

Office of the President

TO MEMBERS TO THE COMMITTEE ON GROUNDS AND BUILDINGS:

INFORMATION ITEM

For the Meeting of January 18, 2011

ANNUAL REPORT ON SUSTAINABILITY PRACTICES

EXECUTIVE SUMMARY

This is the seventh annual report on progress in implementing the Policy on Sustainable Practices (“Policy”), as required by the Regents’ July 2003 action. The University continues to be recognized as a national leader in using its campuses as models of sustainable business practices. This report highlights the main achievements from 2010 in each area of the Policy and in some cross-cutting areas, while also identifying several challenges that need to be addressed in the coming year.

Highlights and achievements from 2010 include:

Climate Action - Green Buildings, Clean Energy, and Sustainable Transportation

- The University now has 49 LEED^{TM1} certifications (total of new construction, renovation, and existing building certifications), the most of any university in the country.
- More than \$38 million in energy efficiency grant funding has been received since 2004, with approximately \$8.2 million received in 2010.
- Annual cost savings from energy efficiency projects implemented to date are above \$21 million.
- The Regents approved an additional \$15 million in program funding for energy efficiency projects at the Davis and San Francisco campuses, adding to the \$178 million which the Regents had previously approved for 2009-2011. Utility companies are matching this funding with approximately \$61 million. This investment will result in projected net savings of \$17 million per year during the 15-year loan repayment period, and \$35 million annually thereafter.

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. The four levels of LEED certification, from lowest to highest, are Certified, Silver, Gold, and Platinum.

- All campuses are making progress in implementing climate action plans.
- To reduce diesel emissions, the San Diego campus installed diesel particulate filters on 27 vehicles, reducing particulate emissions by 86 percent.
- UC Santa Barbara has now earned LEED for Existing Buildings certification on five buildings, with plans to certify 21 more in the next 18 months.
- UC campuses are national models for engaging students in greening campus operations. A national publication, *Hands-On LEED: Guiding College Student Engagement*, featured the San Diego campus as the model for student internships and the Berkeley campus is profiled as the model for coordinating student volunteers to make building operations more sustainable.

Waste Reduction, Sustainable Purchasing, and Sustainable Foodservices

- All ten campuses have met the goal of diverting at least 50 percent of municipal waste from being sent to landfills, and five campuses have already achieved a 70 percent diversion rate. However, given that a large proportion of waste diversion is derived from construction and demolition waste, which is highly variable on a year-to-year basis, it will still be a challenge to achieve the next target of 75 percent diversion in 2012.
- The Davis campus took first place in the national Environmental Protection Agency Game Day Challenge, diverting 90 percent of waste at their football game on the day of the challenge in October. (Ohio State was a distant second at 68 percent.) Everything sold in the Davis stadium can be recycled or composted.
- More than 23 percent of the University's purchases administered through systemwide contracts met one or more environmentally-preferable purchasing standards.
- All Medical Centers completed feasibility studies on sustainable foodservice practices and have committed to meeting the same policy requirements as campus dining services.

Best Practice Sharing and External Recognition

- The University received multiple research grants to use the campus as a living laboratory for sustainability.
- The University partnered with the California State University (CSU) and the California Community Colleges (CCC) to hold the 9th Annual UC/CSU/CCC Sustainability Conference, which sold out with more than 1000 participants.
- The University received 14 national and state awards. (See Attachment 6.)

- The University continues to be recognized in the top tiers nationally in the growing number of campus sustainability rankings.
- The University received media acclaim in local and regional newspapers, national publications such as *The Chronicle of Higher Education*, and in multiple television and radio news broadcasts.

Future Steps

- The University will explore possible policy guidelines for water conservation and stormwater management for potential inclusion in the *UC Policy on Sustainable Practices*.
- The University will work with the California Air Resources Board on a fair plan to meet regulatory requirements and maximize the University's emissions reductions while minimizing the cost impact.
- The University will begin to utilize the LEED Application Guide for Multiple Buildings on Campuses (AGMBC), which will allow LEED credits to be certified on a campus-wide basis, reducing the time and expense of achieving LEED certification. The AGMBC was issued in October 2010 by the U.S. Green Building Council (USGBC) after extensive input and piloting by several UC campuses.
- The University will continue its expanded energy efficiency partnership with participating utility companies. The goal of this unique program is to achieve \$36 million in cost savings (before debt service), resulting from an 11 percent reduction in electricity consumption and an 8 percent reduction in natural gas consumption.
- The University will evaluate the requirements of the new state green building code, CALGreen, which went into effect January 1, 2011, and will compare its criteria to the requirements of LEED standards.
- A structure will be established to facilitate the sharing of sustainability best practices across the five Medical Centers.
- The University will develop systemwide communications and marketing initiatives to highlight the University's sustainability efforts.

BACKGROUND

Pursuant to the Regents' action of July 2003, the President formally issued the "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 "UC Policy on Sustainable Practices" (Policy). The current version of the Policy can be accessed at

http://www.universityofcalifornia.edu/sustainability/documents/policy_sustain_prac.pdf.

As required by the Regents, this seventh Annual Report monitors compliance with the Policy during the 2010 calendar year. The highlights are organized into the eight sections of the Policy Guidelines, followed by three cross-cutting topics: faculty, staff and student collaboration; training; and external recognition. The eight Policy sections are preceded by shaded text boxes that state the primary policy requirements in that section.

2010 Highlights and Accomplishments

I. Green Building Design

Policy Goals

- Design and build all new buildings (except acute care facilities) to a minimum LEED for New Construction "Silver" certification.
- Design and build all renovation projects with a cost of \$5 million or greater to a minimum standard equivalent to a 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.

I. a. Project Status Summary

The University has completed 49 LEED certified projects, the most of any university in the country.² A substantially larger number of projects have established LEED targets (at the time of project approval) and are in design or under construction. LEED certification occurs only after projects are completed. Since the passage of the Policy in 2004, as shown in Attachment 1, 134 new construction and 41 renovation projects have committed to comply with the Policy. In 2010, all major capital new construction projects and significant renovation projects that received budget approval will comply with Policy guidelines.

² This is the sum total of new construction, renovation, and existing building certifications. This section will discuss the new construction and renovation certifications, while the existing building certifications will be covered in *V. Sustainable Operations*.

As summarized in the following table, the University received eight LEED for New Construction (LEED-NC) certifications and six LEED for Commercial Interiors (LEED-CI) certifications in 2010.

LEED-NC Projects	Certification Level	LEED-CI Projects	Certification Level
1. UC Irvine Medical Center: Clinical Lab Research Building	Gold	1. UC Berkeley: Morgan Hall Library Renovation	Gold
2. UC Irvine: Puerta Del Sol		2. UC Berkeley: Clark Kerr Campus Renovation	
3. UC Irvine: Camino Del Sol		3. UC San Diego: Sustainability Resource Center	
4. UC Santa Barbara: Engineering II Addition		4. UC San Francisco: HSE 15 S/D Craniofacial & Mesenchymal Biology Program Laboratory	
5. UCLA: Campus Police Station	Silver	5. UC San Diego: Goody's Place and Market	Silver
6. UC Santa Barbara: Education & Social Sciences Building		6. UC Santa Cruz: Cowell College Dining Hall	Certified
7. UC Santa Cruz: Porter College Phase I			
8. UC Berkeley: University Village	Certified		

I. b. USGBC Campus Portfolio Pilot Program

After years of advocacy from the University, and successful pilots on the Merced, Irvine, and Santa Barbara campuses, the USGBC published the “Application Guide to Multiple Buildings and On-Campus Building Projects,” in October 2010. The Guide will allow campuses to certify some LEED credits on a campus-wide basis. This will streamline the certification process for campuses certifying multiple buildings through LEED, saving both time and money.

I. c. Energy Efficient Design

All projects implemented under the Policy 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 for new construction and major renovation projects. Financial incentives can be used to offset increased costs associated with constructing more energy efficient buildings. To date, more than 180 University projects totaling 23 million gross square

feet have been registered with these programs. By the time these projects are completed, the University will have received more than \$8 million in incentive payments from the utility companies, and is projected to avoid approximately \$7 million per year in energy costs.

I. d. Business Case Analysis of LEED Certification Costs and Benefits

The University tracks green building best practices in order to determine ways to ensure compliance with its policy objectives while minimizing the costs associated with green building verification and quality control. A recent business case analysis assessed four alternative paths for ensuring green building compliance on new construction projects: the current University practice of LEED certification; utilizing campus-wide credit certification through LEED (as referenced in *I.b.* above and currently utilized by the Merced and Irvine campuses); pursuing the voluntary green building levels in the new state building code, CALGreen Tiers I and II; and self-certification.

The cost study determined that cost savings from self-certification would be minimal compared to LEED certification, even more so when compared to LEED certification that utilizes campus-wide credits. Using in-house staff to complete the LEED certification documentation could provide as much or more cost savings as the self-certification alternative, while maintaining the desired credibility of third-party certification. The primary advantage of self-certification compared to the current practice of outsourcing LEED documentation is a potential cost savings on the order of magnitude of about 0.1 percent of project costs in the scenario with less rigorous documentation and 0.07 of project costs with more rigorous documentation. The savings would only be on the order of magnitude of about 0.03 percent of project costs when compared to LEED certification once campus-wide credits are utilized.

Policy Goals

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

II. Clean Energy Standards

II. a. Energy Efficiency in Existing Buildings

The largest contributor to the University's aggressive efforts to reduce greenhouse gas emissions is the unique statewide Energy Efficiency Partnership program (the Partnership) started in 2004 in collaboration with the California State University system and the state's four investor-owned utilities. From 2004-2008, the University received more than \$20 million in funding from the utilities, which enabled energy efficiency investments that annually save the university \$12 million in utility costs. While that funding and those savings are impressive, in order to meet the University's climate action goals the University accelerated the program in the past two years.

In 2009, the Regents had authorized financing to continue the Partnership program through 2011 by approving a \$247 million program budget. This budget includes three components: external financing (\$178 million); incentive payments from participating utility companies (\$61 million); and campus contributions (\$8 million). This program is expected to net the University approximately \$17 million in additional cost savings per year for the first fifteen years (beyond the \$12 million in annual savings already achieved by 2008); after debt repayment, the projects completed from 2009-2011 will achieve savings of over \$35 million per year based on 2008 energy rates. The Regents authorized an augmentation of \$15 million to the program budget at the September 2010 meeting, in order to accommodate additional projects at the Davis campus and the UC San Francisco Medical Center. At the same time, the Regents authorized the program to continue one additional year, through December 2012. This increased the external financing to \$193 million and the total program budget to \$262 million. Thus far, the campuses have applied for \$87 million of the \$193 million in Regentally-authorized bond funding.

From January 2009 through September 2010, the current program has delivered savings of (or will deliver based on projects under construction) 94.4 million kilowatt-hours and 7.6 million therms – equivalent to 50 percent and 70 percent of program goals, respectively. These energy savings result in 71,600 metric tons of annual greenhouse gas reduction. The savings also translate to \$15.6 million in gross cost avoidance per year. After debt service, net campus cost avoidance equates to \$9.5 million annually. When combined with the \$12 million in savings from projects completed between 2004 and 2008, the University is now saving more than \$21 million annually compared to what it would otherwise be paying in utility costs.

II. b. Demonstrating New Energy Efficiency Technologies

In order to demonstrate new energy efficient technology at dozens of campus sites system-wide, the University's California Institute for Energy and Environment partners with the California Energy Commission's Public Interest Energy Research program. Campuses have expanded their energy efficiency project portfolios with additional measures based on these technologies, installing the most successful measures in multiple buildings and increasing the impact of the Partnership. In 2010, new technology highlights included multiple air-conditioning and lighting technology projects at the Davis campus, initial planning for a zero-net energy retrofit of the UC Santa Barbara Recreation Center in collaboration with Southern California Edison, parking lot lighting projects at the San Francisco campus, and a building energy performance visualization project at the Merced campus in collaboration with the U.S. Department of Energy.

II. c. Energy Conservation

Complementing this work to improve the efficiency of all University buildings are energy conservation efforts to engage building occupants to use less energy. One of the best examples is the "Green Campus Program," an energy conservation student internship program now operating on eight of ten UC campuses. Managed by the non-profit Alliance to Save Energy, in 2010 the Green Campus Program added chapters on the San Francisco and Los Angeles campuses to long-standing chapters on the Berkeley, Santa Cruz, San Diego, Irvine, Santa Barbara, and Merced campuses. Green Campus student interns partner with campus faculty and staff to

educate the campus community through programs such as laboratory fume-hood sash management campaigns, office energy audits, light bulb exchanges, project-based courses, and green demonstration rooms in campus residence halls. A video about the Green Campus program is available at <http://ase.org/efficiencynews/saving-energy-one-campus-time>.

The results in 2010 include spring semester energy conservation “Blackout Battles” in UC Berkeley residence halls, which saved approximately 130,000 kilowatt-hours. New interns on the San Francisco campus formally presented their complete analysis and recommendations to campus stakeholders from energy audits of 48 campus-owned and managed housing units. Based on their findings, interns identified potential annual savings of 10,808 kWh, 26,377 therms, and 87,092 gallons of water.

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

In steps towards meeting its policy goal of installing ten megawatts of onsite renewable energy generation by 2014, the University through 2010 has installed 3.6 megawatts of solar photovoltaic power generation across five campuses and has plans for an additional 11.5 megawatts of renewable sources including photo-voltaics and bio-methane sourced fuel cells. Included in the plans is a new two megawatt photovoltaic array at the Merced campus that will result in the University’s first essentially net zero energy campus in 2012 by exporting excess renewable energy during the day and banking that energy for night-time use. The San Diego campus recently executed a contract to obtain electricity from a bio-methane powered fuel cell. The Davis campus is completing a feasibility analysis to use digester-gas for either a fuel cell, campus gas supply, or transportation fuel, and looking at a range of possible uses including either the campus or West Village.

The University’s current and planned solar installations and use of bio-methane in fuel cells or central plants is summarized below (systems greater than 50 kW):

Campus	Technology	Capacity (kW)	Status	Start date
UC Davis	PV	100	Installed	02/10
UC Merced	PV	1000	Installed	1/10
UC Irvine	PV	895	Installed	1/09
UC Santa Barbara	PV	155	Installed	12/08
UC San Diego	PV	1030	Installed	11/08
UC San Francisco	PV	250	Installed	1/08
UC Berkeley	PV	100	Installed	11/03
UC Santa Barbara	PV	81.5	Installed	11/02
UC Davis	PV	800	Construction	7/11
UC Irvine	PV	477	Proposed	3/11
UC Merced	PV	2000	Proposed	10/11
UC San Diego	PV	860	Proposed	11/11
UC San Francisco	PV	250	Proposed	7/12
UC Davis (West Village)	PV	4000	Proposed	1/14
	TOTAL, PV	11,998.5		

UC Los Angeles	Biogas from landfill (used in campus CHP plant)	3,500	Installed	1990s
UC San Diego	Biogas Fuel Cell	2,800	Construction	11/11
UC Davis (West Village)	Biogas Fuel Cell	300	Proposed	2/14
	Total Biogas-derived Renewables	6,600		

III. Climate Protection Practices

Policy Goals

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

III. a. Greenhouse Gas Inventories Updated

Nine campuses completed updated greenhouse gas emissions inventories in 2010 and are reporting and verifying these inventories through either the California Climate Action Registry or the Climate Registry. Campuses are also reporting their emissions data to the American College and University Presidents Climate Commitment (ACUPCC). See attachment 2, "Analysis of Campus Climate Action Plans," for more details on the University's emissions profile. UC Riverside's efforts to inventory greenhouse gas emissions were temporarily suspended while the campus filled its vacant Sustainability Coordinator position. That position was filled in November 2010, and the campus anticipates completing an updated greenhouse gas emissions inventory in 2011.

III. b. Climate Action Plan Implementation

All campuses have completed climate action plans that identify projects and strategies to achieve the emissions reduction goals established by UC Policy. These plans rely heavily on the energy efficiency projects funded by the Partnership to achieve near-term goals. For more information on campus climate action plans, refer to Attachment 2 of this report, "Analysis of Campus Climate Action Plans." UC campuses continue to be recognized for national leadership in climate action, as evidenced by the San Diego campus receiving the 1st Annual Climate Leadership Award for Institutional Excellence from the ACUPCC.

III. c. Planning for Carbon Neutrality

The Climate Solutions Steering Group³ continued to explore large-scale, systemwide opportunities to move the University toward its long-term goal of carbon neutrality. The group has identified two strategies to reduce emissions associated with electricity and natural gas usage, which account for almost 75 percent of the University's carbon footprint. The first strategy calls for the University to expand its use of direct access to implement a cost-neutral wholesale power procurement strategy. This would enable the University to purchase green power directly from third-party generators or develop its own large-scale renewable energy projects. The Climate Solutions Steering Group's findings suggest that, over time, this approach will enable the University to procure electricity that is comparable in price to utility-supplied power, but more carbon efficient. The group's second proposed strategy is for the University to procure large quantities of biogas to offset its consumption of natural gas. Biogas is methane that is generated from controlled decomposition of organic matter and processed to standards suitable for natural gas pipeline transmission. Biogas is considered carbon neutral and is widely employed in Europe and China. The University is evaluating several business strategies for procuring large quantities of biogas.

III. d. Preparing for Regulatory Change

The California Air Resources Board (CARB) is developing a greenhouse gas cap-and-trade program⁴ to support the State's goal of reducing greenhouse gas emissions to 1990 levels by 2020, as required by Assembly Bill 325. Because the University operates five cogeneration plants and one large central thermal plant, it is classified as a large emitter of greenhouse gas and will be directly regulated under cap-and-trade. Depending on the cost of allowances, the

³ The Climate Solutions Steering Group was convened by the Executive Vice President for Business Operations and is chaired by UC Irvine Vice Chancellor for Administration, Wendell Brase. The group comprises senior campus executives and representatives from the Lawrence Berkeley National Laboratory, the California Institute for Energy and the Environment, the University's Office of General Counsel, and the Budget and Capital Resources department in the Office of the President.

⁴ Cap-and-trade is a regulatory system that sets a limit on overall emissions of pollutants – the "cap." A central authority 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 grows tighter over time, increasing the cost of polluting.

⁵ Assembly Bill 32, "The Global Warming Solutions Act" was passed by the Legislature and signed by the Governor in 2006. It requires the state to reduce greenhouse gas emissions down to 1990 levels by 2020.

University's annual cap-and-trade compliance costs will likely be from \$7 million to \$28 million per year, based on 2009 emissions levels. This estimate does not include anticipated indirect costs of cap-and-trade, such as higher utility bills. The precise details of the University's treatment within a California cap-and-trade program are still being finalized, and the University has engaged with CARB staff to facilitate creation of a cap-and-trade program that minimizes negative impacts on public higher education without compromising the program's environmental integrity.

The University's proactive attempts to reduce its greenhouse gas emissions will yield significant benefits in this new regulatory environment. Reducing demand for electricity and natural gas will limit the University's exposure to higher utility prices. Furthermore, displacing natural gas with bio-methane gas would reduce the University's direct cap-and-trade compliance costs.

IV. Sustainable Transportation

Policy Goals

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

All campuses have developed goals for reducing transportation-related greenhouse gas emissions, and are reporting annually on progress in meeting those goals. The systemwide Sustainable Transportation Working Group is developing a standard metric to measure the amount of greenhouse gas emissions reduced from commuting.

Highlights in 2010 include improvements to campus vehicle fleets and actions to reduce the emissions from commuting to and from campus. The San Diego campus ordered five electric hybrid compressed natural gas buses and also installed diesel particulate filters on 27 fleet vehicles. The latter measure reduced particulate emissions from those vehicles by 86 percent. The Santa Cruz campus ordered new shuttle vehicles with larger capacity bike trailers. The Los Angeles campus negotiated for acquisition of five fuel cell hydrogen vehicles for a pilot carpool program. The Irvine campus partnered with a local transit provider to modify three bus routes to better serve the campus. Multiple campuses initiated efforts to support bike commuting, which on several campuses includes implementing or pilot testing bike sharing programs.

One emerging opportunity for greening campus fleets is the release of high speed electric vehicles. A few campuses will be installing electric vehicle charging stations to support this form of transportation. Information from pilot programs is being shared through the systemwide Sustainable Transportation Working Group. Some campuses are also "right sizing" their fleets by determining how to more efficiently use a smaller number of vehicles to meet the same needs. Attachment 3 provides the annual reporting of fuel consumption by the University's vehicle fleet.

Goals for reducing emissions from business air travel are outside the direct control of the members of the Sustainable Transportation Working Group, but the group held joint discussions with the Climate Change Working Group to discuss methods of data collection to establish baseline inventories and will continue to work toward the goals. Several campuses and the Office of the President are jointly investigating whether the University can or should place a fee on business air travel to fund campus greenhouse gas reduction programs and projects.

The Sustainable Transportation Working Group is working to address structural challenges to advancing the use of alternative transportation commuting options. One of the most significant challenges is that transportation demand management programs are largely funded by parking permits and fines. To the extent campuses are successful in reducing drive-alone commuting, parking revenues will be reduced and support for sustainable transportation programs will decrease.

V. Sustainable Operations

Policy Goals

- Certify at least one pilot building through the LEED for Existing Buildings: Operation and Maintenance (LEED-EBOM) program
- Develop a plan to achieve LEED-EBOM certification on all campus buildings over 50,000 square feet, except for acute and patient care buildings, and buildings scheduled for demolition or major renovation.

V. a. Project Status Summary

The University is using the US Green Building Council's LEED for Existing Buildings: Operations and Maintenance (LEED-EBOM) rating system to evaluate and improve the environmental performance of its existing building stock. In 2010, the University received its ninth and tenth LEED-EBOM plaques when UC Santa Barbara's Life Sciences Building and Harder Stadium Office Annex were certified at the Silver level.

The Policy requires that all campuses certify one building through the LEED-EBOM program by July 1, 2008. Compliance with this guideline has been uneven. The Office of the President and the Los Angeles, San Diego, San Francisco, and Santa Cruz campuses have certified one building each, and the Santa Barbara campus has five certifications. The Berkeley, Davis, Irvine, Merced, and Riverside campuses are still pursuing their first LEED-EBOM certification.

V. b. Expanding Beyond Pilot Projects

In October 2010, the USGBC released an updated version of its Application Guide for Multiple Buildings and On-Campus Building Projects (AGMBC). The document provides guidance for certifying campus-wide credits through the LEED-EBOM, LEED-NC, and LEED-CI rating

systems. It is anticipated that the AGMBC will streamline the LEED certification process by eliminating the need to assemble redundant documentation for credits that apply to all campus buildings.

Policy guidelines requiring campuses to submit campus-wide LEED credits to USGBC and requiring the University to develop an action plan to implement LEED-EBOM on all buildings over 50,000 square feet had been postponed pending the USGBC's development of a campus-wide credit certification path. With the release of AGMBC, the University will revisit these guidelines.

Despite delays in the release of a campus-wide credit certification path, several campuses have moved forward with plans to institutionalize LEED-EBOM practices and pursue certification on multiple buildings. The Santa Barbara campus continues to make progress towards its goal of certifying 25 LEED-EBOM projects by 2013, and the San Diego and San Francisco campuses both plan to certify additional buildings within the next year.

V. c. Buildings as Living, Learning Laboratories

Per Policy guidelines, campuses are using LEED-EBOM projects to strengthen the educational mission of the University. Student interns were instrumental in completing LEED-EBOM projects at Santa Cruz and San Diego, and are actively involved in the efforts to certify buildings on other UC campuses. In November 2010 the USGBC published *Hands-On LEED: Guiding College Student Engagement*, which details how students can be involved in green campus projects and contribute to LEED certification efforts through coursework, internships and volunteer opportunities. The guide selected the three best student programs in the country that are “engaging students on green campus projects with great success” – and two of those three campuses profiled in the guide are UC campuses. The San Diego campus is profiled as the national model for using internships and the Berkeley campus is profiled as the national model for coordinating student volunteers to make building operations more sustainable.

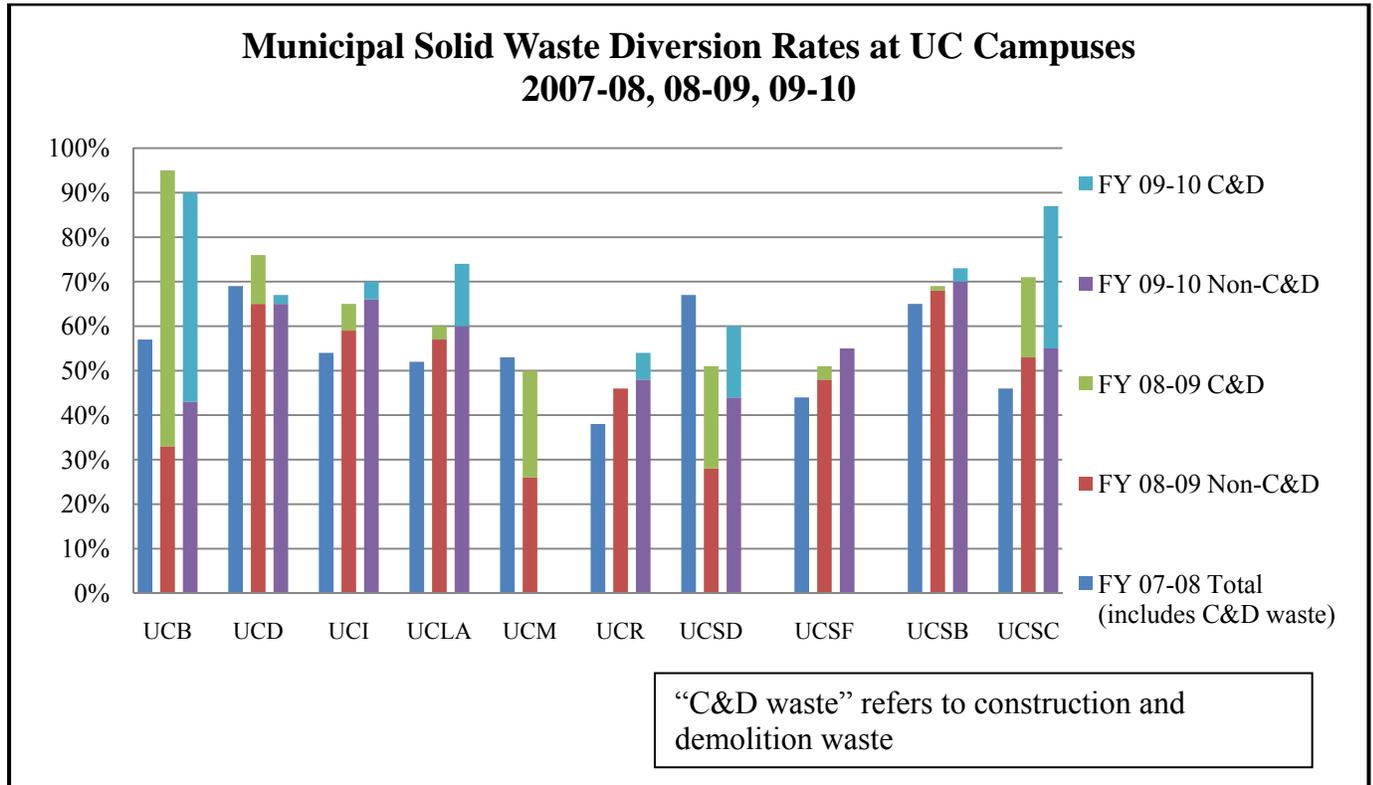
VI. Recycling and Waste Management

Policy Goals

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

All campuses have met the Policy's goal of diverting 50 percent of municipal solid waste from landfills. The next policy target is 75 percent diversion of municipal solid waste from landfills by 2012, mirroring the State requirement for municipalities and State agencies. The data for 2009-10 is shown below along with data from 2007-8 and 2008-9. A key factor which affects

the percentage of diversion from landfills is the amount of construction and demolition (C&D) material⁶. As the volume of construction and demolition materials vary significantly from year to year depending on the level construction and demolition activity, the diversion rates will similarly be inconsistent. The chart shows campus diversion rates for 2008-2009 and 2009-10 with and without this portion of the waste stream. The Merced campus did not report a diversion rate for 2009-2010.



Diversion Rates 2009-10, exclusive of C&D waste, and (inclusive of C&D waste)

- Berkeley 43% (90%)
- Davis 65% (67%)
- Davis Health System 13% (13%)
- Irvine 66% (70%)
- LA 60% (74%)
- Riverside 48% (54%)
- San Diego 44% (60%)
- San Francisco 55% (55%)
- SF Medical Center 21% (21%)
- Santa Barbara 70% (73%)
- Santa Cruz 55% (87%)

⁶ Campuses have become very efficient at recycling or reusing the large volume of waste from construction and demolition, often diverting more than 90 percent of that waste from being sent to a landfill.

The 75 percent diversion goal will require the following: significant effort to accurately record construction and demolition waste diversion; more cooperation from surplus offices to get data on surplus material; funding to develop additional diversion programs such as composting of food waste and green waste; and zero waste events. Models of this already exist in the form of best practices like the zero-waste multi-use stadium at the Davis campus. Davis took first place in the national Environmental Protection Agency's Game Day Challenge, diverting 90 percent of waste during the football game on the day of the challenge in October. (Ohio State was a distant second at 68 percent.) Everything sold in the Davis stadium can be recycled or composted.

The Waste Reduction and Recycling Working Group has expanded to include the University's Medical Centers and is discussing the specific challenges of recycling in those facilities. The group has piloted a new online reporting tool this year and continues to work on: 1) training of staff, as budget cuts have reduced staffing and service levels; 2) developing sustainable financial structures for waste reduction and recycling programs; 3) developing zero waste best practice for LEED-NC and LEED-EBOM projects; 4) including the cost of waste disposal and recycling into procurement life-cycle cost analyses, and 5) defining appropriate metrics for reuse.

VII. Procurement

Policy Goal

- Increase the proportion of University spending on products that meet one or more third-party environmental certifications.

Sustainable procurement highlights in 2010 included a significant increase in total purchases of environmentally preferable products, increased use of recycled-content paper for the third year in a row, and moving towards more networked printing environments through the enhanced use of shared copiers and printers. In addition to increasing sustainable product purchases overall, more suppliers are now complying with sustainability reporting requirements.

The combination of the above factors brought total reported purchases of sustainable products from 12 percent to 23 percent of total purchases from systemwide procurement contracts. Purchases of recycled content multi-use paper showed one of the largest improvements over the previous year, increasing from 66 percent to 85 percent of total multi-use paper purchases from systemwide contracts.

During 2011, the University will continue to develop standardized methodology for collecting and reporting data on sustainable procurement. UC is a national leader in reporting sustainable procurement data and other colleges and universities are following our pioneering work to model their purchasing reporting on UC's reporting methodologies.

More details on sustainable procurement in 2010 can be found in Attachment 4.

VIII. Food services

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.

The sustainable foodservice practices policy went into effect in September 2009 and campus dining services on each campus submitted action plans with campus-specific goals in December 2009. Goals were set in the categories of sustainable food purchasing, sustainable facility operations, educational and training programs, and community outreach programs. During 2010, the systemwide Sustainable Foodservice Working Group focused on foodservice operations at the Medical Centers and in retail operations, and on the first annual reporting of progress towards sustainable foodservice goals in each campus dining service.

Each of the five Medical Centers and all of the campus retail operations completed feasibility studies in May 2010 that analyzed the applicability of adopting the policy requirements already in effect for campus dining services. The Medical Centers all agreed to adopt the same policy requirements as campus dining services and most of the Medical Centers created action plans with goals in each policy category, along similar lines as the action plans adopted by campus dining services. The Medical Centers are already making progress towards those goals. The retail foodservice operations concluded that the policy requirements can be implemented over time by adding language to new agreements for contracted food operators and by on-going discussions and outreach to those firms to educate them about the University's policies and how to change their existing operations to support the Policy.

In the first annual reports from campus dining services, four campuses - Berkeley, Davis, Santa Barbara and San Diego - reported exceeding the 2020 goal to purchase 20 percent sustainable food. In recognition of its policy to serve fair trade food and beverage products across campus, the San Diego campus was named the second "Fair Trade University" in the country by Transfair USA, and is the first major research university to achieve that designation. In terms of facilities operations, the Berkeley, Santa Cruz, Santa Barbara and San Diego campuses have each certified at least one foodservice facility as a certified green business, with the Berkeley and Santa Cruz campuses certifying all or nearly all of their dining halls. Other campuses expect to certify their first facilities through green business certification programs in 2010.

Three campuses – San Francisco, San Diego, and Davis – conducted energy audits of all campus foodservice facilities, identifying many energy savings opportunities. The comprehensive energy

audits, performed free-of-charge through the Energy Efficiency Partnership with the utility companies, will expand to the remaining seven campuses in 2011.

IX. Staff, Faculty and Student Participation in Sustainability Activities

The University's sustainability program contributes to the University's research, teaching and public service missions through collaborations among faculty, staff and students. For example, the Santa Cruz campus received \$180,000 in funding to establish a sustainability internship program, on campus and in the community, which includes a course taught by two postdoctoral fellows.

Additional highlights of collaboration among students, staff and faculty include:

- Merced, Davis, Irvine and San Diego campuses all received "Renewable Energy Secure Communities" grants from the California Energy Commission to develop utilization of mixed renewable energy technologies in an integrated, sustainable and optimal manner.
- Los Angeles campus received a \$20 million grant from the L.A. Department of Water and Power to use the campus as a living laboratory for research on creating a smart grid.
- Students at the Riverside campus passed a student fee referendum to provide approximately \$90,000 in annual funding for campus sustainability projects.
- Students at the San Diego campus collaborated with the Environmental, Health and Safety department to reduce water consumption on campus through an "Aquaholics" educational program.
- The San Diego campus received \$33 million in grants, incentives and private sector contributions for research and deployments for expanding the award-winning efforts to use the campus as a living laboratory for renewable energy and other clean energy solutions.
- Two Berkeley students spent the summer researching campus sustainability, at the University of Cambridge and the University of Tokyo, respectively, through a campus sustainability exchange within the prestigious International Association of Research Universities. Berkeley also benefitted from the exchange by hosting one student from the University of Oxford and one student from the University of Copenhagen who created a guide to sustainable behavior change.

X. Training

The University continued 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 ninth annual UC/CSU/CCC Conference hosted by the Los Angeles Community College

District at their L.A. Trade Tech College in June 2010 attracted over 1000 attendees – including 250 students – from ninety colleges and universities throughout California and neighboring states. The conference program highlighted best practices in fourteen tracks of sessions organized around each of the sustainability topics in the Policy, plus a number of others. The sixth annual Higher Education Energy Efficiency Partnership Best Practice Awards were presented at the conference to exemplary UC, CSU and CCC energy efficient projects.

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

- Three campuses took advantage of free energy efficiency audits for every foodservice kitchen on their campus, in the process identifying numerous low- and no-cost efficiency measures they can take to save energy and money.
- Six campuses sent a total of eleven key campus engineering and maintenance staff to earn Building Operator Certification.
- Three campuses received training in assessing campus buildings for water and energy efficiency improvements using the LEED-EBOM rating system, joining five other campuses which had received this training during the previous year.

XI. External Recognition for UC

The University's sustainability program continues to garner extensive positive coverage in local, regional, and national press. During 2010, approximately 100 articles on UC campus and systemwide sustainability initiatives appeared in media outlets such as *US News and World Report*, *The Chronicle of Higher Education*, *Fast Company*, *Los Angeles Times*, *Sacramento Bee*, and the *San Diego Union-Tribune*.

Even as the field of colleges and universities that have embraced sustainability goals has grown, UC continues to be recognized as a national leader in this area. For example, the Davis and San Diego campuses scored in the top tier of the Campus Sustainability Report Card published by the Sustainable Endowments Institute. The Berkeley, Santa Barbara, and Santa Cruz campuses were among the eighteen universities named to Princeton Review's "Green Honor Roll." The Santa Cruz, Irvine, Davis, and San Diego campuses were in the top 20 in the Sierra Club's annual list of "Cool Schools." 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 5 provides a summary of the sustainability rankings and awards that the University received in 2010. Of particular note, Global Green honored the UC system with its Millennium Environmental Award. For the Global Green Awards gala, the Office of the President Communications Office produced a video summarizing the University's sustainability

accomplishments which can be viewed at:
www.universityofcalifornia.edu/sustainability/about.html.

XII. Future Steps

The University will continue its extensive efforts to meet the requirements in each of the eight Policy areas, while exploring the potential addition of a ninth section of the Policy to address water conservation and storm water management. California has declared a state of emergency with respect to potable water supplies, and the University has a responsibility and an opportunity to model sustainable water management.

Another nascent area of sustainability coordination involves the five Medical Centers. Building on the Medical Centers' recent adoption and ongoing implementation of the University's sustainable foodservice goals, the Office of the President will start organizing monthly sustainability conference calls to facilitate sustainability best practice sharing across the five Medical Centers.

The University will continue its expanded energy efficiency partnership with participating utility companies. The goal of this unique program is to achieve \$36 million in cost savings (before debt service), resulting from an 11 percent reduction in electricity consumption and an eight percent reduction in natural gas consumption.

As mentioned in I.b. above, after years of lobbying from the University, the USGBC recently developed a process that will allow for the certification of campus-wide LEED credits. In 2011, the University will finally be able to take advantage of this streamlined certification process to reduce the time and cost associated with LEED certification across the Building Design and Construction, Commercial Interiors, and Existing Buildings: Operations and Maintenance rating systems. Streamlined certification of LEED will also be coordinated with the new state green building code, CALGreen. The University will evaluate the new code requirements and determine the most efficient means to comply.

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 2011. 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, systemwide 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 on a fair plan to meet regulatory requirements and maximize the University's emissions reductions while minimizing the cost impact of those regulations.

In this time of serious budget austerity, low- and no-cost sustainability programs should continue to yield operational cost savings through reduced resource consumption. The University should consider expanding efforts to consolidate office printers and reduce paper and energy consumption. In particular, the work of the Energy Management Initiative as part of Operational

Excellence at the Berkeley campus will be supported and monitored as a model for potential replication at other UC campuses.

Finally, as part of strategic initiatives to improve the public's understanding of the pivotal role the University plays in the current and future success of the state, the University will begin working on systemwide communications and marketing initiatives to highlight the University's sustainability efforts.

(Attachments: below)

1. New Construction and Renovation Projects: Compliance with UC Policy on Sustainable Practices
2. Analysis of Campus Climate Action Plans
3. Fleet Fuel Consumption Data
4. Environmentally-Preferable Purchasing Progress
5. External Sustainability Awards and Rankings Received by UC: 2010

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)											
<i>(State Projects that fall under this Policy are those that were included in the 2005-06 Budget and later years)</i>											
No.	Proj. Type	Name of Project	Bud. Appr.	Design	Appr. Date	Building Type	Proposed Rating		Projected Certification Date	Achieved Rating	
			Date				By	Rating		Pts.	Rating
BERKELEY											
1	NC	Doe Annex Seismic & Program Impr	8/04	R	12/05	Special Coll Library	UC Silver	33	2011		
2	NC	Underhill Field and Parking Replacement Pr	8/04	R	7/05	Parking Strucutre	UC Cert.	16	2007		19
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	SAHPC	12/06	R	12/06	Athletics	UC Cert.	26	2011		
6	NC	Computational Research Facility	3/07	R	5/08	Class/labs/data center	LEED Silver	34	2011		
7	NC	LKS Biomedical Sciences Building	11/07	R	5/07	Laboratory/office	LEED Silver	33	2011		
8	NC	Helios Energy Research Facility - West	3/07	R	1/10	Labs 21 & LEED for Labs	LEED Silver	50	2012		
9	NC	Law School Infill	1/08	R	7/08	Class/office/café/library	LEED Gold	39	2011		
10	NC	Naval Architecture Bldg	N/A	R	2/09	office	LEED Silver	35	2011		
11	NC	Cal. Memorial Stadium Renovation	9/09	R	1/10	athletic	LEED Silver	50	2012		
12	NC	Moffit Library Ren and Program Imp		R		library	LEED Gold		2012		
13	NC	Cal. Memorial Stadium Seismic Corrections	1/10	R	1/10	athletic	LEED Silver		2012		
14	NC	BAM		R	pending	Museum	LEED Silver	26	2012		
15	CI	Clark Kerr Campus renovation	9/07	R		renovation	LEED Silver	27	2010	Gold	33
16	CI	Campbell Hall Replacement	11/07	R	3/08	Class/office/lab	LEED Silver	33	2012		
17	CI	Law Renovations	1/08	SVP	7/08	classroom/office	LEED Silver	34	2011		
18	CI	Li Ka Shing Biomedical Sciences (CIRM 2nd floor)	3/08			fit out	LEED Gold	32	2011		
19	CI	King Student Union Renovations	4/08	SVP	7/08		LEED Silver	32	2011		
20	CI	3300 Regatta	4/09	R		office	UC Cert.	23	2011		
21	CI	Morgan Hall Laboratory Renovation	7/09	C	5/09	lab	LEED Silver	39	2010	Gold	35
22	CI	Clark Kerr Renovations Phase 2	9/07	R		housing	LEED Gold	28	2011	Gold	
23	Re	Durant Hall	8/06	SVP	1/08	Office	LEED Silver	33	2009		
DAVIS											
24	NC	Tahoe Environ Research Center	7/00		2/01	Research Lab	LEED Plat	52	2006	Platinum	56
25	NC	Vet Med Instructional Facility	1/01	R	7/02	Classroom	LEED Gold		2011		
26	NC	Warren & Leta Giedt Hall	11/04	SVP	1/05	Offices	UC Cert.		2006	did not comply	
27	NC	Physical Sciences Expansion	3/05	R	5/05	Teaching & Research Labs	UC Cert.		2011		
28	NC	Service Unit Park	7/05	C	4/05	Maintenance	UC Cert.		2006	did not comply	
29	NC	Vet Med 3B	11/05	R	7/07	Research Labs	LEED Gold		2013		

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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.
58	NC	Anteater Instruction & Research Bldg		R			LEED Gold		2009	Gold	
59	NC	Student Center Expansion Phase 4	11/2	R	9/03		LEED Gold		2009	Gold	
60	NC	Bren Hall		R			LEED Gold		2009	Gold	
61	NC	Anteater Recreation Center Exp	5/06	R	7/06	Activity spaces	LEED Gold	39	2009	Gold	39
62	NC	Puerta del Sol Student Apts	3/08	R	3/08	Housing	LEED Gold	43	2010	Gold	
63	NC	Camino del Sol Student Apts		R		Housing	LEED Gold		2010	Gold	
64	NC	Clinical Lab Building	1/08	R		Labs	LEED Silver	36	2010	Gold	
65	NC	Engineering Unit 3	11/03	R	11/05	Classrm, labs, offices	LEED Gold	41	2011		
66	NC	Social & Behavioral Sciences	11/04	R	5/06	Classrm, labs	LEED Gold	42	2011		
67	NC	Humanities Building	11/05	R	2/08	Classroom	LEED Gold	42	2011		
68	NC	Telemed Prime LC	11/06	R	7/07	Computer labs, offices	LEED Gold	43	2011		
69	NC	Arts Building	11/06	R	12/07	Studios, performance spaces	LEED Gold	40	2011		
70	NC	New Hospital Site Improvements	1/08	R		Demolition, outdoor spaces	NA		2011		
71	NC	New Hospital Shell Space	1/08	R		Hospital	NA		2011		
72	NC	Stem Cell Research	7/08	R		Laboratory/vivarium	LEED Gold	44	2011		
73	NC	Verano Place Unit 4 Replacement	3/10	C	6/10	Housing	LEED Gold		2012		
74	CI	Environmental Institute	1/09	C	4/09	Labs, offices	LEED Gold	37	2011		
75	CI	Middle Earth Housing Phase I Renovation	5/10	C	5/10	Housing	Certified		2011		
LAWRENCE BERKELEY NATIONAL LAB											
76	NC	Helios Energy Research Facility East	07	R		Labs 21 & LEED for Labs	LEED Silver		2011		
LOS ANGELES											
77	NC	La Kretz Hall	3/02	R	9/02	Classrooms, Offices	LEED Silver		2005-06	Silver	
78	NC	Life Sciences Replacement Building	8/05	R	9/05	Classroom, Labs, Offices	LEED Silver		2010-11		
79	NC	Spieker Aquatic Center	3/07	R	7/07	pool/locker bldg.	LEED Cert		2010-11		
80	NC	Police Station Replacement	5/07	R	7/07	Police station	LEED Silver		2010	Silver	
81	NC	Hilgard Grad Student Housing	11/07	R	3/08	Housing	LEED Silver	34	2010-11		
82	NC	South Campus Student Center	9/08	R	2/09	Dining	LEED Silver		2010-11		
83	NC	Hershey Hall Seismic Renovation	7/08	N/A	N/A	Offices	LEED Silver		2010-11		
84	NC	NW Student Housing Infill	9/08	R	3/09	Housing	LEED Silver		2012-13		
85	NC	Dykstra Repairs & Refurbishment	11/09	C	11/09	Housing	LEED Gold		2012-13		

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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.
86	NC	Pauley Pavilion Renov & Expansion	7/09	R	7/09	Athletics	LEED Silver		2012-13		
87	NC	Weyburn Terrace Grad Student Hsg	7/09	R	1/10	Housing	LEED Silver		2012-13		
88	NC	Wasserman Building	N/A	R	5/10	Health Sciences	LEED Silver		2013-14		
89	CI	Rieber Hall Repair & Refurbishment	5/07	R	5/07	High-rise student housing	UC Gold	37	2009-10		
90	CI	CNSI BSL3	7/07	SVP	N/A	Lab	LEED Cert.		2009-10		
91	CI	Hedrick Repairs and Refurbish	5/08	R	5/08	Housing	LEED Silver	30	2011-12		
92	CI	GCRC CHS Parking E	6/08	EVP	N/A	Clinical Research/Biomarker	LEED Silver		2010-11		
93	CI	Young Research Library	8/08	EVP	8/08	1st Floor interior renov.	LEED Silver		2010-11		
94	CI	Rieber Dining Renovation	9/08	P	9/08	Dining	UC Cert.		2010-11		
95	CI	CHS South Tower Seismic Renov	TBD	P	9/10	Health Sciences	LEED Silver		TBD		
MERCED											
96	NC	Central Plant	12/00	R	1/02	Central Plant	LEED Gold		2007	Gold	39
97	NC	Kolligian Library	11/00	R	5/02	Library	LEED Gold		2007	Gold	46
98	NC	Garden Suites and Lakeview Dining	9/02	EVP	9/02	Housing/dining common	LEED Silver		2007	Silver	35
99	NC	Classroom and Office Building	12/00	R	5/02	Classrooms/Offices	LEED Gold		2008	Gold	44
100	NC	Joseph Gallo Center	6/04	R	1/05	Recreation Center	LEED Gold	44	2007	Gold	44
101	NC	Sierra Terraces	9/05	R	9/05	Student housing	LEED Gold	44	2009	Gold	40
102	NC	Science and Engineering	12/00	R	5/02	Classrooms/Labs	LEED Gold		2009	Gold	39
103	NC	Dining Expansion	9/05	R	9/05	Food servery, dining	LEED Plat		2011		
104	NC	Soc Sciences & Mgmt Bldg.	11/05	R	07/07	Classroom/Labs	LEED Gold	44	2011		
105	NC	Early Childhood Ed. Center	5/08	EVP	06/08	Child Care Center	LEED Silver	40	2011		
106	NC	Student Housing Phase 3	7/08	R	09/08	Housing	LEED Silver		2011		44
107	NC	Logistical Site Service Facility	12/02	R	6/04	Facility Support Building	LEED Gold		2011		
RIVERSIDE											
108	NC	Arroyo Student Housing (Glen Mor 1)	4/05	R	11/05	Apartment Housing	UC Cert.		2007	did not comply	
109	NC	SASS	11/04	R	3/06	Office	UC Silver	37	2009	did not comply	
110	NC	Culver Center for the Arts	11/04	C	04/06	Historical Rehab/Art Studios	UC Silver		2010	did not comply	
111	NC	East Campus Child Development Center	8/06	EVP	07/08	Child Care Center	UC Cert.		2009	did not comply	
112	NC	Materials Science & Engineering	11/05	R	1/06	Labs/ offices/classrooms	UC Silver		2011	did not comply	
113	NC	Health Sciences Teaching Center	3/10	EVP		Labs/offices/ classrooms	LEED Silver		2012		
114	NC	Glen Mor 2 Student Apts.	3/10	R		Housing	LEED Silver		2013		

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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.
115	NC	Health Science Surge Building	7/10	R	9/08	Labs/offices	LEED Silver		2011		
116	NC	Engineering Bldg. Unit 3	8/10	R		Classrm, Lab	LEED Silver		On Hold		
117	NC	Environ. Health & Safety Expansion	11/10	R	11/08	Waste Handling Lab/Off.	LEED Silver		2014		
		SAN DIEGO									
118	NC	East Campus Graduate Housing	11/04	R	7/05	Housing	UC Cert.		2007	UC Cert.	28
119	NC	Original Student Center Phase II	11/04	SVP	5/05	Student Center	UC Cert.		2011		
120	NC	Price Center Expansion	11/04	R	7/05	Student Center	UC Silver		2011		
121	NC	San Diego Supercomputer	11/04	R	1/05	Computer Rm, Classrm	UC Cert.		2011		
122	NC	Structural Engineering	11/05	R	3/07	Research labs/offices	LEED Silver		2012		
123	NC	RIMAC Annex	8/06	SVP	3/07	Multi-purpose	UC Cert.		2011		
124	NC	SIO Seaside Forum	11/06	P	7/07	Meeting space	LEED Cert.	29	2009	Certified	
125	NC	Management School Phase 2	11/06	R	3/08	Classroom, Office	UC Silver		2011		
126	NC	Revelle College Housing	11/08	R	7/09	Apartment Housing	LEED Silver		2011		
127	NC	H&DS Administration Building	11/07	R	11/07	Office/Catering	LEED Silver	34	2011		
128	NC	Telemedicine & PRIME-Heq	3/07	SVP	11/07	Classrooms	LEED Silver		2012		
129	NC	North Campus Housing, Phase 2	1/08	R	3/09	Housing	LEED Gold		2011		
130	NC	North Campus Housing Phase 1	5/08	R	11/06	Housing	UC Silver		2010		
131	NC	Health Sciences Graduate Hsg	5/08	R	2/09	Housing	LEED Silver		2011		
132	NC	Muir College Housing/Dining	11/08	R	7/09	Housing/Dining	LEED Silver		2011		
133	NC	Health Sciences Biomedical Research Facility 2	5/08	R	9/09	Research labs/offices	LEED Silver		2012		
134	NC	SIO MESOM Facility	3/09	R	5/10	Laboratory	LEED Silver		2012		
135	CI	Mesa Childcare Center	8/10	P	N/A	Childcare facility	LEED Gold		2009	Gold	33
136	CI	Student Resource Center	1/10		1/10	Office space	LEED Gold		2010	Gold	32
137	CI	Goody's Place and Market	1/10		1/10	Dining	LEED Silver		2010	Silver	
138	RE	University House Rehabilitation	SPIO	P	SPIO	Rehabilitation of residence	LEED Silver		2011		
		SAN FRANCISCO									
139	NC	Diller Family Cancer Research	9/04	R	11/04	Biomedical Research	UC Silver		2011		
140	NC	145 Irving Street	3/05	SVP		Apartment Housing	UC Cert.		2011		
141	NC	The Osher Building	11/06	R	11/07	Clinic	LEED Silver		2011		
142	NC	Cardiovascular Research Building	11/07	R	11/07	Lab	LEED Silver		2011		

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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.
143	NC	Institute for Regenerative Medicine	3/08	R		Lab	LEED Silver		2011		
144	NC	Mission Bay Building 19A	2/10	R	2/09	Lab, Vivarium	LEED Silver		2011		
145	CI	HSW Dentistry Lab	N/A	N/A	N/A	Labs	LEED Cert.		2005	Certified	21
146	CI	654 Minnesota Street	2009	C		Tenant Improvements	LEED Cert.		2009	Certified	25
147	CI	Data Center	8/09	C		Tenant Improvements	LEED Silver		2009	Silver	29
148	CI	HSE 15 S/D Craniofacial & Mesenchymal Biology Program Lab Renovation	9/08	C	8/08	Lab	LEED Silver		2010	Gold	32
149	CI	HSE 5 Center for Bioengineering and Tissue Regeneration	7/09	C	7/09	Lab	LEED Cert.		2011		
150	CI	MSB 13 S1372 Anatomy Dept. Renovation	6/10	P	9/09	Laboratory	LEED Silver		2011		
151	Re	Telemedicine and PRIME-US Educational Facilities	9/06	R	9/06	Clinical Skills/Simulation Center	LEED Cert.		2011		
152	Re	1500 Owens Pharmacy - pending lease app	5/09	N/A		Tenant Improvements	LEED Silver		2011		
SAN FRANCISCO MEDICAL CENTER											
153	NC	UCSF Medical M-3 Body Interventional Equipment Replacement	10/09	P		Laboratory, Hospital					
154	NC	Medical Center at Mission Bay	9/08	P	9/08	Hospital	Gold		2014		
SANTA BARBARA											
155	NC	Bren Hall	7/99	R	9/99	Laboratory	LEED Plat		2002	Platinum	37
156	NC	Marine Sc. Research Bldg	3/00	R	1/01	Laboratory	LEED Cert.	28	2006	Certified	26
157	NC	Student Resources Building	7/02	R	10/02	Administrative	LEED Silver	37	2008	Silver	36
158	NC	Education & Social Sc. Bldg	1/07	R	2/04	Academic	LEED Silver	33	2009	Silver	36
159	NC	San Clemente Villages	1/06	R	2/04	Housing	LEED Gold		2009	Gold	42
160	NC	Engineer II Addition	11/06	R	6/07	Academic	LEED Silver	37	2010	Gold	42
161	NC	Tipton House (Sedgewick Res)	7/04	C	5/07	Academic	LEED Gold	42	2011		
162	NC	Biomedical Sciences Facility	11/08	R	8/06	Lab, Vivarium	LEED Silver		2011		
163	NC	Ocean Sc. Education Bldg	8/08	R	7/06	Academic	LEED Gold	42	2011		

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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.
164	NC	Bioengineering	6/10	R	7/10	Laboratory	LEED Silver	34	2012		
165	NC	Davidson Library Addition	4/10	R	6/10	Library	LEED Silver		2012		
166	CI	Ortega Dining Commons				Food Service	LEED Silver	34	2011		
167	CI	Alts for Physical, Biological and Social Sciences	-	R	-	Labs	UC Cert.		2016		
SANTA CRUZ											
168	NC	Biomedical Sciences Facility	11/07	R	8/06	Lab, Vivarium	LEED Silver	38	2011		
169	NC	Cowell Student Health Center	1/08	R	1/08	exam rooms/offices	LEED Silver	36	2011		
170	NC	Porter College Phase 1-House B & Dining	3/08	R	7/08	Housing/dining	LEED Silver		2011	Silver	
171	NC	Coastal Biology Building	10/08	R	11/08	Laboratory	LEED Silver		2014		
172	NC	Porter College Phase 2-House A	11/08	R	5/09	Housing	LEED Silver		2011		
173	NC	East Campus Infill Housing	5/09	R	7/09	Housing	LEED Silver		2014		
174	CI	Cowell College Commons Seismic Renew	12/07	R	1/08	Dining Commons	LEED Cert.	24	2010	Certified	
175	CI	Alts for Physical, Biological and Social Scien	N/A	R	N/A	Labs	UC Cert.		2016		
R = Regents Approval (For projects >\$10M)				Total Proposed Ratings:				Total Achieved Ratings:			
P = President's Approval (For projects >\$5M and <\$10M that				9 LEED Certified				6 LEED Certified			
SVP = Senior Vice-President, Business & Finance, Approval (For projects >\$5M and <\$10M)				23 UC Certified				9 LEED Silver			
C = Chancellor's Approval (For projects <\$5M)				77 LEED Silver				22 LEED Gold			
NC = New Construction				12 UC Silver				2 LEED Platinum			
Re = Renovation (For projects <\$5M)				38 LEED Gold				Total: 39 LEED certified projects			
CI = Renovation (For projects >\$5M)				4 LEED Platinum				Subtotal: 28 LEED NC projects			
	Certified										
	Silver										
	Gold										
	Platinum										

Attachment 2

Overview of UC Climate Action Plans

The following charts provide a high-level overview of the challenges facing UC campuses as they strive to achieve the University's interim policy goal reducing greenhouse gas (GHG) emissions to year 2000 levels by 2014. Some campuses have committed to more ambitious emissions reduction targets; in such instances, the campus-specific targets are rendered in **red text** in the title of the graph. UC Merced did not exist in the year 2000, but the campus has set a goal of achieving carbon neutrality by 2020, which is represented in this document. All data are self-reported from campuses. Unless otherwise noted, data include emissions associated with purchased electricity and steam; natural gas usage; faculty, student, and staff commute; university-funded air travel; and campus vehicles.

How to read these charts:

The GHG reductions that a campus must achieve in order to reduce its year 2014 emission levels to year 2000 levels (or to its corresponding campus-specific target if more stringent) are represented by a **blue horizontal line** and the **blue digits** that appear next to this line. This number is the difference between year 2000 emission levels and projected 2014 emission levels under a business-as-usual scenario. For example, the Irvine campus needs to reduce its emissions by 67,500 tons by 2014. Emission projections for 2014 are based on growth forecasts and historical emissions levels, and assume that no new action is taken to curtail greenhouse gas emissions.

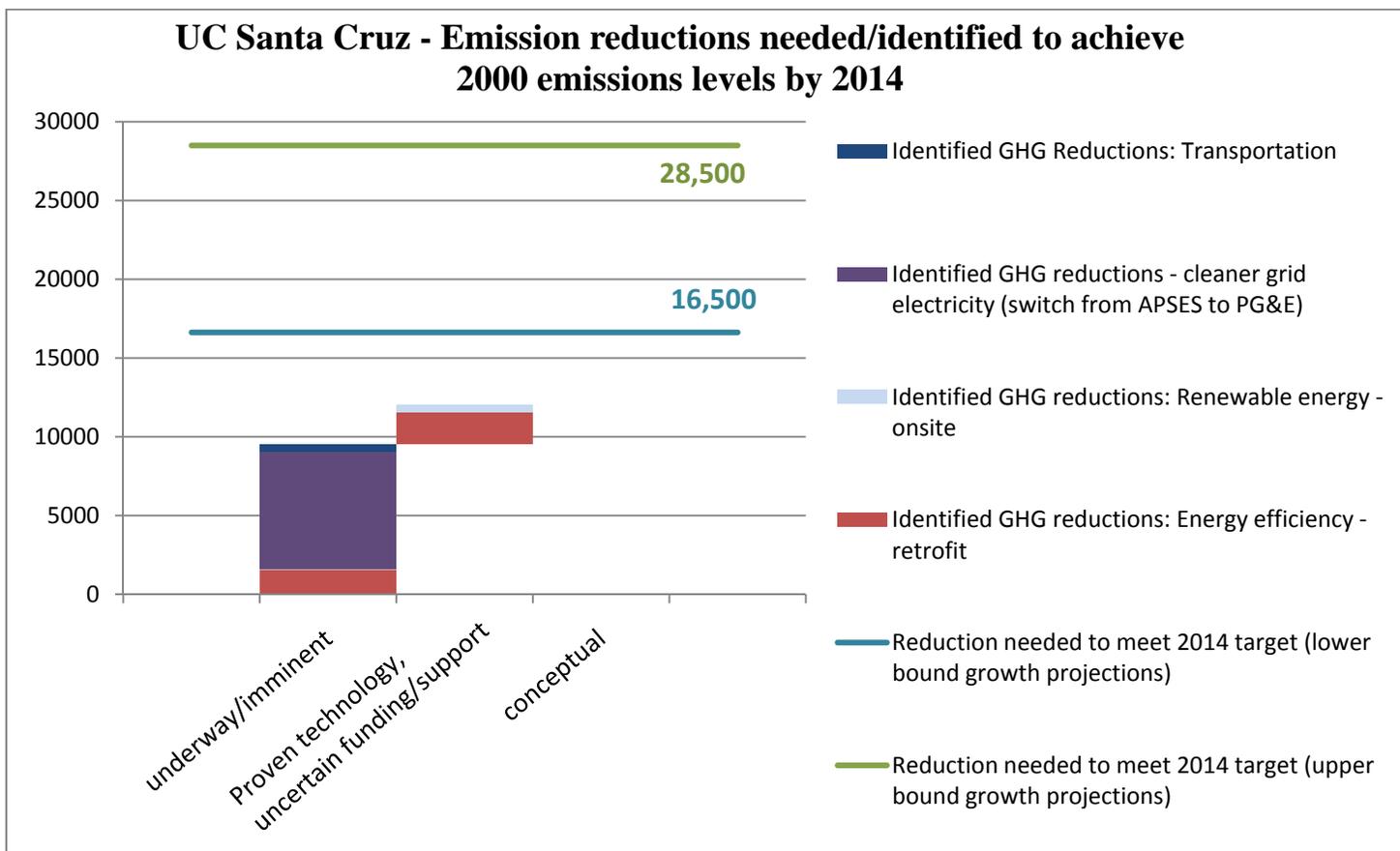
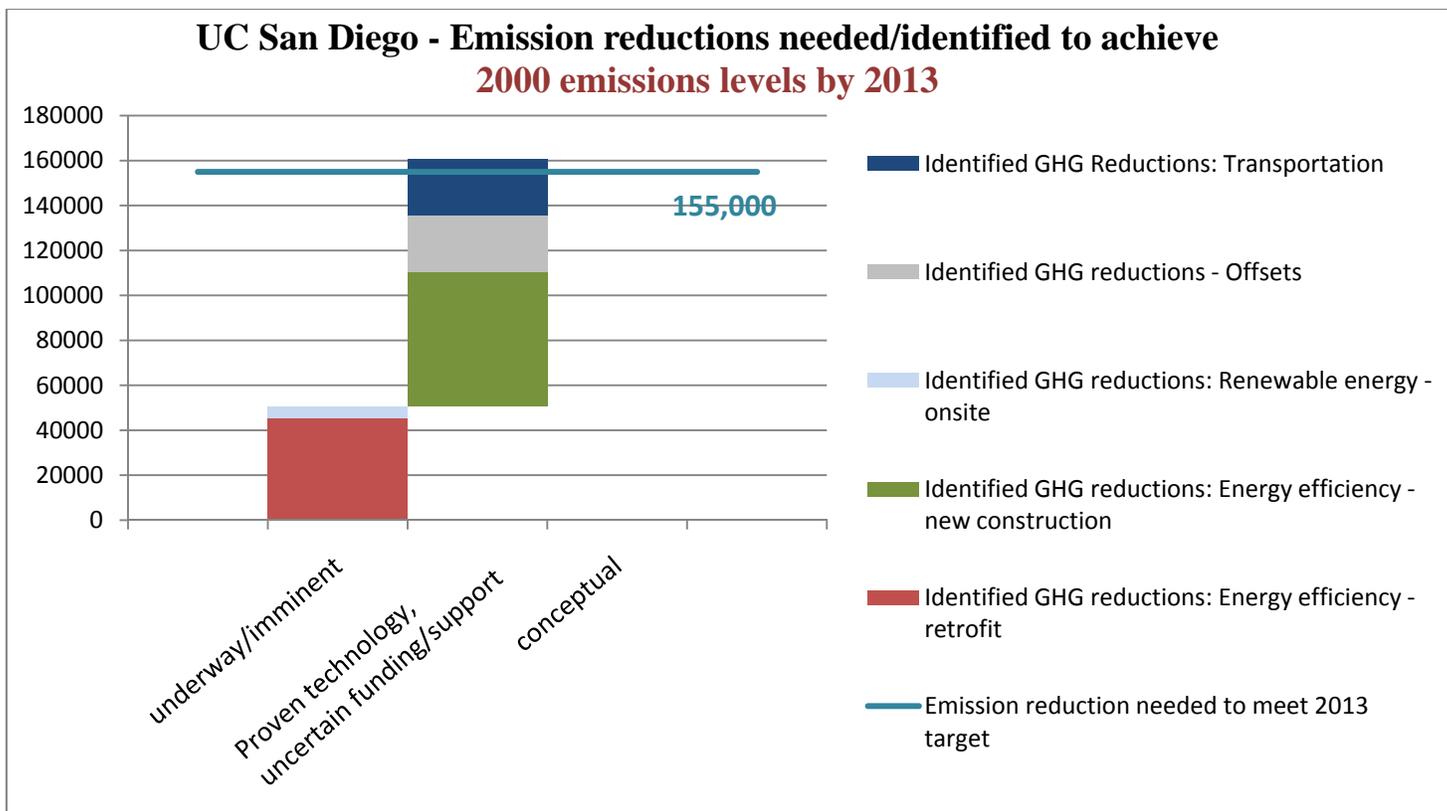
The GHG reductions that campuses have identified in their Climate Action Plans are expressed by the vertical bars. These bars are striated by project type to show the order of magnitude reductions associated with different mitigation strategies. Expected emissions reductions fall into one of three categories (labeled on the X-axis): underway/imminent; proven technology, uncertain funding/support; and conceptual. These categories are intended to provide a very rough picture of the implementation phases of various campus projects. A brief description of each category follows:

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.
Examples: 1) Carbon neutral air transportation fuels; utility-supplied renewable energy beyond what is required by the State's Renewable Portfolio Standard law.

Some campuses submitted explanatory notes with their data; these notes are included with that campus's chart.

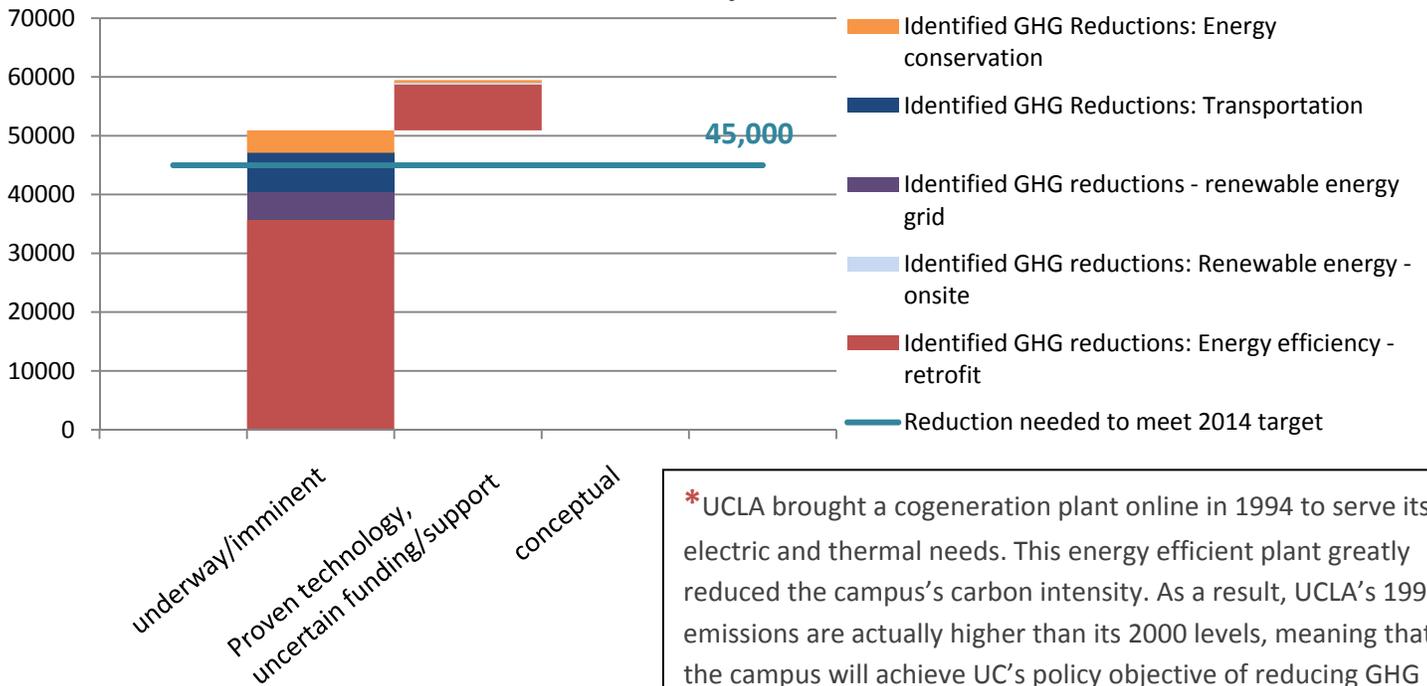
NOTE: Graphs use different Y-axis scales to account for the large difference in emissions reductions required to meet policy goals. If the same Y-axis scales were used for all campuses, the graphs for schools where smaller absolute emissions reductions are required would be rendered unreadable. All Y-axes measure metric tons of GHG emissions.

Attachment 2 Overview of UC Climate Action Plans



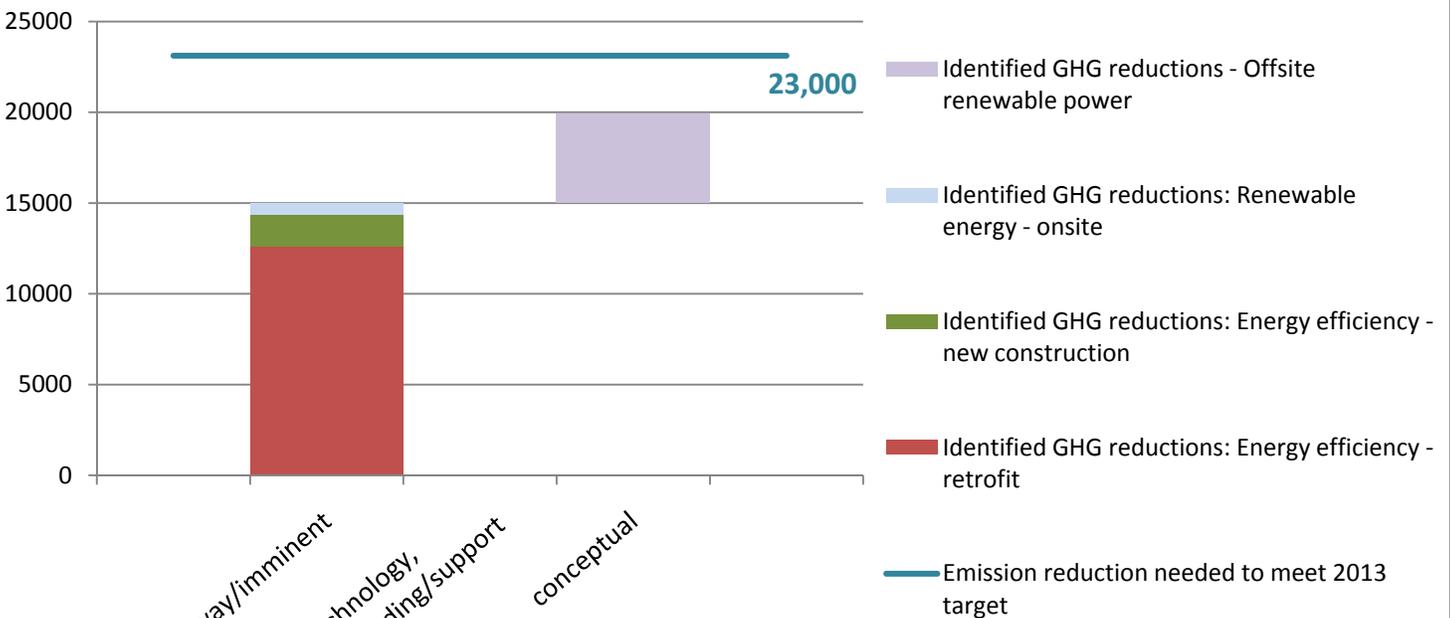
Attachment 2 Overview of UC Climate Action Plans

UCLA - Emission reductions needed/identified to achieve 2000 emissions levels by 2014*



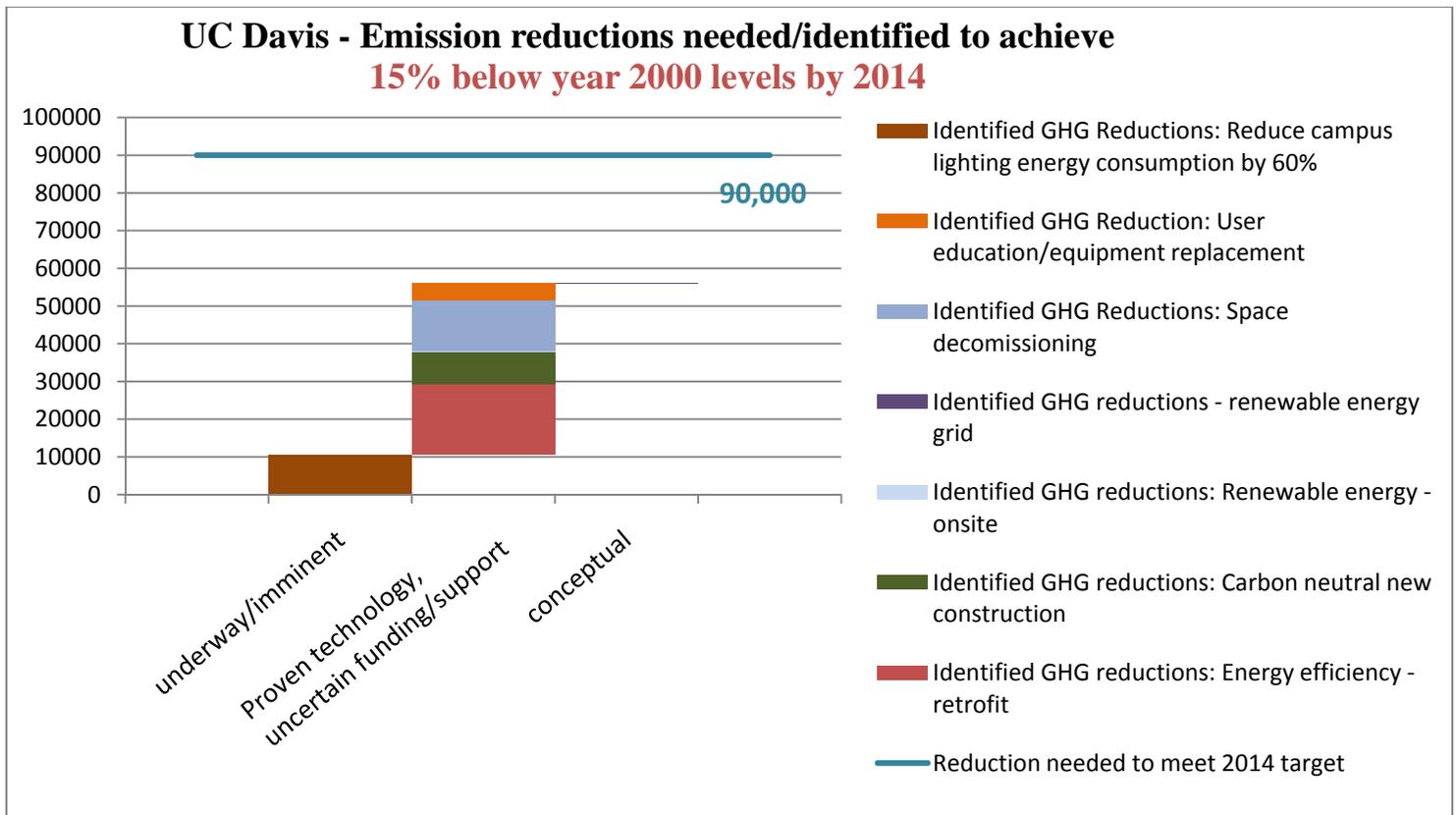
*UCLA brought a cogeneration plant online in 1994 to serve its electric and thermal needs. This energy efficient plant greatly reduced the campus's carbon intensity. As a result, UCLA's 1990 emissions are actually higher than its 2000 levels, meaning that the campus will achieve UC's policy objective of reducing GHG emissions to 1990 levels well in advance of the 2020 deadline.

UC Santa Barbara - Emission reductions needed/identified to achieve 2000 emissions levels by 2014



UCSB's data does not include emissions associated with faculty, staff, and student commute, or University-funded air travel.

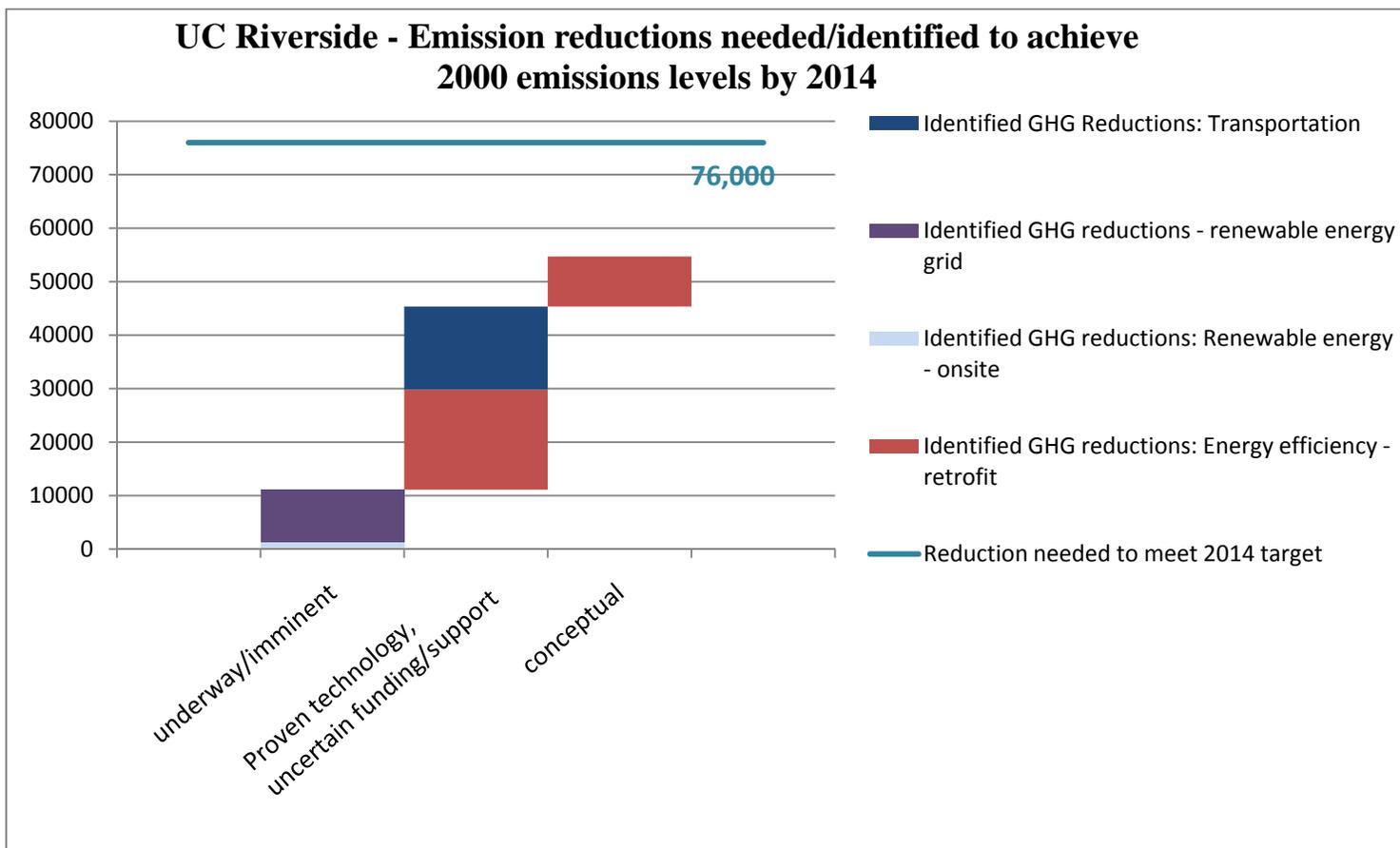
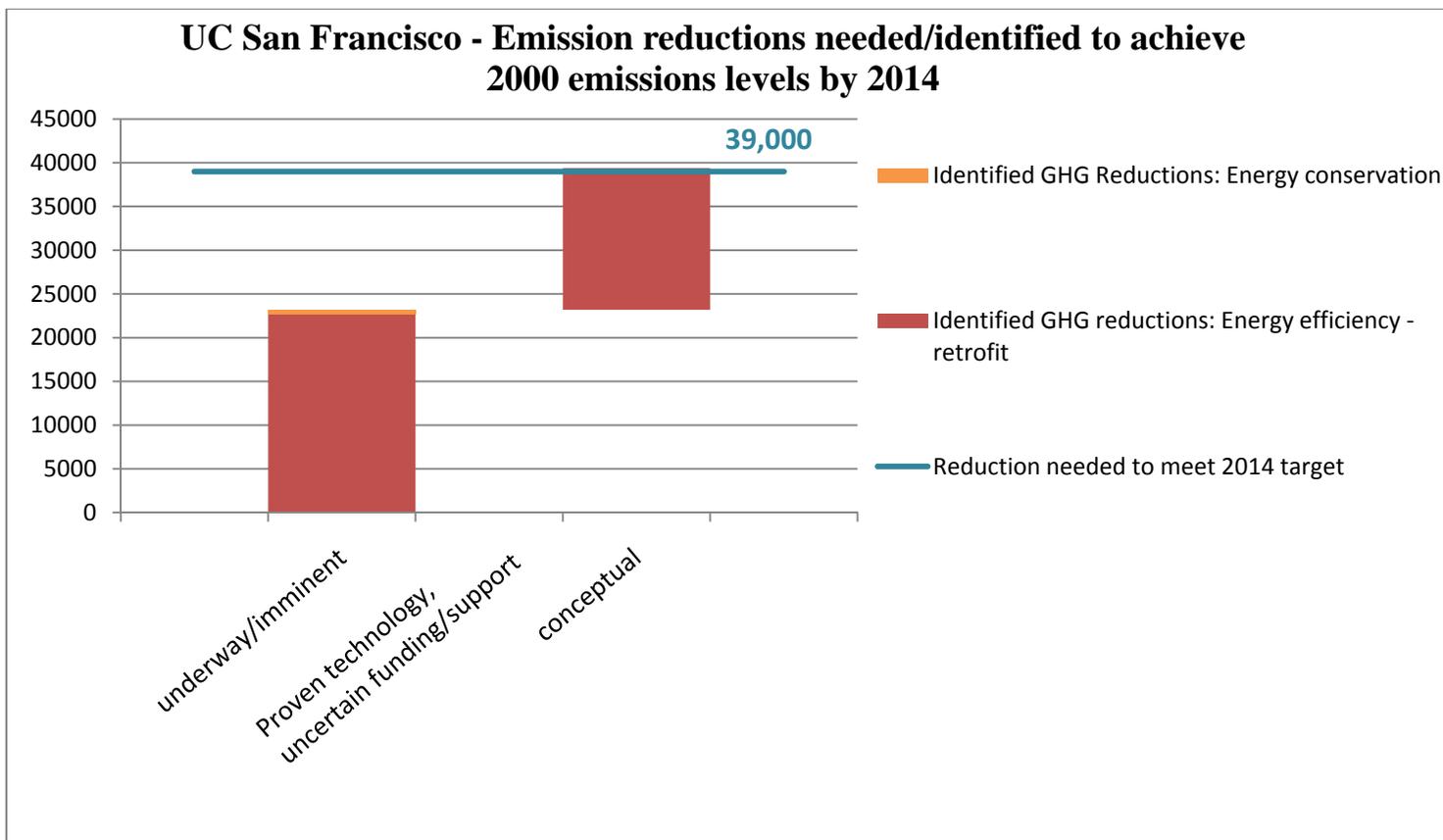
Attachment 2 Overview of UC Climate Action Plans



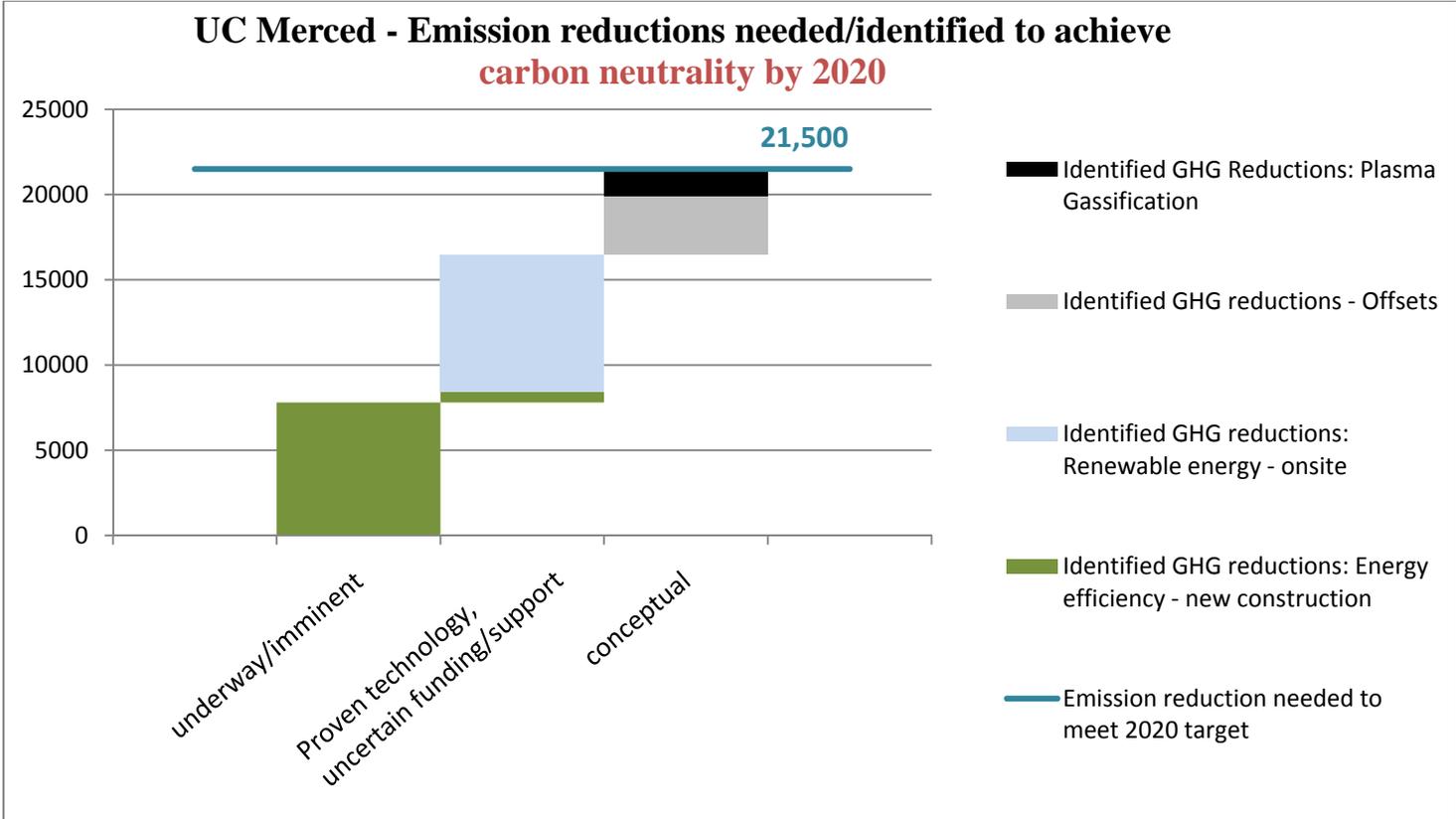
Davis has implemented or is implementing several emissions reduction initiatives that are not assigned specific reduction amounts as separate reduction actions in the Climate Action Plan and are not charted above. These actions are already accounted for in emissions modeling or have already been seen in emissions reductions since inventorying began. A partial list of such measures includes:

1. Energy efficiency projects implemented between 1999 and 2009 that have reduced annual GHG emissions by 36,000 tons.
2. A campus policy of exceeding Title 24 energy provisions by 25% for new construction projects (UC Policy only requires campuses to exceed Title 24 by 20%). While this practice will result in GHG reductions versus UC business as usual practices, there is no GHG reduction figure associated with this practice.
3. The UC Davis fleet now 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 2 Overview of UC Climate Action Plans



Attachment 2 Overview of UC Climate Action Plans

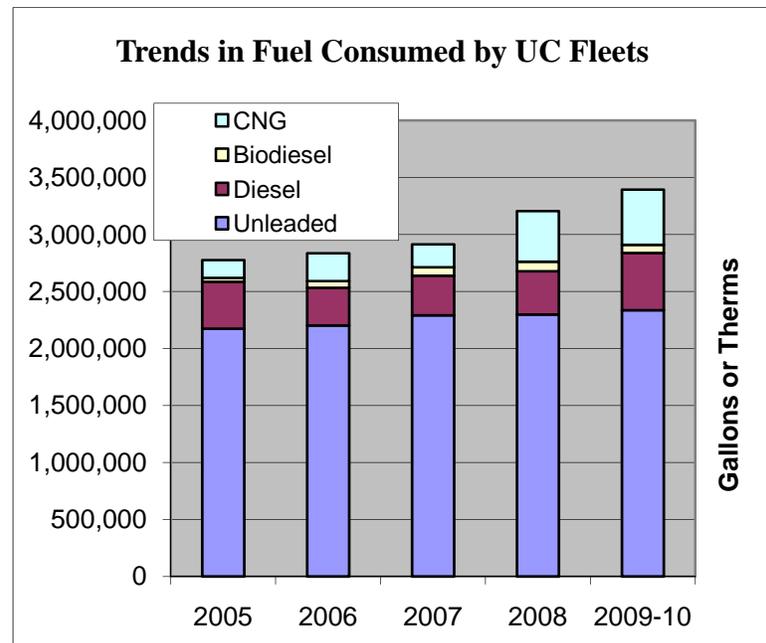
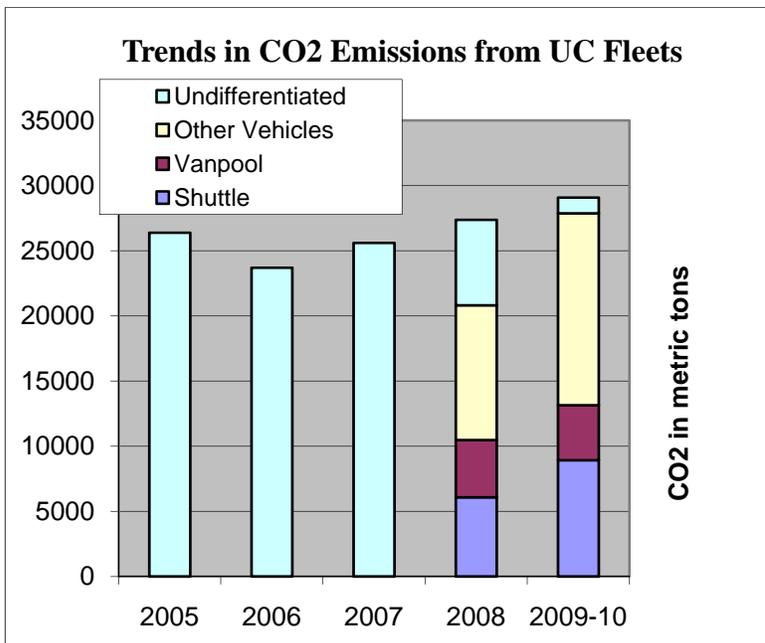


Attachment 3 Fleet Fuel Consumption Data

The amount of fuel consumed by shuttle buses increased for all fuel types, indicating more shuttle services were provided, which may have reduced single occupancy vehicle trips. Although technical issues required one campus to switch away from using 99 percent biodiesel in its shuttle buses, increased use of 20 percent biodiesel at three other campuses ameliorated the decline in biodiesel use across the system. Compressed natural gas (CNG) use increased largely because the Unitrans bus service in Davis replaced diesel buses with CNG buses (Unitrans at Davis serves both the campus and city population). Even so, diesel use increased across the system as several campuses had modest increases.

2009-10 Fuel Consumption

Type of Vehicle	Unleaded Gas (gallons)	Petroleum Diesel (gallons)	Biodiesel (B100) (gallons)	CNG (therms)
Shuttle buses	266,640	348,200	54,459	450,185
Vanpools 479,	232	0	0	594
Other Vehicles	1,459,517	148,780	15,845	33,815
Undifferentiated 130,	317	4,440	1,214	15
Total 2,33	5,706	501,421	71,517	484,609



Attachment 4

Environmentally-Preferable Purchasing Progress

This attachment provides details on the University's sustainable purchasing efforts in terms of progress to date, barriers that need to be addressed, and planned future initiatives.

I. Qualitative Progress

- ✓ In addition to selling sustainable products, the University's suppliers are now required to report on the sustainable practices within their organizations during quarterly reporting business meetings.
- ✓ The new Remanufactured Toner Cartridge Initiative encourages campuses to take advantage of competitive pricing on remanufactured toner cartridges purchased through OfficeMax. While offering significant savings when compared to their branded counterparts, this initiative also supports the concepts of reuse and recycling. Some campuses have fully implemented this program while others are in the pilot phase of testing the product.
- ✓ Water efficient products as certified through the U.S. Environmental Protection Agency's WaterSense® rating, are now required by policy, where WaterSense certified products are available and consistent with research and program needs.

II. Quantitative Progress

Several large suppliers reported sustainable product purchases by the University in fiscal year 2009-2010 (FY 2010) after not responding to data requests in previous years. Improved tracking and reporting thus accounts for part of the significant increase in the percentage of sustainable purchases from system-wide contracts, but the increase also reflects increased purchases of sustainable products such as recycled-content paper.

- ✓ The percentage of recycled-content multi-use paper purchased through the Strategic Sourcing OfficeMax Agreement has increased from 66.4 percent in FY 2008 to 85.0 percent in FY 2010.
- ✓ During FY 2009, the percentage of total sustainable purchases from system-wide supplier agreements was 12.1 percent against sales volume of \$36 million.
- ✓ During FY 2010, the percentage of sustainable purchases from system-wide supplier agreements increased to 23.2 percent against sales volume of \$76.8 million. These increases were the result of significant growth in two categories of certified sustainable products - EPEAT® (computer electronics) and ENERGYSTAR®.
- ✓ For the purposes of this reporting, sustainable products are defined as products with recycled content and/are products that are certified under one or more of the following third-party certifications:
 - ENERGYSTAR®
 - EPEAT®
 - GreenGuard®
 - GreenSeal®
 - WaterSense® (which has been added for 2010-2011).

III. Barriers and Next Steps:

Data collection continues to be a challenge. The data reported to date is limited to purchases made through system-wide purchasing agreements. The University has been able to make this type of reporting a term and

Attachment 4

Environmentally-Preferable Purchasing Progress

condition in the agreement with the supplier, but individual campuses and departments within each campus that develop their own purchasing agreements do not require any reporting of sustainable purchasing.

In addition to efforts to improve reporting, priorities in the coming year will be on sustainable procurement programs that create savings in the “total cost” of the goods or services and thus contribute to the University’s business efficiency initiatives. Future planned actions include:

- ✓ The Office of the President and several campuses are moving towards “networked” environments, with multiple users sharing one networked printer or copier-based multi-function device. This allows for the elimination of inefficient desktop printers that do not print on both sides of the page and use more energy than their networked counterparts.
- ✓ Negotiating better pricing with OfficeMax for the 2011 price year on 50 percent post-consumer recycled content multi-use paper (as long as paper pulp is not a commodity with severe shortages).
- ✓ Moving early adopters from 30 percent recycled content to 50 percent recycled-content multi-use paper and all others to 50 percent recycled-content multi-use paper over a two-year period from 2010 through 2012.
- ✓ As the aging copier fleet is replaced, moving to multi-function devices that allow the University to:
 - Save in energy expense (all devices are required to be ENERGYSTAR© compliant);
 - Cut down on the number of devices in each department (elimination of redundant equipment whose functions are now enabled on the multi-function devices).
 - Make double-sided copies the default to save on paper costs.

Attachment 5

External Sustainability Awards and Rankings Received by UC: 2010

Awards:

UC Sustainability Program receives Millennium Environmental Award

Global Green USA honored the University of California for the environmental commitment the university has demonstrated through its academic, research and sustainability practices...UC President Mark Yudof said winning the award is a "tremendous honor" that recognizes students, faculty and researchers who are transforming the University of California into a national leader for sustainable development. "We view the university as a living laboratory," Yudof said. "Not only are we generating the research into sustainable ways of living, we are finding culture-shaping ways to apply it." Yudof is accepting the award on behalf of UC at [Global Green's annual Millennium Awards](#) ceremony on Saturday (June 12) in Santa Monica at the Fairmont Miramar Hotel. <http://www.universityofcalifornia.edu/news/article/23525>

UCSD receives 1st Annual Climate Leadership Award for Institutional Excellence

UC San Diego received the 1st Annual Climate Leadership Award for Institutional Excellence in Climate Leadership on Oct. 12 at the 4th Annual American College & University Presidents' Climate Commitment (ACUPCC) Summit in Denver. UC San Diego Chancellor Marye Anne Fox tapped into the university's environmental heritage six years ago when she and the university's vice chancellors made sustainability a top educational priority and goal of all campus operations. Since then, the campus has been transformed. From economics to mechanical engineering, academic departments have incorporated sustainability concepts into dozens of classes. Faculty research is increasingly focused on energy efficiency, alternative fuels and photovoltaic technology. Over the last five decades, UC San Diego has become a nationally recognized living laboratory for climate change research and solutions. <http://ucsdnews.ucsd.edu/newsrel/general/10-14LeadershipAward.asp>

UC San Diego: A Fair Trade University

The University of California, San Diego has signed one of the strongest fair trade policies of any university in the nation. The policy makes a commitment to promote fair trade certified products, support sustainable business practices and humane working conditions that prohibit the use of child labor. UC San Diego students, staff and faculty worked together to develop the new policy, which will require all future food and vendor contracts at UC San Diego to sell 100 percent fair trade coffee, tea and sugar at all locations on campus. <http://ucsdnews.ucsd.edu/newsrel/general/07-15FairTradeUniversity.asp>

UCLA named most vegan-friendly large university in the country

Seen by many as the college epicenter of the animal rights debate, it should come as no surprise that UCLA is also the national leader when it comes to vegan dining. Food-services representatives regularly meet and dine out with members of the student organization [Bruins for Animals](#) to solicit feedback on how they can improve dining options. The university offers dozens of vegan entrées, including vegan lasagne, veggie chicken fingers, vegan barbecue beef with roasted vegetables, and vegan chili cheese dogs. <http://www.sustain.ucla.edu/article.asp?parentid=9460>

UC Davis Fleet Manager recognized with "Green Fleet" award

The recipients of the 2010 Environment Leadership Awards were announced Oct. 19 in a special presentation at the Green Fleet Conference in San Diego. Sponsored by *Automotive Fleet* and *Government Fleet*, winners in attendance were presented the award by San Diego Mayor Jerry Sanders. Commercial and public sector fleet leaders from 31 companies and government agencies were recognized for leading successful "green" efforts that led to significant improvements in their fleets' environmental impact. While a successful green fleet program requires participation from all staff involved, the awards recognized the individual responsible for taking charge and leading the team's efforts. These professionals lead their fleets in reducing emissions, implementing alternative-fuel technologies, and perform additional "greening" efforts.

Attachment 5

External Sustainability Awards and Rankings Received by UC: 2010

<http://www.automotive-fleet.com/News/Story/2010/10/2010-Environmental-Leadership-Award-Winners-Announced.aspx?interstitial=1>

UC Davis student wins first national ThinkGreenLiveClean contest

"I have been saving all of my non-biodegradable waste packaging in a project I've titled Operation Zero Waste 2010 - Less We Can! The project started with my desire to live a zero waste lifestyle, personally striving to decrease my consumption of non-biodegradable waste packaging while developing methods to creatively reuse, recycle, or repurpose the packaging that I have accumulated. By saving my trash for an entire year, I hope to show that we can take personal responsibility for our impact on this Earth. Every piece of trash that I have produced has been washed, dried, and stored in my room. Almost all of my food and paper scraps have been composted, and returned as nutrients into the Earth. All my recyclable glass bottles and aluminum cans will be reused, or creatively repurposed into artistic pieces or functional tools. All my plastic non-recyclable waste has been stuffed into plastic bottles as Portable Landfill Devices, plastic bottles filled to the point of compression with plastic trash that are then used as bricks to build structures out of cob or cement."

<http://www.thinkgreenliveclean.com/2010/11/greenest-student-college-challenge-winner-congratulations-brennan-bird-from-uc-davis/>

http://www.fox40.com/news/headlines/ktxl-tv-davistrashguy_0.7180809.print.story

<http://theaggie.org/article/2010/01/13/student-stinks-up-dome-for-research-project>

UC Irvine, UC Davis, and UC San Francisco win Tree Campus USA designation

"We're gratified to receive this honor from the Arbor Day Foundation," said Richard Demerjian, environmental planning & sustainability director at UC Irvine. "UCI takes great pride in its grounds, and it makes our day to hear how much people appreciate the campus environment." UCI is one of 74 campuses nationwide to win a Tree Campus USA designation. Others include Duke University, Cornell University, UC Davis and UC San Francisco.

http://uci.edu/features/2010/11/feature_trees_101117.php

UC Davis among winners of EPA's Game Day Challenge waste reduction competition

UC Davis won the EPA's 2010 Game Day Challenge in the Diversion Rate category by diverting 89.3% of the waste generated during its home football game on October 3, 2010. Ohio State was a distant second at 68.41%, University of Tennessee at Martin at 63.86% for third, and Harvard at 62.21% at fourth place.

<http://www.epa.gov/osw/partnerships/wastewise/challenge/gameday/results.htm>

UCSF Medical Center Receives Recognition for Environmentally Sustainable Practices

UCSF Medical Center and UCSF Children's Hospital received a Partner for Change Award from Practice Greenhealth for integrating environmental responsibility into its operations. Practice Greenhealth is the nation's leading membership and networking organization for institutions in the health care community committed to sustainable, eco-friendly practices...The Environmental Excellence Awards recognize success stories, said Anna Gilmore Hall, executive director of Practice Greenhealth. UCSF Medical Center is a successful model of how health facilities can develop and implement pollution prevention programs to greatly improve the health of their patients, staff and community.

<http://today.ucsf.edu/stories/ucsf-medical-center-receives-recognition-for-sustainable-practices/>

Attachment 5

External Sustainability Awards and Rankings Received by UC: 2010

UC Santa Cruz Wins Acterra 2010 Business Environmental Award

UC Santa Cruz won Acterra's 2010 Business Environmental Award in Pollution Prevention/Resource Conservation -- Large Organization for its outstanding sustainability projects and programs. UC Santa Cruz's waste prevention, green transportation, and energy efficiency programs all helped to secure the top spot in its category. Additionally, the judges were impressed by the collaborative nature of sustainability on our campus. UC Santa Cruz prides itself on including students, staff, faculty and administration to green our campus and lead the way worldwide in the sustainability in higher education movement.

<http://sustainability.ucsc.edu/node/76#acterra>

UCSB Receives Bicycle Friendly Business Gold Award

The League of American Bicyclists has named UC Santa Barbara a Bicycle Friendly Business Gold Award winner. UCSB was among 51 new Bicycle Friendly Businesses announced at the 10th National Bike Summit in Washington, D.C., on Wednesday, March 10. Forty nine percent (10,215) of UCSB's students commute by bicycle, as well as 9 percent (420) of the faculty and staff. UCSB also features seven miles of Class I bicycle paths, more than 10,000 secure bicycle parking spaces in bicycle racks, 40 secure bicycle lockers, six bicycle roundabouts, and free showers for bicycle commuters.

<http://www.ia.ucsb.edu/pa/display.aspx?pkey=2198>

UCSD Wins Combined Heat and Power (CHP) 2010 Award from EPA

The U.S. Environmental Protection Agency (EPA) on June 15 gave UC San Diego a 2010 Energy Star CHP Award for its high efficiency, low-emission combined heat and power (CHP) plant that provides 85 percent of the campus annual electricity needs. With a net operating efficiency of 66 percent, UC San Diego's CHP plant requires about 26 percent less fuel than a system composed of typical onsite thermal generation and purchased electricity, saving the university \$670,000 per month in energy costs. The CHP system also effectively reduces carbon dioxide emissions by an estimated 82,500 tons per year, which is equivalent to the annual emissions from more than 13,700 passenger vehicles. The EPA award described the impressively low emission levels of nitrogen oxide pollutants as one of the lowest levels for cogeneration in the San Diego County Air Pollution Control District.

<http://ucsdnews.ucsd.edu/newsrel/general/06-15EnergyStar.asp>

http://www.epa.gov/chp/public-recognition/current_winners.html

UCOP wins Business Efficiency Award for waste reduction efforts

StopWaste.Org honored 12 Alameda County companies and organizations with the 2010 Business Efficiency Awards. The awards are presented annually for outstanding achievements in waste reduction, enhanced operational efficiency, and environmental performance. The University of California Office of the President (Oakland) was one of the winners

<http://www.stopwaste.org/home/index.asp?page=978>

UC Irvine wins Transportation Award

UCI's Parking & Transportation Services department launched ZotWheels last fall as an alternative to driving a personal or fleet vehicle to, from and around campus. Students, staff and faculty members take advantage of the program, reducing traffic congestion, the demand for parking, and UCI's carbon footprint. Computerized and networked ZotWheels stations are strategically located at high-volume destinations throughout campus, allowing members to rent a bike from one site, ride it and then return it to any of the other stations. Bicycles can also be used in the neighboring community. ZotWheels membership is \$40 per year. The Green California Leadership Awards were established to recognize outstanding environmental achievements in government. Awards were presented Tuesday, March 16, at the [Green California Summit](#) in Sacramento.

http://today.uci.edu/news/2010/03/nr_zotwheelsaward_100317.php

Attachment 5

External Sustainability Awards and Rankings Received by UC: 2010

Rankings and Ratings:

UC Berkeley Haas School of Business receives two five-star ratings in "A Guide to Business Schools Making a Difference"

In the Aspen Institutes 2010-2011 guide to MBA programs and how they are integrating social, ethical and environmental impact into their academic and extracurricular offerings, Haas scored five (out of five) star ratings in Relevant Coursework Available and Relevant Courses on For-Profit Impact. Relevant Coursework Available measures the number of courses offered at each school that contain social, environmental, and/or ethical content while Relevant Courses on For-Profit Impact looks at courses that explore how business can be a force for positive social and environmental change.

<http://responsiblebusiness.haas.berkeley.edu/PressRelease31910.html>

UC Campuses earn high marks on annual Sustainability Report Card

UC Davis and UC San Diego both each earned an A- in the Sustainable Endowments Institute's annual College Sustainability Report Card. The grades are based on a survey that assesses university performance across nine areas, ranging from Climate Change & Energy to Green Building to Investment Priorities. Of the 322 schools that received grades, only 16% scored an A- or better.

<http://www.greenreportcard.org/>

See also: <http://sustainability.ucdavis.edu/progress/commitment/awards.html>

Three UC campuses among the 18 on The Princeton Review's 2011 Green Rating Honor Roll

Eighteen U.S. colleges and universities made [The Princeton Review's 2011 Green Rating Honor Roll](#) for maintaining the most sustainable practices, policies and course offerings among all campuses rated for their environmental friendliness, said the company that created the popular "best colleges" guides. This year 703 schools, the most thus far, submitted environmental information that was scored on a scale of 60, the least possible score, to 99, the highest possible score. The schools on the honor roll received scores of 99. The three UC campuses to receive a 99 were UC Santa Cruz, UC Santa Barbara, UC Berkeley.

<http://www.greenbiz.com/news/2010/08/03/princeton-review-names-greenest-colleges-us#ixzz0wFeajutV>

See also: <http://www.fastcompany.com/1677738/yale-harvard-west-virginia-university-make-princeton-reviews-list-of-green-colleges>

UCSB, UCSC among "Top 10 Eco-Friendly Colleges and Universities" according to U.S. News

UCSB: <http://www.usnews.com/education/best-colleges/slideshows/10-eco-friendly-college-campuses/6>

UCSC: <http://www.usnews.com/education/best-colleges/slideshows/10-eco-friendly-college-campuses/9>

Eight UC campuses make Sierra Club's green rankings

Eight University of California campuses made Sierra magazine's list of [100 Cool Schools](#), which ranks environmentally friendly polices at universities across the country. Leading the way for UC was [Irvine](#), which placed sixth on the list with a score of 84.4 out a possible 100. Santa Cruz was 11th with score 82, San Diego was 15th with 81.6, Davis was tied for 16th with 81.2, UCLA was 25th with 77.6, Berkeley 32nd with 76.3, Merced 39th with 73.3 and Santa Barbara 44th with 72.2. The Cool Schools survey results will be published in the September/October issue of Sierra, a publication of the Sierra Club.

UC press release: <http://www.universityofcalifornia.edu/news/article/23885>

Chronicle of Higher Ed: <http://chronicle.com/blogPost/Sierra-Magazine-Shuffles-the/26247/>

NPR Talk of the Nation: <http://www.sciencefriday.com/program/archives/201008205>