

ET Summit 2020

Presented by



The Energy Within

ET Support for Embodied Energy in New Buildings

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Embodied Carbon

Manufacture, transport and installation of construction materials

Operational Carbon

Building Energy Consumption

Image: S. Smedley Skanska

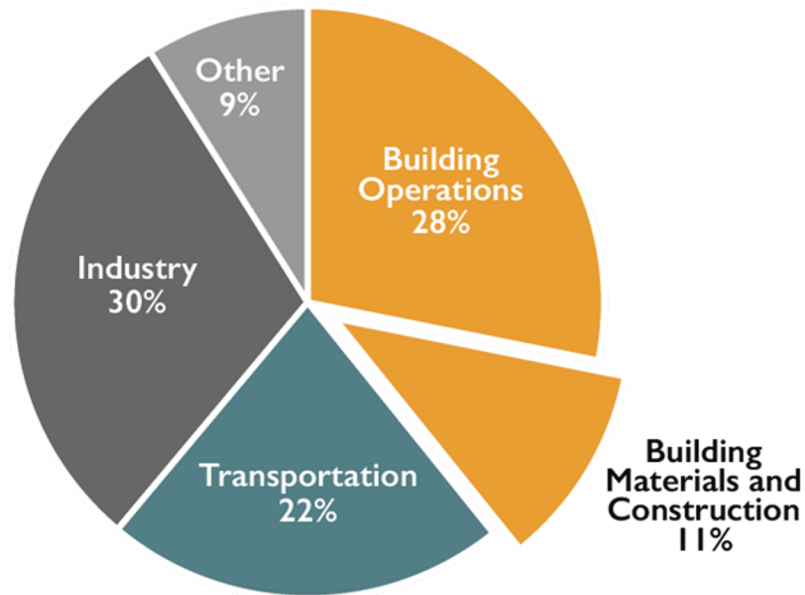
Total Carbon = Embodied Carbon + Operational Carbon

$$TC = EC + OC$$

Buildings and the Climate Crisis

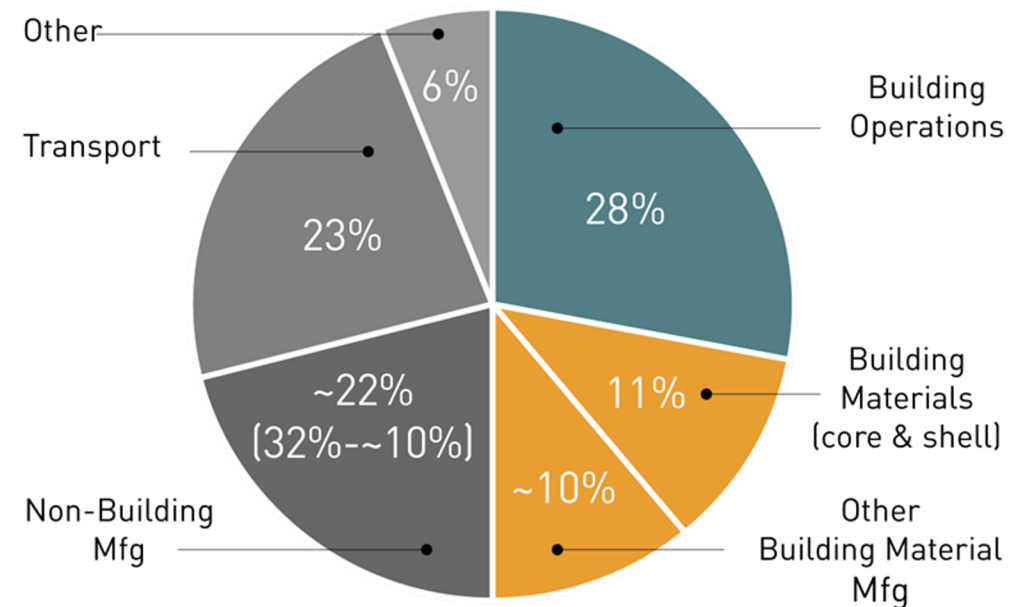
Building's Climate Impact

Global CO₂ Emission by Sector



Source: © 2018 2030, Inc. / Architecture 2030. All Rights Reserved. Data Sources: UN Environment Global Status Report 2017; EIA International Energy Outlook 2017

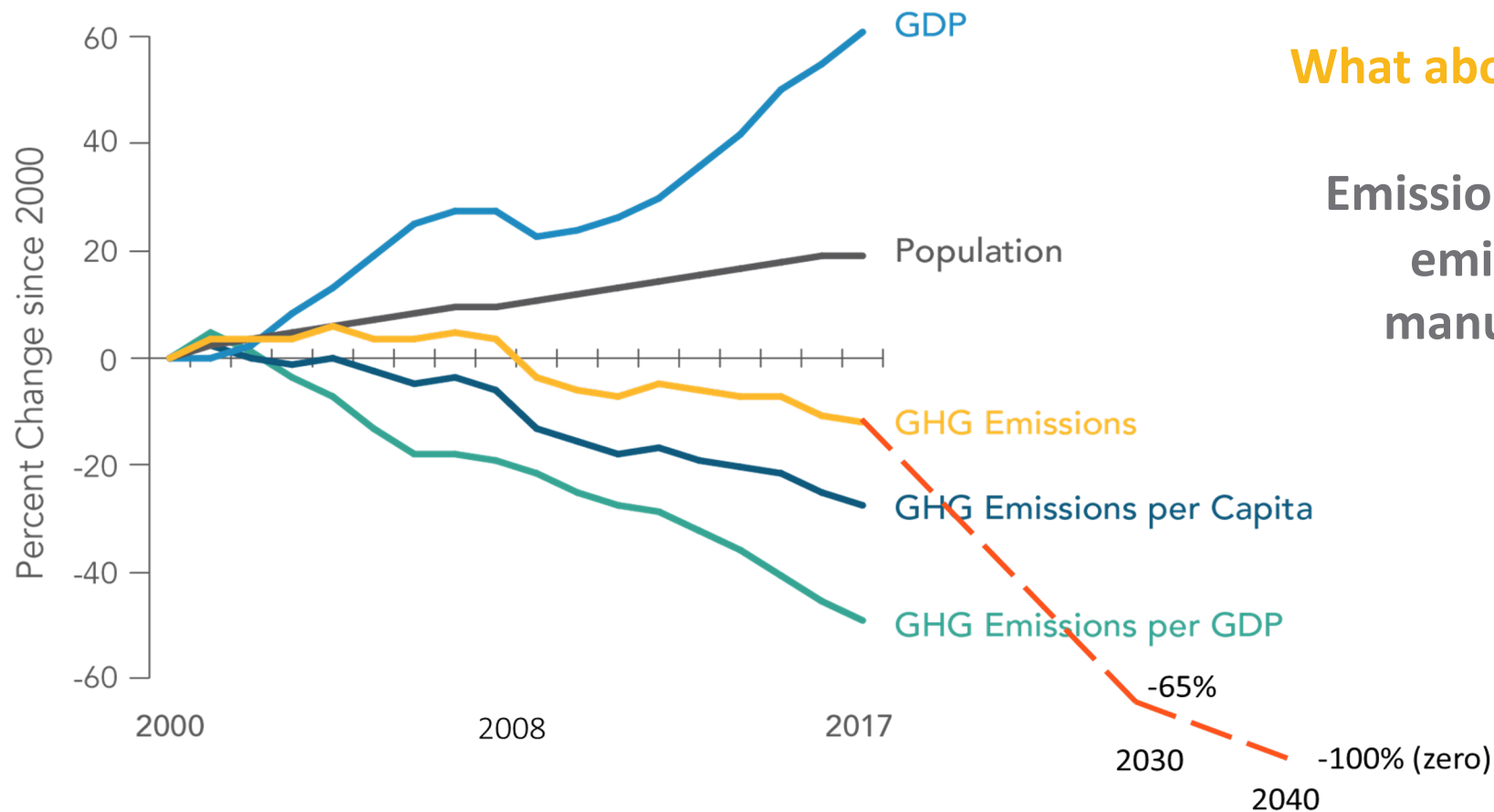
Total Building Material Impacts?



Adapted from 2019 Global Status Report, Global Alliance for Building and Construction (GABC) and Architecture 2030.

- The building and construction sector has a vital role to play in eliminating carbon, as it is responsible for at least 39% of global carbon emissions.

California GHG Emissions since 2000



What about the 'Carbon Loophole'?

Emissions from purchased goods
emissions-when they are
manufactured out of state?

Embodied Carbon Reduction Strategies

Optimize Project

Strategies

- New vs Retrofit
- Smaller footprint
- Program efficiency



Rules of
Thumb

Optimize System

Strategies

- Alternate materials
- Building shape
- Life cycle thinking



Life Cycle
Assessment

Optimize Procurement

Strategies

- Transparency
- EC limits/incentives
- Low carbon specs



EPDs, EC3
Buy Clean

Embodied Carbon System Levers

Procurement

Research

Codes &
Standards

Development

Join the Collective Action

- Continue this conversation with other leaders at your company
- Become a member of the Carbon Leadership Forum (free)
- Sponsor or donate to support this work at the Carbon Leadership Forum
- Participate in a local CLF Hub
- Propose an initiative to be incubated with us

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