

## Carbon Neutrality Initiative

In November 2013, University of California (UC) President Janet Napolitano announced the Carbon Neutrality Initiative, which commits the UC system to emitting net zero greenhouse gases from its buildings and vehicle fleet by 2025. To achieve carbon neutrality by 2025, UC will need to take bold steps to expand its energy efficiency efforts and dramatically increase its use of energy from renewable sources. To this end UC's Office of the President (UCOP) is developing centralized strategies to meet this goal across the UC system focusing on:

- Developing wholesale **electricity** options that will offer more carbon-free electricity than current utilities provide to some campuses.
- **Biogas** acquisition and development to make available large quantities of biogas to offset campus use of natural gas at comparable pricing.
- Continued and accelerated **energy efficiency** measures through the strategic energy partnership.

*"We are the University of California, and there is no reason that UC can't lead the world in this quest, as it has in so many others."*

— UC President Janet Napolitano

Achieving carbon neutrality in the next decade is aspirational – a goal that will require infrastructure investments, new resources, and inclusive and reliable partnerships between the campuses, UCOP, and other stakeholders.

## Carbon Neutrality - What does it mean for Berkeley?

To have net-zero carbon emissions from building energy and fleet vehicle use by the year 2025, Berkeley's emissions will need to be reduced by about 80% or 118,000 metric tons from current levels. While Berkeley will be looking to the UCOP programs to address a large portion of the reductions needed to meet carbon neutrality, Berkeley's Cal Climate Action Partnership (CalCAP) will be focusing these campus **carbon reduction strategies**:

1. Continuing **energy efficiency** projects and behavior change in campus buildings with a focus on deeper efficiency strategies in lab buildings.
2. Installing **solar** panels at campus building sites, particularly focusing on new buildings and those under renovation.
3. Replacing natural gas use in campus buildings with **carbon-free biogas**, as supply and competitive pricing becomes available.
4. Through the **green building** program, find additional opportunities for constructing and renovating to maximize energy savings.

**Berkeley** has a track record of success with reducing climate impacts as evidenced by meeting our first greenhouse gas emissions reduction target two years ahead of schedule and bringing emissions to levels lower than they were 20 years ago. This experience coupled with our knowledge-base and resourcefulness, Berkeley is positioned to innovate and take the lead in climate action.

5. Implementing a mix of small programmatic improvements to **reduce fleet fuel use** through an approach of driving less while moving to higher efficiency and zero-emission vehicles.
6. Upgrading the **campus thermal system** - the campus is currently evaluating options for improved heating and cooling systems.

This strategy continues the CalCAP practice of cost-effective investment in campus first, taking advantage of available opportunities as they arise to accelerate emissions reductions, and to use options such as renewable energy certificates as a last measure.

## Carbon Neutrality Engagement

*“Climate change is an existential global threat, and one that the UC Berkeley community is continually addressing through campus practices, teaching, research and public service.”*

-Berkeley Chancellor  
Nicholas Dirks

*While* 2025 carbon neutrality relates to the reduction of greenhouse gas emissions from building and fleet operations, the goal also intends to **engage, educate, and inspire innovation** in climate and energy.

President Napolitano has formed a Global Climate Leadership Council of leading experts to provide guidance on the best practices, policies, and technology to achieve carbon neutrality and advancing teaching and research in climate change and sustainability. The Council is implementing projects focused on student, staff and faculty engagement, applied research, curriculum and academic competencies, investment strategies, and more.<sup>1</sup> **Berkeley** will be a contributor to this effort with its many renowned faculty and research institutions developing renewable and sustainable

energy sources, advancing new energy demand technologies, exploring the complex implications of climate change, and formulating policy responses.<sup>2</sup>

**Berkeley** will also expand its support for **undergraduate and graduate students’** creative initiatives and research to address climate change. This can include building on programs like the student-run Berkeley Energy Resources Collaborative that hosts an annual energy symposium attracting hundreds of participants and expert speakers and spur more climate related fellowships like the Cal Energy Corp that sends undergraduates worldwide to develop and deliver sustainable energy and climate solutions.

## Carbon Footprint - scope 3 emissions

Berkeley recognizes that our carbon footprint extends beyond building and fleet energy use. The campus will continue to take action to reduce the impacts of **transportation, waste, water and other scope 3 related emissions**. Berkeley will also work to advance its evaluation and reporting of the climate lifecycle impacts of our product and service activities.

<sup>1</sup> <http://ucop.edu/initiatives/carbon-neutrality-initiative.html>

<sup>2</sup> <http://vcresearch.berkeley.edu/energy>