
Capital Budget Committee

HB 1342

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

Sponsors: Representatives Steele, Leavitt, Lekanoff, Chapman and Stokesbary.

Brief Summary of Bill

- Requires reporting of product-specific Environmental Product Declarations (EPDs) and life-cycle assessments for eligible products used in large construction contracts awarded by state agencies and institutions of higher education.
- Requires the Department of Commerce (COM) to reimburse certain Washington-based manufacturers for a portion of the cost of producing the EPDs.
- Directs the COM to select a public or nonprofit entity to collect and publish certain related data in a publicly available database.

Hearing Date: 2/2/23

Staff: Dawn Eychaner (786-7135).

Background:

Capital Projects.

The capital budget appropriates funding for construction, renovation, and acquisition of capital projects involving public buildings, lands, infrastructure and other facilities. A capital construction project is typically a project to build new facilities or make significant, long-term renovations or improvements to existing facilities.

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Construction of large capital projects funded in the capital budget typically occurs as a "Design-Bid-Build" process that can be broken into three main phases:

- **Pre-design:** a process that examines options and develops cost estimates for a proposed project. Pre-design is required for all capital projects with costs expected to exceed \$10 million.
- **Design:** development of plans and specifications, including schematic design and construction documents. For most construction projects, an architect/engineer is responsible for the design and bid process.
- **Construction:** this final phase begins with the bid and concludes with equipping the building for occupancy and use.

Environmental Product Declarations.

An Environmental Product Declaration (EPD) is a document that presents environmental information on the lifecycle of a product, including measurements of embodied carbon, or greenhouse gas emissions from the manufacturing, transportation, installation, maintenance, and disposal of building materials. The EPDs are created according to internationally recognized standards and are third-party verified or self-declared and may be based on industry averages or be specific to individual products or facilities. The International Organization for Standardization (ISO) has published specifications for developing the EPDs.

Buy Clean Pilots and Database.

Building upon a 2018 pilot, the 2021-23 biennial capital budget required the Department of Commerce (COM) to coordinate with the UW College of Built Environments (UW) to test proposed methods and availability of the EPDs and working condition information for manufacturing facilities that are primary producers of covered products for pilot projects.

In addition, the 2021-23 biennial operating budget directed the COM to contract with the UW to create a database and reporting system for building materials for state-funded construction projects.

Summary of Bill:

Life-Cycle Assessment.

During the project's design phase, the project designer or their designated consultant must conduct a life-cycle assessment, using certain considerations and components, of the eligible structural products being considered for the project during the schematic design phase.

The assessment must be reported in accordance with ISO standards, disclose the modeled global warming potential, measure impacts at the 60-year point of the building project's modeled service life, and meet other requirements.

The designer must upload a summary of the life-cycle assessment to a publicly available online database.

Embodied Carbon Emissions.

Embodied carbon is defined as greenhouse gas emissions from harvesting, extracting, manufacturing, transportation, installation, maintenance, replacement, and disposal of eligible product.

Before bidding of eligible products, the designer or their designated consultant must calculate, according to specified criteria, estimated:

- embodied carbon emissions for the project's eligible products; and
- embodied carbon intensity.

At the project's substantial completion, the construction contractor must calculate and provide to the awarding authority and the COM, an:

- updated estimate of embodied carbon emissions for the project's eligible products;
- as-built embodied carbon reduction percentage; and
- as-built embodied carbon intensity.

Environmental Product Declaration and Product Quantity Reporting.

For projects with product or subcontractor bidding occurring between January 1, 2025 and December 31, 2026:

- The designer must include in contract documents or project specifications a requirement that the successful bidder submit to the construction contractor one month prior to the project's substantial completion product-specific Environmental Product Declarations (EPDs) for at least 90 percent by weight or volume of all eligible products and their installed product quantities.
- The construction contractor must transmit the EPDs and installed product quantities to the awarding authority and the COM at substantial completion of the construction contract.

For projects with product or subcontractor bidding beginning January 1, 2027:

- The product quantities reported by the successful bidder must be based on estimated quantities rather than installed quantities. Quantities and the EPDs must be provided to the construction contractor at the time of bid submission and one month prior to the project's substantial completion.
- The successful bidder must update estimated quantities and the EPDs at substantial completion to reflect as-built conditions.
- The construction contractor must transmit the EPDs and product quantities to the awarding authority and the COM at the time of the successful bidder award and at substantial completion of the construction contract.

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

Definitions.

Awarding authority.

An awarding authority is a state agency or institution of higher education that contracts directly for a public works project.

Eligible project.

An eligible project is a construction project larger than 50,000 gross square feet.

Eligible product.

Eligible products are certain structural concrete products, reinforcing steel products, structural steel products, and engineered wood products.

Environmental Product Declaration.

An EPD means a type III EPD, as defined by ISO standard 14025 or equally robust life-cycle assessment method. Only the impacts from life cycle stages A1 through A3, also referred to as "cradle to gate," may be included in the assessment method.

Life-Cycle Assessment.

A life-cycle assessment of eligible products means the calculation of the projected greenhouse gas emissions using International Organization for Standardization (ISO)-compliant standards and the United States life cycle inventory database information.

Other Provisions.

Financial Assistance.

The COM must reimburse manufacturers for a portion of the costs of producing product-specific, third party reviewed, EPDs for eligible products that are published before 2026. Only manufacturers that currently harvest, extract, recycle, produce, or assemble an eligible product within Washington are eligible for reimbursement. Reimbursements are limited to half of the substantiated direct cost, up to a maximum of \$15,000 per manufacturing location or batch plant, with a limit of \$45,000 per manufacturer, associated companies, or both.

Database.

The COM must select a public or nonprofit entity to collect specified project information and publish in a publicly available online database for all eligible projects bidding on eligible products beginning in 2025.

Awarding authorities may review the database annually to inform embodied carbon targets for future similar projects. Awarding authorities must require designers to review applicable projects in the database prior to completion of design.

Other.

The Act may be known and cited as the Build Clean Act.

Appropriation: None.

Fiscal Note: Available.

Effective Date: The bill takes effect 90 days after adjournment of the session in which the bill is passed.