H-0489.1

HOUSE BILL 1458

State of Washington 69th Legislature 2025 Regular Session

By Representatives Duerr, Doglio, Hunt, Mena, Berry, Reed, Ramel, Parshley, Peterson, Scott, Pollet, and Hill

Read first time 01/21/25. Referred to Committee on Local Government.

AN ACT Relating to reducing embodied carbon emissions of buildings and building materials; adding new sections to chapter 19.27 RCW; and adding a new section to chapter 43.30 RCW.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF WASHINGTON:

NEW SECTION. **Sec. 1.** A new section is added to chapter 19.27 RCW to read as follows:

(1) The state building code council shall adopt and amend rules as necessary to accomplish the embodied carbon emissions reductions required in section 8 of this act. In developing these standards, the state building code council shall consult with the appropriate state agencies, including the department of enterprise services, the department of commerce, the department of ecology, the University of Washington, and other interested parties.

(2) The embodied carbon emissions reductions established in section 8 of this act shall apply to all new construction, additions, and renovations 50,000 square feet or larger of any building covered by the international commercial building code.

(3) The state building code council may introduce further criteria as building data is collected over time.

NEW SECTION. **Sec. 2.** A new section is added to chapter 19.27 RCW to read as follows:

(1) Building projects that maintain at least 45 percent of an existing structure and envelope comply with the embodied carbon emissions reductions requirements established in section 8 of this act.

(2) The state building code council shall adopt rules to determine how 45 percent reuse of an existing structure and envelope will be calculated, such as by cost, mass, area, or volume. Hazardous materials or assemblies that are not compliant with energy code requirements are excluded from these calculations.

NEW SECTION. **Sec. 3.** A new section is added to chapter 19.27 RCW to read as follows:

(1)(a) All building projects must demonstrate, and require in the construction documents, that the embodied carbon emissions of the covered products used, measured in terms of global warming potential for at least 90 percent of covered products and summed up at the project level, meets the goals established in section 8 of this act when compared to the project's summed industry average global warming potential. To achieve this reduction, building projects must use project-specific material quantities and product and facility-specific environmental product declarations to demonstrate compliance.

(b) The state building code council shall adopt rules to define covered products; determine how the 90 percent of covered products shall be calculated, such as by cost, mass, or volume; and establish how industry average will be determined.

(c) A building project's design professional of record shall update quantity and embodied carbon emissions calculations based on product and facility-specific environmental product declarations from procured products and attest that they are accurate and comply with the construction documents requirements to the best of the design professional's knowledge. These calculations shall be verified as accurate within the industry standard of care with a letter stamped by a design professional of record.

(2) The state building code council shall create or designate a template reporting form for consistent reporting on materials.

(3) The state building code council may include additional covered materials.

NEW SECTION. **Sec. 4.** A new section is added to chapter 19.27 RCW to read as follows:

(1) As an alternative to the requirements in section 3 of this act, building projects may demonstrate the embodied carbon emissions reductions using a whole building life-cycle assessment as compared against a functionally equivalent reference building. The reference building shall be of the same size, geographic location, function, type, and thermal performance. The materials and material quantities in the proposed building and the reference building may vary, provided that the buildings are functionally equivalent.

(2) Whole building life-cycle assessments and any modeling software used must comply with international standards. Tools used for life-cycle assessment calculations must have the capability to complete full cradle to grave analysis as defined by the international organization for standardization standard 14044.

(3) The state building code council shall adopt rules to require compliance with a quantification standard for building life-cycle greenhouse gas emissions. Alternatively, the state building code council may adopt rules to specify required building element scope, life-cycle stages, reference study periods, impact categories, allowable data sources, biogenic carbon modeling and reporting guidance, material reuse and salvage reporting guidance, and at which design stages the assessment should occur. The scope shall include, at minimum, the covered products as defined by the building code council.

(4) The design professional of record responsible for the embodied carbon calculations and reporting shall be specified in the architect of record construction documents. The state building code council shall provide a worksheet to be completed by project teams for consistent reporting. The design professional of record shall stamp an attestation that the designed building complies with this section. The attestation shall be submitted along with the permit and documents showing compliance.

NEW SECTION. **Sec. 5.** A new section is added to chapter 43.30 RCW to read as follows:

(1) All embodied carbon emissions reductions data must be entered by the design professional of record on a standard form and public database created and maintained by the department of commerce. At minimum, the database must include basic information about the

project, project area, which compliance pathway was selected, and how the project met the standards for the selected pathway.

(2) The department shall develop a public-facing website with educational resources to support implementation. The website must:

(a) Detail the embodied carbon emissions reductions requirements in the state building code;

(b) Outline reporting requirements and guidelines;

(c) Provide instructions for the use of the database;

(d) Provide guidance for whole building life-cycle assessments; and

(e) Provide checklists, templates, training, and other tools as needed to support implementation.

(2) The department shall conduct random audits on three percent of projects annually.

NEW SECTION. **Sec. 6.** A new section is added to chapter 19.27 RCW to read as follows:

The definitions in this section apply throughout this chapter unless the context clearly requires otherwise.

(1) "Design professional of record" means an architect or engineer licensed pursuant to Title 18 RCW.

(2) "Embodied carbon emissions" means the amount of greenhouse gas emissions associated with the extraction, manufacturing, transport, installation, maintenance, and disposal of construction products throughout the product's life.

(3) "Global warming potential" means the potential climate change impact of a product or process as measured by a life-cycle assessment. "Global warming potential" is the metric for tracking embodied carbon emissions and is reported in units of carbon dioxide equivalent.

(4) "Product and facility-specific environmental product declarations" means a type III environmental product declaration, as defined by the international organization for standardization standard 14025, representing a single product from a single manufacturing facility.

(5) "Whole building life-cycle assessment" means a cradle to grave assessment covering life-cycle stages A-C as defined by the international organization for standardization standard 21931-1, excluding modules B6 and B7, or similarly robust whole building life-cycle assessment methods or whole life carbon assessment standards

that evaluate the environmental impacts of a building including, at a minimum, global warming potential.

NEW SECTION. **Sec. 7.** A new section is added to chapter 19.27 RCW to read as follows:

(1) The state building code council shall convene an embodied carbon emissions reductions technical advisory group pursuant to RCW 19.27.033 for the purpose of recommending modifications and limitations to the international building code adopted by Washington regarding embodied carbon emissions reductions standards for residential and nonresidential buildings.

(2) The technical advisory group shall, at minimum, consist of the following members:

(a) State agency representatives, ex officio;

(b) A representative from the commercial building industry;

(c) A representative from the residential building industry;

(d) An architect;

(e) A representative from an environmental organization;

(f) A local government building official;

(g) A person with expertise on water efficiency;

(h) A fire official;

(i) A mechanical engineer;

(j) A structural engineer;

(k) An electrical engineer; and

(l) A manufacture or supplier from a structural material group.

(3) The technical advisory group shall provide its recommendations to the council in time for the council to adopt or amend rules or codes as necessary for implementation in the 2030 international building code. The council shall take action to adopt additions and amendments to rules or codes as necessary by July 1, 2026.

NEW SECTION. **Sec. 8.** A new section is added to chapter 19.27 RCW to read as follows:

(1) Except as provided in subsection (2) of this section, construction permitted under the 2030 state building code must achieve a 30 percent reduction in embodied carbon emissions from a project-wide static baseline using the carbon leadership forum 2023 material baselines or comparable industry average data sources determined by the state building code council, or achieve a 30

percent reduction in embodied carbon emissions compared to the reference building as described in section 4 of this act.

(2) The state building code council shall require product and facility-specific environmental product declarations and project reporting for covered products in the 2024 code cycle. The state building code council shall adopt state building codes in the 2027 and 2030 code cycles that incrementally move towards achieving the 30 percent reduction in annual embodied carbon emissions as specified in subsection (1) of this section. The state building code council shall report its progress by December 31, 2028, and every three years thereafter. The department of commerce shall report major findings from the database of projects and audits required in section 5 of this act conducted on the same timeline.

--- END ---