

Date of Hearing: April 6, 2026

ASSEMBLY COMMITTEE ON NATURAL RESOURCES

Isaac G. Bryan, Chair

AB 1704 (Mark González) – As Amended March 2, 2026

SUBJECT: Greenhouse gases: embodied carbon building materials

SUMMARY: Requires the Air Resources Board (ARB) to determine whether the cost of building materials with lower embedded carbon have reached cost parity with conventional building materials and to delay implementation of specified requirements to reduce the greenhouse gas (GHG) emissions of building materials and implementation of an embodied carbon trading system for building materials until cost parity is achieved.

EXISTING LAW:

- 1) Requires ARB, pursuant to California Global Warming Solutions Act of 2006 [AB 32 (Núñez), Chapter 488, Statutes of 2006], to adopt a statewide GHG emissions limit equivalent to 1990 levels by 2020 and adopt regulations to achieve maximum technologically feasible and cost-effective GHG emission reductions. AB 32 authorizes ARB to permit the use of market-based compliance mechanisms to comply with GHG reduction regulations once specified conditions are met. Requires ARB to approve a statewide GHG emissions limit equivalent to 85% below the 1990 level by 2045. (Health and Safety Code (HSC) 38500-38599.11)
- 2) Requires, under the Buy Clean California Act (BCCA) the Department of General Services (DGS), in consultation with ARB, to establish and publish the maximum acceptable Global Warming Potential (GWP) limit for eligible materials: carbon steel rebar, flat glass, insulation, and structural steel. Further states that when used in public works projects, these eligible materials must have a GWP that does not exceed the limit set by DGS. (Public Contract Code 3500-3505)
- 3) Pursuant to HSC 38561.3:
 - a) Requires ARB to develop a framework for measuring the average carbon intensity of the materials used in the construction of new buildings by December 31, 2026.
 - b) Requires ARB to develop a comprehensive strategy, by December 31, 2028, to achieve a 40% net reduction in the carbon intensity of construction and materials used in new construction as soon as possible, but no later than December 31, 2035. Specifies that the targets begin to apply no sooner than January 1, 2027, and two years after the baseline is established.
 - c) Authorizes ARB to include a tracking and reporting mechanism in the framework and charge a fee that may only cover ARB's costs to administer the reporting mechanism.
 - d) Requires ARB to evaluate the cost impact and feasibility of implementation of the strategy for the purpose of developing recommendations to address known cost impacts and feasibility issues. Specifies that the incorporation of lower carbon materials is

limited or excluded to the extent that it as a cost impact or is infeasible, as specified.

- e) Defines “cost impact” as a significant overall material or operation cost increase, which is specified as any cost increase of 5% or more, or a schedule delay resulting from incorporating the lower carbon material, as specified. States that the incorporation of lower carbon materials shall be limited or excluded only to the extent that it has a cost impact or is infeasible.
- 4) Pursuant to HSC 38561.6:
- a) Authorizes ARB to establish an embodied carbon trading system in compliance with the requirements of HSC 38561.3.
 - b) Integrate the embodied carbon trading system with the framework established pursuant to HSC 38561.3 on or before December 31, 2026, and implement the system on and after January 1, 2029.
 - c) Authorizes ARB to adopt further GHG emissions reduction targets within the scope of HSC 38561.3 prior to December 31, 2035, or provide early reduction credit considering market adoption, if appropriate.
 - d) Specifies that compliance mechanisms, reporting requirements, and penalties for noncompliance with any compliance standards or an embodied carbon trading system will be determined by the administrative process. Specifies that the carbon trading system shall not cause a project to have a cost impact or be unfeasible, as specified.

THIS BILL:

- 1) Requires ARB to delay or suspend the implementation of the targets established by ARB pursuant to HSC 38561.3 and HSC 38561.6 until ARB makes a determination that building materials with lower embodied carbon have reached cost parity with conventional building materials.
- 2) If ARB determines that building materials with lower embodied carbon have not reached cost parity with conventional building materials, authorizes ARB to delay or suspend, as applicable, implementation of HSC 38561.3 and 38561.6 for not less than five years. At the end of a period of delay or suspension, authorizes ARB to determine whether building materials with lower embedded carbon have reached cost parity with conventional building materials. If it again finds that the materials have not reached cost parity, requires ARB to again delay or suspend those requirements for not less than five years. Repeats this process until ARB determines that cost parity has been achieved.

FISCAL EFFECT: Unknown

COMMENTS:

- 1) **Embodied carbon.** The term “embodied carbon” refers to the GHG emissions arising from the manufacturing, transportation, installation, maintenance, and disposal of building materials. The majority of a building’s total embodied carbon is released upfront at the

beginning of a building's life. Unlike with operational carbon, there is no opportunity to decrease embodied carbon with updates in efficiency after the building is constructed.

In California, according to ARB's GHG Emission Inventory, residential and commercial buildings account for more than 10% of the state's total GHG emissions. However, residential and commercial buildings are responsible for roughly 25% of California's GHG emissions when accounting for fossil fuels consumed onsite and electricity demand. Refrigerants used in heating and cooling systems also contribute to building-related GHG emissions. It is unclear what the exact breakdown is between embodied and operating emissions, but due to California's mild climate, increasing renewable electricity supply, and relatively efficient building stock, our state's operational emissions may be a smaller percentage of total building energy use, compared to the embodied carbon in new construction.

- 2) **Reducing building emissions.** Achieving net zero GHG emissions – when GHG emissions are either zero or are offset by equivalent atmospheric GHG removal – is an important part of reducing GHG emissions and minimizing the effects of climate change. Net zero GHG emissions is also often used interchangeably with carbon neutrality; however, net zero GHG emissions includes GHGs other than those that contain carbon, such as nitrous oxide. Constructing buildings to be net zero will substantially reduce the state's GHG emissions.

Building materials, depending on how they are manufactured, can be considered to sequester carbon. For example, the carbon that comprises wood (roughly 50% by weight) is from the carbon dioxide (CO₂) the tree absorbed from the air. California policies typically consider a 100-year time horizon for the sequestration to be considered permanent. Thus, if CO₂ could be reliably and accountably stored in building as wood for at least a century, those could potentially be counted as sequestered. Given California's stated goal of net zero GHG emissions by 2045, there is a need for GHG emissions to be balanced by GHG sequestration.

- 3) **California Green Building Standards Code.** The California Green Building Standards Code (CalGreen) (Part 11, Title 24, California Code of Regulations) is the first mandatory green building standards code in the country. Developed in 2007 by the California Building Standards Commission (BSC), the code is an effort to meet the goals of California's ambitious GHG emission reduction goals. CalGreen is updated every three years, with the most recent update going into effect on January 1, 2026, and establishes regulatory requirements for energy efficiency, water efficiency and conservation, material conservation and resource efficiency, and environmental quality. Mandatory requirements apply to commercial, residential, and public school buildings, while additional voluntary standards are included for these building types and hospitals.
- 4) **Buy Clean California Act.** The BCCA establishes limits on embodied carbon emissions and construction materials procured by the state for public construction projects. By January 1, 2022, the law requires DGS to publish acceptable maximum GWP limits for structural steel, concrete reinforcing steel (rebar), flat glass, and mineral wool board insulation. In order to determine and compare the GWPs of different products and materials, DGS relies on environmental product declarations (EPDs).
- 5) **Environmental product declarations and life cycle assessments.** An EPD is a widely-accepted, verified report of the ways in which a product affects the environment throughout

its life cycle. It provides information such as GWP, air emissions, ozone depletion, and water pollution. EPDs allow purchasers to have comparable, objective, and third-party verified data to better understand a product's environmental impacts so they can make more informed product selections.

Life cycle analyses attempt to quantify the environmental impacts associated with a given product. The analyses can vary depending on the assumptions made and the extent of the life cycle considered. For life cycle analyses of building materials, assessments are usually either cradle-to-gate or cradle-to-grave. Cradle-to-gate analyses consider the emissions associated from extraction up until arrival at the project site, while cradle-to-grave continue further to consider any emissions associated with the product's use within the project and building and, ultimately, its end of life.

- 6) **Building decarbonization framework.** AB 2446 (Holden), Chapter 352, Statutes of 2022, requires ARB to develop a framework for measuring and reducing GHG emissions associated with new building construction. This bill requires the framework to include a comprehensive strategy to achieve a 40% net reduction in the carbon intensity of construction and materials used in new construction as soon as possible, but no later than December 31, 2035, and an interim target to achieve a 20% net reduction in carbon intensity by the end of 2030. AB 2446 requires ARB to evaluate the cost impact and feasibility of implementation of the strategy for the purpose of developing recommendations to address known cost impacts and feasibility issues and limits or excludes the incorporation of lower carbon materials to the extent that their use has a cost impact or is infeasible. The bill established parameters for feasibility, including consideration of material performance and availability, and cost impacts, which is defined as any cost increase of 5% or more.
- 7) **Embodied carbon trading system.** AB 43 (Holden), Chapter 316, Statutes of 2023, requires ARB to develop a market-based embodied carbon trading system to facilitate compliance with the state's strategy to reduce the carbon intensity of building materials by 40% by 2035.
- 8) **Implementation.** ARB held its first workshop to begin implementing AB 2446 and AB 43 in September of 2024, and held additional workshops in March, September, and October of 2025. The meetings have covered information on building material reporting, project reporting, establishing methodologies to estimate a baseline, and provided an opportunity for stakeholder input and public comments.

As part of its implementation work, ARB has contracted with the UC Berkeley College of Environmental Design and the Center for the Built Environment to assess the GHG emission reduction potential and associated costs of material efficiency, reuse, and substitution strategies that can be incorporated into future decarbonization policy for the built environment. The project began in June of 2025, and is scheduled to be completed mid-2027.

- 9) **Housing affordability.** California's home prices are generally higher than the rest of the country. According to the Legislative Analyst's Office, mid-tier homes in the state "are about \$755,000—more than twice as expensive as the typical mid-tier US home." Income levels have not kept pace with the rising costs of housing, making it more difficult for Californians to afford a home. As noted above, the state's embodied carbon framework and

trading system include standards for cost impacts and feasibility; however, a 5% cost increase is significant given the state's already high housing costs.

- 10) **This bill.** This bill is intended to improve housing affordability by pausing the implementation of AB 2446 and AB 43 until ARB makes a determination that lower carbon intensity construction materials achieve cost parity with conventional building materials.

11) **Author's statement:**

AB 1704 balances housing affordability while maintaining the sustainability standards of California. With the ongoing housing crisis, California must act strategically when implementing policies that could increase housing costs. My district has a 23% poverty rate, and nearly 90% of the residents are renters. Most are already rent burdened, paying more than 30% of their income for rent. AB 1704 will help us avoid any unintended consequences of enforcing embodied carbon standards on our most vulnerable communities. California can't just say 'affordability,' we have to execute it on every front.

- 12) **Suggested amendments.** In order to ensure that the Legislature has an opportunity to review these programs to ensure that they aren't paused indefinitely, the *committee may wish to amend the bill* to limit the length of the delay to a maximum of 10 years.

REGISTERED SUPPORT / OPPOSITION:

Support

American Chemistry Council
 American Wood Council
 Asphalt Roofing Manufacturers Association
 Associated General Contractors, California Chapters
 California Building Industry Association
 California Construction & Industrial Materials Association
 California Legislative Conference of Plumbing, Heating & Piping Industry
 California Manufacturers and Technology Association
 California YIMBY
 Gypsum Association
 Housing Action Coalition
 National Electrical Contractors Association (NECA)
 North American Insulation Manufacturers Association (UNREG)
 Northern California Allied Trades
 Polyisocyanurate Insulation Manufacturers Association, the (PIMA)
 Resilient Floor Covering Institute (RFCI)
 Southern California Glass Management Association (SCGMA)
 Spray Foam Coalition
 United Contractors (UCON)
 Wall and Ceiling Alliance
 Western Painting and Coating Contractors Association

Opposition

American Council for an Energy-efficient Economy
Building Transparency
Ecological Building Network
Industrious Labs
Natural Resources Defense Council (NRDC)
Project 2030
Public Citizen
Sierra Club California
U.S. Green Building Council, California

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