

Cal Climate Action Partnership – CalCAP

Integrating Campus Sustainability, Climate Research, and Education

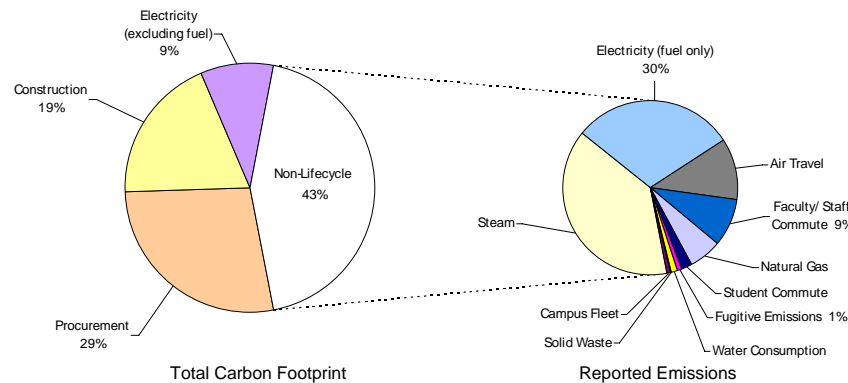
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 Special thanks to Fahmida Ahmed, CalCAP Project Manager

CalCAP is a student-initiated effort with the following goals:

- Provide a vision and implementation path for making UC Berkeley **climate neutral**.
- Measure and document Cal's **climate footprint**.
- Assess the feasibility of **emissions reduction targets**.
- Create an institutional model for GHG reduction that **engages** and **educates** students, faculty, staff, administrators and the community.
- Provide a setting where **current research** on sustainability and climate change is applied.

GHG Inventory for UC Berkeley Campus - 2006



Emissions Sources	CO2 Equivalent (metric tons)
Procurement	134,000
Construction	93,000
Steam	83,000
Electricity (fuel only)	64,000
Electricity (life cycle, excluding fuel)	46,000
Air Travel	24,000
Faculty and Staff Auto Commute	19,000
Natural Gas	13,000
Student Commute	4,000
Fugitive Emissions- Refrigeration	2,000
Water Consumption	2,000
Solid Waste	1,000
Campus Fleet	1,000
Non-Lifecycle Emissions	213,000
Lifecycle Emissions	273,000
Total Emissions	486,000

- Lifecycle Emissions
- Required Reporting for California Climate Action Registry
- Optional Reporting



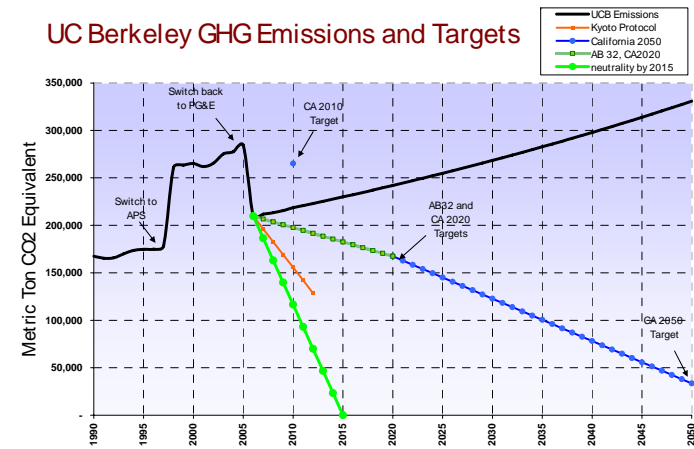
UC Berkeley joined the California Climate Action Registry in October 2006. The Registry was established by California statute as a non-profit for providing guidance to organizations on voluntary reporting of greenhouse gas emissions.

*All data is preliminary.



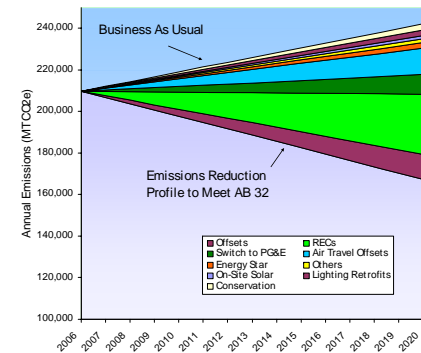
Planning for Climate Neutrality

UC Berkeley GHG Emissions and Targets



Meeting Targets: Emissions Reductions from Identified Projects Can Achieve AB32

Each stabilization wedge represents implementation of a known greenhouse gas mitigation project.



Financial Analysis to 2015 using Identified Projects

Capital Cost	Annual Operating Cost	Annual Savings	Total Annual Cost	Simple Payback (years)	Net Present Value
\$13,400,000	\$1,900,000	(\$3,990,000)	(\$2,050,000)	6.5	(\$540,000)

- Over a two month period, CalCAP identified 18 **infrastructure projects**, which if implemented by 2020 would **reduce emissions by 28%** and result in **\$2 million per year in savings**.
- These identified projects represent only an initial basket of the many cost-effective measures available.
- **Scalable projects** like Renewable Energy Credits and carbon offsets can make up the difference to achieve the desired targets.
- To achieve **climate neutrality**, approximately **\$2 million must be invested annually** in scalable projects.