Low-carbon Building Materials Procurement Principles

The following Low-carbon Building Materials Procurement Principles were developed by the Clean Energy Buyers Institute (CEBI)'s Decarbonizing Industrial Supply Chain Energy (DISC-e) initiative in partnership with Building Transparency's ownersCAN members. DISC-e tackles industrial sector greenhouse gas (GHG) emissions by leveraging energy customer-driven demand for clean energy and Scope 3 emission reductions. OwnersCAN is a group of developers, users, and managers of buildings that are dedicated to measuring and reducing the embodied carbon of their projects. The Principles are aligned with ownersCAN's Embodied Carbon Action Plan (ECAP), an in-depth resource detailing specific actions along all phases of embodied carbon in buildings.

Buildings account for roughly 40% of global energy-related emissions, 11% of which come from the manufacturing and construction life cycle stages of materials, occurring before a building is even operational. The supply chain emissions are known as upfront embodied carbon. Building owners and tenants can reduce operational emissions over time through energy efficiency and clean energy procurement but are unable to affect upfront embodied carbon after the building is operational. Significant reductions can be made beforehand, however, in the pre-design through construction phases by prioritizing low-carbon building materials in procurement practices. These actions reduce Scope 3 emissions and are a hedge against future carbon regulation.

Greater detail and specific corresponding actions can be found in the ownersCAN Embodied Carbon Action Plan.

For more information, please visit CEBI's DISC-e webpage and Building Transparency's ownersCAN webpage.
Principles

The Low-carbon Building Procurement Principles are non-binding, directional statements focused on upfront embodied carbon during pre-design through construction and intended to inform decisions and collaboration among building development stakeholders. Building owners and developers can become signatories to demonstrate their support and signal to markets the need for expanded low-carbon building material options. The Principles may also be used in Request for Proposals (RFPs) and contract documents or to inform upstream stakeholders on the priority for low-carbon solutions.

1 PUBLISH TARGETS

Set transparent embodied carbon reduction goals, guidelines, incentives, or targets for specific materials, product categories, or the overall project that are based on product-specific Type III Environmental Product Declarations (EPDs). Communicate these expectations in all bidding and construction contract documents.

2 ELEVATE DATA

Develop a project level life-cycle assessment (LCA) and require suppliers to publish their product-level Type III EPDs in a public and accessible database. This will facilitate data collection, transparency, and shared knowledge of preferred specification lists. Utilize embodied carbon analysis tool(s), such as the Embodied Carbon in Construction Calculator (EC3), for project-specific accounting and benchmarking using product-specific Type III EPDs.

3 ESTABLISH INCENTIVES

Establish procurement policies that prioritize low-carbon building materials, communicate related preferences, scoping information, and metrics in Request for Proposal (RFP) language and utilize performance contracting.

4 UTILIZE OPTIONS

Understand carbon intensity along the supply chain to make informed decisions about available emission reduction options across high impact material categories. Request suppliers to provide verified data on products and utilize tools to facilitate comparisons between product and material options.

5 ACCELERATE COLLABORATION

Communicate priorities and collaborate with suppliers and other key stakeholders to refine low-carbon specifications for products and materials and identify opportunities for emission reductions. Use recognized third-party standards, publish and share your work, and build support with peer developers and owners to influence markets and push for additional product-specific Type III EPDs.