University of California
ANNUAL REPORT ON SUSTAINABILITY PRACTICES
2011

Budget and Capital Resources
University of California, Office of the President
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I. EXECUTIVE SUMMARY

As required by the University's Sustainable Practices Policy ("Policy"), the attached eighth annual report provides the Regents with a summary of the University's sustainability efforts in eight areas of sustainable practices: green building, clean energy, sustainable transportation, climate protection, sustainable operations, waste reduction and recycling, environmentally preferable purchasing, and sustainable foodservice. The University's campuses and medical centers continue to be recognized as national leaders in modeling sustainable business practices. This report highlights the main achievements in 2011 for each area of the Policy while also identifying several challenges that need to be addressed in coming years.

With 38 new LEED [TM1] certifications in 2011, the University now has 87 LEED certifications (total of new construction, renovation, homes, and existing building certifications), the most of any university in the country. The Santa Barbara campus leads the nation with eight existing building certifications. The West Village housing project at the Davis campus opened in October as the largest zero net energy community in the nation.

The University's sustainability leadership attracts resources, most notably more than $47.5 million in energy efficiency grant funding that UC has received since 2004 through a partnership with utility companies. In 2011, the University received approximately $11 million. More than $32 million in annual cost savings are being realized from energy efficiency projects implemented to date. Additional investment in energy efficiency is needed to meet the University's long-term climate action goals, as discussed in the UC Climate Solutions Steering Group's recommendations that are also being presented during the January, 2012 Regents meeting.

Nine campuses have met the goal of diverting at least 50 percent of municipal waste from landfills, and of those, four campuses and the Davis Medical Center have achieved a 65 percent diversion rate. However, because a significant proportion of waste diversion is construction and demolition waste, which is highly variable on a year-to-year basis, it is an ongoing challenge to achieve the next target of 75 percent diversion in 2012.

In 2011, the University received twelve national and state awards and continues to be recognized in the top tiers of national campus sustainability rankings. UC also received media acclaim in local and regional newspapers, national publications such as *New York Times,* and *Forbes,* and in television and radio news broadcasts.

In September, 2011, President Yudof issued an updated version of the Sustainable Practices Policy.

[1] LEED stands for Leadership in Energy and Environmental Design. LEED is a registered trademark of the U.S. Green Building Council. This trademark applies to all occurrences of LEED in this document. LEED is a green building rating system developed and administered by the non-profit U.S. Green Building Council.

II. BACKGROUND & PURPOSE

Pursuant to the Regents' action of July 2003, UC formally issued the "Presidential Policy on Green Building Design and Clean Energy Standards" in June 2004. Six additional policy sections have been subsequently added to those first two, and the expanded Policy is now referred to as the "Sustainable Practices Policy" ("Policy"). In 2011, the Policy was revised to incorporate updates in the areas of green building design, climate protection practices, sustainable operations, environmentally preferable purchasing, and sustainable foodservice practices. The Policy was also updated to remove past deadlines and edited to clarify requirements.

The current version of the Policy can be accessed at http://www.ucop.edu/ucophome/coordrev/policy/sustainable-practices-policy.pdf.

As required by the Policy, this Annual Report is a summary of the University's sustainability efforts and progress on goals in each of the eight areas of sustainable practices. This report also includes annual highlights in four cross-cutting topic areas: faculty, staff, and student collaboration; medical centers; training; and external recognition.

III. GREEN BUILDING DESIGN

Policy Goals

- Design and construct all new buildings (except acute care facilities) to a minimum LEED for New Construction "Silver" rating.
- Design and construct all renovation projects (except acute care facilities) with a cost of $5 million or greater to a minimum LEED for Commercial Interiors "Certified" rating.
- Outperform the energy provisions of Title 24 by at least 20 percent on all new construction and major renovation projects.

III. a. Policy Update

The 2011 update of the Policy requires LEED for Commercial Interiors (LEED-CI) certification for all renovation projects with a budget of $5 million or more. The Policy had previously allowed such projects to go through an internal "LEED equivalency" review in lieu of actual LEED certification.

III. b. Project Status Summary

The University has completed 87 LEED certified projects, the most of any university in the country.[2] LEED certification occurs only after projects are completed, thus the comprehensive reporting in Attachment 1 also includes the substantially larger number of projects with established LEED targets that are in design or under construction. Since the establishment of the Policy in 2004, 160 new construction projects, 46 renovation projects, and 13 faculty housing projects have set green building goals. In 2011, two projects applied for and were granted exemptions from the Policy: UCSD University House and LBNL User Test Bed Facility. Both projects are undertaking significant sustainable design measures but had programmatic or scoping constraints that would not allow for LEED certification.

LEED certifications achieved in 2011 are shown in the table on the following page.

[2] This is the sum total of new construction, renovation, homes, and existing building certifications. This section will discuss the new construction and renovation certifications, while the existing building certifications will be covered in Section *VII. Sustainable Operations*. The UC Sustainability website provides a complete list of all UC LEED certifications: http://www.universityofcalifornia.edu/sustainability/gb_leed.html.

Table 1. LEED certifications received in 2011 for new buildings and renovations

LEED-NC (New Construction		Certification Level		
		Platinum	Gold	Silver
1	Davis: Graduate School of Management	✓		
2	Davis: Winery, Brewery and Food-Processing Complex	✓		
3	Irvine: Humanities Gateway	✓		
4	Irvine: Gross Hall	✓		
5	Santa Barbara: Sedgwick Reserve Tipton Meeting House	✓		
6	Davis: Tercero Housing Phase II		✓	
7	San Diego: Cardiovascular Center		✓	
8	San Diego: Village East Transfer Student Housing		✓	
9	San Diego: Rita Atkinson Residences		✓	
10	San Francisco: Institute for Regenerative Medicine		✓	
11	Santa Cruz: Cowell Student Health Center		✓	
12	Berkeley: Blum Hall			✓
13	Los Angeles: 720 Hilgard Graduate Housing			✓
14	Los Angeles: 824 Hilgard Graduate Housing			✓
15	San Francisco: Osher Building			✓
LEED-CI (Commercial Interiors)		**Certification Level**		
1	Berkeley: Clark Kerr Campus Phase II		✓	
2	Davis: Cuarto Dining Commons		✓	
3	Irvine: Environment Institute		✓	
4	San Diego: Stewart Commons		✓	
5	San Francisco: Pharmaceutical Packaging Facility		✓	
6	Santa Cruz: Porter College C			✓
LEED for Homes		**Certification Level**		
1.	Santa Barbara: North Campus Faculty Housing, Phase 1[3]		✓	✓

III.c. Energy Efficient Design of New Buildings and Major Renovations

All new construction and major renovation projects are required to register with the Residential or Non-Residential New Construction Programs (formerly the Savings By Design Program). These energy efficiency programs, offered by California's four investor-owned utility companies and the Sacramento Municipal Utility District, provide design assistance, energy analysis, life-cycle costing, and financial incentives to help projects exceed the energy provisions of California's building code. To date, more than 185 University projects totaling more than 27 million gross square feet have registered with these programs. The University will have received more than $10.9 million in incentive payments from the utility companies, and is projected to avoid approximately $7.2 million per year in energy costs upon completion of these projects.

The Davis West Village housing project opened as the largest zero net energy community in the country, producing as much energy onsite as it consumes. The zero net energy strategy starts with energy efficiency, including technologies such as solar-reflective roofing, radiant barrier roof sheathing and extra insulation. Energy-efficient exterior lighting fixtures, indoor occupancy sensors and "daylighting" techniques are expected to consume 60 percent less energy than standard lighting. A web-based tool will allow energy monitoring by unit and a smartphone app will let residents turn off lamps and plugged-in electronics remotely. A four-megawatt photovoltaic system is expected to meet the energy needs of the first 1,980 apartment residents and commercial spaces.

IV. CLEAN ENERGY STANDARDS

Policy Goals

- Reduce system-wide growth-adjusted energy consumption to 10 percent below year 2000 levels by 2014
- Deploy 10 megawatts of onsite renewable energy generation by 2014

IV. a. Energy Efficiency in Existing Buildings

To improve the energy performance of its existing building stock, the University formed a unique statewide Energy Efficiency Partnership program

[3] UCSB's North Campus Faculty Housing Phase 1 includes 13 LEED for Homes certified projects: 5 gold and 8 silver.

(the Partnership) with the California State University system and the state's four investor-owned utilities. Through this program, the University has initiated an ambitious portfolio of infrastructure projects and building upgrades to reduce energy consumption, lower campus operating costs, shrink carbon footprints, and improve indoor environmental quality and safety for the university community.

Since its inception in 2004, the Partnership has resulted in $47.5 million in utility grants ($11 million received in 2011), which the University has leveraged with over $150 million in campus contributions and some external financing to avoid 230 million kWhs of electricity and 17.7 million therms of natural gas. Net of debt-service, the Partnership is saving the University approximately $32 million dollars per year and is a cornerstone of the University's Working Smarter initiative and UC's climate action efforts.

Energy savings achieved through the Partnership equate to roughly 168,000 thousand metric tonnes in avoided greenhouse gas emissions, an amount equal to approximately 10 percent of the University 2010 carbon footprint. As detailed in Section V and in Attachment II, campus emissions levels either remained steady or fell between 2009 and 2010 thanks to projects implemented through the Partnership.

Projects implemented through the Partnership typically fall into three categories: Heating, Ventilation, Air Conditioning (HVAC) and Monitoring Based Commissioning (MBCx); Central Plant and Energy Distribution; and Lighting.

In 2011, campuses initiated 169 projects, accounting for 43.4 million kWhs, 1.9 million therms.

The Office of the President is updating its systemwide utilities database with electricity and natural gas data from 2009-2011. Pending completion, next year's annual report will include a status update on UC's progress toward reducing growth-adjusted energy consumption relative to the 2000 baseline year.

IV. b. Demonstrating and Deploying New Energy Efficiency Technologies

With support from the California Energy Commission's Public Interest Energy Research (PIER) program, the UC's California Institute for Energy and Environment partners with the California Lighting Technology Center (CLTC) and Western Cooling Efficiency Center at UC Davis to accelerate statewide deployment of new technologies. 2011 highlights included demonstration of bi-level controls for parking garage lighting at Irvine, air-conditioning and lighting demonstrations at Davis, and identification of new technology projects for the 2013 Partnership on multiple campuses. Campuses are expanding energy efficiency project portfolios with additional measures based on these technologies, installing the most successful measures in multiple buildings and leveraging Partnership funding. By acting as early adopters of emerging technologies, many of which were developed based on UC research, campuses are helping transform the market for energy efficient products in California.

IV. c. Industrial Hygiene Smart Labs Program

Irvine has pioneered innovations in designing and operating "smart labs" with sophisticated monitoring techniques, improving laboratory safety while reducing ventilation rates to achieve significant energy savings. The Office of Risk Services at the Office of the President is providing funding to spread those best practices to other UC campuses. The newly created Irvine "Center for Excellence for Industrial Hygiene and Smart Labs" will support development of procedures and tools to share with all UC campuses, including webinars and training to share lessons learned. This will reduce risk of employee injury and illness, code violations, lawsuits, and property damage, while reducing energy costs and greenhouse gas emissions by 50 percent or more.

IV. d. Onsite Generation and Grid Purchases of Renewable Energy

The University expects to exceed, two years early, its goal of installing ten megawatts of onsite renewable energy generation. UC now has 9.86 megawatts of solar photo-voltaics (PV) installed or currently under construction, and another 1.15

megawatts of PV projects in advanced stages of design.

In addition to these PV projects, the Los Angeles campus runs its cogeneration plant on a mix of natural gas and biogas from a nearby landfill, and the San Diego campus is using biogas from a nearby waste water treatment facility to power a new fuel cell.

Technology now enables development of zero net energy projects (buildings that generate as much energy onsite as they consume) in certain circumstances. This requires combining high efficiency new building designs with renewable energy installations and energy storage technologies. For example, the Davis West Village project is the largest zero net energy community in the country, and Merced's long-range development plan commits the entire campus to becoming zero net energy by 2020.

Table 2. Photo-voltaic (PV) and Biogas Projects Installed or In Progress (systems > 50 kW)

Campus	Technology & capacity (kw)	Status	Start date
Berkeley	PV (100)	Installed	11/2003
Davis	PV (782)	Installed/ Under Construction	12/2011
Davis (West Village)	PV (4,000)	Installed/Under Construction	1/2012
Davis Health System	PV (145)	Under Construction	1/2012
Irvine	PV (895)	Installed	1/2009
Irvine	PV (136)	Installed	3/2011
Merced	PV (1000)	Installed	1/2010
San Diego	PV (1330)	Installed	7/2011
San Diego	PV (995)	Under Construction	4/2012
San Diego	PV (150)	Planned	4/2012
San Francisco	PV (250)	Installed	1/2008
San Francisco	PV (250)	Planned	7/2012
Santa Barbara	PV (550)	Design	6/2012
Santa Barbara	PV (225)	Installed	12/2008
Santa Cruz	PV (200)	Design	2/2012
Total PV (by 2012)	**11,008**		
Los Angeles	Biogas from landfill (3,500)	Installed	1990s
San Diego	Biogas Fuel Cell (2,800)	Under Construction	11/2011
Total Biogas	**6,300**		

Policy Goals

- Reduce greenhouse gas emissions to year 2000 levels by 2014, and to 1990 levels by 2020
- Achieve climate neutrality as soon as possible

V. CLIMATE PROTECTION PRACTICES

V. a. Greenhouse Gas Inventories & Climate Action Plans

All campuses have completed greenhouse gas emissions inventories for calendar year 2010. As members of The Climate Registry, campuses have verified or are in the process of verifying emissions associated with purchased electricity and steam, onsite combustion of fossil fuels, and other emissions sources (as required by the Climate Registry's General Reporting Protocol). The Climate Registry is a non-profit entity that sets consistent and transparent standards to calculate, verify and publicly report greenhouse gas emissions.

Eight campuses—Davis, Los Angeles, Merced, Riverside, San Diego, San Francisco, Santa Barbara, and Santa Cruz—reduced emissions in 2010, and emissions remained stable at Berkeley and Irvine. Overall, the University's 2010 emissions levels decreased by approximately 42,000 metric tonnes compared to 2009.

In 2010, Berkeley, Davis, Riverside, Santa Barbara, and Santa Cruz emitted less greenhouse gas than they did in the year 2000. See Attachment II for more detailed analysis of each campus's progress toward the Policy goal of reducing emissions to year 2000 levels by 2014.

Most campuses developed their climate action plans in 2009 and are currently updating those documents, in accordance with requirements of the Policy.

V. b. Planning for Climate Neutrality

The Climate Solutions Steering Group continues to evaluate large-scale opportunities for the University to greatly reduce greenhouse gas emissions and move towards its carbon neutrality goal. The group identified three broad strategies for UC: expand the highly successful Partnership program; develop a wholesale power procurement strategy that provides a steadily increasing amount of renewable power; and procure large quantities of biomethane in lieu of natural gas.[4] The systemwide strategies being developed by the Climate Solutions Steering Group are complementary to the initiatives being implemented at the campuses, such as the energy efficiency Partnership, solar photovoltaic installations, and green building projects.

The Climate Solutions Steering Group prepared a report that describes each of these strategies in detail. The report concludes that proactive investments in carbon abatement projects will allow UC to meet its climate commitments while avoiding millions of dollars in direct and indirect costs associated with cap-and-trade regulation (see III.c.) and other recently enacted State policies and regulations. These findings have been discussed at meetings of the Administrative Vice Chancellors, Executive Vice Chancellors, and Chancellors.

V. c. Preparing for Regulatory Change

Pursuant to Assembly Bill 32, the California Air Resources Board (ARB) will establish a greenhouse gas cap-and-trade program starting in 2013.[5] Based on current emissions levels, five UC campuses and one medical center will be directly regulated under the program and will be required to hold an allowance for each ton of greenhouse gas they emit. The future market price of allowances is uncertain, but is estimated to be between $10 and $40 – possibly much higher. Assuming the $10-$40 allowance price range, if the University is required to purchase allowances, its annual compliance payments will be between $7 million and $28 million.

The University has proposed that ARB create an optional cap-and-trade compliance path that would allow entities like UC to make direct investments in greenhouse gas abatement projects instead of buying allowances. This outcome would allow UC to continue investing in projects that reduce greenhouse gas emissions and operating costs, thereby contributing to AB 32 goals while reducing net compliance costs for the University.

In late October 2011, ARB's Board passed a resolution that directed ARB staff to continue working with UC and California State University stakeholders and to report back to the Board in summer of 2012 with final recommendations on how the university entities should be treated under cap-and-trade. The ARB Board direction leaves open the possibility that UC's proposal (or something similar) will eventually be adopted. At this time the University's status under the cap-and-trade program remains uncertain.

VI. SUSTAINABLE TRANSPORTATION

Policy Goal
Reduce university-related transportation emissions, including those from commuting, business travel, and vehicle fleets.

The recession and budget cuts have influenced commuting patterns in several ways. The economic recession and higher gas prices have encouraged more people to commute via alternative modes. However, budget cuts have forced campuses to reduce alternative transportation subsidies at the same time that local transit agencies have had to curtail service. Nevertheless, most campuses have been able to maintain alternative commuting levels through programmatic changes and increased marketing. Nearly all campuses have also added additional support for bicycle commuters through measures such as increased bike parking, rental bikes, bike repair stations, and increased bike capacity on campus shuttles.

[4] Biomethane is methane that is generated from controlled decomposition of organic matter and processed to standards suitable for natural gas pipeline transmission.

[5] Cap-and-trade is a regulatory system that sets a limit on overall emissions of pollutants – the "cap." A central authority, in this case ARB, issues pollution permits; each permit entitles its holder to emit a specific amount of pollution. The total number of permits issued equals the pollution cap. Emitters can "trade" pollution permits among themselves. The cap reduces over time, increasing the cost of polluting.

Los Angeles, Riverside, Davis, and Santa Cruz bought hybrid or alternative fuel vehicles to replace aging campus vehicles, and Davis also downsized its fleet. While budget constraints prevented other campuses from upgrading to more fuel efficient cars and trucks, Berkeley, Davis, and Davis Health System did expand their fleets of rental bikes for department use in lieu of using fleet vehicles.

Overall, campus use of unleaded gasoline was down three percent last year. Greenhouse gas emissions from the University's fleet have been essentially flat for the last three years, however the proportion of greenhouse gas emissions associated with shuttle busses (as opposed to smaller vehicles) have increased, suggesting a decrease in greenhouse gas emissions per passenger. Attachment III shows trends in fuel consumption and greenhouse gas emissions associated with the University's vehicle fleet.

As travel budgets are cut, several campuses are reporting increased demand for remote conferencing (webinars, and video conference) and campuses such as Los Angeles, Santa Barbara and Santa Cruz plan to expand these capabilities to meet demand and further reduce the need for air travel.

VII. SUSTAINABLE OPERATIONS

Policy Goals

- Each campus will submit for certification one pilot building at a LEED-EBOM "Certified" level or higher.
- Each campus shall certify campus-wide LEED-EBOM credits and prerequisites to streamline the certification of multiple buildings through the LEED-EBOM rating system by July 1, 2012.
- Each campus shall seek to certify as many buildings as possible through the LEED-EBOM rating system.

VII. a. Project Status Summary

The University is using the LEED for Existing Buildings: Operations and Maintenance (LEED-EBOM) rating system to evaluate and improve the environmental performance of its existing building stock. In 2011, Santa Barbara added three additional LEED-EBOM certified buildings, and San Diego added one, to the ten already certified in the UC system. The new Santa Barbara EBOM certifications are for the Marine Science Research Building (Gold); Kohn Hall (Silver); and the Material Research Laboratory (Certified). The new San Diego certification is for the Supercomputer Center (Gold).

The Policy requires that all campuses certify one building through the LEED-EBOM program. The Office of the President and the Los Angeles, San Francisco, and Santa Cruz campuses have certified one building each. San Diego has two certifications and Santa Barbara now has eight certifications, more than any other university in the country. Santa Barbara ultimately plans to certify 25 total buildings by 2013. Berkeley, Davis, Irvine, Merced, and Riverside are pursuing their first LEED-EBOM certification.

After years of advocacy from UC, and successful pilots on the Santa Barbara, Merced, and Irvine campuses, in November 2010 the U.S. Green Building Council (USGBC) published the "2010 Application Guide to Multiple Buildings and On-Campus Building Projects" (AGMBC). This new guide allows campuses to certify some LEED-EBOM credits and prerequisites on a campus-wide basis, thereby reducing time spent on individual building certifications.

VIII. RECYCLING AND WASTE MANAGEMENT

Policy Goals

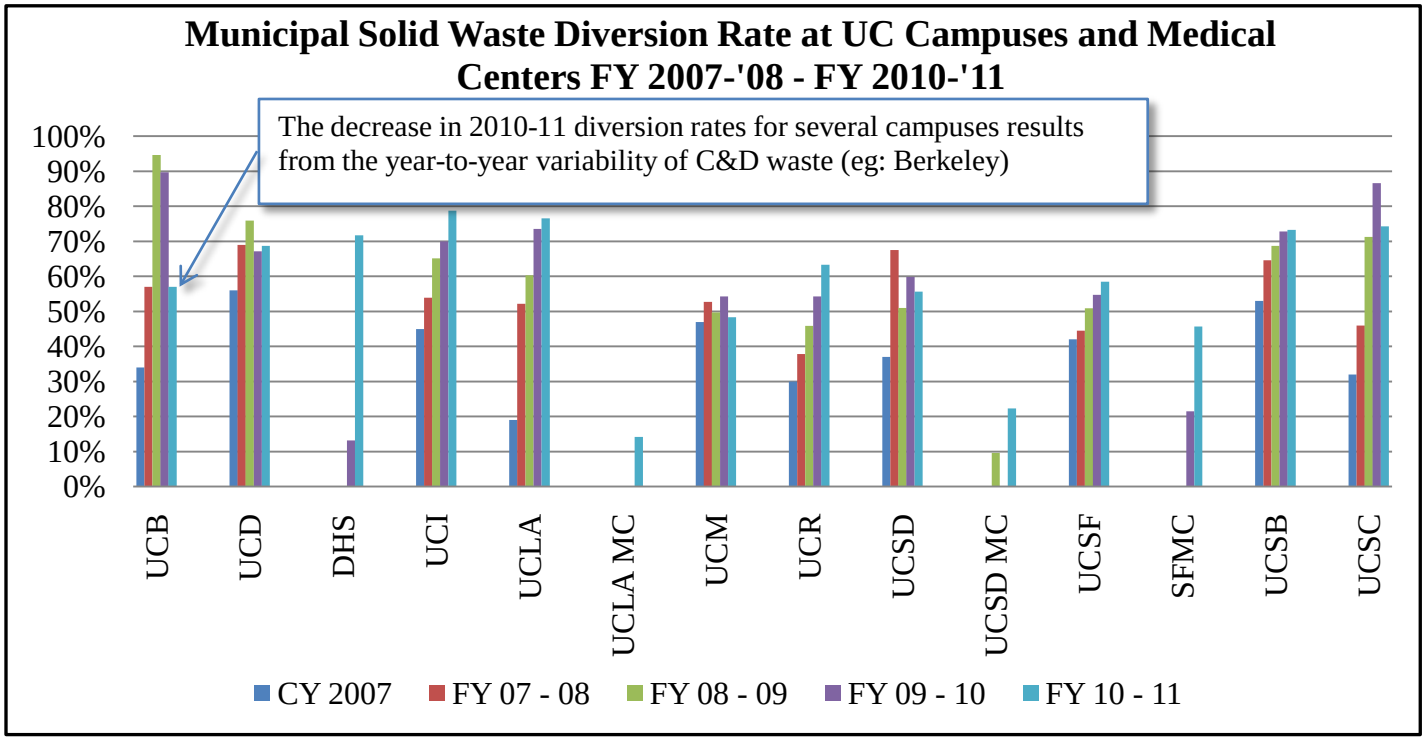
- Increase the proportion of waste that is reused, recycled, composted, or otherwise diverted from landfill.
    - By 2008, divert 50% of waste from landfill, by 2012 divert 75% of waste from landfill, and achieve "zero waste" by 2020.

All campuses met the Policy goal of diverting 50 percent of municipal solid waste from landfills, with only one exception. Four of the five medical centers reported their solid waste diversion. The increased focus on recycling is encouraging as medical centers face additional challenges in meeting solid waste diversion goals. For example, mingled waste streams from mixed-use buildings make recycling more difficult, and some portion of the medical center waste stream is classified as medical waste and thus cannot be recycled. The perception of contamination of the waste stream from medical centers – even if appropriately separated – can make recycling especially difficult.

Calendar year 2007 data, the earliest period for which data was collected, is included to show the impact that recycling and waste management policy provisions had following their adoption in 2007.

The volume of construction and demolition (C&D) materials vary significantly from year to year depending on the level of construction and demolition activity. Because C&D waste is so heavy, the variation in C&D activity has a big impact on diversion rates. Large volumes of C&D waste typically boost campus diversion rates. Conversely, decreased volumes in C&D waste explain the drop in overall diversion rate visible in the data for Berkeley.

The next policy target is 75 percent diversion of municipal solid waste from landfills by the end of 2012, mirroring the state requirement for municipalities and state agencies. Achieving this goal will be challenging for our campuses.



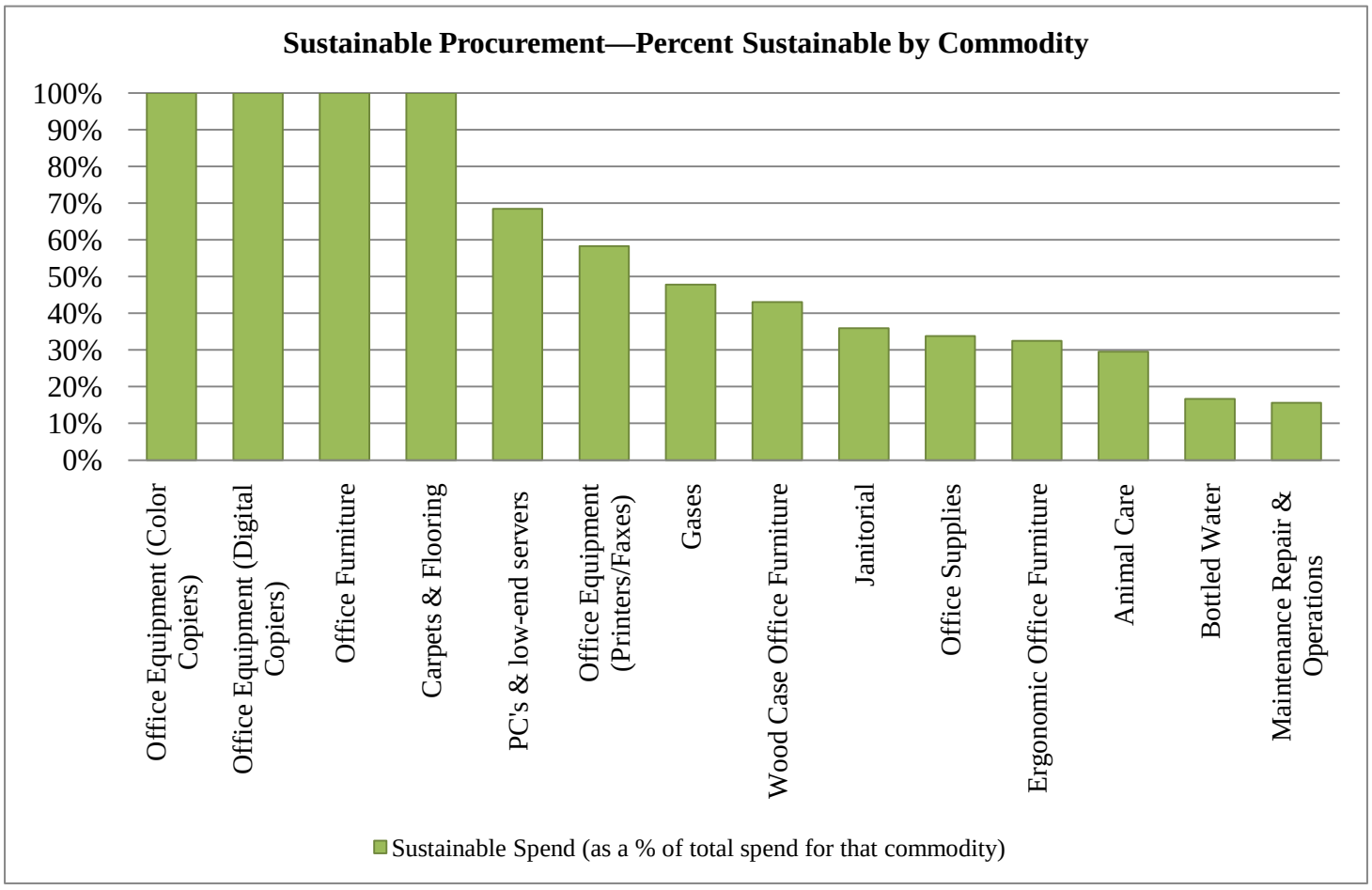
Diversion data for the FY 2010-11 appears below.

IX. PROCUREMENT

Policy Goal
Increase the proportion of University expenditure on products that meet one or more third-party environmental certification.

Sustainable procurement in FY 10/11 shows a steady increase in total purchases of environmentally preferable products. As one example, use of recycled-content multi-use paper purchased from the systemwide Strategic Sourcing Agreement increased for the fourth year in a row. A total of 89 percent of multi-use paper purchased through the Vendor Agreement contained 30 percent or more post-consumer recycled content. This is up from 85 percent in FY 09/10 and 66 percent in FY 08/09.

The graph below shows the percentage of purchases that meet one or more of the third-party environmental certifications that are recognized in the Policy. This is the first year that UC has been able to obtain this data across the 14 Strategic Sourcing commodities areas included in the graph.



X. FOODSERVICES

Policy Goals

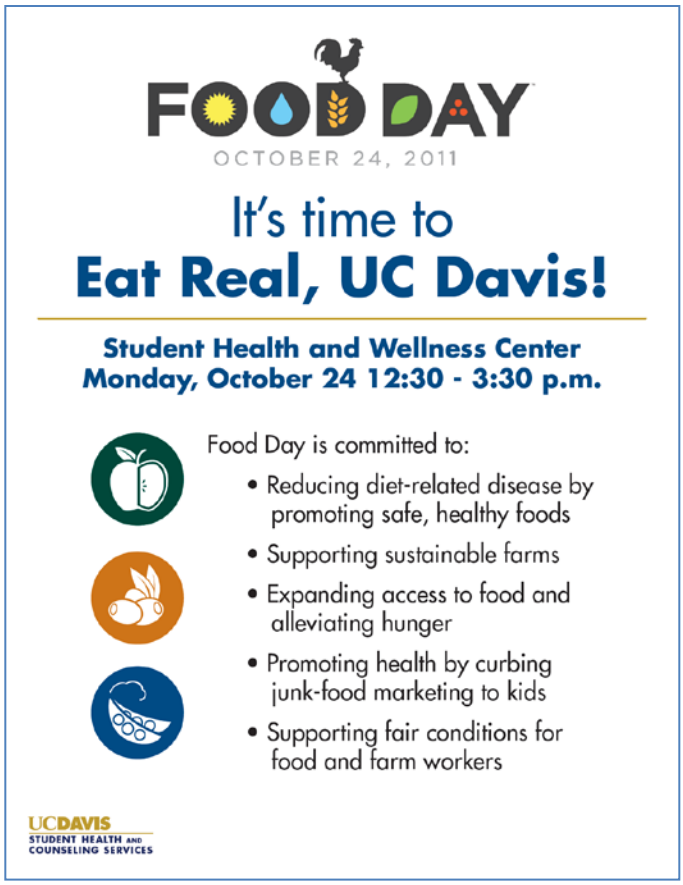
- Procure 20 percent sustainable food products (as defined by the UC Sustainable Foodservice Working Group) by the year 2020 for Campus and Medical Center foodservice operations.
- Certify at least one foodservice facility on each campus as a green business.
- Educate both patrons and foodservice staff about sustainable food products and sustainable foodservice operations.

Sustainable foodservice policy requirements were established in September 2009 and dining services on each campus submitted action plans with campus-specific goals in December 2009. Goals were established for sustainable food purchasing, sustainable facility operations, educational and training programs, and community outreach programs. In September 2010, policy requirements were extended to foodservice operations at the medical centers and in retail operations. In August 2011, all campus and medical center foodservice operations reported initial progress toward their sustainability goals.

Four campuses – Berkeley, Davis, Santa Barbara and San Diego – have already exceeded the 2020 goal to purchase twenty percent sustainable food. Cal Dining at the Berkeley campus became the first public university foodservice operation to achieve the Marine Stewardship Council's chain of custody certification for seafood. The San Francisco Medical Center is collaborating with other Bay Area hospitals and local and national healthcare sustainability organizations in an effort to convince national food distribution companies to track and report local and sustainable food products that hospitals purchase.

Sustainability is commonly understood as having environmental, economic, and social dimensions. Health and wellness are integral components of social sustainability. In that light, UCLA Health System Nutritional Services and UCSD Health System Nutrition Services have both removed fryers in 2011 and no longer serve fried food.

Berkeley, Santa Cruz, Santa Barbara, San Diego, and Davis have each certified at least one foodservice facility as a certified green business, with Berkeley, Santa Cruz, and Davis certifying all of their dining halls. Other campuses expect to certify their first facilities through green business certification programs in 2012.



The 2011 CA Higher Education Sustainability Conference recognized two Davis projects with Best Practice awards: Cuarto Dining Commons for its comprehensive sustainable foodservice program, and the "Zero Waste Stadium" in the category of Innovative Waste Reduction. Other significant accomplishments in waste reduction in 2011 include two dining halls at Irvine achieving zero waste status and the San Francisco Medical Center Nutrition and Food Services recycling or composting 85 percent of its waste. Riverside achieved impressive results for water conservation in the form of a new dishwashing machine that uses 500,000 gallons less water per year than the older

machine. These savings will also be matched by a significant decrease in the energy needed to heat the water and additional savings in dishwashing chemicals will apply as well.

Two more campuses – Los Angeles and Santa Barbara – benefitted from energy audits of all campus and medical center foodservice facilities performed by the Food Service Technology Center at no cost to the university system. The auditsidentified energy savings opportunities such as lighting retrofits and high-efficiency dishwashing machines, refrigerators, ovens, and steamers. The comprehensive energy audits, performed free of charge through the Energy Efficiency Partnership with the utility companies and already conducted on the San Francisco, Davis, and San Diego campuses in 2010, will hopefully be conducted on the Irvine and Riverside campuses in 2012. The audits have already identified approximately $25,000 - $65,000 in annual savings for each of the first five campuses audited.

Education is integral to all sustainable foodservice programs. Davis Dining Services' sustainability program pursues a goal of "providing a living lab and educational environment to engage and encourage students to be conscious consumers." Their "Healthy Planet, Healthy Me!" education program highlights dining services' sustainable practices throughout the year in resident and retail dining locations through educational activities, table tents, games, events, displays and posters. Santa Cruz Dining won a "Goldies" award in the "Going Green" category at the National Menu Directions Conference for a student-made film, "Appetite for Green," on their Dining sustainability initiatives. Santa Barbara Dining Services created "Sustainability Peer Expert Teams" as part of its departmental strategic plan. Fifty-one trained experts work in teams to provide weekly trainings for all student staff and utilize shutdowns between quarters to train all fulltime staff. This assures that staff—at all levels—understand sustainable practices.

Below: UC Davis "Healthy Planet, Healthy Me!" student

interns use games, surveys, and other educational tools to help students learn to eat healthy and sustainably.

XI. FACULTY, STAFF, AND STUDENT COLLABORATION

The University's sustainability program contributes to the University's research, teaching and public service missions through collaboration among faculty, staff and students. Students at seven campuses voted to charge themselves extra fees, usually less than $10 apiece each term, to fund sustainability efforts. Berkeley, Los Angeles, Irvine, San Diego, and Santa Barbara have used this revenue to create competitive grant programs called The Green Initiative Fund (TGIF). TGIF grants are awarded to programs originated by students, staff or faculty that promote such practices as energy efficiency and water conservation or provide educational outreach about sustainability. Collectively, TGIF programs have distributed about $3 million in grants since the first such program was approved at the Santa Barbara campus in 2006. Students at Riverside and Santa Cruz approved green funds earmarked for specific sustainability programs such as solar photovoltaic installations at Riverside and the Carbon Fund at Santa Cruz.

Faculty increasingly use the campus as a living laboratory for research and teaching. At Santa Barbara, researchers received at least ten living laboratory grants ranging from water reuse in laboratories to composting techniques and wetlands restoration. Los Angeles received funding for

energy conservation and smart grid research projects including a $300,000 grant to study electrical consumption behaviors at University-owned apartments. San Diego received grant funding for twenty public electric vehicle charging stations worth approximately $200,000 in its "Tailpipe Endgame" research project. Funded by national and local grants, the San Diego project reduces greenhouse gases and local air pollutants from tailpipes of the transportation sector by using renewable energy resources to charge a variety of new models of electric vehicles (EVs).

The Berkeley Center for Green Chemistry integrates research, teaching, and operations. For example, the Center redesigned lab experiments for Berkeley's introductory chemistry classes, supported a student seminar on green chemistry, added new labs for Chemistry 4A and 4B, and worked to develop three new advanced graduate-level chemistry classes. Now Chem1A labs on campus include numerous experiments investigating topics such as bio-fuels and ocean acidification, with overall goals of waste reduction, "using fewer nasty chemicals, while teaching students how chemistry can be used to solve problems."[6]

The UC public service mission calls for the University to provide sustainability leadership to the communities surrounding its campuses. In a recent example of this, Santa Barbara gathered sustainability decision makers, officials, and representatives from organizations throughout the region for the inaugural South Coast Sustainability Summit on the Santa Barbara campus. The summit discussed common issues in energy, transportation, waste and water management.

XII. MEDICAL CENTERS

Building on the medical centers' recent adoption and ongoing implementation of UC sustainable foodservice goals, the Office of the President now organizes quarterly sustainability conference calls to facilitate sustainability best practice sharing across the five medical centers. Two or more sustainability contacts from each of the five medical centers regularly participate in these calls.

The organization Practice Green Health honored the San Francisco Medical Center with a Partner for Change with Distinction award and the Los Angeles Medical Center with a Partner for Change award. The awards recognize health care facilities that have established environmental programs and continuously improve and expand upon these programs on the path to sustainability.

XIII. TRAINING

The University continues to promote excellence through training, via individual training workshops and an annual statewide conference organized in a unique collaboration with the California State University (CSU) system and the California Community College (CCC) system. The tenth annual California Higher Education Sustainability Conference hosted by CSU Long Beach attracted nearly 1000 attendees—including 250 students—from 84 colleges and universities throughout California and neighboring states. The conference highlighted best practices in sixteen tracks of sessions including each of the sustainability topics in the UC Policy. The seventh annual Energy Efficiency and Sustainability Best Practice Awards were presented at the conference to exemplary UC, CSU and CCC energy and sustainability projects. A complete list of award winners and case studies on energy efficiency best practice award winners are available online.

The energy efficiency and green building training program established in 2004 now offers fewer trainings because of continued constrained budgets both within the University and in grant funding from utility companies. However, the Partnership grant funding still provided for some critical training opportunities to equip University staff with skills needed to achieve the goals in the Policy:

- Eight campuses sent a total of 49 key campus engineering and maintenance staff to earn Building Operator Certification[7];

6 Robert Sanders, "Green Chemistry in the lab and beyond," UC Berkeley NewsCenter, March 22, 2011

7 Building Operator Certification (BOC®) is a nationally recognized, competency-based training and certification program that offers facilities personnel the improved job skills and knowledge to transform workplaces to be more

- Two more campuses – Los Angeles and Santa Barbara—took advantage of free energy efficiency audits for every foodservice kitchen on their campus and medical center, to identify numerous low- and no-cost efficiency measures they can take to save energy and money;
- Three campuses—Riverside, Santa Cruz, and Davis—received training on "LEED Project Management" in order to more effectively manage LEED certification and thereby reduce costs.
- Two regional workshops on "Deep Energy Efficiency Strategies" informed 75 total staff attendees about campus energy efficiency projects that can yield 50 percent savings in both energy and carbon footprint. Such projects provide the most financially and technically feasible means to significantly reduce the University's carbon emissions in the short term.

UC's Capital Programs Institute became a Certified Education Provider for the LEED Credential Maintenance Program, so UC trainings sessions now provide continuing education credits for the 108 UC staff that are LEED Accredited Professionals.

XIV. EXTERNAL RECOGNITION FOR UC

During 2011, approximately 100 articles on UC campus and system-wide sustainability initiatives appeared in media outlets such as the *New York Times, Forbes, Los Angeles Times, Sacramento Bee,* and *San Diego Union-Tribune*.

Even as the field of colleges and universities that embrace sustainability goals has grown, UC continues to be recognized as a national leader in this area. For example, San Diego and Los Angeles both achieved high marks in the Sustainability Tracking Assessment and Rating System (STARS). Developed by the Association for the Advancement of Sustainability in Higher Education (AASHE), STARS is emerging as a national benchmark for higher education sustainability. In addition, Santa Cruz was among sixteen universities named to Princeton Review's "Green Honor Roll." The San Diego, Irvine, Santa Cruz, and Davis campuses were in the top 10 in the Sierra Club's annual list of "Cool Schools" and Los Angeles ranked fifteenth. These rankings continue the trend of one or more UC campuses appearing at or near the top of every national higher education sustainability ranking.

Attachment IV provides a summary of the sustainability rankings and awards that the University received in 2011.

XV. FUTURE STEPS

The University will continue its extensive efforts to meet requirements in each of eight Policy areas, while continuing to explorethe addition of a ninth section of the Policy to address water conservation and storm water management.

Staying on track to achieve both short-term and long-term goals for reducing greenhouse gas emissions will again require significant focus and resources in 2012. The University will continue to implement the more than one thousand energy efficiency projects funded through the Partnership program, while also taking steps towards the large-scale, system-wide renewable energy and related projects proposed by the Climate Solutions Steering Group. These initiatives to reduce greenhouse gas emissions will reduce the regulatory risk and costs for the University under the state's new climate regulations. The University will work with the California Air Resources Board to develop a compliance path that meets the requirements of those new regulations and maximizes the University's emissions reductions while minimizing the cost impact to its primary missions.

Other specific areas of focus in 2012 will include work on increasing waste diversion rates through initiatives like composting, and collecting data to assess the progress toward the 2014 goal of reducing growth-adjusted energy consumption by ten percent relative to the 2000 baseline year.

comfortable, energy-efficient and environmentally friendly. The BOC credential is recognized by employers across the country as a sign of the value and contributions certified facilities management personnel can bring to their organizations.

(Attachments)

I. New Construction and Renovation Projects: Compliance with UC Policy on Sustainable Practices
II. Analysis of Campus Climate Action Plans
III. Fleet Fuel Consumption Data
IV. External Sustainability Awards and Rankings Received by UC: 2011

ATTACHMENT I

New Construction and Renovation Projects: Compliance with UC Policy on Sustainable Practices

Total Achieved Ratings:	Total LEED Certifications for New Construction and Renovations:
6 LEED Certified	Total: 73 LEED certified projects
23 LEED Silver	Subtotal: 44 LEED NC projects
37 LEED Gold	Subtotal: 16 LEED CI projects
7 LEED Platinum	Subtotal: 13 LEED H projects

PROJECTS IMPLEMENTED UNDER UC SUSTAINABILITY POLICY (BUDGET APPROVAL AFTER JULY 1, 2004)
(State Projects that fall under this Policy are those that were included in the 2005-06 Budget and later years)

No.	Proj. Type	Name of Project	Bud. Appr.	Design Appr.		Building Type	Proposed Rating		Projected Certification Date	Achieved Rating	
			Date	By	Date		Rating	Pts.		Rating	Pts.
BERKELEY											
1	NC	Doe Annex Seismic & Program Impr	8/04	R	12/05	Special Coll Library	UC Silver	33	2012		
2	NC	Underhill Field and Parking Replacement Project	8/04	R	7/05	Parking Strucutre	UC Cert.	16	2007	Exempted*	
3	NC	Early Childcare Education Center	4/05	SVP	5/05	Childcare Center, research	LEED Silver	33	2006	Silver	38
4	NC	University Village	11/03	R	2/04	Housing	LEED Cert.	28	2010	Certified	28
5	NC	Durant Hall	8/06	SVP	1/08	Office	LEED Silver	33	2009	Silver	36
6	NC	SAHPC	12/06	R	12/06	Athletics	UC Cert.	26	2012		
7	NC	Computational Research Facility	3/07	R	5/08	Class/labs/data center	LEED Silver	34	2012		
8	NC	LKS Biomedical Sciences Building	11/07	R	5/07	Laboratory/office	LEED Silver /Labs 21	33	2012		
9	NC	Helios Energy Research Facility - West	3/07	R	1/10	Labs 21 & LEED for Labs	LEED Silver	50	2012		
10	NC	Law School Infill	1/08	R	7/08	Class/office/café/library	LEED Gold	39	2012		
11	NC	Naval Architecture Bldg	N/A	R	2/09	Office	LEED Silver	35	2011	Silver	35
12	NC	Cal. Memorial Stadium Seismic Corrections	1/10	R	1/10	Athletics	LEED Silver		2012		
13	NC	BAM		R	pending	Museum	LEED Silver	26	2012		
14	NC	Anna Head West Student Housing	7/11	R	11/09	Housing	LEED Gold				
15	CI	Clark Kerr Campus Renovation	9/07	R	N/A	renovation	LEED Silver	27	2010	Gold	33
16	CI	Clark Kerr Renovations Phase 2	9/07	R	N/A	Housing	LEED Gold	28	2011	Gold	35.5
17	CI	Campbell Hall Replacement	11/07	R	3/08	Class/office/lab	LEED Silver	33	2012		
18	CI	Law Renovations	1/08	SVP	7/08	Classroom/office	LEED Silver	34	2012		
19	CI	King Student Union Renovations	4/08	SVP	7/08		UC Cert.	32	2012		
20	CI	3300 Regatta	4/09	R	N/A	Office	UC Cert.	23	2012		
21	CI	Morgan Hall Laboratory Renovation	7/09	C	5/09	Lab	LEED Silver	39	2010	Gold	35

Legend - Approval Level
R = Regents Approval (For projects >$10M)
P = President's Approval (For projects >$5M and <$10M that require financing)
SVP = Senior Vice-Pres., Business & Finance, Approval (For projects >$5M & <$10M) C = Chancellor's Approval (For projects <$5M)

Legend - Project Type
NC = New Construction
Re = Renovation (For projects <$5M)
CI = Renovation (For projects >$5M)
H = Homes
CS = Core and Shell

* Policy exemptions are only granted when a project is still undertaking significant sustainable design measures but has programmatic or scoping constraints that would not allow for LEED certification.

ATTACHMENT I

New Construction and Renovation Projects: Compliance with UC Policy on Sustainable Practices

PROJECTS IMPLEMENTED UNDER UC SUSTAINABILITY POLICY (BUDGET APPROVAL AFTER JULY 1, 2004)

(State Projects that fall under this Policy are those that were included in the 2005-06 Budget and later years)

No.	Proj. Type	Name of Project	Bud. Appr.	Design Appr.		Building Type	Proposed Rating		Projected Certification Date	Achieved Rating	
			Date	By	Date		Rating	Pts.		Rating	Pts.
DAVIS											
22	NC	Tahoe Environ Research Center	7/00		2/01	Research Lab	LEED Plat	52	2006	Platinum	56
23	NC	Vet Med Instructional Facility	1/01	R	7/02	Classroom	LEED Gold		2012		
24	NC	Warren & Leta Giedt Hall	11/04	SVP	1/05	Offices	UC Cert.		2006	Did not achieve goal*	
25	NC	Physical Sciences Expansion	3/05	R	5/05	Teaching & Research Labs	UC Cert.		2012		
26	NC	Service Unit Park	7/05	C	4/05	Maintenance	UC Cert.		2006	Did not achieve	
27	NC	Vet Med 3B	11/05	R	7/07	Research Labs	LEED Gold		2013		
28	NC	King Hall Renovation & Expansion	11/06	R	11/06	Offices/Classroom/Library	LEED Silver		2012		
29	NC	Health and Wellness Center	1/07	C	1/07	Office/Health Clinic	LEED Silver		2012		
30	NC	Virology & Immunology	5/07	R	10/07	Laboratory	UC Silver		2012		
31	NC	Translational Shared Research Facility	8/07	C	12/07	Laboratory	UC Cert.		2008	Did not achieve	
32	NC	Building J1 Renovation & Upgrade	8/08	C		Laboratory	LEED Silver		2012		
33	NC	Advanced Transportation Center Phase 2	8/07	C	2/08	Research facility	LEED Silver		2012		
34	NC	Graduate School of Management		R	1/08	Office/Conference Center	LEED Gold		2011	Platinum	54
35	NC	Segundo Services Center	7/01	R	8/09	Office Building	LEED Silver		2012		
36	NC	Winery, Brewery and Food Lab	3/08	R	2/09	Laboratory	LEED Plat		2010	Platinum	60
37	NC	Tercero Housing Phase II	5/08	R	5/08	Housing	LEED Gold	40	2011	Gold	40
38	NC	Student Community Center	7/08	R	10/09	Office/multi purpose	LEED Gold		2012		
39	NC	CNPRC Respiratory Disease Center	4/10	C	10/10	Laboratory	LEED Gold		2013		
40	NC	Music Instruction & Recital Building	3/08	R	N/A	Performing Arts Facility	UC Silver		2015		
41	NC	Foundation Plant Services Expansion	4/09	C	2/09	Office/Classroom	LEED Silver		2013		
42	NC	Memorial Union & Bookstore Expansion	1/10	C	3/10	Retail	LEED Silver		2013		
43	NC	California Animal Health & Food Safety Diagnostic Lab, Tulare	5/08	R	N/A	Laboratory	UC Silver		2014		
44	NC	Tercero Housing Phase III	1/11	R	N/A	Housing	LEED Gold		2015		
45	Re	Robbins Hall Renovations	8/07	C	3/09	Laboratory	LEED Silver		2012		
46	Re	Kerr Hall Renovations	12/07	C	1/07	Offices	UC Cert.		2012		
47	Re	Coffee House Renovation	9/07	C	1/08	Dining	UC Gold		2012		
48	Re	Oxford Dining Commons	1/08	C	2/08	Dining	LEED Silver		2011	Gold	35

* Some Davis projects that were approved before the Policy required LEED certification were not able to collect documentation to demonstrate LEED equivalence, and are thus listed here as not having achieved the policy goal of achieving at least a LEED Certified equivalency.

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New Construction and Renovation Projects: Compliance with UC Policy on Sustainable Practices

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No.	Proj. Type	Name of Project	Bud. Appr.	Design Appr.		Building Type	Proposed Rating		Projected Certification Date	Achieved Rating	
			Date	By	Date		Rating	Pts.		Rating	Pts.
DAVIS MEDICAL CENTER											
49	NC	Cancer Center Expansion	11/05	R	3/06	Clinic	UC Cert.	28	TBD		
50	NC	Same Day Surgery	11/05	P	N/A	Clinic	UC Cert.	27	2012		
51	NC	Telemed Resource Center	11/06	R	1/08	Class/labs/offices	UC Silver	33	2012		
52	CI	Stockton Boulevard Research Cntr	5/08	R	N/A	Vivarium/labs/off.	UC Cert.	16	2012		
IRVINE											
53	NC	Palo Verde Expansion	10/1	R	9/02	Housing	LEED Gold		2007	Gold	39
54	NC	Anteater Instruction & Research Bldg		R			LEED Gold		2009	Gold	42
55	NC	Student Center Expansion Phase 4	11/2	R	9/03		LEED Gold		2009	Gold	39
56	NC	Bren Hall		R			LEED Gold		2009	Gold	42
57	NC	Anteater Recreation Center Exp	5/06	R	7/06	Activity spaces	LEED Gold	39	2009	Gold	39
58	NC	Puerta del Sol Student Apts	3/08	R	3/08	Housing	LEED Gold	43	2010	Gold	42
59	NC	Camino del Sol Student Apts		R		Housing	LEED Gold		2010	Gold	44
60	NC	Clinical Lab Building	1/08	R		Labs	LEED Silver	36	2010	Gold	40
61	NC	Engineering Unit 3	11/03	R	11/05	Classrm, labs, offices	LEED Gold	41	2012		
62	NC	Social & Behavioral Sciences	11/04	R	5/06	Classrm, labs	LEED Gold	42	2012		
63	NC	Humanities Building	11/05	R	2/08	Classroom	LEED Gold	42	2012	Platinum	57
64	NC	Telemed Prime LC	11/06	R	7/07	Computer labs, offices	LEED Gold	43	2012		
65	NC	Arts Building	11/06	R	12/07	Studios, perfomance spaces	LEED Gold	40	2012		
66	NC	New Hospital Site Improvements	1/08	R		Demolition, outdoor spaces	NA		2012		
67	NC	New Hospital Shell Space	1/08	R		Hospital	NA		2012		
68	NC	Stem Cell Research	7/08	R		Laboratory/vivarium	LEED Gold	44	2012	Platinum	52
69	NC	Verano Unit 4 Replacement - Building 1	3/10	C	6/10	Housing	LEED Gold		2012		
70	NC	Verano Unit 4 Replacement - Building 2	3/10	C	6/10	Housing	LEED Gold		2012		
71	NC	Verano Unit 4 Replacement - Building 3	3/10	C	6/10	Housing	LEED Gold		2012		
72	NC	Verano Unit 4 Replacement - Building 4	3/10	C	6/10	Housing	LEED Gold		2012		
73	NC	Infant Toddler Center	3/10	C	6/10		LEED Gold		2012		
74	NC	Biological Sciences 3	5/04	R	9/04	Classrooms, Labs, Offices	LEED Gold		2012		
75	NC	Alumni Center	4/11	R		Alumni Center	LEED Silver		2012		
76	CI	Environmental Institute	1/09	C	4/09	Labs, offices	LEED Gold	37	2011	Gold	32
77	CI	Middle Earth Housing Phase I Renovation	5/10	C	5/10	Housing	Certified		2012		
LAWRENCE BERKELEY NATIONAL LAB											
78	NC	Helios Energy Research Facility East	07	R		Labs	LEED Silver		2012		
79	NC	User Test Bed Facility	11	R		Labs	NA	NA		Exempted*	

* Policy exemptions are only granted when a project is still undertaking significant sustainable design measures but has programmatic or scoping constraints that would not allow for

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No.	Proj. Type	Name of Project	Bud. Appr.	Design Appr.		Building Type	Proposed Rating		Projected Certification Date	Achieved Rating	
			Date	By	Date		Rating	Pts.		Rating	Pts.
LOS ANGELES											
80	NC	La Kretz Hall	3/02	R	9/02	Classrooms, Offices	LEED Silver	34	2006	Silver	34
81	NC	Life Sciences Replacement Building	8/05	R	9/05	Classroom, Labs, Offices	UC Silver	33	2012		
82	NC	Spieker Aquatic Center	3/07	R	7/07	pool/locker bldg.	UC Cert.	27	2012		
83	NC	Police Station Replacement	5/07	R	7/07	Police station	LEED Silver	35	2010	Silver	33
84	NC	720 Hilgard Grad Student Housing	11/07	R	3/08	Housing	LEED Silver	34	2011	Silver	36
85	NC	824 Hilgard Grad Student Housing	11/07	R	3/08	Housing	LEED Silver	34	2011	Silver	37
86	NC	South Campus Student Center	9/08	R	2/09	Dining	LEED Silver	35	2012		
87	NC	Hershey Hall Seismic Renovation	7/08	N/A	N/A	Offices	LEED Silver	33	2012		
88	NC	NW Student Housing Infill - Sproul	9/08	R	3/09	Housing	LEED Silver	37	2013		
89	NC	NW Student Housing Infill - DeNeve	9/08	R	3/09	Housing	LEED Gold	39	2013		
90	NC	Dykstra Repairs & Refurbishment	11/09	C	11/09	Housing	LEED Silver	33	2013		
91	NC	Pauley Pavilion Renov & Expansion	7/09	R	7/09	Athletics	LEED Silver	33	2013		
92	NC	Weyburn Terrace Grad Student Hsg	7/09	R	1/10	Housing	LEED Silver	38	2013		
93	CS	Wasserman Building	N/A	R	5/10	Health Sciences	LEED Silver	50	2014		
94	NC	Landfair Apartments	1/11	R	7/11	Housing	LEED Silver	50	2014		
95	NC	Glenrock Apartments	1/11	R	7/11	Housing	LEED Silver	50	2014		
96	NC	Ostin Music Center	10/11	C	10/11	Music	LEED Silver	54	2014		
97	NC	School of Public Health Seismic Improvement	9/11	C	9/11	Health Sciences	LEED Silver	56	2013		
98	CI	Rieber Hall Repair & Refurbishment	5/07	R	5/07	High-rise student housing	UC Silver	27	2012		
99	CI	CNSI BSL3	7/07	SVP	N/A	Lab	UC Silver	27	2012		
100	CI	Hedrick Repairs and Refurbish	5/08	R	5/08	Housing	LEED Silver	39	2012		
101	CI	GCRC CHS Parking E	6/08	EVP	N/A	Clinical Research/Biomarker	LEED Silver	35	2012		
102	CI	Young Research Library	8/08	EVP	8/08	1st Floor interior renov.	LEED Gold	34	2012		
103	CI	Rieber Dining Renovation	9/08	P	9/08	Dining	UC Cert.	22	2012		
104	CI	CHS South Tower Seismic Renov	3/11	P	9/10	Health Sciences	LEED Silver	50	2015		
105	CI	Kinross Graduate Fitness Center	9/10	C	N/A	Recreation	LEED Silver	50	2012		
106	CI	Boelter Hall Laboratory Renovation	10/10	C	10/11	Laboratories	LEED Silver	50	2014		
107	CI	Wasserman Building Tenant Improvement	10/11	C	10/11	Health Sciences	LEED Silver	50	2014		
108	CI	Semel IPCN	9/10	C	9/10	Health Sciences	LEED Silver	50	2013		
MERCED											
109	NC	Central Plant	12/00	R	1/02	Central Plant	LEED Gold		2007	Gold	39
110	NC	Kolligian Library	11/00	R	5/02	Library	LEED Gold		2007	Gold	46
111	NC	Garden Suites and Lakeview Dining	9/02	EVP	9/02	Housing/dining common	LEED Silver		2007	Silver	35
112	NC	Classroom and Office Building	12/00	R	5/02	Classrooms/Offices	LEED Gold		2008	Gold	44
113	NC	Joseph Gallo Center	6/04	R	1/05	Recreation Center	LEED Gold	44	2007	Gold	44

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New Construction and Renovation Projects: Compliance with UC Policy on Sustainable Practices

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No.	Proj. Type	Name of Project	Bud. Appr.	Design Appr.		Building Type	Proposed Rating		Projected Certification Date	Achieved Rating	
			Date	By	Date		Rating	Pts.		Rating	Pts.
MERCED (continued)											
114	NC	Sierra Terrraces	9/05	R	9/05	Student housing	LEED Gold	44	2009	Gold	40
115	NC	Science and Engineering	12/00	R	5/02	Classrooms/Labs	LEED Gold		2009	Gold	39
116	NC	Logistical Site Service Facility	12/02	R	6/04	Facility Support Building	LEED Gold		2012		
117	NC	Dining Expansion	9/05	R	9/05	Food servery, dining	LEED Plat		2012		
118	NC	Soc Sciences & Mgmt Bldg.	11/05	R	07/07	Classroom/Labs	LEED Gold	44	2012		
119	NC	Early Childhood Ed. Center	5/08	EVP	06/08	Child Care Center	LEED Silver	40	2012		
120	NC	Student Housing Phase 3	7/08	R	09/08	Housing	LEED Silver		2012		
121	NC	Science and Engineering 2	7/09	R	9/09	Classroom/Labs	LEED Platinum	88	2014		
122	NC	Housing 4	10/10	C	8/11	Student housing	LEED Gold	87	2013		
123	NC	Recreation Center North	3/11	C	9/11	Recreation Center	LEED Gold	85	2012		
RIVERSIDE*											
124	NC	Arroyo Student Housing (Glen Mor 1)	4/05	R	11/05	Apartment Housing	UC Cert.		2007	Did not achieve	
125	NC	SASS	11/04	R	3/06	Office	UC Silver	37	2009	Did not achieve	
126	NC	Culver Center for the Arts	11/04	C	04/06	Historical Rehab/Art Studios	UC Silver		2010	Did not achieve	
127	NC	East Campus Child Development Center	8/06	EVP	07/08	Child Care Center	UC Cert.		2009	Did not achieve	
128	NC	Materials Science & Engineering	11/05	R	1/06	Labs/ offices/classrooms	UC Silver		2011	Did not achieve	
129	NC	Health Sciences Teaching Center	3/10	EVP		Labs/offices/ classrooms	LEED Silver		2012		
130	NC	Glen Mor 2 Student Apts.	3/10	R		Housing	LEED Silver		2013		
131	NC	Health Science Surge Building	7/10	R	9/08	Labs/offices	LEED Silver		2012		
132	NC	Engineering Bldg. Unit 3	8/10	R		Classrm, Lab	LEED Silver		On Hold		
133	NC	Environ. Health & Safety Expansion	11/10	R	11/08	Waste Handling Lab/Off.	LEED Silver		2014		
134	NC	Student Recreation Center Expansion	4/10	R	12/13	Recreation Center	LEED Silver		2014		
SAN DIEGO											
135	NC	East Campus Graduate Housing	11/04	R	7/05	Housing	UC Cert.		2012		
136	NC	Original Student Center Phase II	11/04	SVP	5/05	Student Center	UC Cert.	27	2012		
137	NC	Price Center Expansion	11/04	R	7/05	Student Center	UC Silver	26	2012		
138	NC	San Diego Supercomputer	11/04	R	1/05	Computer Rm, Classrm	UC Cert.		2012		
139	NC	Structural Engineering	11/05	R	3/07	Research labs/offices	LEED Silver		2012		
140	NC	Cardiovascular Center	1/06	R		Medical	LEED Gold		2011	Gold	39
141	NC	RIMAC Annex	8/06	SVP	3/07	Multi-purpose	UC Cert.		2012		
142	NC	SIO Seaside Forum	11/06	P	7/07	Meeting space	LEED Cert.	29	2009	Certified	29

* Riverside projects that were approved before the Policy required LEED certification were not able to collect documentation to demonstrate LEED equivalence, and are thus listed here as not having achieved the policy goal of achieving at least a LEED Certified equivalency. All Riverside projects approved in 2010 or later are pursuing actual LEED

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No.	Proj. Type	Name of Project	Bud. Appr.	Design Appr.		Building Type	Proposed Rating		Projected Certification Date	Achieved Rating	
			Date	By	Date		Rating	Pts.		Rating	Pts.
SAN DIEGO (continued)											
143	NC	Management School Phase 2	11/06	R	3/08	Classroom, Office	UC Silver		2012		
144	NC	Revelle College Housing	11/08	R	7/09	Apartment Housing	LEED Silver		2012		
145	NC	H&DS Administration Building	11/07	R	11/07	Office/Catering	LEED Silver	34	2012		
146	NC	Telemedicine & PRIME-Heq	3/07	SVP	11/07	Classrooms	LEED Silver		2012		
147	NC	North Campus Housing, Phase 2	1/08	R	3/09	Housing	LEED Gold		2011	Gold	41
148	NC	North Campus Housing Phase 1	5/08	R	11/06	Housing	UC Silver		2012		
149	NC	Health Sciences Graduate Hsg	5/08	R	2/09	Housing	LEED Silver		2011	Gold	41
150	NC	Muir College Housing/Dining	11/08	R	7/09	Housing/Dining	LEED Silver		2012		
151	NC	SIO Research Support Facilities	11/09	C	12/10	Laboratory	LEED Silver		2013		
152	NC	Health Sciences Biomedical Research Facility 2	5/08	R	9/09	Research labs/offices	LEED Silver		2012		
153	NC	SIO MESOM Facility	3/09	R	5/10	Laboratory	LEED Silver		2012		
154	NC	SIO Research Support Facilities	11/09	C	12/10	Laboratory	LEED Silver		2013		
155	NC	Jacobs Medical Center	3/10	R	7/10	Medical	LEED Silver		2014		
156	NC	Jacobs Medical Center Central Plant	3/10	R	7/10	Central Plant	LEED Silver		2014		
157	NC	East Campus Parking Structure	6/10	C	5/10	Parking	LEED Gold	60	2012		
158	NC	Torrey Pines Center North	9/10	C	9/10	Office	LEED Silver		2012		
159	NC	CTRI	11/10	R	1/12	Research/Medical	LEED Silver		2015		
160	CI	Stewart Commons	11/08	C	7/09	Dining	LEED Gold		2011	Gold	32
161	CI	Mesa Childcare Center	8/10	P	N/A	Childcare facility	LEED Gold		2009	Gold	33
162	CI	Student Resource Center	1/10	C	1/10	Office space	LEED Gold		2010	Gold	32
163	CI	Goody's Place and Market	1/10	C	1/10	Dining	LEED Silver		2010	Silver	29
164	CI	The Zone (Price Center)	1/10	C		Office	LEED Gold		2012		
165	CI	Student Health Services	1/11	C		Office	LEED Silver		2012		
166	RE	University House Rehabilitation	SPIO	P	SPIO	Rehabilitation of residence	NA	NA	2011	Exempted*	NA

* Policy exemptions are only granted when a project is still undertaking significant sustainable design measures but has programmatic or scoping constraints that would not allow for LEED certification.

SAN FRANCISCO											
167	NC	Diller Family Cancer Research	9/04	R	11/04	Biomedical Research	UC Silver		2012		
168	NC	145 Irving Street	3/05	SVP		Apartment Housing	UC Cert.		2012		
169	NC	The Osher Building	11/06	R	11/07	Clinic	LEED Silver	36	2012	Silver	36
170	NC	Cardiovascular Research Building	11/07	R	11/07	Lab	LEED Silver	41	2012		
171	NC	Institute for Regenerative Medicine	3/08	R		Lab	LEED Silver		2011	Gold	42
172	NC	Mission Bay Building 19A	2/10	R	2/09	Lab, Vivarium	LEED Silver		2012		

ATTACHMENT I

New Construction and Renovation Projects: Compliance with UC Policy on Sustainable Practices

PROJECTS IMPLEMENTED UNDER UC SUSTAINABILITY POLICY (BUDGET APPROVAL AFTER JULY 1, 2004)
(State Projects that fall under this Policy are those that were included in the 2005-06 Budget and later years)

No.	Proj. Type	Name of Project	Bud. Appr.	Design Appr.		Building Type	Proposed Rating		Projected Certification Date	Achieved Rating	
			Date	By	Date		Rating	Pts.		Rating	Pts.
SAN FRANCISCO (continued)											
173	NC	The Aldea Center on Mount Sutro				Community Center	LEED Silver	38	2012		
174	CI	HSW Dentistry Lab	N/A	N/A	N/A	Labs	LEED Cert.		2005	Certified	21
175	CI	654 Minnesota Street	2009	C		Tenant Improvements	LEED Cert.		2009	Certified	25
176	CI	Data Center	8/09	C		Tenant Improvements	LEED Silver		2009	Silver	29
177	CI	HSE 15 S/D Craniofacial & Mesenchymal Biology Program Lab Renovation	9/08	C	8/08	Lab	LEED Silver		2010	Gold	32
174	CI	HSE 5 Center for Bioengineering and Tissue Regeneration	7/09	C	7/09	Lab	LEED Cert.		2011		
175	CI	MSB 13 S1372 Anatomy Dept. Renovation	6/10	P	9/09	Laboratory	LEED Silver	31	2011		
176	CI	Telemedicine and PRIME-US Educational Facilities	9/06	R	9/06	Clinical Skills/Simulation Center	LEED Cert.		2011		
177	CI	1500 Owens Pharmacy - pending lease appr	5/09	N/A		Tenant Improvements	LEED Silver		2011	Gold	65
178	CI	1500 Owens Third Floor Clinics				Tenant Improvements	LEED Silver		2012		
SAN FRANCISCO MEDICAL CENTER											
179	NC	UCSF Medical M-3 Body Interventional Equipment Replacement	10/09	P		Laboratory, Hospital					
180	NC	Medical Center at Mission Bay	9/08	P	9/08	Hospital	Gold	47	2014		
SANTA BARBARA											
181	NC	Bren Hall	7/99	R	9/99	Laboratory	LEED Plat		2002	Platinum	37
182	NC	Marine Sc. Research Bldg	3/00	R	1/01	Laboratory	LEED Cert.	28	2006	Certified	26
183	NC	Student Resources Building	7/02	R	10/02	Administrative	LEED Silver	37	2008	Silver	36
184	NC	Education & Social Sc. Bldg	1/07	R	2/04	Academic	LEED Silver	33	2009	Silver	36
185	NC	San Clemente Villages	1/06	R	2/04	Housing	LEED Gold		2009	Gold	42
186	NC	Engineer II Addition	11/06	R	6/07	Academic	LEED Silver	37	2010	Gold	42
187	NC	Tipton House (Sedgewick Res)	7/04	C	5/07	Academic	LEED Platinum	42	2011	Platinum	53
188	NC	Biomedical Sciences Facility	11/08	R	8/06	Lab, Vivarium	LEED Silver		2012		
189	NC	Ocean Sc. Education Bldg	8/08	R	7/06	Academic	LEED Gold	42	2012		
190	NC	Bioengineering	6/10	R	7/10	Laboratory	LEED Silver	34	2012		
191	NC	Davidson Library Addition	4/10	R	6/10	Library	LEED Silver		2012		
192	CI	Santa Rosa Renovation				Residence Hall	LEED Gold		2012		
193	CI	Alts for Physical, Biological and Social Sciences	-	R	-	Labs	UC Cert.		2016		
194	H	N. Campus Faculty Housing – Phase 1 - Single-Family Building 1				Faculty/Staff Housing	LEED Silver		2011	Silver	55.5

ATTACHMENT I

New Construction and Renovation Projects: Compliance with UC Policy on Sustainable Practices

PROJECTS IMPLEMENTED UNDER UC SUSTAINABILITY POLICY (BUDGET APPROVAL AFTER JULY 1, 2004)

(State Projects that fall under this Policy are those that were included in the 2005-06 Budget and later years)

No.	Proj. Type	Name of Project	Bud. Appr. Date	Design Appr. By	Design Appr. Date	Building Type	Proposed Rating	Pts.	Projected Certification Date	Achieved Rating	Pts.
SANTA BARBARA (continued)											
195	H	N. Campus Faculty Housing – Phase 1 - SF Building 2				Faculty/Staff Housing	LEED Silver		2011	Silver	55.5
196	H	N. Campus Faculty Housing – Phase 1 - SF Building 3				Faculty/Staff Housing	LEED Silver		2011	Silver	55.5
197	H	N. Campus Faculty Housing – Phase 1 - SF Building 4				Faculty/Staff Housing	LEED Silver		2011	Silver	55.5
198	H	N. Campus Faculty Housing – Phase 1 - SF Building 5				Faculty/Staff Housing	LEED Silver		2011	Silver	55.5
199	H	N. Campus Faculty Housing – Phase 1 - SF Building 6				Faculty/Staff Housing	LEED Silver		2011	Silver	55.5
200	H	N. Campus Faculty Housing – Phase 1 - SF Building 12				Faculty/Staff Housing	LEED Silver		2011	Silver	55.5
201	H	N. Campus Faculty Housing – Phase 1 - SF Building 13				Faculty/Staff Housing	LEED Silver		2011	Silver	55.5
202	H	N. Campus Faculty Housing – Phase 1 - SF (2 units) Building 7				Faculty/Staff Housing	LEED Gold		2011	Gold	70.5
203	H	N. Campus Faculty Housing – Phase 1 - SF (2 units) Building 8				Faculty/Staff Housing	LEED Gold		2011	Gold	70.5
204	H	N. Campus Faculty Housing – Phase 1 - SF (2 units) Building 9				Faculty/Staff Housing	LEED Gold		2011	Gold	70.5
205	H	N. Campus Faculty Housing – Phase 1 - Multi-F (4 units) Bdg 10				Faculty/Staff Housing	LEED Gold		2011	Gold	68
206	H	N. Campus Faculty Housing – Phase 1 - Multi-F (4 units) Bdg 11				Faculty/Staff Housing	LEED Gold		2011	Gold	68
SANTA CRUZ											
207	NC	Biomedical Sciences Facility	11/07	R	8/06	Lab, Vivarium	LEED Silver	38	2012		
208	NC	Cowell Student Health Center	1/08	R	1/08	exam rooms/offices	LEED Silver	36	2011	Gold	46
209	NC	Porter College Phase 1-House B & Dining	3/08	R	7/08	Housing/dining	LEED Silver		2010	Silver	33
210	NC	Coastal Biology Building	10/08	R	11/08	Laboratory	LEED Silver		2014		
211	NC	Porter College Phase 2-House A	11/08	R	5/09	Housing	LEED Silver		2012		
212	NC	East Campus Infill Housing	5/09	R	7/09	Housing	LEED Silver		2014		
213	CI	Cowell College Commons Seismic Renew	12/07	R	1/08	Dining Commons	LEED Cert.	24	2010	Certified	21
214	CI	Alts for Physical, Biological and Social Scien	N/A	R	N/A	Labs	UC Cert.		2016		
215	CI	Porter College C					LEED Silver		2011	Silver	27

Attachment II
Progress Toward 2014 UC Climate Goals

How to read these graphs

The following graphs show campus emissions data for 2009 and 2010, in relation to the University's policy goal of reducing emissions to year 2000 levels by 2014. UCLA's 2009 and 2010 emissions are also shown with reference to the University's policy goal of reducing emissions to 1990 levels by 2020.

Some campuses have also adopted emission reduction targets that are more ambitious than UC policy. In these cases, the graphs also show campus-specific commitments.

Campus-identified greenhouse gas abatement measures are depicted in the pie charts to the right of the bar graphs. Abatement measures are classified by project type (e.g., energy efficiency, renewable energy, transportation, etc.). They are further categorized as "under way or imminent," "proven technology or approach with uncertain funding & support," or "conceptual."

1. *Underway or imminent*: Emission reductions from campus-implemented projects for which a feasibility study has been completed (where necessary) and/or at least partial funding has been identified.
   Example: 1) Efficiency retrofit projects committed to during the current round of the Energy Efficiency Partnership;

2. *Proven technology/approach, uncertain funding/support*: Emission reductions that rely on proven technologies/methods/policy initiatives and are expected to be effective, but for which a feasibility study (if necessary) has not been conducted, funds have not been identified, and/or needed support has not been granted.
   Examples: 1) Energy efficiency retrofits beyond the current Partnership funding horizon; 2) Onsite renewable energy projects using existing technology, but for which no power purchase agreement or budget allocation exists.

3. *Conceptual*: Emission reductions that rely on technology that is currently unavailable at scale, and/or a policy initiative that has never been tested, and/or action by a third-party over which the University has no control. Conceptual measures are contingent upon further study and demonstration of overall cost-effectiveness.
   Examples: 1) Carbon neutral air transportation fuels; 2) utility-supplied renewable energy beyond what is required be the State's Renewable Portfolio Standard law.

Data are based on emissions of carbon dioxide, methane, nitrous oxide, sulfur hexafluoride, hydrofluorocarbons, and perfluorocarbons associated with scope 1, scope 2, and scope 3 emissions, defined below.

- Scope 1 encompasses emissions that result directly from campus activities, primarily fossil fuel combustion.
- Scope 2 covers emissions associated with electricity and steam that are generated by a third party and sold to a campus.
- Scope 3 refers to emissions resulting from faculty, student, and staff commute, and from university-funded air travel.

All data are displayed in metric tonnes of carbon dioxide equivalent (CO_2e), which normalizes measurement of greenhouse gasses based on their climate impact compared to carbon dioxide.

Attachment II
Progress Toward 2014 UC Climate Goals

An important note regarding campus growth

The graphs in this report do not include forecasts for campus growth. While several campuses are currently below UC policy targets for 2014 emissions levels, growth in energy-intensive building space and increases in student, faculty, and staff populations will exert upward pressure on campus emissions levels. Since UC's emissions reduction goals are absolute (i.e., not growth-adjusted), most campuses have accounted for future growth by identifying additional abatement measures to offset increased emissions from new buildings and increased population.

Data quality and consistency and reporting

Overall campus inventories are developed using the best available data and methods and are subject to change as the state of the art evolves. Inventorying greenhouse gas emissions is not an exact science, and while the University takes steps to maintain quality and consistency of data, variations based on differing methods of data collection are inevitable. Reflecting the uncertainty of the data, the emissions numbers included in the text boxes on each graph have been rounded to the nearest thousand tonnes.

On an annual basis, all campuses catalog scope 1 and scope 2 emissions using The Climate Registry's General Reporting Protocol. The Climate Registry is a non-profit entity that sets consistent and transparent standards to calculate, verify and publicly report greenhouse gas emissions. As members of The Climate Registry, campuses obtain third party verification of scope 1 and scope 2 inventories and report these inventories through The Climate Registry's website.

At the time of this report, some campuses had received third-party verification for their scope 1 & 2 inventories, while other campuses were still awaiting verification. The verification status of each campus's inventory is noted below that campus's graph.

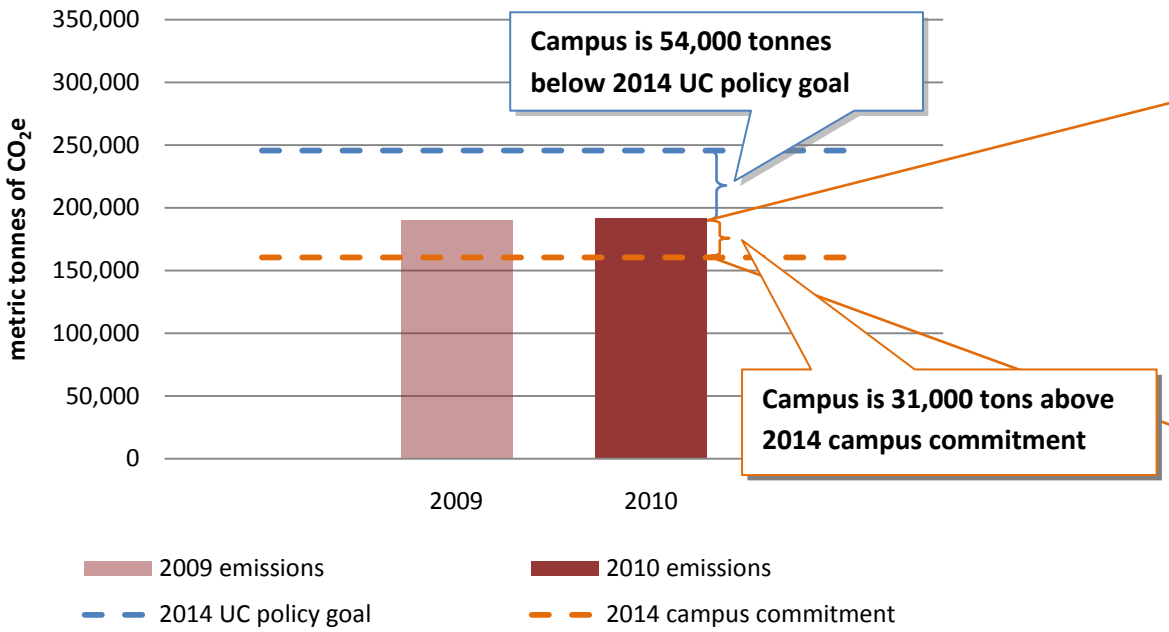
Because the University is a signatory to the American College and University Presidents Climate Commitment (ACUPCC), campuses also report their emissions data on the ACUPCC website.

Scope 3 emissions are reported based on best available information and using methods best suited to each campus. There is a higher degree of comparability between campuses' scope 1 and scope 2 emissions inventories than there is between inventories of scope 3 emissions.

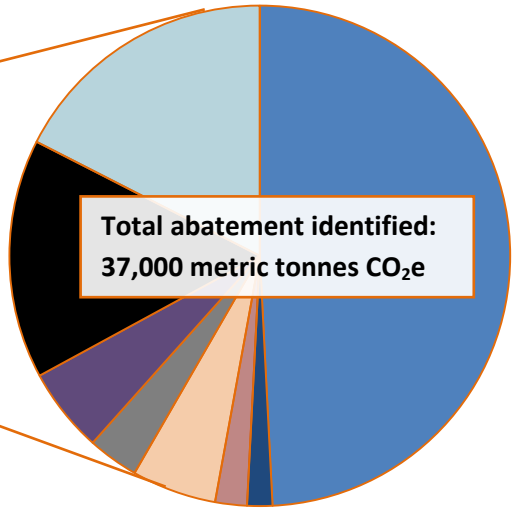
UC policy does not require that campuses conduct annual inventories of scope 3 emissions. In cases where campuses did not conduct scope 3 inventories for 2009, 2010 data was included to provide a more representative picture of overall campus emissions levels. In cases where 2010 scope 3 data was unavailable, 2009 data was included. These instances are documented in the "notes" section of the campus graphs.

Attachment II, Progress Toward 2014 UC Climate Goals

UC Berkeley's 2009 and 2010 Emissions Levels in Relation to the 2014 UC Policy Goal and Campus Commitment



How UC Berkeley Plans to Achieve its 2014 Campus Commitment



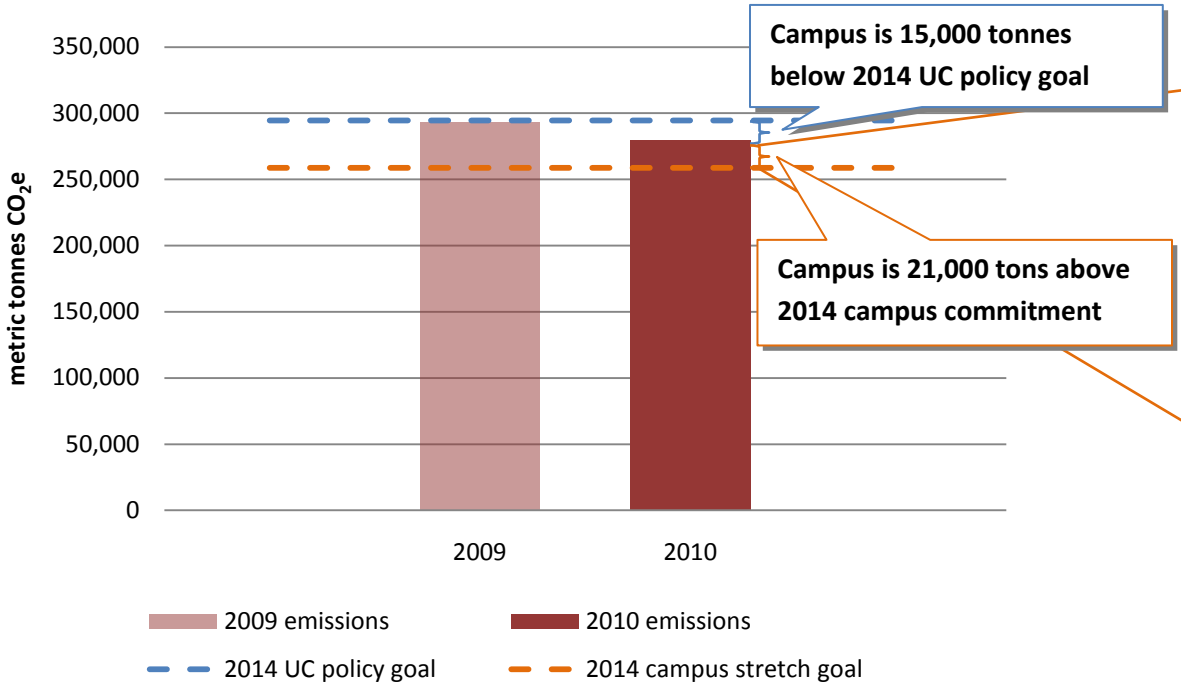
- Energy efficiency - underway or imminent
- Water efficiency and waste reduction - proven technology and approach, uncertain funding or support
- Renewable energy onsite - proven technology and approach, uncertain funding or support
- Renewable energy from the grid - Conceptual
- Transportation - underway or imminent
- Energy conservation / behavior changes - underway or imminent
- RECs/Offsets - proven technology or approach, uncertain funding & support
- Biomethane - conceptual

Notes:

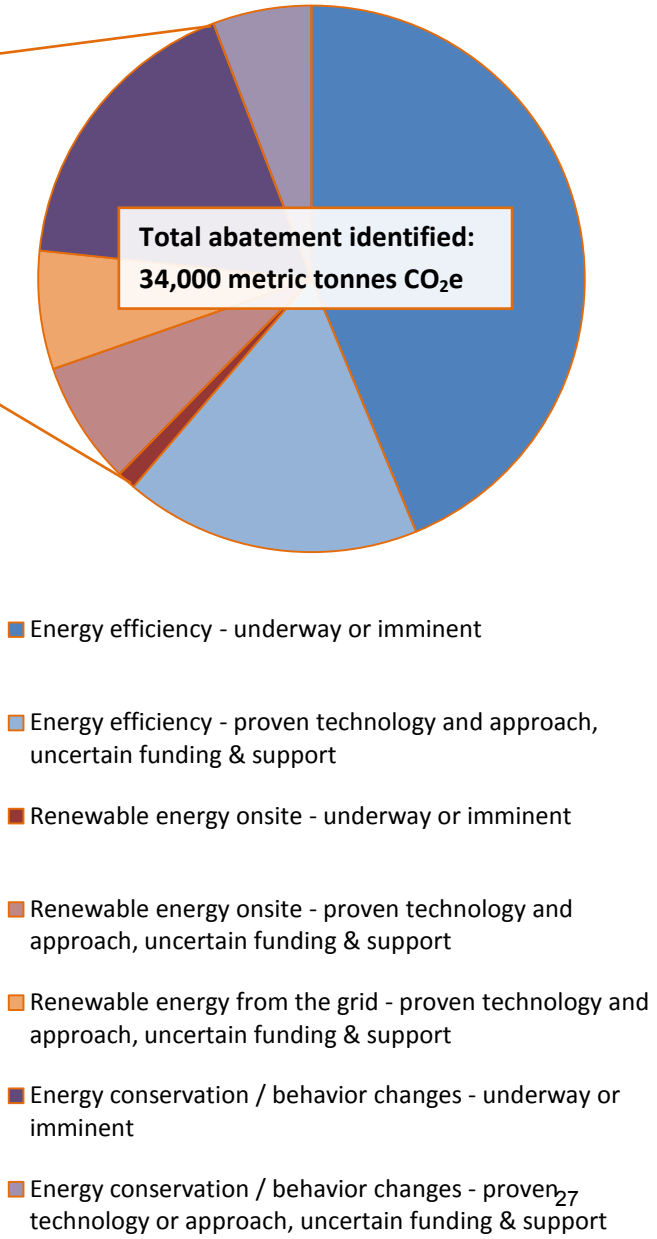
- In 2007, UC Berkeley committed to reducing its greenhouse gas emissions to 1990 levels by 2014.
- UC Berkeley's emissions levels are currently below the 2014 UC policy goal because the campus switched to PG&E as its electricity provider in 2006. PG&E provides less carbon-intensive power generation than the previous provider.
- Third-party verification of 2009 and 2010 scope 1 & scope 2 emissions inventories is underway.
- The results of the preliminary UC Berkeley 2010 Greenhouse Gas Inventory reveal an increase in greenhouse gas (GHG) emissions of 0.8%, or about 1,400 metric tons CO_2e, relative to the 2009 inventory. Even with this small increase in 2010, emissions are still almost 5% below 2008 levels. Electricity use in 2010 is down 1.1% on the main campus and 1.5% overall relative to 2009.

Attachment II, Progress Toward 2014 UC Climate Goals

UC Davis's 2009 and 2010 Emissions Levels in Relation to the 2014 UC Policy Goal and Campus "Stretch" Goal



How UC Davis Plans to Achieve its 2014 Stretch Goal

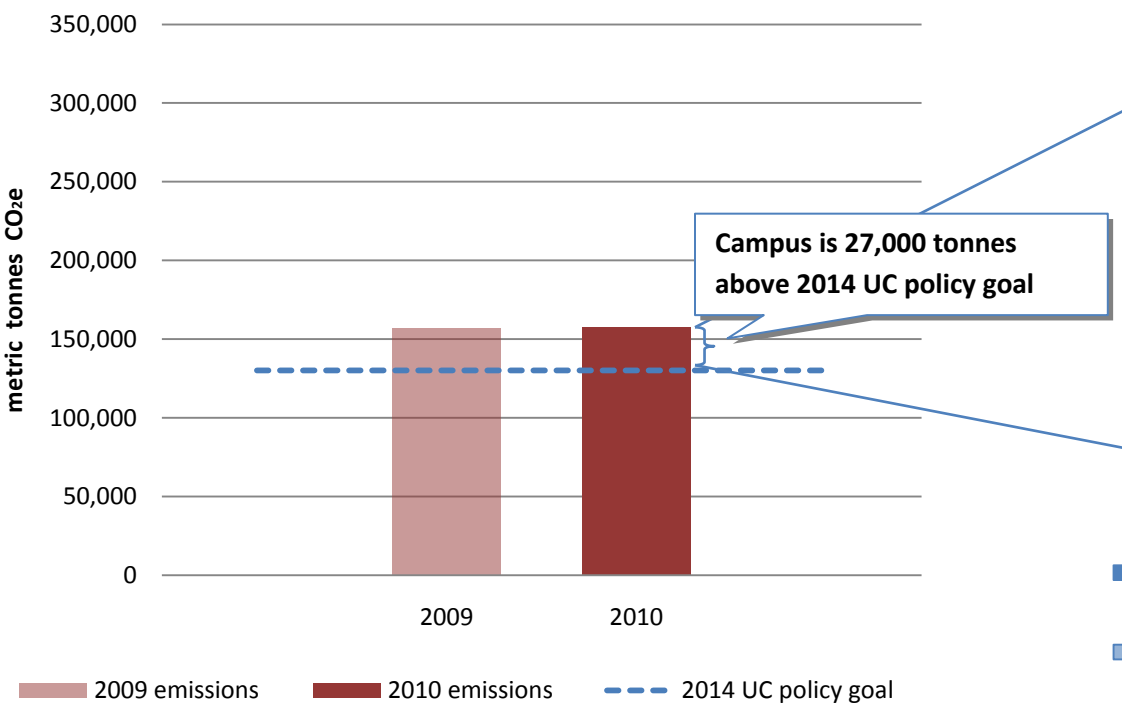


Notes:

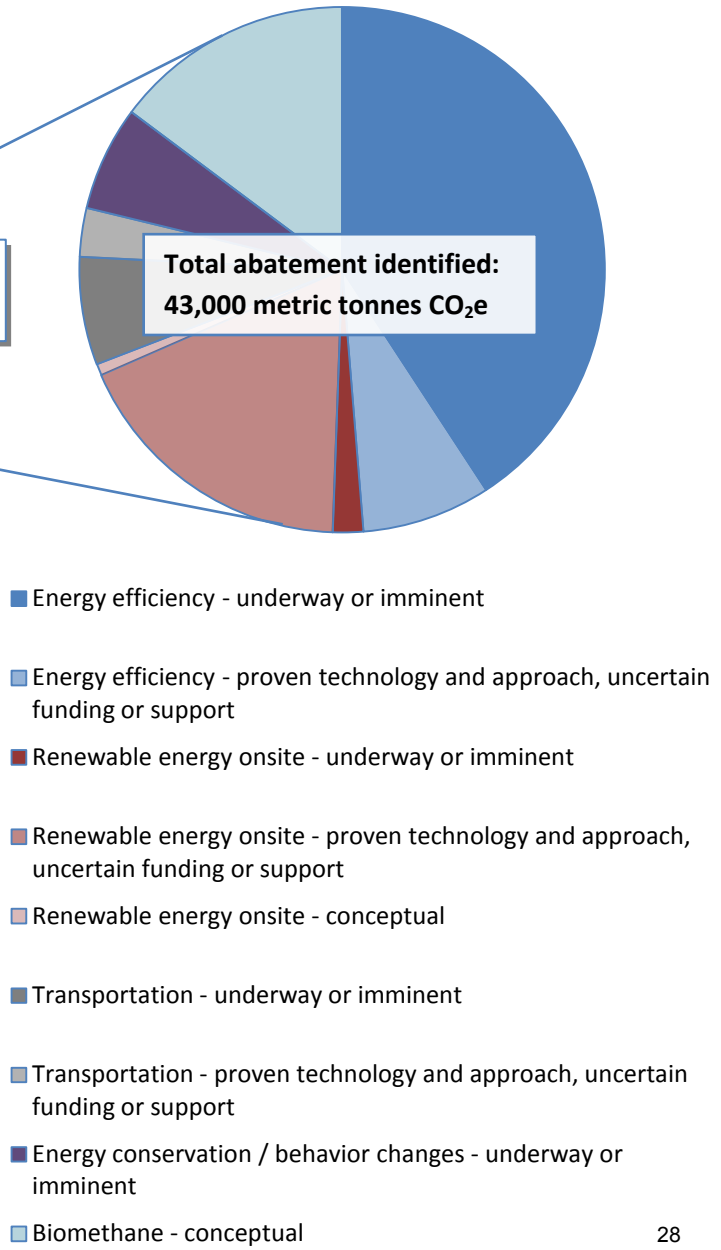
- UC Davis has adopted a campus "stretch" goal of reducing scope 1 & scope 2 emissions to 10% below year 2000 levels by 2014.
- Third-party verification of the 2010 scope 1 & 2 emissions inventory is complete.
- UC Davis achieved reductions of over 36,000 metric tonnes CO_2e with energy efficiency projects between 1999-2009.
- Davis campus has a policy of exceeding Title 24 energy provisions by 25%, 5% more than required by UC policy.
- The UC Davis fleet has in use 99 CNG-powered vehicles, 63 electric and neighborhood electric vehicles, 53 hybrid sedans and 17 plug-in hybrid electric (PHEV) sedans. Approximately 100 campus vehicles run on B20 biodiesel.

Attachment II, Progress Toward 2014 UC Climate Goals

UC Irvine's 2009 & 2010 Emissions Levels in Relation to the 2014 UC Policy Goal



How UC Irvine Plans to Achieve the 2014 UC Policy Goal

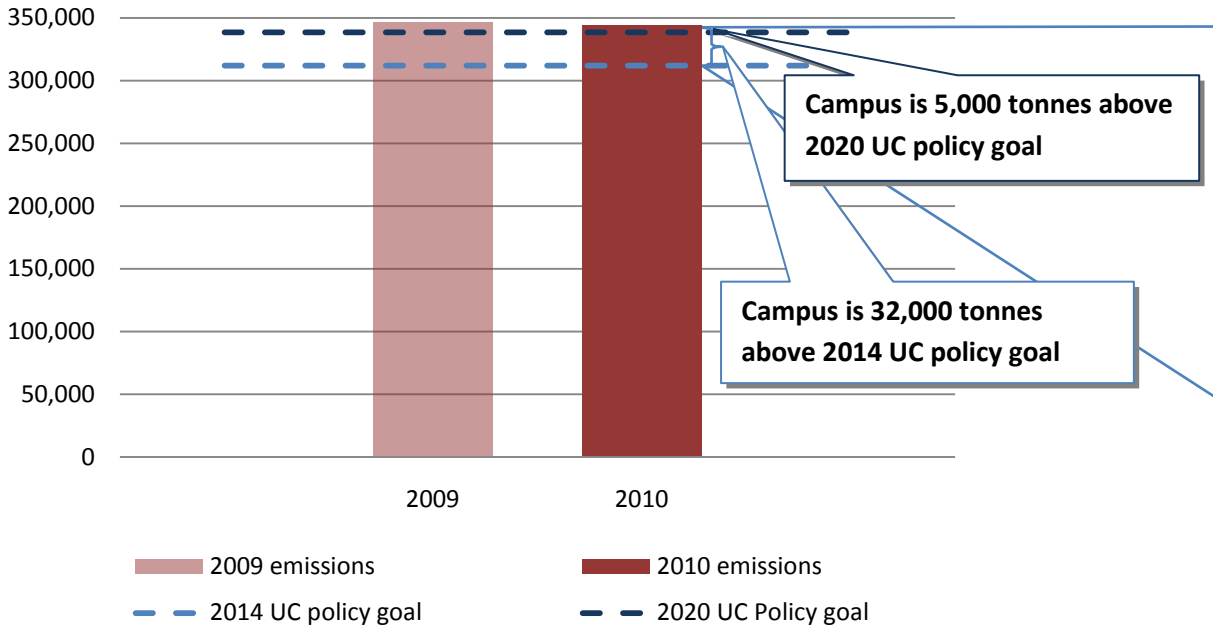


Notes:

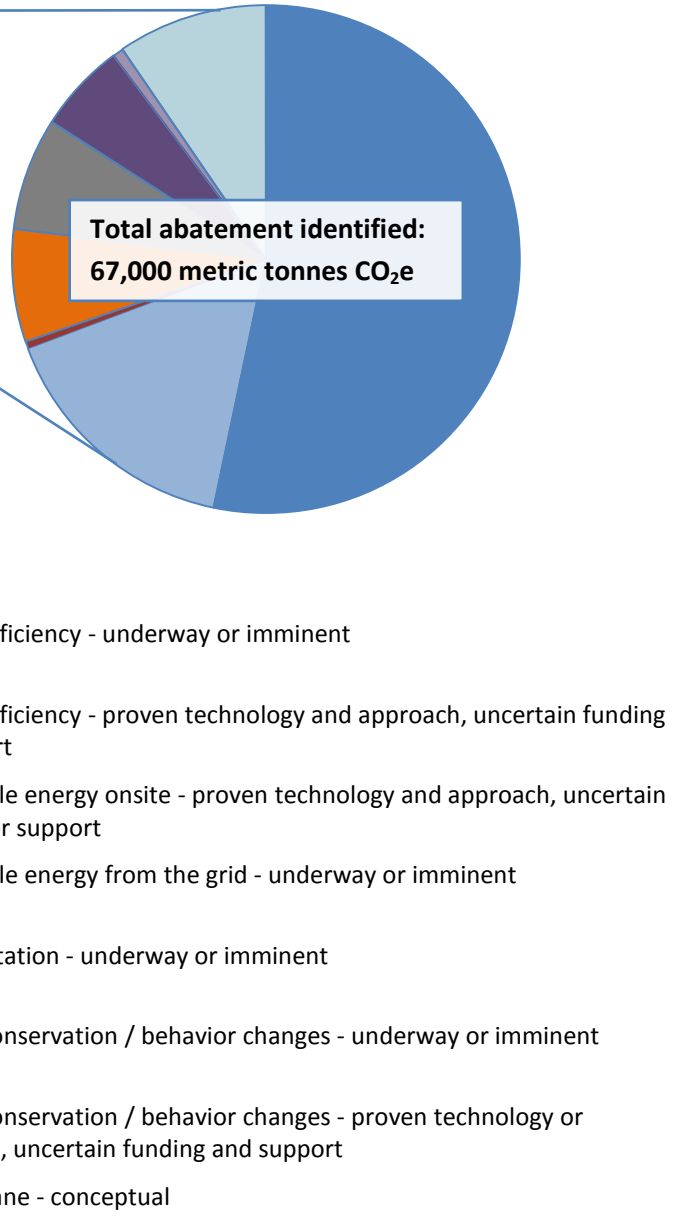
- Third-party verification of the 2010 scope 1 & scope 2 emissions inventory is underway.

Attachment II, Progress Toward 2014 UC Climate Goals

UC Los Angeles's 2009 & 2010 Emissions Levels in Relation to 2014 & 2020 UC Policy Goals



How UC Los Angeles Plans to Achieve 2014 and 2020 UC Policy Goals

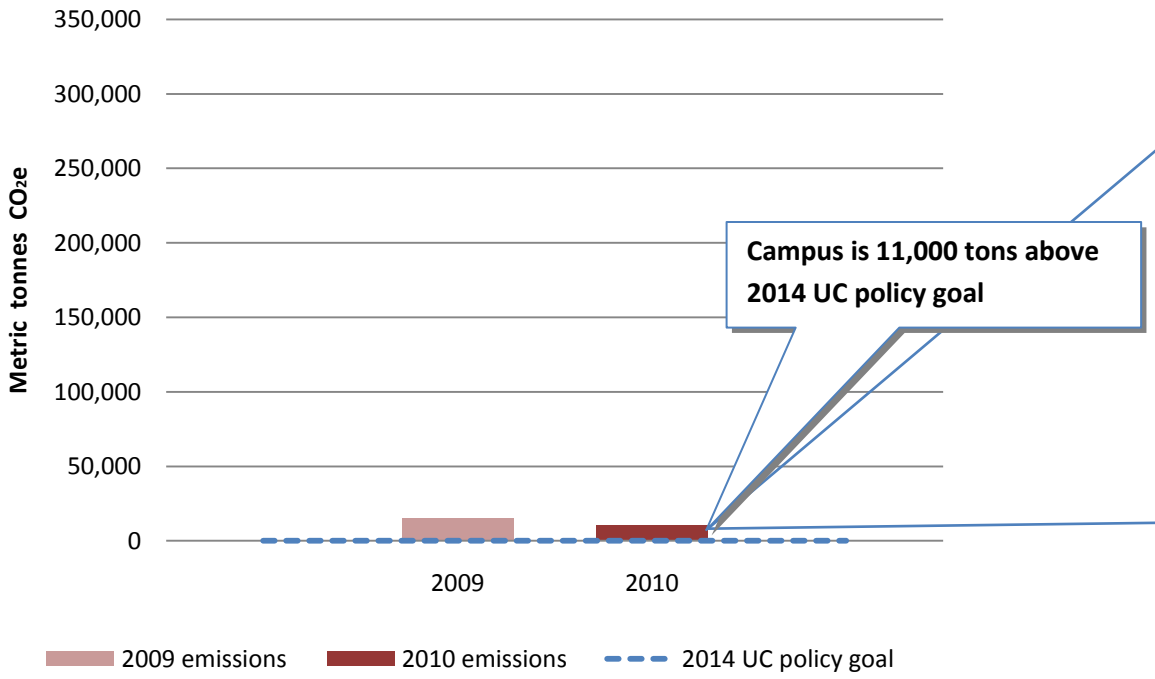


Notes:

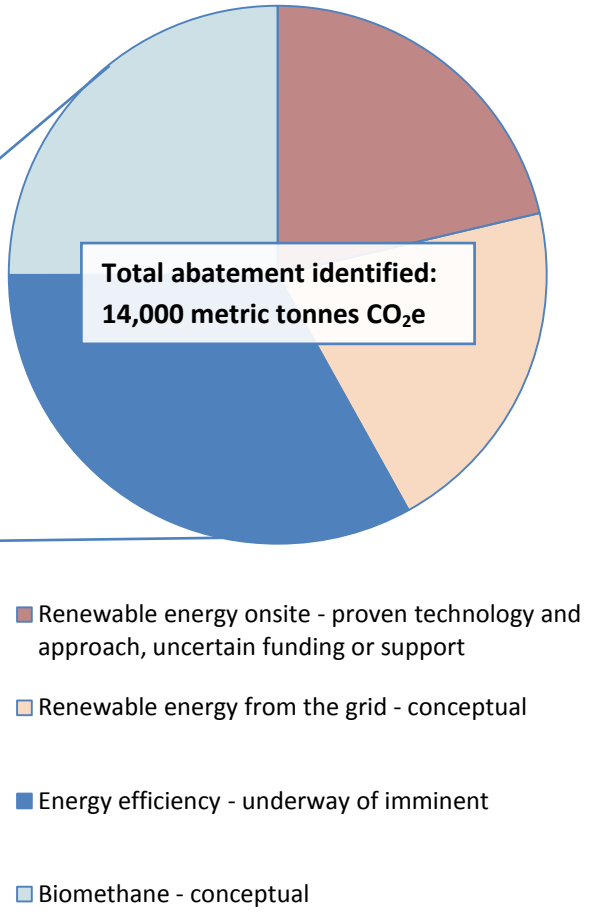
- UCLA is much closer to meeting the 2020 UC policy goal of reducing emissions to 1990 levels than it is to meeting the 2014 policy goal of reducing emissions to 2000 levels. This is because UCLA brought a highly efficient cogeneration plant online in 1994. While the new plant drastically reduced emissions, these reductions were offset by campus growth since 1994. As a result, UCLA is the only campus in the system with 1990 emissions levels that are higher than year 2000 emissions levels.
- Third-party verification of the 2010 scope 1 & scope 2 emissions inventory is underway.
- At the time of this report, UCLA had not completed an inventory of scope 3 emissions from calendar year 2010. Therefore, scope 3 data from calendar year 2009 was used for the 2010 inventory.

Attachment II, Progress Toward 2014 UC Climate Goals

UC Merced's 2009 & 2010 Emissions Levels in Relation to 2014 UC Policy Goal



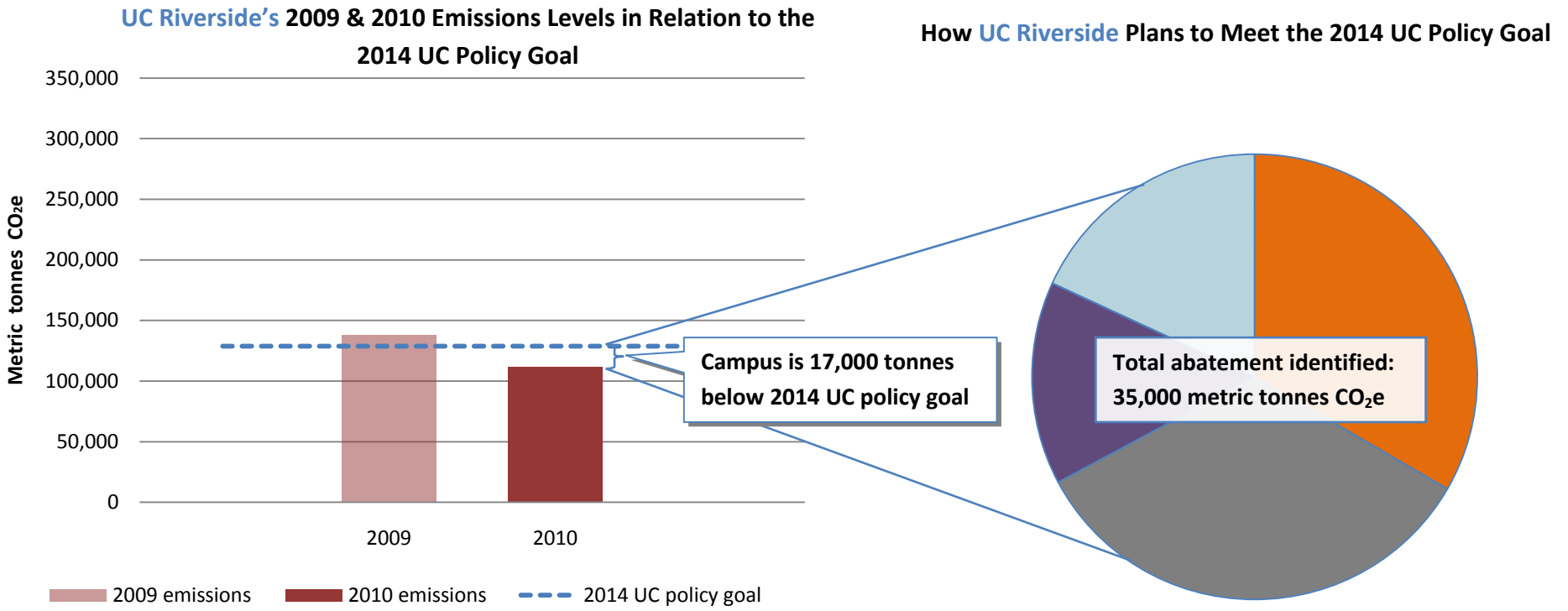
How UC Merced Plans to Achieve 2014 UC Policy Goal



Notes:

- UC Merced has committed to eliminating or offsetting its scope 1 & 2 emissions by 2020. In the chart above, UC Merced's 2009 and 2010 emissions are shown with reference to its forecasted 2020 scope 3 emissions.
- Third-party verification of the 2010 scope 1 & scope 2 emissions inventory is underway.
- Scope 3 data from 2009 was used for the 2010 inventory.

Attachment II, Progress Toward 2014 UC Climate Goals

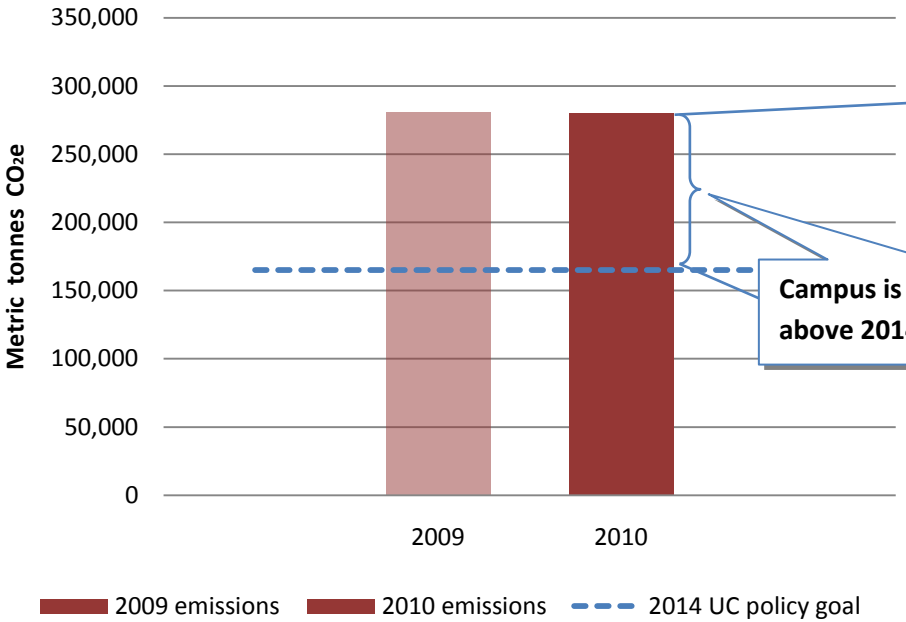


Notes:

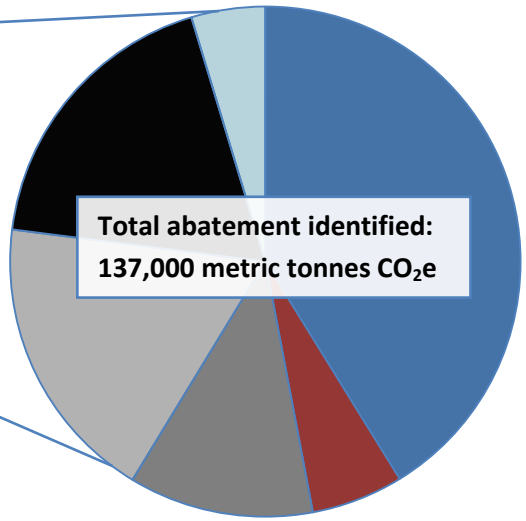
- The reduction in campus emissions from 2009 to 2010 is attributable to changes in Riverside Public Utility's (RPU) generation mix.
- Third-party verification of the 2010 scope 1 & scope 2 emissions inventory is underway.

Attachment II, Progress Toward 2014 UC Climate Goals

UC San Diego's 2009 & 2010 Emissions Levels in Relation to the 2014 UC Policy Goal



How UC San Diego Plans to Meet the 2014 UC Policy Goal

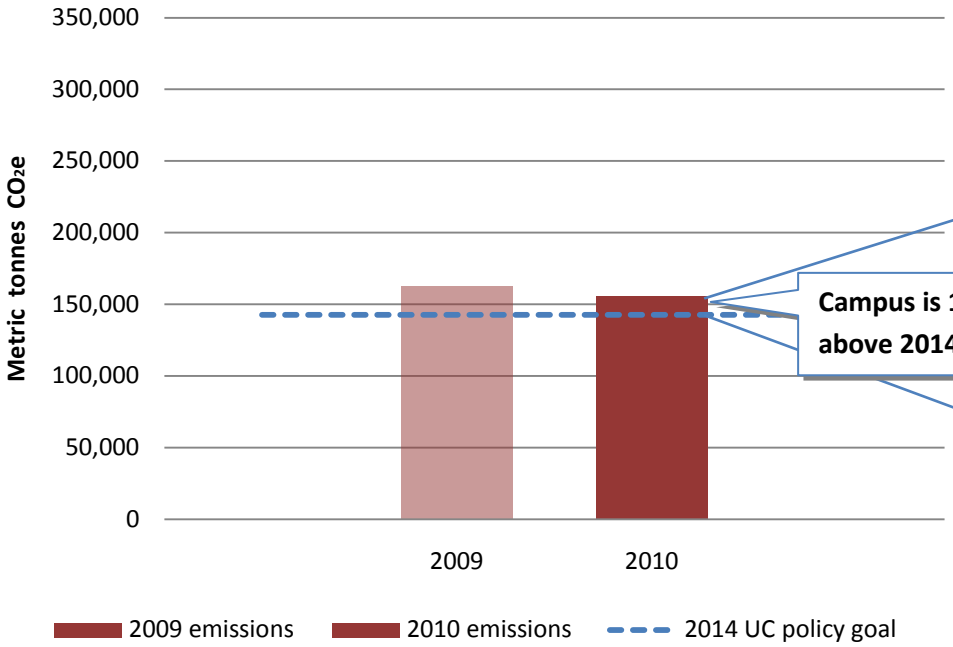


Notes:

- Third-party verification of the 2010 scope 1 & scope 2 emissions inventory is underway.
- UC San Diego has set of goal of achieving carbon neutrality by 2025

Attachment II, Progress Toward 2014 UC Climate Goals

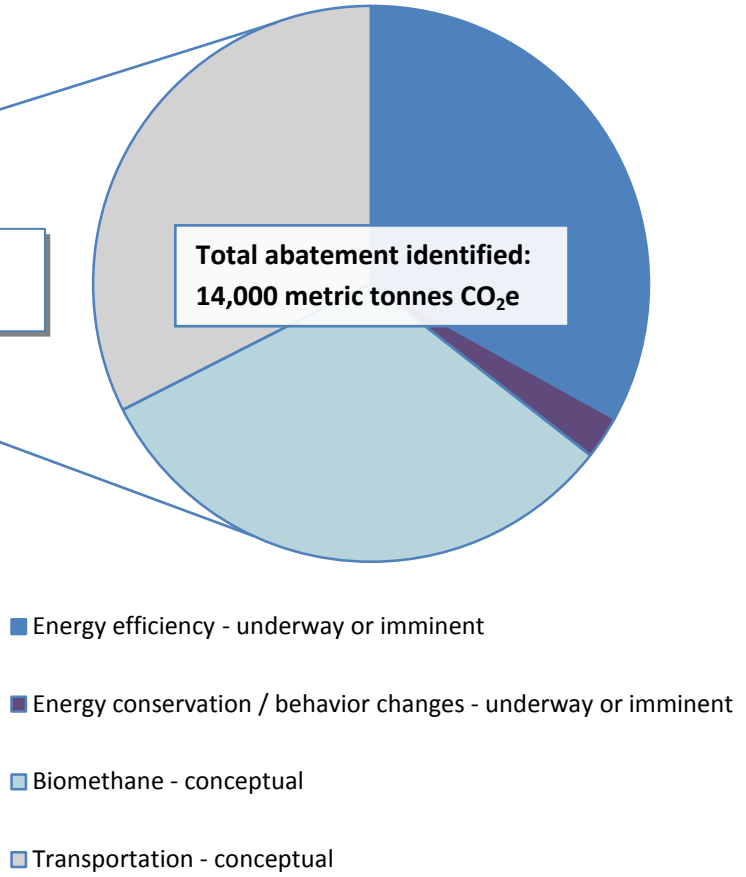
UC San Francisco's 2009 & 2010 Emissions Levels in Relation to the 2014 UC Policy Goal



Notes:

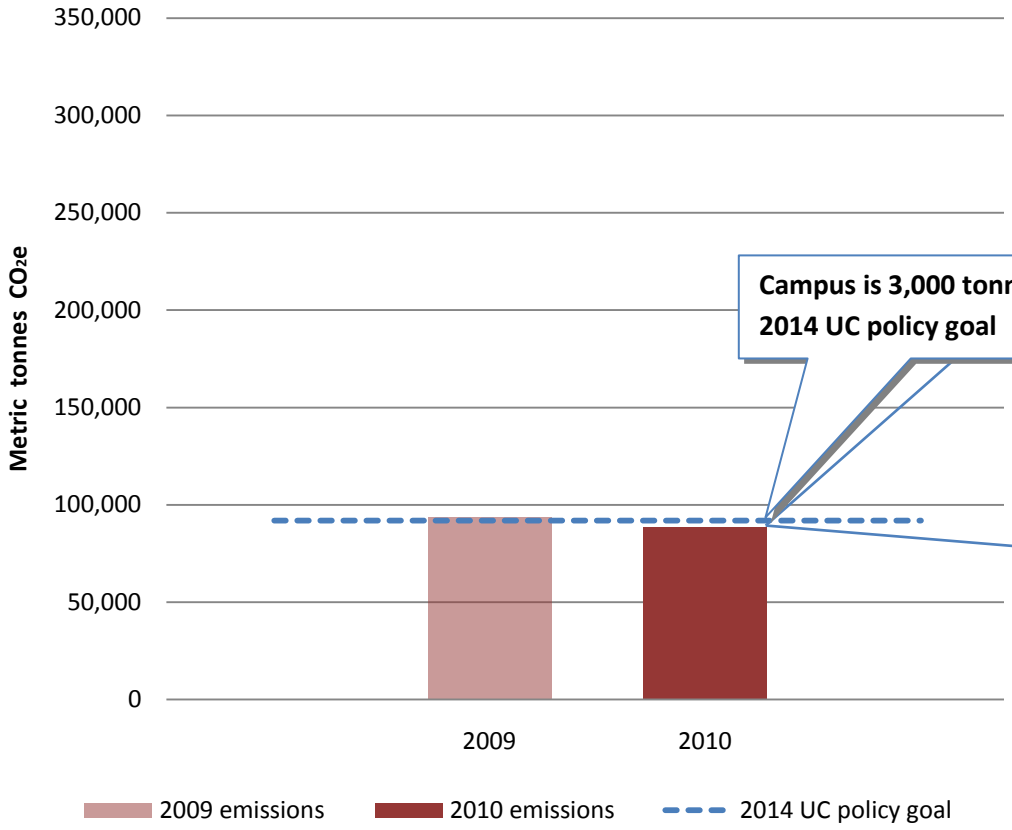
- Third-party verification of the 2009 and 2010 scope 1 & scope 2 emissions inventories is underway.

How UC San Francisco Plans to Meet the 2014 UC Policy Goal

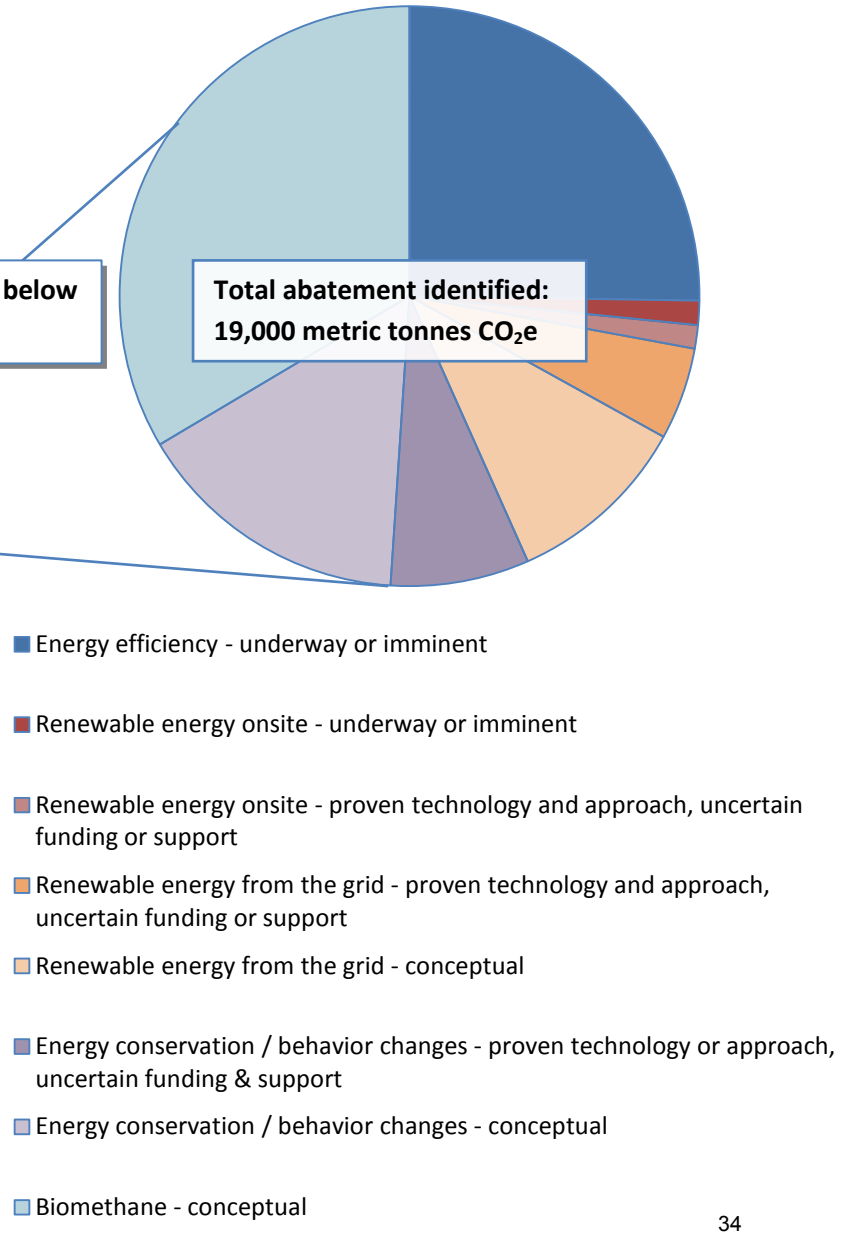


Attachment II, Progress Toward 2014 UC Climate Goals

UC Santa Barbara's 2009 & 2010 Emissions Levels in Relation to the 2014 UC Policy Goal



How UC Santa Barbara Plans to Meet the 2014 UC Policy Goal

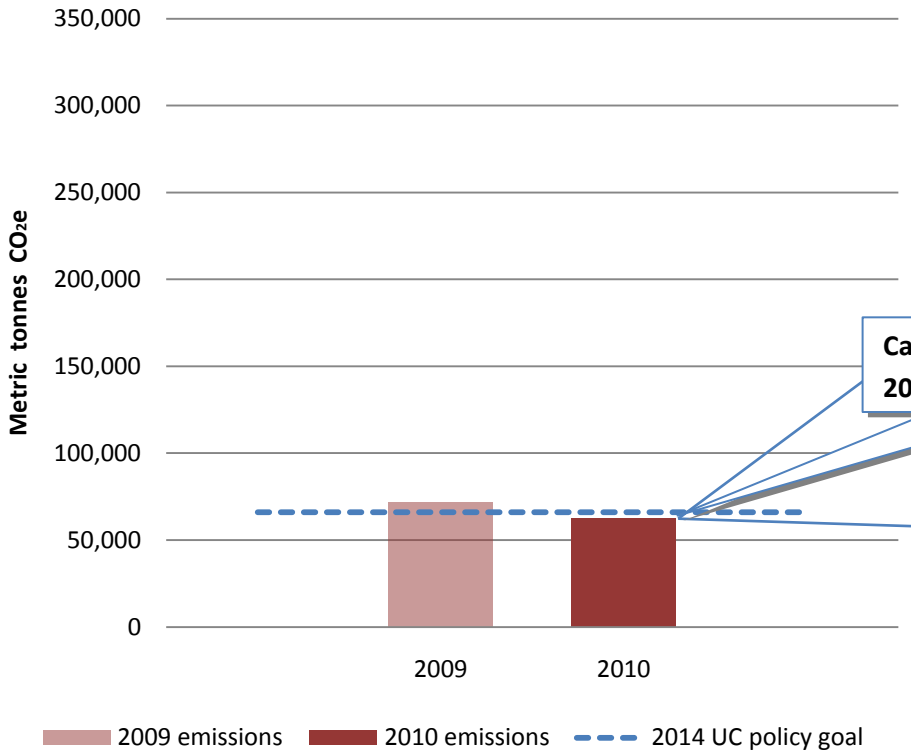


Notes:

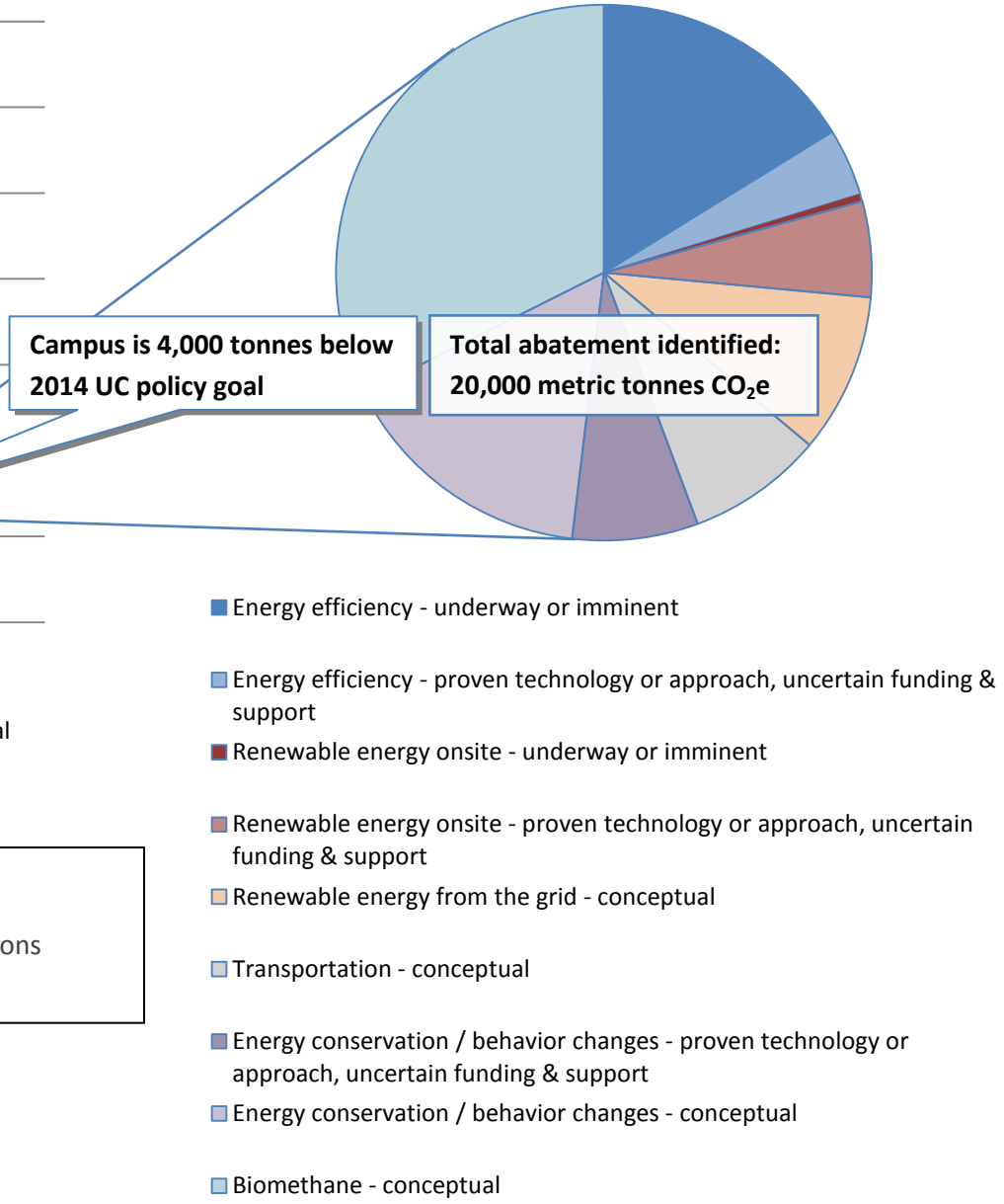
- Third-party verification of the 2010 scope 1 & scope 2 emissions inventory is complete.

Attachment II, Progress Toward 2014 UC Climate Goals

UC Santa Cruz's 2009 & 2010 Emissions Levels in Relation to the 2014 UC Policy Goal



How UC Santa Cruz Plans to Meet the 2014 UC Policy Goal



Notes:

- Third-party verification of the 2009 and 2010 scope 1 & scope 2 emissions inventories is underway.

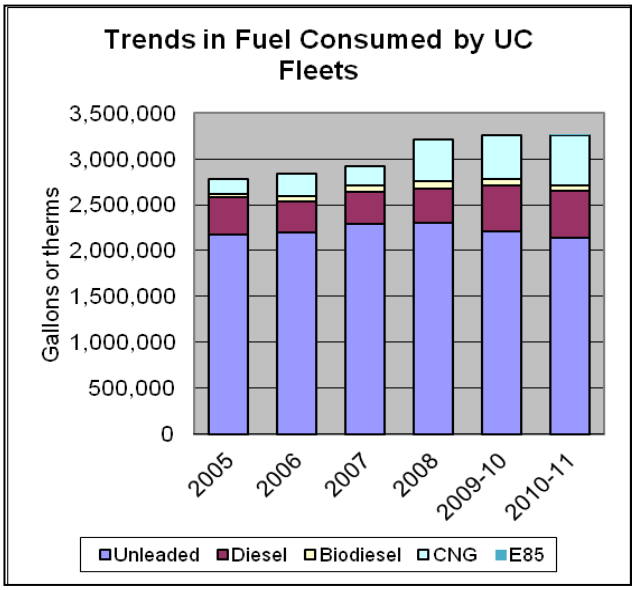
Attachment III
Fleet Fuel Consumption Data

This attachment shows the trends in fuel consumed by UC vehicular fleets over time, as well as trends in greenhouse gas emissions from those vehicles.

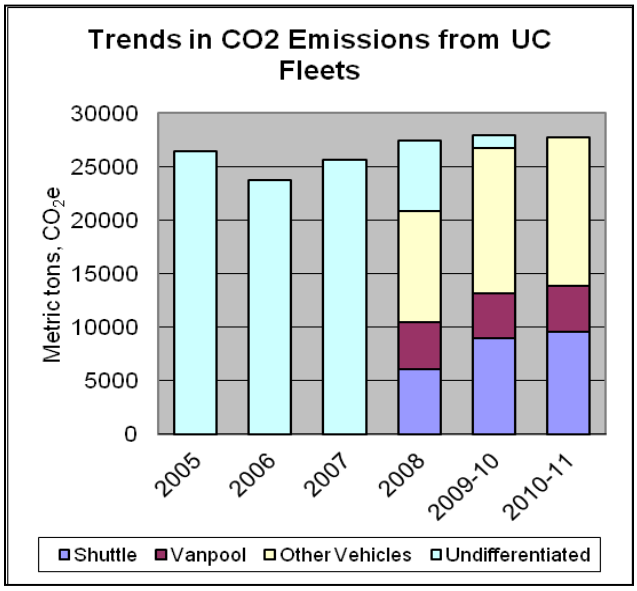
Fuel consumption figures are broken down by vehicle type to show that fleets are comprised of shuttle buses, vanpools and trucks as well as traditional passenger vehicles. Vanpools and shuttle buses reduce the amount of single occupancy vehicles, thus reducing GHG emissions from commuting.

Fleets continue to expand use of alternative fuels. Compressed Natural Gas (CNG) use is up by ten percent over last year, because of the increased number of CNG buses. Biodiesel use has decreased by nine percent because of fleets electing to switch to CNG vehicles. Unleaded gas consumption is down three percent, while diesel consumption is up three percent.

2010-11 Fuel Consumption and associated CO_2 emissions



The amount and proportion of unleaded gas has gone down over the last several years as campuses increase their use of alternative fuel vehicles.



Data is differentiated by vehicle type to show that shuttles account for an increasing proportion of greenhouse gas emissions associated with campus fleet. Shuttles typically carry more passengers than other vehicle types. Thus, although overall emissions have remained steady over the past three years, the emissions per passenger carried have likely decreased.

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2011 Awards and Rankings

Awards

UC Merced Campus Plan Wins National Award

The Society for College and University Planning has announced that the University of California, Merced has earned an Excellence in Planning for an Established Campus honor award for its Long-Range Development Plan. The plan will be used to guide the campus physical growth, development and land-use priorities. Included within the plan is a Triple Zero Commitment that aims to produce as much energy from renewable sources as is used, eliminate landfill waste and produce zero net greenhouse gas emissions by 2020.

Artist's rendering of UC Merced at full build-out

http://ucmercednews.blogspot.com/2011/04/campus-plan-wins-national-award.html

http://www.sacbee.com/2011/04/20/3567618/uc-merceds-long-range-development.html

UCLA honored for sustainability curriculum

Joining notable peer schools like Stanford Graduate School of Business, Harvard Business School and Michigan's Ross School of Business, UCLA has received the 2010 Dr. Alfred and Lynn Manos Page Prize for Sustainability Issues in Business Curricula. UCLA was recognized for its Leaders in Sustainability certificate program, a joint venture between the Institute on the Environment and the Anderson School of Management. The Page Prize encourages efforts to expose business students to state-of-the-art environmental sustainability knowledge. The 2010 Page prize was announced and presented in 2011.

http://sustain.ucla.edu/article.asp?parentid=10878

Second Nature recognizes climate leadership at UC Irvine

Solar panels on a UC Irvine roof

Second Nature recently honored several institutions with its 2nd Annual Climate Leadership Award. Award recipients, recognized during the 5th Annual American College & University Presidents' Climate Commitment (ACUPCC) Summit on June 23, include University of Maryland, College Park; University of Maine; **University of California, Irvine**; Frostburg State University (MD); Delaware State University; Green Mountain College (VT); Colgate University (NY); Mount Wachusett Community College (MA); Montgomery County Community College (NC); and Bunker Hill Community College (MA).

UCI news release:

http://today.uci.edu/news/2011/06/nr_acupcc_110623.php

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UC Davis has fourth greenest vehicle fleet according to 100 Best Fleets Program

UC Davis has been named the #4 Green Government Fleet in North America by the 100 Best Fleets Program, a fleet industry program that recognizes high performing fleet operations in North America. The 100 Best Fleets award, now in its seventh year, identifies and encourages continuous improvement in the use of green technology in the fleet industry. The campus's #4 ranking is up from #11 last year. According to Richard Battersby, director of Fleet Services, "This recognition is acknowledgement of a true team effort, since the evaluation criteria include categories expertly handled on campus by our Fleet Services staff as well as our colleagues in [Transportation and Parking Services] and Unitrans."
http://www.the100bestfleets.com/gf_winners_2010.htm
http://www.the100bestfleets.com/gf_about.htm

UCD, UCLA, and UCSD Fleet and Transit Directors named Sustainability All-Stars

Richard Battersby of UC Davis, Sherry Lewis of UCLA, and Jim Ruby of UC San Diego were selected as Sustainability All-Stars by *Green Fleet* magazine. They are among the 50 individuals nationwide to earn this distinction, given to individuals who have made significant contributions to environmental sustainability in the fleet industry. The three UC leaders are featured, along with all the newly named Sustainability All-Stars, in the September/October issue of *Green Fleet* magazine and were honored at the 2011 Green Fleet Conference in Grapevine, Texas on October 3-4.
http://www.greenfleetmagazine.com/article/50622/40-sustainability-sluggers-first-ever-all-star-awards/p/4

UCLA, UCI win awards for alternative commuting programs

UCLA Transportation wins the top Corporate Blue Diamond Award for pioneering development and robust management of wide array of commuting options for a daily campus population of 65,000. When all efforts to mitigate traffic are considered, UCLA generates less vehicle traffic today than it did in 1990, despite a 30 percent growth in the campus population. Awards for Orange County top efforts in commuting and parking management on behalf of their employees and the community went to "ETC of the Year" Michael Davis of U.C. Irvine.
http://today.ucla.edu/portal/ut/staff-applause-transportation-204302.aspx
http://www.metro.net/news/simple_pr/a-sweet-ride-annual-Diamond-Awards-showcase-commut/

Shuttle buses at UC Los Angeles

UCSC Health Center receives sustainable design award from Structural Engineers Association

UC Santa Cruz continues to earn recognition and honors for the newly completed "green" renovation of the Cowell Student Health Center. Previously, the building earned the campus its first "Gold" certification from LEED, a non-profit trade organization that promotes sustainability in the design, construction and daily operation of buildings. That recognition was the end result of a four-year, $17 million project to expand and

seismically retrofit the 42-year-old health center, while making the building more energy efficient and environmentally friendly. Now, the Structural Engineers Association of Northern California has selected the health center for a merit award in the category of sustainable design. The jury of five members included two structural engineers, a structural engineering professor, a general contractor and an architect. They evaluated 27 entries in eight categories.
http://news.ucsc.edu/2011/04/more-honors-for-health-center.html

UC San Francisco and UCLA Medical Centers win awards from Practice Greenhealth

Recognizing sustainability leadership in the challenging healthcare setting, the organization Practice Greenhealth honored the San Francisco Medical Center with a Partner for Change with Distinction award and the Los Angeles Medical Center with a Partner for Change award. The awards recognize health care facilities that have established environmental programs and continuously improve and expand upon these programs on the path to sustainability.
http://practicegreenhealth.org/awards/award-winners

UC Davis, UC Irvine, and UC San Francisco win 2011 National Design-Build Awards for campus projects

UC Davis Graduate School of Management's Gallagher Hall

The UC Davis Graduate School of Management's (GSM) Maurice J. Gallagher Jr. Hall includes a three-story office/classroom structure and a related, two-story Conference Center providing a restaurant, café, office space, meeting rooms and a one-story ballroom. Enabled by a team-wide commitment to Building Information Management, the GSM – delivered on time and under budget – demonstrates that design-build can lead to exceptional levels of innovation, superior building performance, client satisfaction and award-winning design character at no cost premium.

UC Irvine's Engineering Unit 3 was the seventh campus project constructed by Hensel Phelps. The project provided 122,000 gross square feet primarily consisting of wet and dry labs for five engineering departments and a 340-seat lecture hall. The facility is used to foster a growing trend toward collaborative inquiry between faculty in the School of Information and Computer Sciences and the California Institute for Telecommunications and Information Technology.

UC San Francisco's Dolby Regenerative Medicine Building houses the Eli and Edythe Broad Center of Regeneration Medicine and Stem Cell Research at UCSF. Nestled in the sloping hillside of UCSF's Parnassus campus, the $123-million, 660-foot-long LEED-Gold facility features a serpentine design with four split-level

floors and terraced green roofs, sitting on a structural framework 40 to 70 feet off the ground.
http://www.dbia.org/about/awards/national/2011projects.htm

US EPA's National Partnership for Environmental Priorities recognizes UC Davis, UC Irvine, UCLA, and UC San Diego

- UC Davis: Second Largest Fleet in the University of California System successfully "Got the Lead Out". The UC Davis Fleet, with over 1,100 pieces of equipment, successfully eliminated a total of 243 pounds of lead by replacing lead wheel weights.
- UC Irvine**:** The fleet services of UCI accomplished its lead-free wheel weight partnership for the complete fleet, eliminating 300 pounds of lead. With the support of its campus sustainability program and a vendor, UCI also ran a rebate program to encourage all university personnel, students and employees to have steel wheel weights installed on their automobiles.
- University of California-Los Angeles: UCLA removed over 28 pounds of mercury from 3,000 wet labs. The hazmat team collected thermometers as well as barometers and sphygmomanometers, which all contain mercury. All new equipment on campus is now mercury-free.
- University of California San Diego: Fleet Services serves over 900 vehicles and installed zinc coated steel weights instead of lead, preventing 40 pounds of lead from getting into the environment.

The National Partnership for Environmental Priorities (NPEP) is a voluntary program that fosters collaborative efforts to reduce the use and/or release of highly toxic chemicals and share best practices:
http://www.epa.gov/epawaste/partnerships/npep/success.htm

UC San Francisco and UC Irvine win "Gold" awards in national sustainable transportation competition
Best Workplaces for Commuters, a program designed to encourage sustainable transportation innovation and managed by the University of South Florida's National Center for Transit Research, singled out UCSF and UCI, among 21 other companies, institutions and individuals nationwide, in the 2010 "*Race to Excellence*" Virtual Awards Ceremony (awards were given in January 2011). The awards recognize organizations who have taken exemplary steps to for their efforts to offer alternatives for their employees driving alone and thereby reduce air pollution, traffic congestion, and fuel usage from Jan. 1, 2010 to Oct. 15, 2010. UCSF was further recognized with a "Best Of" distinction for meeting the National Standard of Excellence in commuter benefits – a standard created by the National Center for Transit Research and the U.S. Environmental Protection Agency.
http://www.bestworkplaces.org/race-to-excellence-2/2010-race-winners/

UC Irvine wins "Best of the Best" sustainability award from the Urban Land Institute for "Organizational Leadership"
The Orange County/Inland Empire chapter of the Urban Land Institute (ULI) presented UC Irvine with the first ever "Best of the Best" sustainability award for "Organizational Leadership." The award is a program of the ULI's Sustainable Communities Initiatives Council and recognizing projects, programs and policies of exceptional value in Orange County and the Inland Empire.
http://orangecounty.uli.org/News%20Awards/~/media/DC/Orange%20County/2011%20Documents/BOB%20A

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2011 Awards and Rankings

wards%20Booklet%20for%20Web.ashx
http://orangecounty.uli.org/News%20Awards/Best%20of%20the%20Best%20Awards.aspx

UC Irvine's Zot Wheels bike sharing program

UC Irvine bike-sharing program wins award from the American Society of Public Administration

UC Irvine won the 2011 President's Award from the American Society for Public Administration for its "Zot Wheels" program. Zot Wheels is a bike-sharing service that provides dozens of bikes for use by UC Irvine faculty, students, and staff. Bikes are available at stations throughout campus and can be checked out for up to three hours.
For more on Zot Wheels, see:
http://www.parking.uci.edu/zotwheels/main.cfm

UC Irvine Transportation Coordinator wins Rideshare Diamond Award for Individual Achievement
UC Irvine Transportation Coordinator Mike Davis received a 2011 individual achievement Diamond Award for his contribution to UCI's sustainable transportation efforts. The Diamond Awards honor companies, organizations, and individuals for their outstanding contributions to relieving traffic congestion, reducing greenhouse gas emissions, and improving mobility in the southland region. Diamond Award-winning organizations promote alternatives to driving alone, including vanpooling, carpooling, use of public transit, teleworking, flexible scheduling, walking, biking, or a combination of these.
http://www.parking.uci.edu/parking/pop.cfm

UC Davis, UC Santa Barbara, UC Irvine, UCLA, and UC Berkeley among the most bike friendly campuses in the country
The League of American Bicyclists has announced the institutions to receive its Bicycle Friendly University designation. The program recognizes colleges and universities that create environments where bicycling can thrive and provides a roadmap and technical assistance to create great campuses for bicycling. Both Gold designations went to UC campuses - UC Davis and University of California, Santa Barbara. One of the nine Silver designations went to UC Irvine, UCLA earned recognition at the Bronze level, and UC Berkeley received an honorable mention.

Bicycles at UC Santa Barbara

http://www.bikeleague.org/programs/bicyclefriendlyamerica/bicyclefriendlyuniversity/pdfs/bfu_masterlist_october2011.pdf
http://www.bikeleague.org/programs/bicyclefriendlyamerica/bicyclefriendlyuniversity/index.php
http://www.ia.ucsb.edu/pa/display.aspx?pkey=2444

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Rankings and Ratings

UCLA achieves STARS Silver rating

UCLA earned a Silver rating in the Association for the Advancement of Sustainability in Higher Education's (AASHE) Sustainability Tracking Assessment and Rating System (STARS).
https://stars.aashe.org/institutions/university-of-california-los-angeles-ca/report/2011-08-02/

UCSD achieves STARS Gold rating

UC San Diego has been named the first college or university in California and one of only 10 campuses in the United States and Canada to earn a gold sustainability-performance rating. "This gold rating attests to the collaborative efforts made by our students, staff, faculty, and community members to pioneer sustainable solutions," said UC San Diego Chancellor Marye Anne Fox. "In the six years since I declared sustainability a top educational priority and goal of all campus operations, UC San Diego has been transformed into a living laboratory of sustainability solutions. From economics to mechanical engineering, academic departments have incorporated sustainability concepts into majors, minors, internships, classes and a wide range of research experiences."
http://ucsdnews.ucsd.edu/newsrel/general/05-20-11GoldStars.asp

Sierra magazine ranks four UC campuses among the Top 10 Greenest Colleges in America

Four UC campuses are among Sierra magazine's Top 10 Greenest Colleges in America for 2011, highlighting the University of California's commitment to sustainability. UC San Diego was third, UC Irvine sixth, UC Santa Cruz seventh and UC Davis eighth on Sierra Magazine's fifth annual rankings. Also making the list were UCLA at No. 15 and UC Santa Barbara at No. 72. UC San Diego jumped to third from 15th in last year's rankings by Sierra magazine, the flagship publication of the Sierra Club, one of the nation's most influential environmental organizations.

http://ucsdnews.ucsd.edu/newsrel/general/2011_08ucranks.asp
http://news.ucsc.edu/2011/08/sierra-club-cool-schools-UCSC-recognition.html
http://www.sierraclub.org/sierra/201109/coolschools/
http://www.businessweek.com/bschools/blogs/mba_admissions/archives/2011/08/the_sierra_club_ranks_coolest_schools.html

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UCSC makes Princeton Review's honor roll of 16 greenest colleges in the country

UC Santa Cruz is piling up so many high-profile sustainability rankings and honors that its easy to lose track of them all. But UCSCs latest recognition, in the Princeton Reviews newly published green colleges guidebook, is more than just another honor. Its also a history of successful green-energy projects on campus. The Princeton Review has given the campus a prominent, detailed and highly complimentary entry in *The Princeton Review's Guide to 311 Green Colleges: 2011 Edition*, which profiles 308 eco-friendly colleges and universities in the United States and three in Canada.

http://news.ucsc.edu/2011/04/princeton-review-green-campuses.html
http://www.princetonreview.com/green-honor-roll.aspx

University of Indonesia names UC Berkeley as the world's greenest university

The University of Indonesia has named UC Berkeley the world's "greenest" university. In its index released last month, the Jakarta school ranked Berkeley's environmental policies and other factors just ahead of the University of Nottingham in the United Kingdom. Northeastern University in Boston was third on the list. "It's really nice to be recognized, especially by your peers," said Lisa McNeilly, UC Berkeley's sustainability director. The Indonesian list is one of many that measure universities' commitment to environmentalism and renewable energy. In a news release, the Jakarta school did not specifically say what had elevated Berkeley over other institutions, but said its researchers measured energy efforts, transportation and water use, among other factors. UC Berkeley is trying to reduce its greenhouse-gas emissions to 1990 levels by 2014, McNeilly said. Students interested in choosing a "green" college should look at a variety of rankings, she said. "Sustainability can be so many things," she said. "When you put (the lists) all together, I think you see a complete picture of where an institution stands."

http://www.berkeleyside.com/2011/01/24/uc-berkeley-is-ranked-the-worlds-greenest-university/

College guide places UC Davis in the top ten for environmental studies undergraduate program

In the 2011 edition of the *Fiske Guide to Colleges*, UC Davis was listed as one of the top 10 environmental studies undergraduate degree programs**.** This listing was noted by the Daily Green blog and Mother Nature News.UC Davis was described as a "research-driven campus ... renowned for its innovations in the environmental, agricultural and biological sciences" as well as sustainable transportation and alternative energy.

http://www.thedailygreen.com/living-green/blogs/recycling-design-technology/best-environmental-studies-colleges-460710?click=main_sr
http://www.mnn.com/money/green-workplace/blogs/top-10-environmental-studies-programs