
SUBSTITUTE HOUSE BILL 1458

State of Washington

69th Legislature

2025 Regular Session

By House Local Government (originally sponsored by Representatives Duerr, Doglio, Hunt, Mena, Berry, Reed, Ramel, Parshley, Peterson, Scott, Pollet, and Hill)

READ FIRST TIME 02/18/25.

1 AN ACT Relating to reducing embodied carbon emissions of
2 buildings and building materials; adding new sections to chapter
3 19.27 RCW; and adding a new section to chapter 43.30 RCW.

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

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

7 (1) The state building code council shall adopt and amend rules
8 as necessary to accomplish the embodied carbon emissions reductions
9 required in section 8 of this act. In developing these standards, the
10 state building code council shall consult with the appropriate state
11 agencies, including the department of enterprise services, the
12 department of commerce, the department of ecology, the University of
13 Washington, an existing technical work group with relevant expertise,
14 and other interested parties.

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

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

1 (4) Projects covered under subsection (2) of this section may
2 choose one of the following three paths to comply with the embodied
3 carbon emissions reduction requirements:

4 (a) Maintaining an existing portion of a building structure and
5 envelope pursuant to section 2 of this act;

6 (b) Demonstrating a reduction in A1 to A3 life-cycle stage
7 emissions in covered products pursuant to section 3 of this act; and

8 (c) Demonstrating embodied carbon emissions reduction using a
9 whole building life-cycle assessment pursuant to section 4 of this
10 act.

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

13 (1) Building projects that maintain at least 45 percent of an
14 existing structure and envelope and do not add more than 50 percent
15 to the total area comply with the embodied carbon emissions
16 reductions requirements established in section 8 of this act.

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

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

24 (1)(a) As an alternative to the requirements in section 2 or 4 of
25 this act, all building projects must demonstrate, and require in the
26 construction documents, that the life-cycle state A1 through A3
27 embodied carbon emissions of the covered products used, measured in
28 terms of global warming potential for at least 90 percent of covered
29 products and summed up at the project level, meets the goals
30 established in section 8 of this act when compared to the project's
31 summed industry average global warming potential. To achieve this
32 reduction, building projects must use project-specific material
33 quantities and product and facility-specific environmental product
34 declarations to demonstrate compliance.

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

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

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

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

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

15 (1) As an alternative to the requirements in section 2 or 3 of
16 this act, building projects may demonstrate the embodied carbon
17 emissions reductions using a whole building life-cycle assessment as
18 compared against a functionally equivalent reference building. The
19 reference building shall be of the same size, geographic location,
20 function, and thermal performance. The materials and material
21 quantities in the proposed building and the reference building may
22 vary, provided that the buildings are functionally equivalent.

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

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

38 (4) The design professional of record responsible for the
39 embodied carbon calculations and reporting shall be specified in the

1 architect of record construction documents. The state building code
2 council shall provide a worksheet to be completed by project teams
3 for consistent reporting. The design professional of record shall
4 stamp an attestation that the designed building complies with this
5 section. The attestation shall be submitted along with the permit and
6 documents showing compliance.

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

9 (1) All embodied carbon emissions reductions data must be entered
10 by the design professional of record on a standard form and public
11 database created and maintained by the department of commerce. At
12 minimum, the database must include basic information about the
13 project, project area, which compliance pathway was selected,
14 approximate location, primary structural system, primary building
15 use, and how the project met the standards for the selected pathway.

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

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

20 (b) Outline reporting requirements and guidelines;

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

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

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

25 (f) Provide a list of software that may be used to support
26 compliance with section 4 of this act.

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

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

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

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

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

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

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

11 (5) "Whole building life-cycle assessment" means a cradle to
12 grave assessment covering life-cycle stages A-C as defined by the
13 international organization for standardization standard 21931-1,
14 excluding modules B6 and B7, or similarly robust whole building life-
15 cycle assessment methods or whole life carbon assessment standards
16 that evaluate the environmental impacts of a building including, at a
17 minimum, global warming potential.

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

20 The state building code council shall convene an existing
21 technical work group with relevant expertise established in RCW
22 39.116.050 for the purpose of recommending modifications and
23 limitations to the international building code adopted by Washington
24 regarding embodied carbon emissions reductions standards for
25 residential and nonresidential buildings.

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

28 (1) Except as provided in subsection (2) of this section,
29 construction permitted under the 2030 state building code must
30 achieve a 30 percent reduction in embodied carbon emissions from a
31 project-wide static baseline using the carbon leadership forum 2023
32 material baselines or comparable industry average data sources
33 determined by the state building code council, or achieve a 30
34 percent reduction in embodied carbon emissions compared to the
35 reference building as described in section 4 of this act.

36 (2) The state building code council shall require product and
37 facility-specific environmental product declarations or whole
38 building life-cycle assessment results and project reporting for

1 covered products in the 2024 code cycle. If, before the 2027 code is
2 implemented, a product or facility-specific environmental product
3 declaration is not available, the applicable industry-regional
4 environmental product declaration must be required.

5 (3) The state building code council shall adopt state building
6 codes in the 2027 and 2030 code cycles that incrementally move
7 towards achieving the 30 percent reduction in annual embodied carbon
8 emissions as specified in subsection (1) of this section. The state
9 building code council shall report its progress by December 31, 2028,
10 and every three years thereafter. The department of commerce shall
11 report major findings from the database of projects and audits
12 required in section 5 of this act conducted on the same timeline.

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