**Comment/Explanation\*:***Include your justification for your proposed change to the draft standard below.*
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This document provides instructions on how to evaluate only a portion of the elements that would otherwise be considered in a full GWP analysis; and therefore, the information gathered is a form of “selective accounting” or a limited estimate for an entire design. For example, users may be tempted to compare the GWP of one product to the GWP of another product without assessing the full impact on the whole building. Unfortunately comparing a building product that only performs one function to a product that performs multiple functions is not proper practice and misses opportunities for optimizing the envelope not only in terms of Embodied Carbon but also first costs, Operational Carbon, and life cycle energy savings. Where one product is selected for the project and is serving the purpose of multiple products in the reference building (i.e. foam sheathing serving as thermal insulation, WRB, and an air barrier) the combined embodied carbon of all of the reference building materials shall be used to estimate the carbon benefits of the single multi-attribute product. In other words, the building envelope must be evaluated as a full assembly and not on a product-by-product basis.

Therefore, in the Purpose statement of the document the user should be directed to compare the GWP Estimate of equally performing designs at the whole building level only and not at a “building product” level.

Below are three examples of opaque wall assemblies for Climate Zone 4A, 2018 IBC + IECC-C (Exc. group R) that meet or exceed the IECC requirements for thermal insulation (operational carbon savings), air barrier (operational carbon savings), water-resistive barrier, and meet the NFPA requirements. Options 1 and 2 have equal or greater critical-performance when compared to the Base Assembly yet as an assembly may have less GWP impact depending on the multiple products selected. The examples show that performing a one-to-one “product replacement” comparison will not result in equal analysis.





**Proposed Change to the Draft Standard\***
*Use “strikethrough” and “underline” formatting to indicate all proposed changes. Changes must be shown with “hard-formatting” strikethrough and underline, not “track changes”.*

*Use a color other than red to indicate proposed changes to the draft.*\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Document Title

Standard for ~~Calculating~~ Verifying, Estimating, and Reporting the Embodied Carbon of Buildings with Dwelling and Sleeping Units

# Purpose

The provisions of this document establish a methodology for ~~quantifying~~ verifying, estimating, and reporting embodied greenhouse gas emissions associated with the design of a building ~~products~~ using data commonly gathered by a *Certified Rater* ~~energy~~ ~~raters and according to the system boundary and data sources defined in Section 5~~.

Estimated *GWP* comparisons shall only be performed between designs of equal occupied volume, that are equal in critical-performance attributes such as but not limited to thermal energy demand intensity while accounting for thermal bridges in above-grade walls, percentage of the annual energy cost, whole-building estimated air leakage rate, and ENERGY STAR Score or Energy Rating Index (ERI).