

Motion

Buildings contribute roughly forty percent of global carbon emissions. While the majority of efforts to regulate carbon emissions from the building industry to date have focused on decarbonizing building operations, comparatively limited focus has been placed on embodied carbon. Embodied carbon is defined as the emissions associated with building construction—the material extraction, transportation, manufacturing, and construction processes which account for up to 13% of all CO₂ emissions worldwide.

In order to reduce embodied carbon, it must be accurately measured. The building industry has identified Whole Building Life Cycle Assessments (WBLCA) as a standardized framework to assess the embodied carbon within a proposed building. This methodology assesses the whole-life carbon emissions of the entire building, including raw material extraction, processing, manufacturing, distribution, use, and end of life management of materials and building products. This methodology can be used to identify and select building materials and products with lower lifecycle carbon emissions and consider trade-offs in the context of a whole building design. For buildings larger than 50,000 square feet, the additional cost of completing a WBLCA has been estimated by the Rocky Mountain Institute to be less than 0.1% of total building cost. Projects over 50,000 square feet account for about 15% of new construction permits issued in Los Angeles annually, and just over half of new floor area, according to data from the Department of Building and Safety.

The California Building Standards Commission maintains a mandatory green building standards code known as CALGreen. On August 2, 2023 the Commission adopted new standards that will mandate WBLCA's, the use of materials that meet Buy Clean California (BCCA) standards, and the re-use of building materials. These new measures will take effect on July 1, 2024, with further requirements taking effect a year later. City departments tasked with enforcing state building standards should prepare now to ensure that the city is prepared when these requirements take effect.

The City has already made commitments to reduce building-associated emissions through the C40 program and the Sustainable City pLAN. The Sustainable City pLAN calls for all buildings to be net zero by 2050, while the C40 Clean Construction Declaration commits the City to reducing embodied carbon for major construction by 50% before 2030. Without implementing tangible policy to support its commitments, the City will not meet these targets.

I THEREFORE MOVE that the City Council instruct the Department of Building and Safety, in consultation with the City Attorney, the Los Angeles Housing Department, the Department of City Planning, the Department of Water and Power, and the Climate Emergency Mobilization Office as necessary, to report back within 180 days with recommendations for updating the Los Angeles Green Building Code to create a framework that sets limits on the embodied carbon allowed for new construction and major additions to buildings larger than 50,000 square feet, in consultation with stakeholders and industry experts. The report should consider:

- Staffing and resources needed to implement this proposal, including identifying and selecting a contractor with expertise in evaluating WBLCA's and preparing code amendments, if necessary;
- Mandating completion of a Whole Building Life Cycle Analysis, showing a reduction in Global Warming Potential (GWP) over a baseline, in order to obtain permits to commence construction for new building projects and major additions over 50,000 square feet and developing a timeline for required GWP reductions in accordance with the City's C40 commitments;

- Defining requirements for WBLCA models including mandatory and optional building elements and materials to be included;
- Defining requirements for baseline models to be used in a WBLCA against which GWP reductions are to be measured;
- Collecting and analyzing WBLCA data for the purpose of developing and publishing benchmarks by building typology against which GWP reductions will be measured;
- Developing a process for verification of installed materials against materials included in the WBLCA and/or including a post-construction update to the WBLCA;
- Developing financial assistance to complete a WBLCA for affordable housing developments, or exempting 100% affordable housing projects from these requirements;
- Implementing process-based incentives for building developers who comply with these requirements, such as expedited plan check or prioritized utility connections; and
- Developing a timeline and plan for the implementation of these requirements.

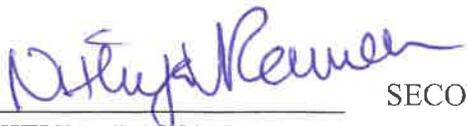
I FURTHER MOVE that the City Council instruct the Department of Building and Safety, in consultation with the City Attorney, the Los Angeles Housing Department, the Department of City Planning, and the Climate Emergency Mobilization Office as necessary, to report back within 180 days with recommendations for an update to the Los Angeles Green Building Code to require less carbon-intensive building materials for new construction projects and major additions to buildings in the City that are smaller than 50,000 square feet. The report should include:

- Recommendations for adopting the Buy Clean California Act (BCCA) material GWP limits as part of the City’s building code with an amendment to include processed glass and insulated glazing units;
- Recommendations for including GWP and/or cement limits for concrete;
- An assessment of implementation options for these policies that will not substantially increase housing costs; and
- A financial analysis of including financial assistance to comply with these policies for affordable housing developments.

I FURTHER MOVE that the Council instruct the Department of Building and Safety, in consultation with the Department of Public Works, the Department of City Planning, and the Bureau of Sanitation as necessary, to report back within 180 days with recommendations to incentivize the reduction of construction waste through re-use of building materials. The report should consider:

- Including exemptions to WBLCA and Buy Clean requirements in cases where more than 45% of an existing building is reused; and
- Advancing existing requirements or creating new requirements for construction and demolition waste diversion away from landfills, and incentivizing re-use of building materials.

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PRESENTED BY: 

NITHYA RAMAN
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SECONDED BY: 