

SENATE BILL REPORT

SB 5391

As of January 27, 2023

Title: An act relating to the modeling, measurement, and reporting of embodied carbon emission reductions from structural building products in state-funded projects.

Brief Description: Modeling, measurement, and reporting embodied carbon emission reductions from structural building products in state-funded projects.

Sponsors: Senators Van De Wege, Schoesler, Mullet, Dozier, Lias and Short.

Brief History:

Committee Activity: Environment, Energy & Technology: 1/27/23.

Brief Summary of Bill

- Requires the designer of record to conduct a life-cycle assessment of eligible structural products and to include specified requirements in contract documents or project specifications.
- Requires the Department of Commerce to partially reimburse manufacturers for the costs of producing product-specific environmental product declarations of eligible products and to make certain information available in an online database.
- Specifies reporting requirements for a designer of record and a project construction contractor.

SENATE COMMITTEE ON ENVIRONMENT, ENERGY & TECHNOLOGY

Staff: Angela Kleis (786-7469)

Background: Environmental Product Declaration. An environmental product declaration (EPD) is a report providing what a product is made of and the environmental impacts of product manufacturing. EPDs are developed by industry according to internationally

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recognized standards, based on life-cycle assessment (LCA), and verified by a third-party. EPDs can be based on industry averages or specific to individual products or facilities.

Public Works Projects. Public works projects include construction, renovation, remodeling, and repair, other than maintenance, of real property at the cost of the state or a municipality. Most public works projects are subject to public works laws and procured using the design-bid-build procedure where a governmental entity selects an architectural engineering firm to develop drawings and specifications for the project along with an estimate of the cost, then the construction contract is awarded to the lowest responsible bidder. Contractors are required to follow the specifications and drawings and may use whatever means to do so as long as the materials meet the specifications. Typical materials used in public works projects may include concrete, steel, and other materials.

Summary of Bill: Life-Cycle Assessment. During the schematic design phase and when considering structural products that will satisfy the anticipated project applications and requirements, the designer of record must conduct an LCA of the eligible structural products in the project. The LCA must be reported in accordance with specified standards and include the range of potential outcomes associated with the uncertainties and variability at this point in the project. The designer of record must upload a summary of the LCA to an online database.

Environmental Product Declaration Reimbursement. The Department of Commerce (Commerce) must partially reimburse manufacturers for the costs of producing product-specific EPDs of eligible products. Reimbursements are available only to manufacturers that currently harvest, extract, recycle, produce, or assemble an eligible product within Washington and must be for one-half of the substantiated direct financial costs for producing product-specific EPDs, not covered by other grants, up \$15,000 per manufacturing location or batch plant, with a maximum of \$45,000 for manufacturer, associated companies, or both.

Eligible products with a previously published EPD or that are produced by a previously purchased on-demand environmental declaration software license are not eligible for reimbursement. Reimbursement requires that all EPDs comply with specified standards, are product-specific, third-party reviewed, and published by or before December 31, 2025.

Contract Documents or Project Specification Requirements. The designer of record must include in the contract documents or project specifications for eligible projects specified requirements.

For projects with bidding commencing on or after January 1, 2025, one month prior to the project's successful completion, the successful bidder must submit to the construction contractor product-specific EPDs for at least 90 percent by weight or volume of all eligible products and their installed product quantities. The construction contractor must transmit this information to the awarding authority and to Commerce at substantial completion of the

construction contract.

For projects with bidding commencing on or after January 1, 2027, at the time of bid submission and one month prior to the project's substantial completion, the successful bidder must submit to the construction contractor product-specific EPDs for at least 90 percent by weight or volume of all eligible products and their estimated product quantities—the successful bidder must update information to reflect as-built conditions. The construction contractor must transmit this information to the awarding authority and to Commerce at the time of the successful bidder award and update the information at the time of substantial completion of the construction contract.

Contract documents or project specification requirements do not apply to an eligible product if the awarding authority determines it is not technically feasible to provide a product-specific EPD, or a state of emergency exists and submitting documentation would pose a clear and imminent danger.

Reporting Requirement. The project-specific baseline, the project-specific reduction percentage, and the embodied carbon intensity must be calculated and reported as specified. At the project's substantial completion, the project's construction contractor must transmit the following calculations to the awarding authority and Commerce:

- an updated estimate of embodied carbon emissions for eligible products using the procured as-built product quantities;
- an as-built embodied carbon reduction percentage of the sum of all eligible products; and
- the as-built embodied carbon intensity as specified.

Data Collection and Online Database. Commerce must select a public or nonprofit entity to collect certain information. Information in this online database must remain in the public domain, be accessible without cost or limitation, and include specified data for all eligible projects bidding on eligible products on or after January 1, 2025. Awarding authorities may review the database annually to inform embodied carbon targets for future projects constructed of like products for a like purpose in a similar location and must require the designer of record to review applicable projects in this database prior to completion of schematic design.

Appropriation: None.

Fiscal Note: Requested on January 21, 2023.

Creates Committee/Commission/Task Force that includes Legislative members: No.

Effective Date: Ninety days after adjournment of session in which bill is passed.

Staff Summary of Public Testimony: PRO: This bill looks at the entire life cycle of a

building, from what it's made of, through the rest of its life. This is a holistic approach and is much different than simply setting caps on EPDs. The bill leans heavily on data collected consistent with international standards. It demands transparency of embodied carbon through EPDs and is material agnostic. The matching grants for manufacturers to produce EPDs incentivizes smaller manufacturers, especially in rural areas, to conduct an EPD when it wouldn't make business sense otherwise.

This bill requires the design community to optimize embodied carbon in the structure during the design phase when critical changes can be made, resulting in carbon savings of the whole life of a building. It also drives the design process to choose materials that optimize this process. The allied industries in support of this bill want to reduce embodied carbon emissions in structures and this legislation will aid them in that plan.

The emphasis on a LCA at the design phase sets the project on the best path to lower the climate impact of the built environment. It also allows for the best combination of steel, concrete, and wood projects to be woven into the projects in a manner that utilizes the best qualities of each material.

CON: This bill misses the opportunity to leverage the state's purchasing to strengthen our manufacturing economy and create good jobs. The EPD collection portion of this bill can be a powerful tool to achieve those goals, but it is not designed correctly here. On the carbon front, this bill does not collect supply chain specific data that we need to lift manufacturers here in Washington. Very few designers are knowledgeable about LCA and even fewer are capable of doing it meaningfully.

OTHER: The requirements in this bill would be difficult to implement and may not provide meaningful information to support actual reductions in embodied carbon. Additionally, the section requiring commerce to reimburse manufacturers for developing EPDs is unclear. The approach taken in this bill does little to incentivize contractors to purchase lower carbon products or support industrial decarbonization.

Persons Testifying: PRO: Matthew Hinck, CalPortland Company; Tom Davis, Washington Forest Protection Association; Alex Ianchenko, AIA Washington Council; Rachael Jamison, American Wood Council; Tien Peng, National Ready Mixed Concrete Assoc; Mike Ennis, Association of Washington Business; Ian McFarlane, Magnusson Klemencic Associates; Christine Brewer, Associated General Contractors of Washington; Bruce Chattin, WA Aggregates & Concrete Assn; Stacy Smedley.

CON: Max Puchtel, American Institute of Steel Construction; Patrick Jablonski, Nucor Steel Seattle; Jessica Koski, BlueGreen Alliance; Ed Chadd.

OTHER: Jordan Palmeri, University of Washington - Carbon Leadership Forum; Hanna Waterstrat, WA Department of Commerce; Bill Frare, Washington State Department of Enterprise Services; Darcy Nonemacher, Washington Conservation Action.

Persons Signed In To Testify But Not Testifying: No one.