

The UC Davis Climate Action Plan

The UC Davis Climate Action Plan is a roadmap towards a more sustainable future as UC Davis continues to develop.

THE CLIMATE ACTION PLAN analyzes campus issues around greenhouse gas (GHG) emissions reductions, energy use and energy sourcing. It calculates current GHG emissions, establishes emissions reduction goals and establishes a blueprint for future action.

THE CHALLENGE:

- 5,300 acres (largest UC campus) and 1,000+ buildings
- 32,000+ students and 30,000+ employees
- Inland climate; more heating degree days than cooling degree days
- The campus owns and operates many sources of emissions
- Unique power supplies
- Research science intensive—many laboratories, facilities and a hospital
- Most GHG emissions result from maintaining and operating buildings

EMISSIONS TARGETS:

The UC Policy on Sustainable Practices' Climate Protection section goals:

- Reduce GHG emissions by 2014 to the historic levels of 2000 (UC Davis 2000 emissions: 246,000 MTCO_{2e}, operations; 49,000 MTCO_{2e}, travel);
- Achieve 1990 levels by 2020 (UC Davis 1990 emissions: 142,000 MTCO_{2e}, operations; 44,000 MTCO_{2e}, travel); and
- Become climate neutral universitywide.

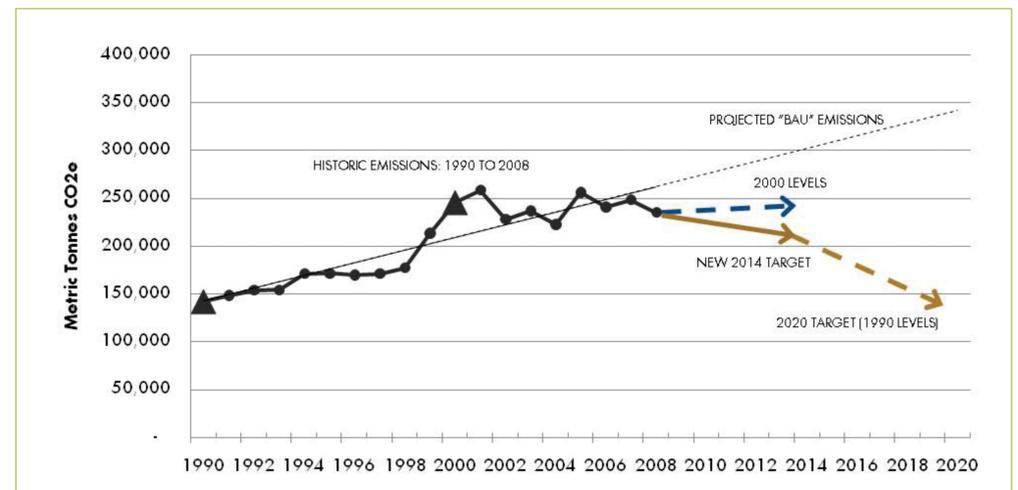
UC Davis set a 2014 challenge goal of 210,000 MTCO_{2e} for operations-related emissions.

ACTIONS:

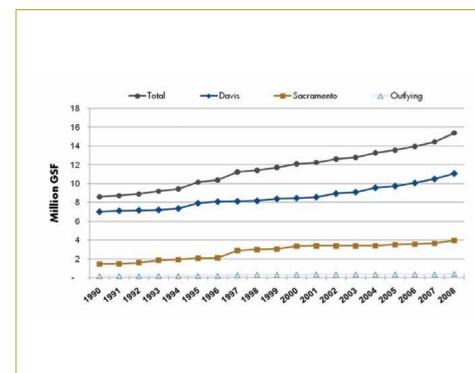
Modeling of emissions reduction actions shows energy conservation is priority.

- Improve energy efficiency at existing facilities:
 - Current: Strategic Energy Partnership Program energy conservation retrofits
 - Future: Implement lighting initiative to reduce interior and exterior lighting energy use; and reduce user demand
- Reduce growth from new facilities:
 - Current: UC and Davis green building energy standards better (25-30 percent) than California Building Code Title 24
 - Future: GHG neutral projects; slower growth; and space decommissioning

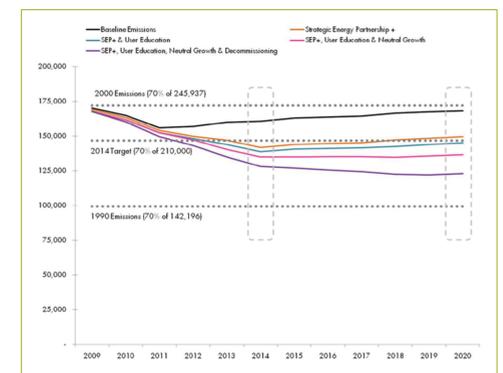
To meet targets, use of renewable energy resources and possibly credits, offsets or allowances will be necessary.



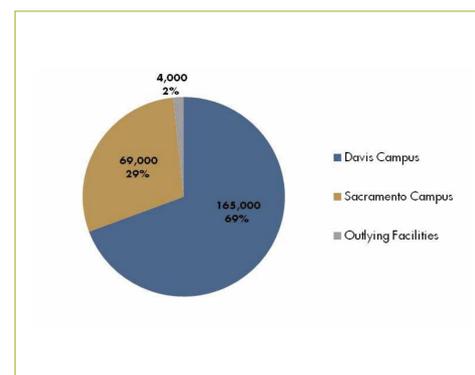
▲ UC Davis baseline and projected emissions. The dotted black line shows a purely linear projection of emissions. The blue dashed arrow shows the difference between the 2014 target of 2000 emissions and 2008 emissions. The gold solid arrow shows the adopted emissions target of 210,000 MTCO_{2e}. The gold dashed arrow shows the 2020 target.



▲ Share of emissions, by campus. UC Davis is a complex, research intensive institution, with one campus in Davis, one campus in Sacramento, and many off-site facilities. It has a medical center and the only public veterinary school in the state.



▲ Growth in built square footage since 1990. Building operation accounts for about 90 percent of energy use (Scope 1 and 2 emissions) at UC Davis.



◀ Modeled emissions reduction actions for the Davis campus. For more detail, see: UC Davis 2009-2010 Climate Action Plan at http://sustainability.ucdavis.edu/local_resources/docs/climate_action_plan.pdf

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