

Submitted via online portal

December 8, 2025

California Air Resources Board
Embodied Carbon
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RE: Comments on CARB Building Embodied Carbon Reporting Technical Meeting (Morning Session)

The Polyisocyanurate Insulation Manufacturers Association¹ (PIMA) appreciates the opportunity to comment on the information presented at the California Air Resources Board's (CARB) October 30, 2025, workshop on Building Embodied Carbon Reporting. PIMA represents North American manufacturers of polyisocyanurate (polyiso) insulation products, which are used to reduce energy waste, improve the resilience, and increase the occupant wellbeing in homes and buildings throughout California. Polyiso insulation manufacturers are leaders in the production of energy-saving technology and environmental reporting.

As previously stated in comments to CARB, the polyiso insulation industry has been a leader in the development of environmental impact reporting practices.² In 2015, PIMA published the first editions of its industry-average Environmental Product Declarations (EPDs) for polyiso products. Now, in 2025, the industry is preparing to publish the third generation of third-party verified, ISO-compliant EPDs for polyiso products produced in North America. This leadership role is shared by the industry association and individual manufacturers, many of which have or are now embarking on publishing product-specific EPDs.

Our industry's journey has extended over 10 years and continues to evolve. We recognize that the insulation industry as whole is years (or even decades) ahead of other critical construction material sectors. Based on our experience and considering the status of environmental impact reporting practices for other construction material categories, we

¹ For more information on PIMA and polyiso insulation products, visit www.polyiso.org.

² PIMA's industry-average EPDs for polyiso insulation products are available at: <https://www.polyiso.org/page/EPDs>.

strongly encourage CARB to work with industry to leverage current best practices and establish reasonable requirements and achievable targets under AB 2446 and 43.

The comments below provide feedback on the reporting requirements applicable to manufacturers and importers that were presented during the October 30th workshop and provide specific questions or suggestions for CARB's consideration.

1. Insulation products should be considered for Phase 2 reporting based on low GWP contributions and their critical role in reducing emissions associated with building operations.

As presented during the October 30th workshop, CARB is selecting products based on two criteria: carbon intensity and whether a product is covered by an existing buy clean or similar program. While insulation products may be covered by other reporting programs, CARB's preliminary estimates demonstrate that insulation products only contribute 1% of total building emissions. Moreover, insulation's significant role in reducing carbon emissions associated with the operational phase of a building's life cycle merits a more flexible approach to the reporting requirements applicable to insulation manufacturers.

Most insulation products are covered by at least an industry-average environmental product declaration. As a result, environmental impact information is readily available to CARB and building professionals alike. Delaying the reporting requirements for insulation products to the 2028 reporting year will not impede CARB's ability to implement a carbon reduction strategy.

Finally, given the lofty goal of reducing carbon emissions associated with buildings by 40% by 2035, it is the use of insulation, not the regulation of its embodied carbon, that will be critical to realizing the State's carbon reduction goals.

<p>SUGGESTION TO CARB: CARB should designate insulation products for Phase 2 with initial reporting due for the 2028 reporting year.</p>

2. A definition for *importer* is needed to clearly communicate the scope and applicability of reporting requirements under the proposed scheme.

As outlined by CARB, the reporting requirements hinge on whether a company is considered a *manufacturer* or *importer*. Currently, a clear definition for importers is lacking. The instructions section of the reporting form for importers includes the following description: “The importer is the entity that is primarily liable for the payment of any duties or first entity liable for any state tax filings on the merchandise, or an authorized agent acting on their behalf.” However, it is unclear whether this description is intended to serve as the official definition for *importer*.

SUGGESTION TO CARB: CARB should formalize the description cited above, or propose alternative language, to serve as a formal regulatory definition for *importer*.

3. CARB should modify its proposed requirements for environmental product declarations (EPDs) and align its criteria fully with existing standards and current industry practices.

While CARB correctly cites the existing ISO standards applicable to product category rules and EPDs, several CARB-specific requirements would impose significant burdens on covered manufacturers as well as the life cycle assessment practitioner community. Moreover, while CARB suggests that product category rules (PCRs) could simply be amended to incorporate its proposed criteria, the process for updating PCRs is costly, time intensive and consensus based. Such processes do not guarantee that any participant’s proposals will be accepted, including proposals supported by governmental interests like CARB.

As listed below, certain requirements applicable to building material EPDs as proposed by CARB are acceptable. However, certain data quality requirements raise significant concerns.

- The feasibility of developing product- and facility-specific EPDs that conform to ISO standards and applicable product category rules (PCRs) continues to increase.
- To sustain this progress, the life cycle assessment practitioner community that supports the development, review, and verification of EPDs must continue to expand while maintaining appropriate standards for expertise and professionalism.
- The ISO standards that govern the development and maintenance of PCRs and EPDs are correctly cited in CARB’s technical materials. We applaud CARB for

incorporating such standards into its proposed requirements and encourage the agency to go further and align all its requirements with existing industry standards and practices.

- For insulation products, the scope of an EPD is required to be cradle-to-grave under the current PCR. Moreover, the PCR requires that A1-A3 impacts be reported in a disaggregated format. Therefore, we do not foresee any challenges in meeting these specific requirements.
- Additionally, PIMA supports the requirement that EPDs separately disclose the contracted purchases of renewable energy or low carbon fuels in the calculation of primary impact results.

QUESTION TO CARB: CARB is proposing to require that EPDs “disclose the percentage of A1-A3 Global Warming Potential indicator that originates from primary data.” However, CARB does not specify how the calculation is to be performed. For example, is CARB interested in how primary data was used to calculate GWP for the A1-A3 modules relative to the total reported GWP for the product? Additionally, is the calculation to be performed only for the A1-A3 modules for EPDs that are cradle-to-grave?

With respect to CARB’s proposed data quality requirements for EPDs, PIMA continues to express concerns with the requirement that all primary data be no more than 2 years old at the time of submission.

- The 2-year requirement suggests that manufacturers will be required to continuously update EPDs every 2 years. This places a significant burden on even the most sophisticated manufacturers, let alone smaller manufacturers or other entities that are just beginning their transparency reporting journey.
- We question the LCA practitioner community’s ability to support 2-year updates to EPDs from both a bandwidth and practical basis. The time necessary to collect primary data, analyze and assess data, and perform a third-party review of the assessment often takes 18 months or longer. The 2-year requirement would result in an endless loop of EPD development and revisions. Even in a scenario where an EPD could be published within 1 year (e.g., January 1, 2026, publication date with 2024 calendar year primary data), the EPD would be valid for only 1 year (primary data expires December 31, 2026) under CARB’s proposed requirement.
- The 2-year requirement is unnecessary to capture significant changes in primary data. For example, the applicable PCRs for insulation products require that EPDs be revised when the underlying data in any impact category changes by more than 5 percent. Additionally, EPDs are valid for only 5 years. These existing guardrails

ensure that EPDs accurately reflect current environmental impacts without creating undue burden on the parties involved in EPD development.

- Where CARB desires some regular assurance that published EPDs reflect current products in the market, we strongly encourage CARB to consider an alternative compliance pathway such as an interim attestation by EPD owners that any changes in the underlying data have not resulted in +/- change of more than 5 percent to any impact category.

SUGGESTION TO CARB: Eliminate the requirement that all primary data be no more than 2 years old at the time an EPD is submitted to CARB and replace with an attestation requirement that any changes in the underlying data have not resulted in +/- change of more than 5 percent to any impact category. Consistent with our suggestion, EPDs would still need to be updated every 5 years.

Finally, the proposed requirement that EPDs use CARB-approved emissions factors for Scope 3 emissions should be deleted. While CARB may choose to provide default factors that can be used in the absence of primary data, prescribing the use of emissions factors is inconsistent with CARB's other data quality and specificity objectives.

Additionally, prescribing the use of specific emissions factors limits the ability of certain industries to demonstrate the progress of, or results from, decarbonization efforts. For manufacturers to reduce their embodied carbon, they can: be more efficient, select their energy source(s), change raw material type(s), select their supplier(s) to reduce transport and/or work with a supplier that has put in the effort to reduce their embodied carbon. For all manufacturers for which the module A1 (raw materials) contributes the most to GWP, limiting emissions factors to a prescribed list eliminates the possibility to work with their supply chains to reduce embodied carbon. This produces both a less accurate analysis and reduces the incentive to further invest in decarbonization efforts.

SUGGESTION TO CARB: Delete the requirement that manufacturers use CARB-specific factors for Scope 3 emissions and allow EPDs to use supply chain specific data that is collected and verified in accordance with applicable industry standards and practices.

4. CARB should eliminate the requirement that reporters provide economic, price, or other competitively sensitive information.

We do not believe that CARB is obligated or authorized to request economic, price, or other competitively sensitive information under AB 2446 and 43. To fulfill its statutory obligation, CARB requires information related to the environmental impacts (for in-state manufacturers) and quantity of material purchased or installed in California. The price paid for covered materials (or some other type of economic valuation) is not relevant to CARB's carbon assessment.

The collection of such data raises significant anticompetitive questions and could require the disclosure of information covered by binding confidentiality agreements between buyers and sellers. Furthermore, detailed requests for competitively sensitive information may discourage participation in CARB's reporting scheme.

Similarly, we discourage CARB from requiring manufacturers and importers to report non-essential information to reduce reporting burdens and improve overall compliance with any final reporting requirements.

SUGGESTION TO CARB: Eliminate any requirement that would obligate manufacturers or importers to report economic, price, or other competitively sensitive information, or any other information that is not essential to CARB's statutory mandate.

5. Conclusion

We urge CARB to adopt more flexible reporting requirements for insulation products and other covered building materials. This includes delaying any required reporting for insulation products to the 2028 reporting year and further aligning reporting and data quality requirements for EPDs with recognized industry standards, product category rules, and industry practices.

Please contact me at jkoscher@pima.org if additional information or discussion would be helpful to your process.

Sincerely,



Justin Koscher
President