant comfort and energy efficiency, that we provide the following perspectives.

We continue to remain engaged in the codes development process and for this cycle we have been pleased to see some movement to advance buried ducts applications, specifically as it relates to removing the penalty as currently applied via the mandatory below deck roof insulation requirements. This mandatory requirement, initially enacted in the 2022 code cycle, is very limiting in terms of allowing additional, performance-based assemblies.

We ask that the Commission allow for an exception to the mandatory under-roof deck insulation currently required in Section 150.0(a)1 of the 2022 Energy Code as follows for the 2025 Energy Code:

1. Include an option that sets an equivalent whole-attic U-factor for the entire attic and roof assembly that allows performance modeling to be better utilized, including for buried ducts assemblies
2. An alternative approach to Item #1 above that accomplishes the same results such as:
 - a. Does not force builders and designers to only utilize HPA-B attics, unvented attics or ducts in conditioned space assemblies
 - b. Maintains equivalent benchmarks for existing Mandatory and Prescriptive measures
 - c. Promotes better adoption of high performance buried duct installations as an additional high-performance attic assembly
3. Incorporate the improved duct R-values with respect to buried ducts as demonstrated in the Statewide Utility CASE Team's work this code cycle

We at Owens Corning recognize the delicate balance and market realities our customers and their customers must deal with when it comes to code compliance and housing affordability. Maintaining flexibility in building and energy codes, where appropriate, is a critical component to maintaining a healthy and sustainable housing and construction industry.

Specifically, as it relates to our requests herein, we ask the Commission to recognize the benefits to these proposals, including:

- The need for builder design flexibility while maintaining net performance goals
 - There is rarely a one-size fits all approach that is appropriate when it comes to building energy efficient, durable and comfortable buildings
 - While limiting building envelope trade-offs is a long-held position of many energy efficiency advocates, including ourselves, limiting the types of building assemblies and thereby often the types of materials that can be used is not an approach we support
 - Building envelope assemblies specifically should be limited only by their performance benchmarks – not by the path in which those benchmarks are met
- The need for additional installation efficiencies and simplicity due to labor constraints
 - Labor constraints are unlikely to be solved in the near term, if at all
 - It is important for us to recognize the additional labor required by current code language mandating insulation at the roof deck – it simply requires more man-hours than traditional approaches
 - Properly installed buried ducts deliver the same or better energy efficiency benefits as existing high performance attic assemblies but with less labor required
- Ongoing safety concerns when having to work under the roof deck
 - Having evaluated scopes of work in attic scenarios for several years now we can attest to the ongoing concerns installers have with working at under-roof deck heights
 - There are inherent risks associated to these practices and installers are seeking alternatives that do not limit their material choices
- Lack of appropriate compliance credit for current buried ducts language when below roof deck insulation is mandatory
 - The reality with current code language is that even current buried ducts code language is under-utilized because the code is still requiring that two-step insulation process
 - The advantages of buried ducts assemblies are only fully realized when their benefits are allowed to be used as an “option to” vs. an “addition to” existing attic insulation requirements – specifically in reference to at the roof deck insulation components
 - By taking advantage of moving the roof deck insulation down to the floor of the attic we allow greater levels of insulation at the attic floor to compensate for the lack of insulation at the roof deck
 - We are then able to be more efficient with labor and material resources
 - The inclusion of the CASE Team’s R-value work for buried ducts will only enhance this benefit
 - Buried duct assemblies present opportunities for additional performance savings via equipment sizing, which can positively impact electrification efforts, yet won’t be realized if limiting factors such as mandatory roof deck insulation continue

Regards,

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