



# Clark Construction Carbon Disclosure Project Study

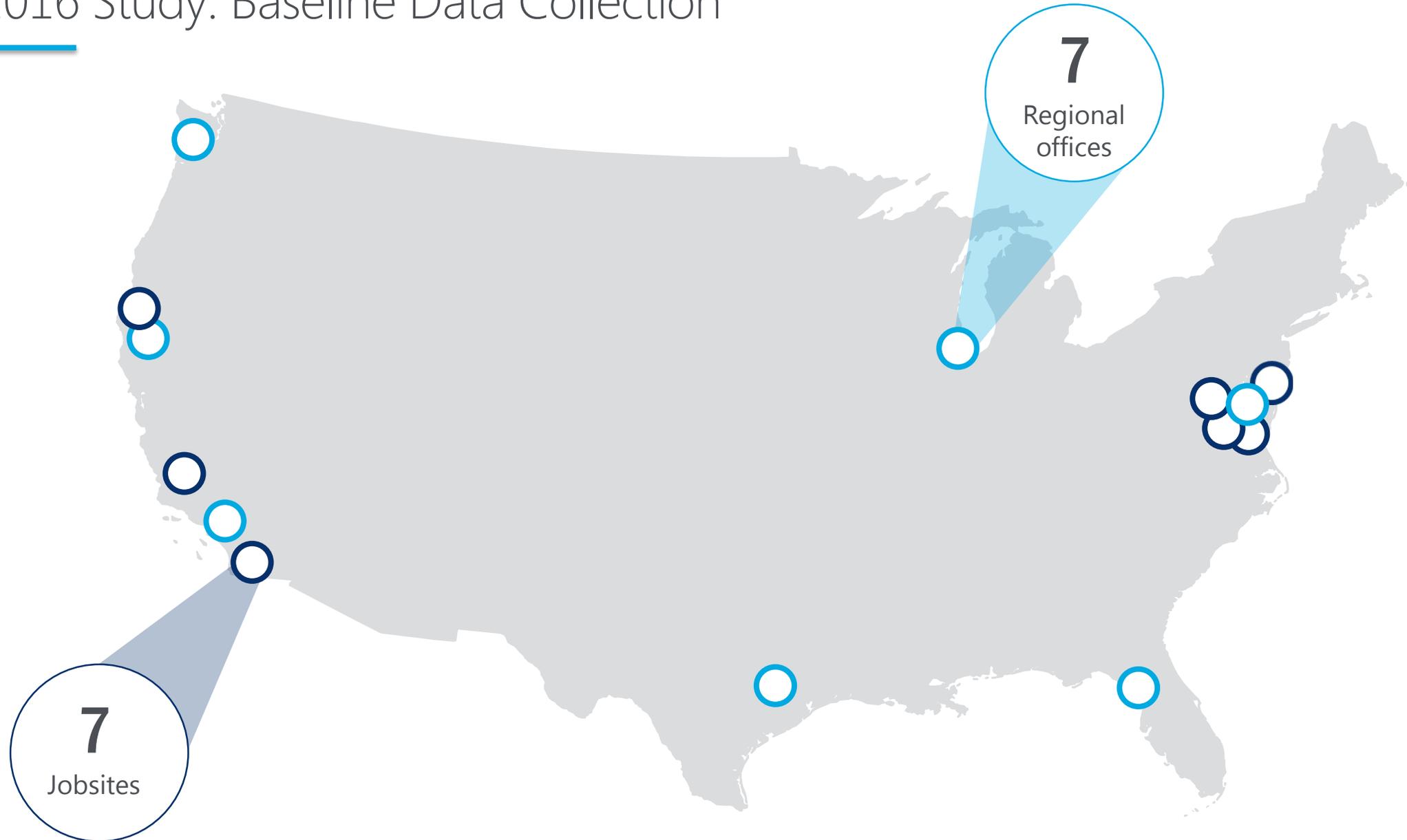
## CDP Supply Chain Reporting Program

---

Without measuring the impacts of climate change, we can't take full advantage of the opportunities to mitigate the risks.

# 2016 Study: Baseline Data Collection

---



# Selected Projects Evaluated

---

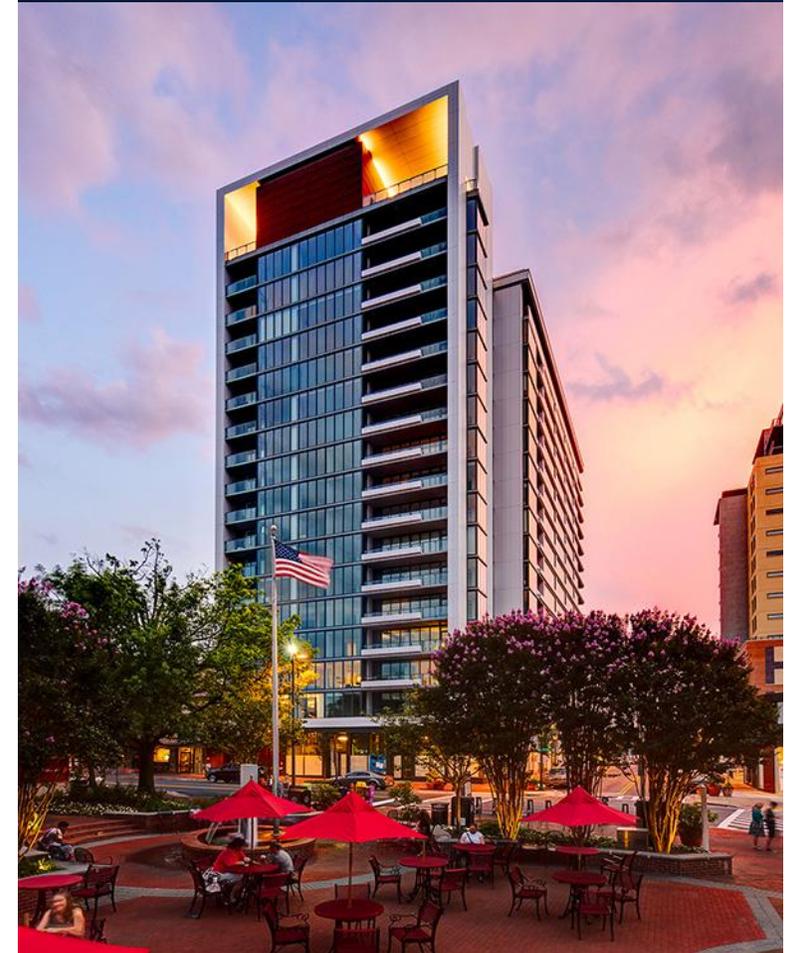
Los Angeles Courthouse



UC Berkeley Bowles Hall

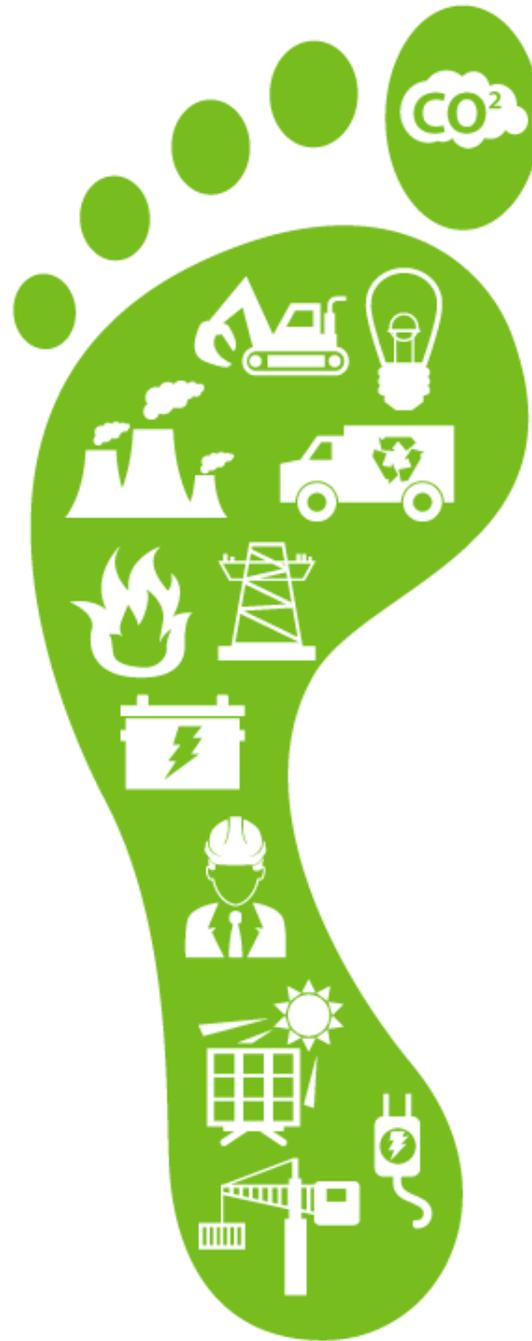


7770 Norfolk



# Carbon Footprint

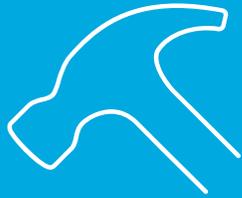
---



# Operational Areas

---

Emissions Data



Construction



Materials



Operation

# Operational Boundaries

---

01

Scope 1  
Direct  
GHG Emissions

- Fuel: Project
- Fuel: Premises
- Process and Fugitive
- Vehicle Fuel

02

Scope 2  
Electricity Indirect  
GHG Emissions

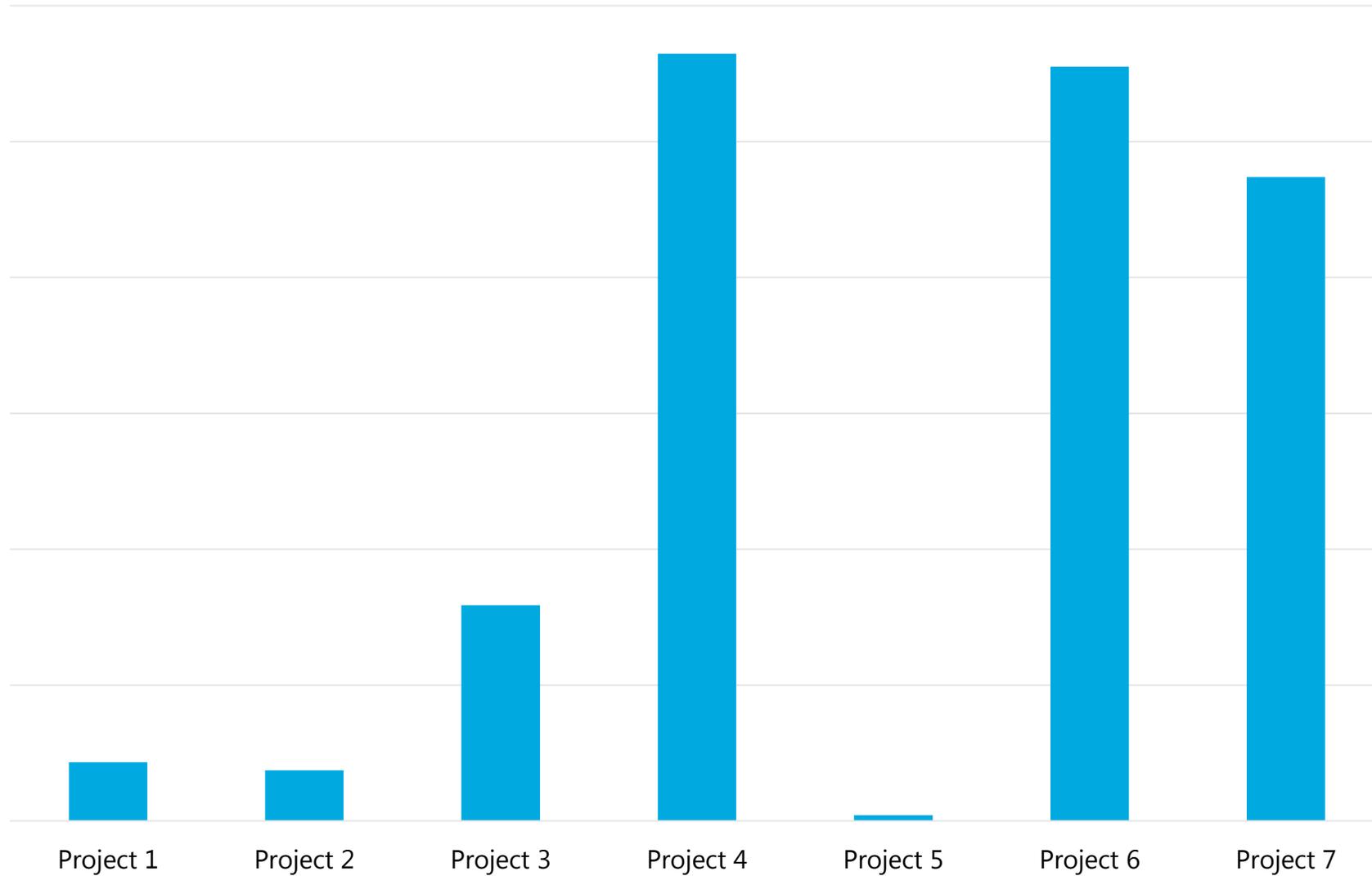
- Electricity: Project
- Electricity: Premises
- Imported Heat
- Vehicle Fuel

03

Scope 3  
Other Indirect  
GHG Emissions

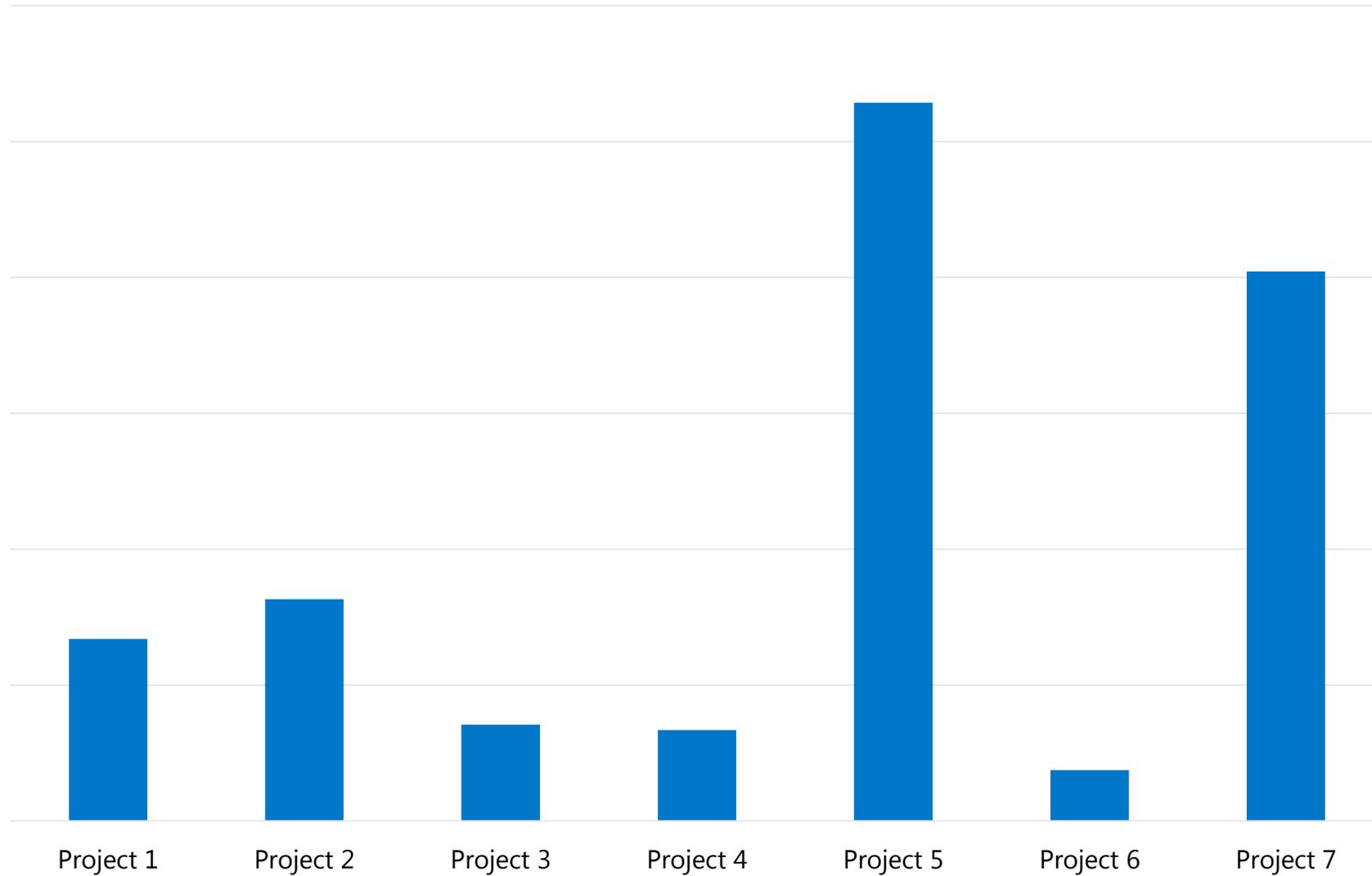
- Vehicle Fuel
- Public Transport
- Subcontractors
- Waste
- Materials
- Product

# Activity Representing Scope 1



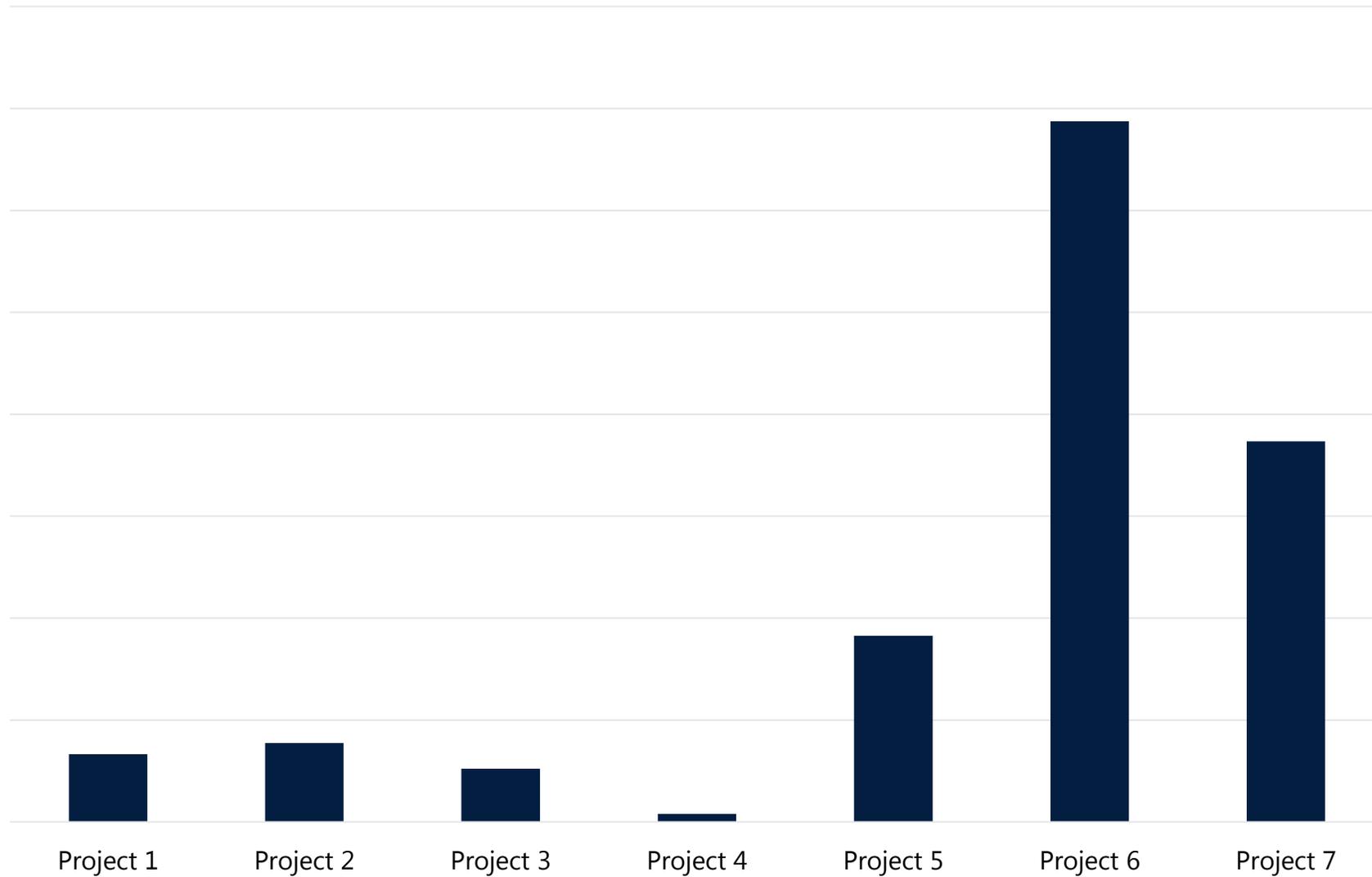
# Activity Representing Scope 2

---

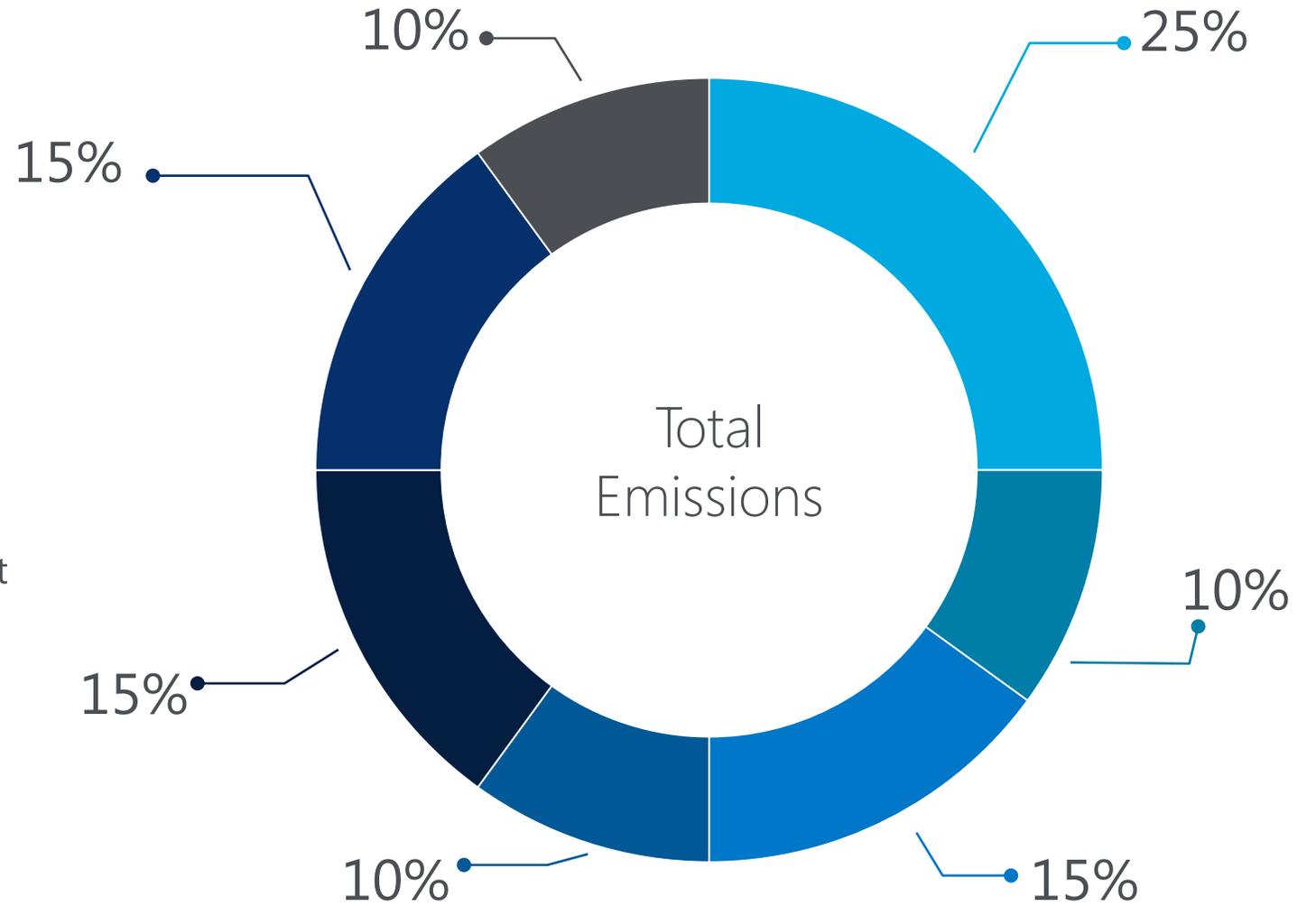


# Activity Representing Scope 3

---



# Possible Project Level Carbon Emissions Breakdown



# Conclusions

---

- Construction operations present an opportunity to reduce carbon emissions.
- Every project yields a different carbon footprint and reduction strategies.
- Important to define carbon metrics early, during preconstruction.
- Owners and contractors have ability to affect different carbon sources.
- GSA can provide leadership with its portfolio of new construction.
- Just the beginning. Much more research and analysis needed.