## FINAL BILL REPORT ESSB 5485

## C 341 L 11

Synopsis as Enacted

**Brief Description**: Maximizing the use of our state's natural resources.

**Sponsors**: Senate Committee on Environment, Water & Energy (originally sponsored by Senators Hargrove and Ranker).

Senate Committee on Environment, Water & Energy House Committee on Environment House Committee on Capital Budget

**Background**: It is the policy of the state to ensure that energy conservation practices and renewable energy systems are used in the design of major publicly owned or leased facilities. Whenever a public agency determines that a major facility should be constructed or renovated, the agency must conduct a life-cycle cost analysis that includes energy costs as well as all operating costs. A life-cycle analysis must conform to guidelines established by the Department of General Administration (GA). In addition, all major public facility projects receiving capital funding must be designed, constructed, and certified to Leadership in Energy and Environmental Design (LEED) silver standard.

Life-cycle assessments review every impact associated with all stages of a process from extracting raw materials through manufacturing, distributing, using, repairing, maintaining, recycling, or disposing. Life-cycle assessment can provide a broader review on the environmental, social, and economic concerns related to a product.

Embodied energy is the amount of energy needed to extract, transport, manufacture, install, and recycle or dispose of a product or service. Methodologies to determine embodied energy vary as to the scale and scope of the use and type of embodied energy.

**Summary**: The University of Washington (UW) College of Built Environments and the Washington State University (WSU) College of Engineering and Architecture must complete a review of other states' existing building codes, international standards, peer-reviewed research and models of life-cycle assessment, embodied energy and embodied carbon in building materials. The review must identify:

- if standards and models are developed according to recognized consensus-based process, and could be implemented as part of building standards or building codes; and
- the scope of life-cycle impacts addressed in the standards and models.

This analysis was prepared by non-partisan legislative staff for the use of legislative members in their deliberations. This analysis is not a part of the legislation nor does it constitute a statement of legislative intent.

Senate Bill Report - 1 - ESSB 5485

The UW and WSU must report to the Legislature recommendations for methodologies to:

- determine if a standard, model, or tool using life-cycle assessment can be sufficiently developed to be incorporated into the state Building Code;
- develop a comprehensive guideline using common and consistent metrics for embodied energy, carbon, and life-cycle accounting of building materials; and
- incorporate ongoing monitoring, verification, and reporting of a high performance public building over its life cycle.

UW and WSU must seek input from design representatives, construction professionals, academics, building materials industries, and life-cycle assessment experts.

GA must make recommendations for streamlining statutory requirements of life-cycle cost analysis, energy conservation in design, and high performance buildings using the report from UW and WSU.

If specific funding is not included in the Omnibus Appropriations Act, this bill is null and void.

## **Votes on Final Passage:**

Senate 44 5

House 91 1 (House amended) Senate 47 0 (Senate concurred)

**Effective:** July 22, 2011.