

UNIVERSITY OF CALIFORNIA

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OFFICE OF THE PRESIDENT

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CHANCELLORS

Policy on Sustainable Practices

The University of California is committed to minimizing the University's impact on the environment and reducing the University's dependence on non-renewable energy. In October 2006, in response to the requirement that the guidelines for the *Policy on Green Building Design, Clean Energy Standards, and Sustainable Transportation Practices* be re-examined every three years, sections of the policy were clarified and new sections were added. This review and the development of the revised guidelines were conducted 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.

The new sections that expand on more general guidelines in the original policy are in the areas of:

- Building Renovations;
- Climate Protection Practices;
- Sustainable Operations;
- Recycling and Waste Management; and
- Environmentally Preferable Procurement.

The expansion of goals in these areas strengthens implementation of evolving best practices on sustainability. To reflect these changes, the *Policy on Green Building Design, Clean Energy Standards, and Sustainable Transportation Practices* has been renamed the *Policy on Sustainable Practices*.

Enclosed are the revised and renamed *Policy on Sustainable Practices* and the Guidelines for implementation of this policy. Supplementary to and embedded within the Guidelines are Implementation Procedures that are intended to provide specific courses of action, standardized methods, and/or consistent series of steps to implement the policy.

A handwritten signature in black ink, appearing to read "Robert C. Dynes".

Robert C. Dynes

Enclosures

cc: Members, President's Cabinet
Principal Officers of The Regents
Assistant Vice President Bocchicchio
Universitywide Policy Coordinator Capell

March 22, 2007

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.

March 22, 2007

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 Senior Vice President, Business and Finance 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 are denoted, follow applicable Policy Guidelines, and are formatted in *italics*.

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 grounds has a significant impact on air quality and affects both the campus landscape and relations with surrounding communities. It is desirable, therefore, to effectively 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. Standards for energy efficiency for acute care facilities will be developed in consultation with campuses and medical centers.
- b. The University of California will design and build all new buildings, except for laboratory and acute care facilities, to a minimum standard equivalent to a *LEED*™ 2.1 "Certified" rating.
- c. Campuses will strive to achieve a standard equivalent to a *LEED*™ "Silver" rating or higher, whenever possible within the constraints of program needs and standard budget parameters.
- d. 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*™ 2.1 "Certified" 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).
- e. 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.

- f. The measures required by this Policy Guideline 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, 2004.
- g. Further study will be conducted before a similar sustainable design policy for new acute-care facilities is adopted.

Building Renovations

- a. Any significant renovation projects involving existing buildings will also apply sustainability principles to the systems, components and portions of the building being renovated. 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 Baseline Green Building 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 into Category 1 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 in b. and c. above will apply to the listed categories of renovations, receiving budget approval after July 1, 2007.

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 Procurement, of this document.
- 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 of 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 Guideline 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.*
- *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 III, 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:

- *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.*
- *Each UC campus will pursue individual membership with the California Climate Action Registry. The Senior Vice President, Business and Finance, 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.*

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 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. Using the time period 2004-2005 as a baseline, campuses will strive to increase the percentage of low (PZEV) or zero-emission vehicles (ZEV) by 50% by the year 2009-2010, or to increase the number of PZEV and ZEV vehicles by 20% by the year 2009-2010, whichever is more feasible, and/or to convert campus vehicles to 50% non-carbon based fuel by year 2009-2010.
- e. 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 LEV, 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 introduction of ride-share programs at each campus for all eligible program participants, where available. 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, 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 Building (LEED-EB) 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 (LEED-EB) "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-EB 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-EB with the University's educational and research mission, using the buildings as living, learning laboratories.
- 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-EB "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, 2009. 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, 2009, the University will evaluate efforts to date and develop an implementation plan and funding strategy toward a goal of achieving campus wide LEED-EB 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 Operation 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) (Satellite locations) at various campuses 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 (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.ban.org/pledge1.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. 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 and campus transportation practices. 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.