# Resources

#### Where to start:

- FREE <u>Calgreen code access</u>
- Local Energy Codes <u>CALGreen Fact Sheet</u>

- <u>Embodied Carbon in Construction Calculator (EC3)</u>
- <u>Sustainable Minds Transparency Catalog</u>
- <u>SE 2050 Specification Guidance</u>
- <u>Carbon Leadership Forum Material Baselines</u>

#### Where to learn more:

### <u>Steel:</u>

- <u>Nucor Steel Spec Guidance</u>
- <u>AISC Sustainability Webpage</u>
- AISC Environmental Product Declarations
- AISC Who Makes the Shapes You Need?
- <u>STI HSS Producers Capability Tool</u>

### Concrete:

- <u>NRMCA Guide to Improving Specifications for Ready</u> <u>Mixed Concrete</u>
- Central Concrete, <u>Spec Guide: Capturing the Value of</u> <u>Low Carbon Mixes</u>
- NRMCA Guide to Specifying Concrete for LEED v4
- <u>NRMCA Environmental Product Declarations</u>
- <u>Climate Earth Locate a Concrete Producer offering Instant</u> <u>On-Demand EPDs</u>
- <u>NRMCA Concrete Carbon Calculator</u>





 <u>Review of decarbonization options for the glass</u> <u>industry</u>



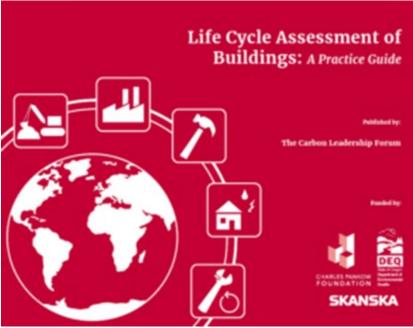
 Arup, Carbon footprint of façades: significance of glass

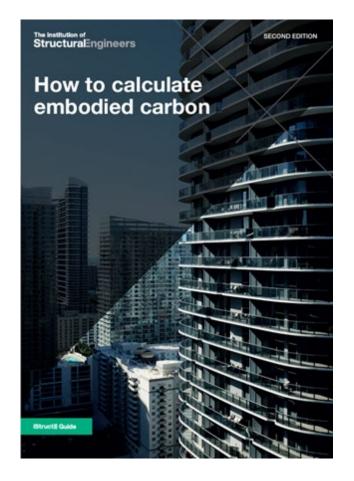


- Which insulation most effectively reduces whole-life carbon (embodied and operational)?
- <u>Gensler Product Sustainability Standards (GPS</u> <u>Standards v1.0)</u>











## Embodied Carbon and CALGreen Embodied Carbon Requirements

When it comes to building decarbonization, many professionals are familiar with operational carbon, which refers to the greenhouse gases (GHG) emitted from energy use (electricity and fossil fuels) for building operations. As California State building codes (Title 24) increase building energy efficiency, the relative proportion of a building's embodied carbon will increase compared to operational carbon.

Professionals are quickly becoming tendar with embodied carbon as the state legislature has beened. bits like Buy Clean California that equivariant had embodied carbon in building products on statefinded projects." As of July 1, 2006, CALGeen, the state prese building code, requires commercial projects. "30-200 et and legas, and schools 50,000 at and target to comply with one of three paths for embodied carbon."

#### What is Embodied Carbon?

Entitodied carbon relets to the GHG emissions from the non-emessible emergy use associated with rais matchial exhibition, maintecharing, strangochation, versitalation, maintenance, and disposal of bulking matchials and produces. Upfort embodied carbon matters to stages A1-A3 in a product's life cycle, also called oracle-to-gate. Cradie-to-gates mitms to stages A1-C4, called life cycle emission's gene Ryure 10.

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