

April 14, 2025

Re: American Chemistry Council Comments on Reporting and Baseline Options for Building Embodied Carbon

The American Chemistry Council (ACC)¹ Plastics Division appreciates the opportunity to submit comments in response to the March 13, 2025 workshop on the proposed framework for embodied carbon reporting and reduction. The proposal, as outlined during the recent workshop, emphasizes initially focusing reporting requirements on materials considered to represent a significant portion of the embodied carbon emissions in the sector. Specifically, Slide 45 identifies materials that CARB intends to include in this first phase of reporting due to their perceived significant contribution to total embodied emissions. While we support CARB's objective to reduce emissions effectively, we have carefully reviewed this approach and wish to provide feedback specifically regarding the inclusion of insulation materials.

Insulation materials do not meet the threshold for "significant" embodied carbon emissions

Regarding Slide 45, which proposes that the first phase of reporting should cover "products likely to account for a significant share of total embodied carbon emissions," we offer the following critical insights:

- A recent research report on Building Decarbonization has shown that insulation materials do not constitute a "significant share" of total U.S. GHG emissions related to building and construction materials². Specifically, all insulation materials annually produced in the U.S. collectively represent only about 1.7% (approximately 6 MMTCO₂e) of total U.S. building material emissions (360 MMTCO₂e). **This figure equates to about 0.1% of overall U.S. GHG emissions, or approximately 0.01% of global annual emissions.**
- When applied proportionately to California, insulation materials likely account for approximately 0.42 MMTCO₂e—**roughly 0.1% of California's 2020 GHG emissions target** (431 MMTCO₂e). Given the minimal contribution, coupled with the substantial carbon-reduction benefits these materials provide through their operational use (with emission reductions ranging from 20 to 300 times their embodied carbon within an average one-year

¹ The American Chemistry Council's mission is to advocate for the people, policy, and products of chemistry that make the United States the global leader in innovation and manufacturing. To achieve this, we: Champion science-based policy solutions across all levels of government; Drive continuous performance improvement to protect employees and communities through Responsible Care®; Foster the development of sustainability practices throughout ACC member companies; and Communicate authentically with communities about challenges and solutions for a safer, healthier and more sustainable way of life. Our vision is a world made better by chemistry, where people live happier, healthier, and more prosperous lives, safely and sustainably—for generations to come.

² Decarbonization of Buildings: A Review of Climate Science, Policies, Practices, Data, and Recommended Actions for Buildings and Building Materials [<https://www.appliedbuildingtech.com/rr/2312-01>]

payback period), **including insulation materials in initial reporting and regulatory requirements appears unjustified.**

- Employing EPA's "key category analysis" underscores the insignificance of insulation relative to truly "key categories." Notably, concrete (28%), gypsum board (22%), and structural steel (13%) collectively represent nearly two-thirds of U.S. building material emissions, dwarfing insulation's share.

In conclusion, insulation materials clearly do not meet the threshold for "significant" embodied carbon emissions and, due to their substantial net carbon savings, should be removed from the list of targeted materials on Slide 45.

We therefore strongly recommend that CARB define "covered materials" as those contributing at least 10% or more to the state's annual embodied carbon inventory in building and construction. Such a threshold would focus policy resources efficiently, avoiding costly, low-benefit regulatory burdens and mitigating potential negative impacts on housing affordability and business costs.

Finally, if CARB proceeds without adopting the proposed threshold, and insulation materials remain included, it is essential to evaluate these materials using lifecycle stage B6 (operational emissions). Omitting this stage fails to capture insulation's primary function—reducing operational energy consumption and associated emissions—thus undermining the integrity and effectiveness of the policy.

ACC is a strong advocate for energy efficiency and carbon mitigation. We support policies that incentivize conserving energy resources and reducing greenhouse gas emissions. Our members are manufacturers of building materials like foam plastic board insulation; spray foam insulation and air sealants; house and building wraps; liquid applied water resistive barriers; plastic pipe; plastic glazing; and roof membranes. These products provide a wide range of benefits including thermal, air, and moisture management.

We appreciate the opportunity to submit comments. If you have any questions or need further clarification, please feel free to contact me at indya_rogers@americanchemistry.com.