



**DECORATIVE
HARDWOODS**
Association

Natural. Crafted. Responsible.



May 1, 2023

Michael Freedhoff, Assistant Administrator
Office of Chemical Safety and Pollution Prevention
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
Washington, DC 20460

RE: Docket No. EPA-HQ-OPPT-2022-0924: Request for Information (RFI) to Support New Inflation Reduction Act Programs to Lower Embodied Greenhouse Gas Emissions Associated with Construction Materials and Products

Dear Mr. Freedhoff:

The undersigned trade associations represent a broad cross-section of the U.S. wood products sector and are pleased to offer comments related to EPA's Request for Information (RFI) on low embodied carbon associated with construction materials. By way of background, the **Composite Panel Association (CPA)** was founded in 1960 and is a trade association representing over 95% of the North American manufacturers composite wood products, such as particleboard and medium density fiberboard. CPA member panels are used to make furniture, cabinets, flooring, mouldings, exterior siding and trim, among other carbon storing wood products. The total impact of the industry on the U.S. economy is over of \$7 billion annually. The industry employs over 22,500 individuals. The **Decorative Hardwoods Association** represents North American manufacturers of hardwood plywood, hardwood veneer and engineered wood floors. **The Hardwood Federation** is the unified voice on federal legislative and regulatory policy in Washington, DC representing 30 local, regional, and national trade associations that serve hardwood businesses and their employees located in every state in the nation.

The U.S. wood products sector is proud of its environmentally friendly business model and believes that policymakers should recognize and quantify its role as a mitigating mechanism to address climate change. The U.S. wood products sector is fully integrated, beginning with the forest and ending with the production of long-lived wood products capable of storing carbon for generations. These goods are found in virtually every home and business, and include furniture, framing, flooring, cabinets, and mouldings. Although wood products are not central to EPA's current RFI, the agency should prioritize low-carbon materials and the opportunities they offer the Administration to reach its climate objectives. No assessment of low-embodied construction materials would be complete without considering the well-established sustainability and carbon mitigation benefits of properly sourced, American made wood products.

Sustainable Forest Management and Manufacture of Wood Products Form the Foundation of an Effective Climate Mitigation Strategy

Working American forests are the source of the wood fiber necessary to bring sustainable goods to market. The contribution of wood products, including construction materials, and the outsized role they play in the sequestration and offset of domestic carbon emissions begins with sustainable forest management. Wood from American forests is a key component of the larger carbon cycle. Trees absorb carbon dioxide through the process of photosynthesis to produce the building blocks of trees. The by-product of this process is an essential source of atmospheric oxygen.

Trees store carbon throughout their growing lives. But the carbon benefits don't stop there. Carbon is further sequestered when the trees are utilized to manufacture finished goods. Demand for American grown products composed of wood promotes healthy forests, protects water resources, and supports wildlife diversity, while also producing safe and sustainable products that create economic and employment opportunities for rural, underserved communities. When there is a steady demand for fiber and the resulting wood products, forest sector operations ensure that forests will remain as forests in the future, creating a powerful tool to address climate change.

The U.S. contains 8% of the world's forests, and there are more trees than there were 100 years ago. According to the United Nation's [Food and Agriculture Organization](#), "Forest growth nationally has exceeded harvest since the 1940s. By 1997, forest growth exceeded harvest by 42 percent, and the volume of forest growth was 380 percent greater than it had been in 1920."¹ It is estimated that total forest carbon storage in the U.S., including that stored in finished goods, is 58.7 billion tons.² According to EPA's own data, each year forests and harvested forest products capture between 600 and 700 million tons of greenhouse gas (GHG) equivalents, offsetting roughly 12% of U.S. annual GHG emissions.³

Wood Products Are the Quintessential Low-Embodied Carbon Construction Material

Any assessment of low-embodied construction materials should account for the carbon-storage value of wood products. To that end, it is important to recognize that the carbon benefits of the forests do not end with tree growth. Wood products make up 47% of all industrial materials in the U.S. but consume only 4% of the total energy to manufacture those materials. In contrast, manufacturing materials from aluminum, glass, plastic, cement, or brick can require as much as 126 times more energy than making them from wood.⁴ In addition, wood products are 50% carbon by weight, continuing to store carbon for the life of the product.⁵

Wood is the ultimate renewable resource. Every piece of a tree, including bark, the solid wood core, and sawdust generated from harvesting and mills has multiple applications. To maximize sustainable uses for bits of wood not constituted within a finished good such as a construction material, biomass created in the manufacturing process is used to generate heat and electricity. This renewable energy

¹ *State of Forestry in the United States of America*. UN-FAO, June 2000. <https://www.fao.org/3/x4995e/x4995e.htm>

² *Integrating forests and wood products in climate change strategies*. UN-FAO Forestry Paper 177, 2016.

³ *EPA Inventory of US Greenhouse Gas Emissions and Sinks; Chapter 6*. EPA 430-R-20-002

⁴ Michigan State University College of Agriculture & Natural Resources. Facing the Facts. <https://www.canr.msu.edu/news/facing-the-facts>

⁵ WoodWorks. Carbon Footprint. <https://www.woodworks.org/why-wood/carbon-footprint>

source is often used to power the very mills and operations creating the biomass. In many rural, underserved areas this power is often sold back to the energy grid supporting local communities.

EPA Should Adopt Whole Building Life Cycle Analysis When Assessing Low-Embodied Carbon Materials

To capture a comprehensive picture of the carbon-capture potential of wood products as construction materials, it's important to take a holistic view. To that end, EPA should recognize the sustainability of wood as a construction material through Whole Building Life Cycle Assessment (WBLCA) and related Environmental Product Declarations (EPD) that the current RFI may inform. By allowing a designer to choose from a variety of construction materials, he or she will have more tools at his or her disposal with which to construct buildings that carry a smaller carbon footprint.

Wood Flooring EPD Illustrates GHG Mitigation Potential of Wood Products

In November 2022, the Decorative Hardwoods Association and National Hardwood Flooring Association released two [Environmental Product Declarations \(EPDs\)](#) outlining the “total cradle-to-grave global warming potential” for [engineered wood flooring](#) and [solid wood floors](#). By way of background, a wood floor is any flooring product that contains real wood as the top-most, wearable surface of the floor. Wood floors come in many different options. These include, but are not limited to hardwood/softwood, domestic/imported, solid/engineered, jobsite-finished/factory-finished, strip/plank/wide plank/parquet, newly harvested/antique reclaimed/recycled/salvaged, saw cut, grade, specie, length, thickness, profile, and finish type. According to the LCAs and EPDs verified by UL Environment and the American Society for Testing and Materials (ASTM), the cradle to grave (landfilling) total global warming potential for engineered wood flooring is 11.4 kg CO₂e and solid wood floors is 9.2 kg CO₂e. According to similar EPDs by the Resilient Floor Covering Institute luxury vinyl plank wood-look flooring global warming potential is nearly [six times greater](#).

Thank you for the opportunity to comment on the RFI related to low embodied carbon construction materials and products. As EPA moves forward with programs that promote low embodied carbon, we hope the agency will take full account of the carbon mitigation benefits of finished wood products made in America.

Sincerely,

Composite Panel Association

Decorative Hardwoods Association

Hardwood Federation