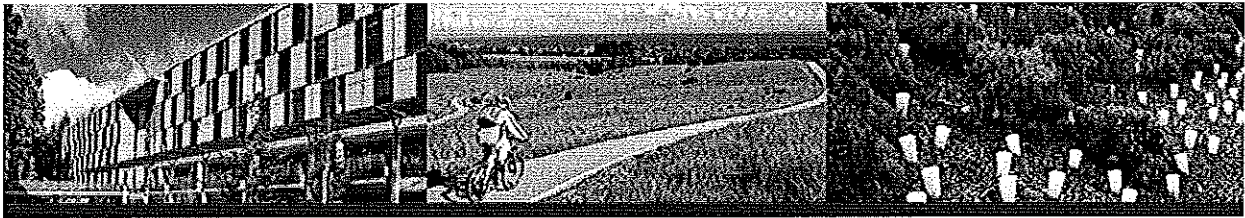


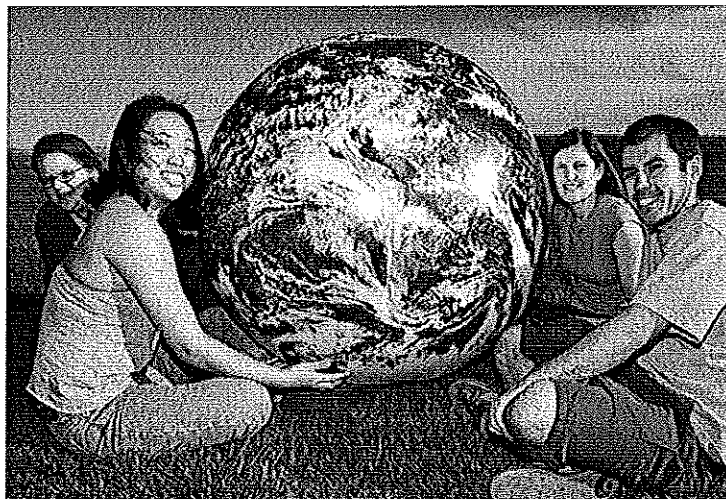
**UNIVERSITY OF CALIFORNIA POLICY  
ON SUSTAINABLE PRACTICES  
And  
2008 UCSC SUSTAINABILITY UPDATE**

# 2008 UCSC Sustainability Update



**The University of California Santa Cruz is a committed partner in the regional Climate Action Compact.** The campus has made significant progress on climate protection and campus sustainability. Here are examples:

- Energy efficiency projects completed since 2004 have lowered annual campus CO2 emissions by approximately 1,600 metric tons. These projects reduced CO2 emissions by reducing annual campus electrical consumption by 2.8 million kWh, and campus natural gas consumption by 113,000 therms. This CO2 footprint is equivalent to the annual emissions of 293 passenger vehicles or approximately 160 single family residential buildings.
- UCSC has been recognized by the national environmental publication, *Plenty Magazine*, for having the "greenest" student dining among U.S. universities, thanks to innovative local, organic food sourcing and waste reduction programs.
- UCSC has set aside 55% of its nearly 2,000-acre campus as natural habitat.
- The campus has reduced per capita water consumption by 40 percent, and has plans under development to reduce total annual use by another 20 to 30 million gallons.
- Thanks to aggressive, innovative trip-reduction programs, nearly six in ten people traveling regularly to and from the campus (vs. three in ten throughout the Santa Cruz community) use alternatives to single-occupancy vehicles.
- UCSC is committed to becoming even "greener" and more sustainable, and to a long-term collaborative relationship with the city and county that further reduces the region's collective carbon footprint.



# 2008 UCSC Sustainability Update



## Energy and Climate:

### UC Policy on Sustainable Practices Systemwide Goals<sup>1</sup>:

#### Greenhouse Gas Emission Reduction:

- By 2014, reduce GHG emissions to 2000 levels
- By 2020, reduce GHG emissions to 1990 levels
- By 2050 reduce 80% below 1990 levels

#### Renewable Energy:

- By 2010, strive for 20% of power to be generated by renewables
- By 2014, generate approximately 10 MW of onsite renewable energy (throughout the UC system)



### UCSC Campus Activities:

- UCSC has a history of energy efficiency and an ongoing slate of efficiency-related projects.
- Over 2.8 million KWh, equivalent to 1600 tons of CO<sub>2</sub> are avoided due to energy efficiency measure implemented since 2004.
- The institution offsets 100% of its electrical load with Renewable Energy Credits (making it the sixth largest renewables purchaser in higher education nationwide).
- University Housing Services replaced 1,100 light fixtures in the student residential buildings with energy saving fixtures in the summer of 2008 for an annual savings of about 90,000 KWH.
- In addition to signing the Climate Action Compact, UCSC is a signatory to the American College and University Presidents Climate Commitment (ACUPCC).
- UCSC has completed a GHG inventory and is registered with the California Climate Action Registry.

## Green Building:

### UC Policy on Sustainable Practices Systemwide Goals:

- All new buildings will achieve a minimum of LEED "Silver" and strive for "Gold" or the equivalent and will outperform Title 24 by 20%.



### UCSC Campus Activities:

- UCSC has submitted for LEED – Existing Building "Silver" certification for Engineering 2, leading to annual energy savings of 900,000 KWH and 93,000 therms of natural gas savings.
- UCSC has several new construction and renovation LEED certification projects underway.



<sup>1</sup> UC "Presidential Policy on Sustainable Practices" sets systemwide goals. Full policy can be found: [www.ucop.edu/facil/sustain/](http://www.ucop.edu/facil/sustain/)

# 2008 UCSC Sustainability Update



## Transportation:

### UC Policy on Sustainable Practices Systemwide Goals:

- By 2010 UCSC will strive to increase the number of alternative energy fleet vehicles by 20% from the 2005 baseline and/or convert 50% of vehicles to non-carbon fuels.

### UCSC Campus Activities:

- The campus fleet began using 20% biodiesel (B-20) in all vehicles in 2007.
- Last year UCSC launched the most successful university-based car-sharing program in the United States through a multi-year relationship with Zipcar. Membership now totals more than 630 participants—500 of whom are UCSC students, 65 are faculty or staff, and 65 are non-UCSC affiliates (community members).
- Nearly 60% of commuters reach campus by means other than single-occupancy vehicles (compared to only 28% by alternative vehicle use by county residents).
- Spring 2008 traffic volumes through the two campus entrances declined more than 16% from their high in Spring 2005—to the lowest levels seen since spring 1998.
- This October counts revealed more than 1,200 bicycle riders per day—an increase of more than 50% over bike ridership just last spring.
- Bike Shuttle service was extended to the UCSC Inn, ridership increased to 250 and 300 passengers daily.



## Recycling and Waste Management:

### UC Policy on Sustainable Practices Systemwide Goals:

- By 2012, achieve 75% diversion rate.
- By 2020, achieve Zero Waste.

### UCSC Campus Activities:

- Increased overall recycling stream from 32% to 45% in FY 07-08.
- Implemented Zero Waste event programs serving thousands of participants.
- Installed Multibins in residence halls to collect electronic and universal waste.
- Implemented battery recycling program.
- Partnered with the County of Santa Cruz to divert food scraps to the county's compost program.



## Purchasing:

### UC Policy on Sustainable Practices Systemwide Goals:

- Minimum standard of 30% PCW paper for office supplies and uncut paper.
- Computer equipment purchases will achieve Bronze or higher under EPEAT.
- Purchase Green Seal Certified cleaning products.
- Purchase Energy Star rated products when available.

### UCSC Campus Activities:

- Educational programs are being put in place for UCSC staff and a pilot program to achieve Zero Waste in offices is underway.
- A proposal is being considered to increase from 30% PCW paper to 100% PCW in basic office paper.

# 2008 UCSC Sustainability Update



## Land, Habitat, and Watershed:

- 55% of campus land is dedicated as protected natural landscape.

## Food Systems:

- UCSC has been recognized as having the "greenest cafeterias" nationwide by Plenty Magazine for efforts to buy local and reduce waste.
- Trayless Initiative in UCSC Dining--saving over 30,000 gallons of water monthly, reducing food waste by 25-35%, and creating a less energy intensive infrastructure in the kitchen.
- Approximately a quarter of UCSC Dining Services' produce is organic, much provided through an innovative local sourcing arrangement with a local farmers cooperative.
- UCSC Dining Services has achieved "Green Certification" for 9 of 14 Dining Halls (through the City of Santa Cruz and Monterey Green Business Program)



## Water Use and Conservation:

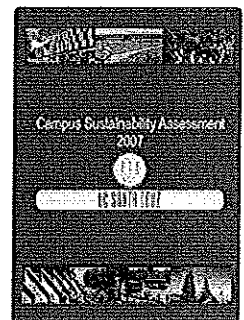
- Water consumption has risen only modestly since the 1980s: despite a 72.7% rise in enrollment since 1986-1987, annual campus water consumption increased only 4.2% (185.2 to 192.9 million gallons).
- Annual per capita water usage fell 40% since the 1980's (from 22,022 to 13,282 gallons per student).
- UCSC undertook a comprehensive water efficiency survey in 2007 that suggests a number of possible conservation projects that could result in a 10-15% reduction in total annual water use (saving 20 to 30 million gallons per year).

## Governance and Decision-Making Structures:

- The Chancellor's Council on Climate Change was established in February 2008.
- In 2007, a two-year pilot Sustainability Office with a Coordinator position was created.



- UCSC completed a Campus Sustainability Assessment and launched a campus sustainability website: <http://sustainability.ucsc.edu>



# UNIVERSITY OF CALIFORNIA

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September 1, 2009

## CHANCELLORS INTERIM LAB DIRECTOR – LAWRENCE BERKELEY NATIONAL LABORATORY

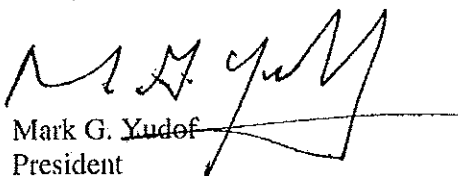
### Policy on Sustainable Practices

The University of California is committed to minimizing its impact on the environment and reducing its dependence on non-renewable energy. As directed by The Regents in July 2003, the President adopted the Policy on Sustainable Practices, which has been updated in January 2006 and March 2007. In March 2008, The Regents adopted a Statement on University of California Sustainability Programs that recommended building upon the University's record of environmental stewardship and requested an assessment of several policy areas for potential updating or expansion.

Accordingly, the enclosed *Policy on Sustainable Practices* and *Guidelines* for implementation include the addition of a section on sustainable foodservices, as well as revisions and updates in the areas of green building design, climate protection practices, and sustainable transportation practices.

These policy updates and revised guidelines were approved by the Sustainability Steering Committee, consisting of administrators from all campuses and the Office of the President, and faculty members with expertise in these disciplines. They are based on the recommendations from topical working groups comprised of representatives from all campuses.

The expansion and updating of goals in these areas strengthens implementation of evolving best practices on sustainability, for which the University continues to receive extensive recognition.

  
Mark G. Yudof  
President

Enclosures

cc: Members, President's Cabinet  
Principal Officers of The Regents  
Associate Vice President Bocchicchio  
Universitywide Policy Office

September 1, 2009

UNIVERSITY OF CALIFORNIA  
POLICY ON SUSTAINABLE PRACTICES

Resource sustainability is critically important to the University of California, the State of California, and the nation. Efficient energy use is central to this objective, and renewable energy and energy-conservation efforts provide a means to save money, foster environmental awareness, reduce the environmental consequences of University activities, and provide educational leadership for the 21st century.

The University is committed to stewardship of the environment and to reducing the University's dependence on non-renewable energy sources. With this commitment in mind, we will regularly review initiatives and best practices and share successes by augmenting the existing University guidelines. These guidelines currently recommend that University operations:

- Incorporate the principles of energy efficiency and sustainability in all capital projects, renovation projects, operations and maintenance within budgetary constraints and programmatic requirements.
- Minimize the use of non-renewable energy sources on behalf of the University's built environment by creating a portfolio approach to energy use, including the use of local renewable energy and purchase of green power from the grid as well as conservation measures that reduce energy consumption.
- Incorporate alternative means of transportation to/from and within the campus to improve the quality of life on campus and in the surrounding community. The campuses will continue their strong commitment to provide affordable on-campus housing, in order to reduce the volume of commutes to and from campus. These housing goals are detailed in the campuses' Long Range Development Plans.
- Track, report and minimize greenhouse gas emissions on behalf of University operations
- Minimize the amount of University-generated waste sent to landfill.
- Utilize the University's purchasing power to meet its sustainability objectives.

The Office of the President will annually report to the Regents on the Policy's impact on capital and operating costs, and overall campus sustainable practices.

CHANGES APPROVED BY THE SUSTAINABILITY STEERING COMMITTEE  
SEPTEMBER 2008, AND JUNE 2009

September 1, 2009

UNIVERSITY OF CALIFORNIA  
POLICY GUIDELINES FOR SUSTAINABLE PRACTICES

SCOPE/AUTHORITY

The Regents have delegated authority to the President for promulgating policy promoting sustainable new capital projects, existing University facilities, and campus transportation resources. The President has delegated authority to the Executive Vice President, Business Operations for further definition of measures to implement University policy regarding sustainability. Chancellors are responsible for implementation in the context of individual building projects, facilities operations, and transportation projects and programs.

These Policy Guidelines are intended to provide specific scope, direction, and expectations underlying from the Presidential Policy on Sustainable Practices. They also identify best practices to facilitate compliance and provide additional background relevant to this policy.

Supplementary to, and embedded within, these Policy Guidelines are Implementation Procedures that are intended to provide specific course of action, standardized methods, and/or consistent series of steps to implement the Presidential Policy on Sustainable Practices and these Policy Guidelines. The Implementation Procedures denoted in italics, follow applicable Policy Guidelines.

BACKGROUND

Resource sustainability is critically important to the University of California, the State of California, and the nation. Efficient energy use is central to this objective, and renewable energy and energy-conservation projects provide a means to stabilize campus budgets, increase environmental awareness, reduce the environmental consequences of University activities, and provide educational leadership for the 21st century.

On July 17, 2003, the Regents of the University expressed their support for a Presidential policy to promote "...the principles of energy efficiency and sustainability in the planning, financing, design, construction, renewal, maintenance, operation, space management, facilities utilization, and decommissioning of facilities and infrastructure to the fullest extent possible, consistent with budgetary constraints and regulatory and programmatic requirements." At their September 2005 meeting, the Regents authorized the President to incorporate sustainable transportation practices into this Policy. Transportation to, from, and within a campus has a significant impact on air quality and affects both the campus landscape and relations with surrounding communities. It is desirable, therefore, to manage transportation demand, provide transportation options, and encourage the use of low-impact vehicles, non-fossil fuels, and creative modes of transport, while ensuring maximum campus access and preserving lifestyle features. This approach to transportation services is a necessary component of the University's sustainability efforts.



In October 2006, in response to the requirement that this policy guideline document be re-examined every three years, sections of the Policy were clarified and new sections were added specifically in the areas of renovation policy, climate change practices, green building operations and maintenance, recycling and waste management, and environmentally preferable procurement.

The University of California is committed to improving the University's effect on the environment and reducing the University's dependence on non-renewable energy. Guidelines for implementing practices in support of Green Building Design, Clean Energy Standards, and Sustainable Transportation Practices are explained in detail in the following plan for achieving these goals.

## POLICY GUIDELINES

### I. Green Building Design

#### New Buildings

- a. Given the importance of energy efficiency to green building design, the University has set a goal for all new building projects, other than acute-care facilities, to outperform the required provisions of the California Energy Code (Title 24) energy-efficiency standards by at least 20 percent.
- b. Campuses will strive to design buildings that outperform Title 24 energy efficiency standards by 30 percent or more, whenever possible within the constraints of program needs and standard budget parameters.
- c. Standards for energy efficiency for acute care facilities will be developed in consultation with campuses and medical centers.
- d. The University of California will design and build all new buildings (except for laboratory and acute care facilities that are addressed separately below) to a minimum standard equivalent to a LEED™-NC "Silver" rating, according to the version of LEED-NC that is current at the time of design approval.
- e. Campuses will strive to achieve a standard equivalent to a LEED™-NC "Gold" rating or higher, whenever possible within the constraints of program needs and standard budget parameters.
- f. Given the importance of specifically addressing sustainability in laboratory facilities, the University of California will design and build all new laboratory buildings to a minimum standard equivalent to a LEED™-NC "Silver" rating and the Laboratories for the 21st Century (Labs21) Environmental Performance Criteria (EPC), as appropriate. The design process will include attention to energy efficiency for systems not addressed by the California Energy Code (Title 24).
- g. Because of regional water scarcity, all new building projects will achieve at least two of the available credits in LEED™-NC's Water Efficiency category. Campuses will also cooperate with local water districts in efforts to conserve water and to meet reduced water use goals of the local districts.

- h. All privatized development projects on Regents' land where the project is to be used for a programmatic or auxiliary purpose (i.e., a University-related purpose) must comply with the Green Building Policy provisions listed herein. Campuses may decide if projects built on Regents' land pursuant to a ground lease by a private, institutional or government entity ("Lessee") for the Lessee's own use (whether in support the University's mission or to generate income for the University) must also abide by the University's Green Building Policy. The Policy shall also apply to build-to-suit buildings to be used for University-related purposes on land not owned by the Regents. The provisions of this subsection apply regardless of the business relationship between the parties (i.e., whether a gift, acquisition, ground lease and/or lease).
- i. In consultation with the campuses, the Office of the President will develop an internal evaluation and certification standard based on the LEED™ and Labs21 measures.
- j. The measures required by these Policy Guidelines will be incorporated into all new building projects, other than acute care facilities, submitted for first formal scope and budget approval as of July 1, 2009. Privatized projects for which a request for proposal (RFP), or equivalent, is issued after July 1, 2009 shall be governed by these Policy Guidelines.
- k. Further study will be conducted before a similar sustainable design policy for new acute-care facilities is adopted.

#### Building Renovations

Significant renovation projects will apply sustainability principles to the systems, components and portions of the buildings being renovated as follows:

- a. At budget approval, all renovation projects should include a listing of sustainable measures under consideration. Design and specification of renovation components such as mechanical, electrical and plumbing components, lighting, finishes, materials, etc., must meet or exceed associated Campus Green Building Baseline points.
- b. Renovation of buildings that require 100% replacement of mechanical, electrical and plumbing systems and replacement of over 50% of all non-shell areas (interior walls, doors, floor coverings and ceiling systems) should at a minimum comply with a UC equivalent to a LEED™-NC 2.1, or most current version of the LEED NC program, certified rating. Subject to life cycle cost analysis, such projects should outperform Title 24, Part 6, that is currently in effect, by 20% and register with the Savings by Design program.
- c. Renovation projects with a project cost of \$5 million or greater (CCCI 5000) that do not fall under item b above should at a minimum comply with a UC equivalent to a LEED™-Commercial Interiors certified rating and register with the Savings by Design program, if eligible.
- d. The green building requirements described in items a through c above applies to renovation projects that receive budget approval after July 1, 2007.

- e. For all improvement projects in spaces leased or licensed by the Regents to be used for University-related purposes for a term of greater than 12 months, campuses shall strive to comply with the requirements in a and c above as appropriate.

#### General/Miscellaneous

- a. Policy guidelines for Sustainable Operations of existing buildings previously addressed by this section are now found in Section V of this document.
- b. Policy guidelines which previously indicated that the University will use its purchasing power to promote the availability of products that are resource-efficient, energy-efficient, water-efficient, and of recycled and rapidly renewable content for building materials, subsystems, components, equipment, and supplies are now found in Section VII, Environmentally Preferable Purchasing Practices.
- c. The University will work with regulatory agencies and other entities to speed the development, approval, and implementation of products and technologies that improve energy efficiency and support sustainable design, construction, and operating practices.
- d. The University will develop a program for sharing best practices.
- e. The University will incorporate the Green Building Design policy into existing facilities-related training programs, with the aim of promoting and maintaining the goals of the policy.

#### Implementation Procedures for Green Building Design – General/Miscellaneous:

- Any proposed exception from standards listed in the Policy Guidelines may be requested administratively during preparation of the Project Planning Guide (PPG). Any exception proposed after approval of the PPG will be treated as a scope change and processed in accordance with standard University procedures.
- Projects that cannot meet UC's minimum standard of LEED™-NC "Silver" (or equivalent) should strive to achieve a LEED™-NC "Certified" rating. Projects that are unable to achieve a LEED™-NC "Certified" rating should submit a LEED™-NC scorecard and supporting documentation to the Office of the President, showing the credits that the project did achieve.
- Campuses may choose to pursue external certification through the LEED™ process, augmented with Labs21 criteria as appropriate for laboratory systems, in lieu of the internal process for a given project.
- The University planning and design process will include explicit consideration of lifecycle cost along with other factors in the project planning and design process, recognizing the importance of long-term operations and maintenance in the performance of University facilities.
- The University will work closely with the U.S. Green Building Council, Labs21, the Department of Energy, the U.S. Environmental Protection Agency, State government, and other organizations to facilitate the improvement of evaluation methodologies to better address University requirements.

Additionally, the University will work with the U.S. Green Building Council to develop a self-certification tool for University use.

## II. Clean Energy Standard

- a. The University will implement a systemwide portfolio approach to reduce consumption of non-renewable energy. The portfolio will include a combination of energy efficiency projects, the incorporation of local renewable power measures for existing and new facilities, green power purchases from the electrical grid, and other energy measures with equivalent demonstrable effect on the environment and reduction in fossil fuel usage. The appropriate mix of measures to be adopted within the portfolio will be determined by each campus. Since each campus's capacity to adopt these measures is driven by technological and economic factors, the campus will need to reevaluate their energy measures mix on a regular basis. The portfolio approach will provide valuable analytical information for improving energy efficiency, resulting in an overall improvement in the University's impact on the environment and reduced reliance on fossil fuels during the next decade of capital program growth.
- b. The University will strive to achieve a level of grid-provided electricity purchases from renewable sources that will be similar to the State's Renewable Portfolio Standard, which sets a goal of procuring 20 percent of its electricity needs from renewable sources by 2010.
- c. With a goal of providing up to 10 megawatts of local renewable power by 2014, the University will develop a strategic plan for siting renewable power projects in existing and new facilities. The plan will include demonstration projects for photovoltaic systems and other renewable energy systems, such as landfill gas fueled electricity generation or thermal energy production. The strategic plan will include criteria for evaluating the feasibility of a variety of projects, such as incorporating photovoltaic systems in replacement roofing projects and in new buildings, as well as forecasting the accommodations necessary for eventual installation of photovoltaic systems. The University will assess the progress of renewable energy technology improvements, both in terms of cost and technical efficiency. To achieve the renewable power goal, the University will maximize the use of available subsidies and negotiate pricing reductions in the marketplace, and will develop funding sources for financing the costs of renewable energy measures.
- d. With a goal of reducing systemwide non-renewable energy consumption, the University will develop a strategic plan for implementing energy efficiency projects for existing buildings and infrastructure to include operational changes and the integration of best practices. The University will monitor industry progress in energy retrofits and implement technical improvements as they become available. As with renewable energy projects, the University will develop funding sources and establish a program for financing retrofit projects. The initial goal for energy efficiency retrofit projects will be to reduce systemwide growth-adjusted energy consumption by 10 percent or more by 2014 from the year 2000 base consumption level. The University will strive to achieve even greater savings as additional potential is identified and funding becomes available.
- e. The University will continuously evaluate the feasibility of other energy-saving measures with equivalent demonstrable effect on the environment and reduction in fossil fuel usage. In particular, campuses will strive to implement the Sustainable Transportation Practices described in Section IV, below.

- f. The University will develop a variety of funding sources and financing alternatives for energy efficiency, renewable energy, and clean energy projects that will enable campuses to be flexible in addressing their energy needs.
- g. The University will pursue marketing of emissions credits as a means to bridge the cost-feasibility gap for green power projects.

#### Implementation Procedures for Clean Energy Standard:

- The University will initiate progress towards a level of grid-provided electricity purchases in 2004 by purchasing 10 percent of grid-supplied electricity from renewable sources, subject to funding availability, and will track progress annually toward achievement of the year 2010 goal.
- Campuses will provide strategic plans for implementing energy efficiency projects by identifying opportunities to incorporate energy retrofit projects into major building renovations as funding is available, and to initiate standalone retrofit projects as justified by future energy savings.

### III. Climate Protection Practices

- a. With an overall goal of reducing greenhouse gas (GHG) emissions while maintaining enrollment accessibility for every eligible student, enhancing research, promoting community service and operating campus facilities more efficiently, the University will develop a long term strategy for voluntarily meeting the State of California's goal, pursuant to the "California Global Warming Solutions Act of 2006" that is, by 2020 to reduce GHG emissions to 1990 levels. In addition, consistent with the Clean Energy Standard sections a., b. and c. of this document, the University will pursue the goal of reducing GHG emissions to 2000 levels by 2014 and provide an action plan for becoming climate neutral as specified in the Implementation Procedures below.

#### Implementation Procedures for Climate Protection Practices:

- Each UC campus will pursue individual membership with either the California Climate Action Registry (CCAR) or The Climate Registry (TCR). The Senior Vice President, Business and Finance<sup>1</sup>, in coordination with campus administration, faculty, students and other stakeholders will form a Climate Change Working Group that will develop a protocol to allow for growth adjustment and normalization of data and accurate reporting procedures. The Climate Change Working Group will monitor progress toward reaching the stated goals for GHG reduction, and will evaluate suggestions for programs to reach these goals.
- By September 15, 2008, each UC campus will complete a greenhouse gas emissions inventory. To comply with CCAR (or TCR) and ACUPCC requirements, inventories should contain emissions from the six Kyoto greenhouse gasses, including: direct and indirect emissions outlined in the ACUPCC implementation guide and CCAR or TCR general reporting protocol; air travel paid for

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<sup>1</sup> This position became the *Executive Vice President – Business Operations* in May 2007.

by or through the institution; and commuting to and from campus on a day to day basis by students, faculty, and staff. As ACUPCC member institutions, all UC campuses will report their updated emissions inventories through the ACUPCC on-line reporting tool at least once every other year.

- By December 2008, the University will develop an action plan for becoming climate neutral which will include: a feasibility study for meeting the 2014 and 2020 goals stated in the Policy Guidelines, a target date for achieving climate neutrality as soon as possible while maintaining the University's overall mission, and a needs assessment of the resources required to successfully achieve these goals. Climate neutrality means that the University will have a net zero impact on the Earth's climate, and will be achieved by minimizing GHG emissions as much as possible and using carbon offsets or other measures to mitigate the remaining GHG emissions.
- By September 15, 2009, each UC campus will implement two of the seven tangible actions to reduce greenhouse gas emissions that are outlined in the ACUPCC.

#### IV. Sustainable Transportation Practices

##### Metrics and Benchmarking

- a. In implementing a most efficient and effective economic and environmental strategy for campus fleets, campuses shall implement practicable and cost-effective measures, including, but not necessarily limited to, the purchase of the cleanest and most efficient vehicles and replacement tires, the use of alternative fuels, and other conservation measures.
- b. Campuses will be encouraged to collect data on Average Vehicle Ridership (AVR) of commuters.
- c. The Senior Vice President, Business & Finance<sup>2</sup> has made a written request to major automobile manufacturers expressing both the University's commitment to work with industry to provide vehicle and fuel choice, and the expectation that industry will provide these choices to the fullest extent possible.
- d. Section III of these Guidelines addresses Climate Protection Practices. To comply with Section III, campuses will prepare inventories of campus GHG emissions for their Climate Action Plans (by December 2008). The inventories include GHG emissions from fleets, commuting and business air travel. Each campus will develop emission reduction goals for transportation, in each of areas listed below (fleet, commute, and business travel) and report annually on progress toward achieving the goals.
- e. Optional mechanisms for reducing transportation emissions:
  - Mechanisms for reducing fleet emissions include:
    - replacing vehicles with low or no emission vehicles
    - rightsizing fleets (determining the appropriate fleet size, revising business practices to reduce need for travel)
    - reducing fleet fuel consumption
    - reducing fleet vehicle miles traveled

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<sup>2</sup> This position became the *Executive Vice President – Business Operations* in May 2007.

- increasing use of fuels with lower GHG emissions.
- Mechanisms for reducing commute emissions include:
  - constructing additional on-campus housing
  - expanding Transportation Demand Management programs: carshare, carpool (rideshare), vanpool, buspool, campus shuttles, transit, bicycle circulation system, pedestrian circulation system, emergency rides home, telecommuting, flexible schedules, parking management, etc.
- Mechanisms for reducing to reduce business air travel emissions include:
  - remote conferencing, such as teleconferencing, videoconferencing, and webconferencing.
- f. The University will work with regulatory agencies and other entities (e.g., regional transit agencies, air quality management districts) to speed the development, approval, and implementation of programs and technologies that support the goals of sustainable transportation as related to the increased use of biodiesel or other alternative fuel sources.

#### Implementation Procedures for Sustainable Transportation Practices:

- With the goal of measuring all campus fleet vehicles fuel consumption reduction, campuses will collect and report fuel consumption annually to the Office of the President beginning in 2005-06.
- AVR is defined as the number of trips to campus divided by the number of automobiles used for those trips ( $AVR = \text{trips} / \# \text{ automobiles}$ ). Campuses may use this data to set goals for reduction of fuel consumption. AVR data may also be used in conjunction with transportation mode split data to develop maps of distance "zones" surrounding the campus, and to model each zone's proportionate share of various commuting modes (e.g., percentage of bicycle or single-occupancy vehicle trips within 0-2 miles from the central campus core).
- The Sustainable Transportation Working Group will continue to work with State agencies to facilitate the purchase and use of Low Emission Vehicles (LEV), Zero-Emission Vehicles (ZEV), and alternative fuel vehicles by the campuses, and to find solutions for increasing the availability of an affordable supply.

#### Transportation Programs

- a. The University will continue to facilitate the sharing of best practices within the University and among other educational institutions.
- b. The University will develop a mechanism for ongoing involvement of undergraduate and graduate students in efforts toward achieving sustainable campus transportation. The means may include, but are not limited to, undergraduate and graduate internships and/or scholarships for relevant conference attendance.
- c. By January 2009, each campus will implement a pre-tax transit pass program to facilitate the purchase of transit passes by University employees, or will establish a universal access transit pass program for employees.

- d. The University will pursue the expansion of Transportation Demand Management (TDM) programs and projects to reduce the environmental impacts from commuting. TDM programs may include: carshare, carpools (rideshare), vanpools, buspools, campus shuttles, transit, bicycle circulation system, pedestrian circulation system, emergency rides home, telecommuting, flexible schedules, parking management (amount, access, fees), etc. In conjunction with this effort, campuses will engage in advocacy efforts with local transit districts to improve routes in order to better serve student and staff ridership.
- e. To the extent practicable, campuses will develop a business-case analysis for any proposed parking structure projects.

#### Implementation Procedures for Transportation Programs:

- The University will continue to participate in Transportation Sessions at the annual UC/CSU/CCC Campus Sustainability Conference.
- The Office of the President will begin funding an internship for one to two students in Academic Year 2005-06 and continuing until Academic Year 2009-10 or longer. At that time, the program's results will be reviewed and the Senior Vice President, Business and Finance,<sup>3</sup> or other delegated administrator, will determine whether or not to extend the program.

#### V. Sustainable Operations

- a. For existing buildings, the University will explore the development of a standard methodology for sustainable practices and standards for facilities management, by assessing the LEED for Existing Buildings Operations and Maintenance (LEED™-EBOM) evaluation tool as described in b. through g. below.
- b. For existing buildings, the University of California will develop a plan to operate and maintain all scope eligible campus buildings at a minimum standard equivalent to a LEED for Existing Buildings Operations and Maintenance (LEED™-EBOM) "Certified" rating. The implementation for certification will be carried out in a comprehensive campus approach vs. an individual building basis, except for exceptions noted below.
- c. The University will incorporate these Sustainable Operations Policy Guidelines into existing facilities-related training programs, with the aim of promoting and maintaining the goals of the Policy.
- d. The University will work closely with the U.S. Green Building Council (USGBC) to address the needs and concerns of campuses in the further development of the LEED™-EBOM rating system and the USGBC's "Portfolio Program." As information and requirements are determined from the USGBC's "Portfolio Program," the University will update this policy as appropriate.
- e. Campuses will explore ways to connect the buildings it certifies through LEED™-EBOM with the University's educational and research mission, using the buildings as living, learning laboratories.

<sup>3</sup> This position became the *Executive Vice President – Business Operations* in May 2007.



- f. Eligible scope buildings for the purpose of this policy will be all buildings on-site at the ten campuses; except the following buildings or building types: acute care and patient care facilities; buildings scheduled for demolition, replacement, or major renovation; any building not located on the main campus; and any building less than 50,000 maintained gross sq. ft.
- g. A timetable for full campus implementation will be further evaluated after completion of the interim milestones listed in Implementation Procedures below.

#### Implementation Procedures for Sustainable Operations:

- Each campus will submit for certification one pilot building at a LEED™-EBOM “Certified” level or higher by July 1, 2008
- To facilitate the implementation steps for the policy, campuses will develop an inventory of buildings that meet the scope eligibility requirements above, and then group these eligible buildings into categories of buildings with similar operational and maintenance needs.
- Campuses will submit proposed core credits for one of the building type groupings identified above and any campuswide core credits to the U.S. Green Building Council by July 1, 2010. A core credit is a credit that will be sought for either all scope eligible buildings on a campus, or for all buildings within a building type group.
- By July 1, 2010, the University will evaluate efforts to date and develop an implementation plan and funding strategy toward a goal of achieving campus wide LEED™-EBOM certification.

#### VI. Recycling and Waste Management

- a. In response to Public Resources Code Section 40196.3 which states that the Regents of the University of California are encouraged to comply with Code Chapter 18.5, the “State Agency Integrated Waste Management Plan” and in support of the California Integrated Waste Management Board’s goal for a “zero waste California,” the University voluntarily adopts the following waste diversion goals:
  - 50% by June 30, 2008
  - 75% by June 30, 2012
  - Ultimate goal of zero waste by 2020
- b. All campuses will develop an Integrated Waste Management Plan (IWMP) and funding mechanism by June 30, 2007.
- c. Waste reduction and recycling elements shall be integrated in Green Building Design and Sustainable Operations implementation goals and into campus operations as they are developed.
- d. The University will seek to develop funding sources for financing waste reduction projects.

## Implementation Procedures for Recycling and Waste Management:

- The IWMP will include current and future programs, dates of implementation, funding, and exact diversion numbers intended to meet goals
- For purposes of reporting, the Medical Centers (and other traditionally exempted entities such as satellite locations) will be required to report solid waste and recycling tonnage to the campus entity collecting data for the report. Medical Centers and other exempted facilities are also required to meet diversion requirements. Exceptions will be considered for those entities which represent less than 1% of the overall campus solid waste tonnage.

## VII. Environmentally Preferable Purchasing Practices

### Sustainable Economy

- a. The University will utilize its purchasing power and academic and research excellence to advance the development of sustainable technologies by pressing markets to continually improve resource productivity.
- b. For products and services that do not currently offer environmentally preferable alternatives, the University will work with its existing and potential suppliers to develop options.
- c. "Cradle to cradle" is the preferred purchasing standard and is defined as accountable, responsible, and environmentally preferable supply chain management from material extraction, production, marketing, sale, use, disposal, collection, re-use and the web of closed loop cycles and processes.
- d. The University will continue to transition all locations toward electronic and paperless processes and utilize web-based catalogs and programs.
- e. The University will incorporate the credit requirements set forth by LEED<sup>TM</sup> (Leadership in Energy and Environmental Design) into product and service sourcing and procurement.
- f. The University evaluates total cost of ownership including purchase price, operating cost, maintenance, collection and disposal, and recycling costs when selecting suppliers.

### Energy and Water

- a. For product categories that have ENERGY STAR® rated products available, the University will focus its procurement efforts only on products with an ENERGY STAR® rating, consistent with the needs of UC researchers.
- b. For all electronic equipment, the supplier will deliver the items to the University with energy efficiency and conservation features enabled.

- c. The University will utilize its strategic purchasing program to negotiate better pricing for rated commodities.
- d. The University of California shall establish an ongoing partnership with the ENERGY STAR® Program administered by the EPA, and continually press the market for greater energy efficiency for the products and services regularly purchased by the University.
- e. For products and services requiring the use of water, the University will give preference to technologies that ensure the efficient use of water resources.

#### Implementation Procedures for Energy and Water:

- For those goods already in use across the system, available energy conservation features shall be ENERGY STAR® enabled by a designated party (e.g. IT, department MSO).

#### Recycled Content

- a. The University will phase out the use of virgin paper and adopt a minimum standard of 30% Post Consumer Waste (PCW) recycled content paper for all office supplies.
- b. For uncut paper uses, including but not limited to janitorial supplies, the University will adopt a standard of 100% PCW recycled content paper.
- c. The University will utilize its strategic purchasing program to negotiate better pricing for commodities with recycled content as compared to commodities without recycled content.
- d. The University will continually work towards increasing the procurement of products with high recycled content.
- e. Outside suppliers and consultants shall be encouraged to print proposals and reports on both sides, using recycled content paper. Furthermore, the documents shall be clearly marked to indicate that they are printed on recycled content paper.

#### Green Seal Certified Products

- a. The University will work to phase in Green Seal certified products, as specified in the Implementation Procedures.

#### Implementation Procedures for Green Seal Certified Products:

- The University will work to phase in Green Seal certified products through its Strategic Sourcing and local campus procurement programs in coordination with EH&S, Facilities Management, and Housing and Residential Services.

## Reduction of Hazardous Electronic Waste

- a. All desktop computers, laptops, and computer monitors purchased by the University are required to have achieved Bronze registration or higher under the Electronic Products Environmental Assessment Tool (EPEAT).
- b. Additional consideration will be provided for electronics products that have achieved EPEAT Silver or EPEAT Gold registration. The registration criteria and a list of all registered equipment are provided at <http://www.epeat.net>.
- c. The University will recycle all electronic waste in a responsible manner, as specified in the Implementation Procedures.

### Implementation Procedures for Reduction of Hazardous Electronic Waste:

- The University will require all recyclers of the University's electronic equipment to have signed the Electronics Recyclers Pledge of True Stewardship, agreeing to a rigorous set of environmental criteria. The Pledge, and a list of recyclers who have signed, is available at [http://www.e-stewards.org/local\\_estewards.html](http://www.e-stewards.org/local_estewards.html). In cases where the University has established recycling "take-back" programs, the University will ensure that the manufacturer adheres to similarly high standards of responsible recycling.

## Environmentally Responsible Packaging

- a. Packaging for electronics products should be designed, produced, and managed in an environmentally sustainable manner, as specified in the Implementation Procedures.
- b. The University will specify that all packing materials abide by at least one of, and preferably all of, the criteria listed in the Implementation Procedures.
- c. The University will work with its suppliers to ensure effective waste management and recycling programs are in place for all business operations.

### Implementation Procedures for Environmentally Responsible Packaging:

- The University requires that a take-back program be offered for packaging of electronics products and will give preference to take-back programs that are provided free of charge. The University will also give preference to packaging that is reusable, contains a minimum of hazardous and non-recyclable materials, and meets or exceeds the recycled material content levels in the US EPA Comprehensive Procurement Guidelines for Paperboard and Packaging.
- Specify that all packing materials abide by at least one of and preferably all of the criteria listed below:
  - Made from 100% post-consumer recycled materials and be recyclable, reusable, or
  - Be non-toxic,
  - Be biodegradable,

- Be produced with the minimum of resources and sized as small as possible, while still maintaining product protection during shipping. Where feasible, packaging materials should be eliminated, if unnecessary.
- The University will work with its suppliers to ensure effective waste management and recycling programs are in place for all business operations.

#### Effective Recycling and Manufacturer Take-Backs

- a. The University will work to incorporate effective end-of-life recycling programs into each commodity as applicable.
- b. The University will work with its suppliers to establish re-use or recycling "take-backs" at no extra cost to the University, and in compliance with environmental standards that abide by Federal, State, and local legislation regarding waste disposal.

#### Supply Chain Environmental Responsibility

- a. The University will encourage suppliers to demonstrate environmental stewardship through their Environmental Management Programs.

#### Evaluating Environmental Claims

- a. Suppliers citing environmentally preferred product claims shall follow requirements specified in the Implementation Procedures below.

#### Implementation Procedures for Evaluating Environmental Claims:

- Suppliers citing environmentally preferred product claims shall provide proper certification or detailed information on environmental benefits, durability, and recyclable properties.

#### Training and Annual Plan and Report

- a. The University will incorporate the Environmentally Preferable Purchasing Policy into existing strategic sourcing and other training programs, with the aim of promoting and maintaining the goals of the policy. The University shall provide training seminars, supplier fairs, and workshops on purchasing environmentally preferred products and establish educational programs and materials for faculty, staff, and students.
- b. An annual plan and report shall be completed by each campus to define their environmental purchasing plan and report their efforts.

## Implementation Procedures for Training and Annual Plan and Report:

- UC campus Sustainability Committees will be responsible for reporting to the Sustainability Steering Committee on an annual basis. The Sustainability Steering Committee and the Sustainable Purchasing Working Group will maintain responsibility for determining the format and data to be submitted in the annual report, and the form for the annual plan.

## VIII. Sustainable Foodservices Practices

### Campus Foodservice Operations:

The following Sustainable Foodservices Policy guidelines have been developed for the University of California Campus Foodservice Operations that are self-operated or contract operated:

- a. With the overall goal of reducing the environmental impact of food purchases and dining operations while maintaining accessibility and affordability for all students, the University has set a goal of procuring 20% sustainable food products by the year 2020 for Campus Foodservice Operations.
- b. Each campus is responsible for providing student patrons sustainable food options as well as access to educational materials that will help support their food choices.
- c. Campus departments, organizations, groups, and individuals are encouraged to engage in activities with their surrounding community that support common goals regarding sustainability.
- d. The University will encourage dining operations to explore the use of third-party "green business" certifications for sustainable dining operations. If cost effective, each campus will certify one facility by December 2010 through one of the following: (1) City or county's "green business" program, (2) Green Seal's Restaurants and Food Services Operations certification program, or (3) the Green Restaurant Association certification program.
- e. By December 15, 2009, each campus will submit a report to the Office of the President that addresses how each campus plans to achieve their Sustainable Foodservices Practices goals. Campuses will provide an annual progress report on these goals starting August 15, 2010.

### Franchised Foodservice Operations:

Campuses which have Franchised Foodservice Operations which are self-operated or contract operated will be encouraged to perform a feasibility study on implementing the Sustainable Foodservice Practices goals for these operations. This study should be submitted to the UC Sustainability Steering Committee by May 15, 2010.

### Medical Center Foodservice Operations:

Medical Centers will be encouraged to perform a feasibility study on implementing the above Sustainable Foodservice Practices Policy Guidelines for the Medical Center Foodservice Operations which are self-

operated, contracted, or Franchised Foodservice Operations. This study should be submitted to the UC Sustainability Steering Committee by May 15, 2010.

#### Implementation Procedures for Sustainable Foodservices Practices:

- With the goal of achieving 20% sustainable food purchases, all Food Service Operations<sup>4</sup> should track and report the percentage of total food budget spent on sustainable food yearly beginning with the August 15, 2010 report. At least annually, the goal of 20% sustainable food purchases, and other metrics and guidelines included in this policy will be reviewed, and suggestions for updates provided to the UC Sustainability Steering Committee.

Sustainable Food is defined as food purchases that meet one or more of the following criteria. This list of criteria will be reviewed annually by the UC Sustainable Foodservices Working Group:

- Locally Grown<sup>5</sup>
  - Fair Trade Certified
  - Domestic Fair Trade Certified
  - Shade-Grown or Bird Friendly Coffee
  - Rainforest Alliance Certified
  - Food Alliance Certified
  - USDA Organic
  - AGA Grassfed
  - Pasture Raised
  - Grass-finished/100% Grassfed
  - Certified Humane Raised & Handled
  - Cage-free
  - Protected Harvest Certified
  - Marine Stewardship Council
  - Seafood Watch Guide “Best Choices” or “Good Alternatives”
  - Farm/business is a cooperative or has profit sharing with all employees
  - Farm/business social responsibility policy includes (1) union or prevailing wages, (2) transportation and/or housing support, and (3) health care benefits
  - Other practices or certified processes as determined by the campus and brought to the Sustainable Foodservices Working Group for review and possible addition in future policy updates.
- Campuses and Medical Centers are encouraged to participate in intercollegiate and national programs that raise awareness on dietary health, wellness and sustainability (e.g. the MyPyramid.gov Corporate Challenge and the Real Food Challenge).

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<sup>4</sup> For Franchised Foodservice Operations and Medical Center Foodservice Operations, this reporting will be consistent with the recommendations that result from the feasibility studies conducted to determine how best to apply these guidelines to those operations.

<sup>5</sup> Resulting from regional constraints, campus definitions of “Locally Grown” may vary; however, Locally Grown cannot be defined as over 500 miles

- Campuses and Medical Centers are encouraged to develop health and wellness standards for food service operators, including eliminating the use of trans-fat oils or products made with trans-fat.
- Campuses and Medical Centers are encouraged to undertake additional initiatives that encourage healthy and sustainable food services operations. Examples include tray-less dining, beef-less or meat-less days, and preservative minimization programs.
- Annual reports should include the individual campus and Medical Center's goals as well as the progress and timelines for the programs being implemented to reach those goals.
- Campuses and Medical Centers are encouraged to form a campus foodservices sustainability working group to facilitate the campus goal setting and implementation process.
- The stakeholders who are involved with the implementation of this Sustainable Foodservice Policy will participate in a working group to meet, network and to discuss their goals, best practices, and impediments to implementation.

#### IX. Authority and Report Schedule

On an annual basis, the President will provide a report to the Regents detailing the impact of the University's sustainability efforts on the overall capital program, University operating costs, energy use, greenhouse gas emissions, solid waste diversion, campus environmentally preferable purchasing, campus transportation practices, and foodservices. The University's sustainability guidelines will be subject to continuous review. The Policy Guidelines for Sustainable Practices and Implementation Procedures will be reviewed at a minimum every three years, with the intent of developing and strengthening implementation provisions and assessing the influence of the guidelines on existing facilities, new capital projects, plant operating costs, fleet and transportation services, and campus accessibility, mobility, and livability. The University will provide means for the ongoing active participation of students, faculty, administrators, and external representatives in further development and implementation of the Policy on Sustainable Practices.