



# Sustainable Practices

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## I. POLICY SUMMARY

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The Sustainable Practices Policy (“Policy”) establishes goals in nine areas of sustainable practices: green building, clean energy, transportation, climate protection, sustainable operations, waste reduction and recycling, environmentally preferable purchasing, sustainable foodservice, sustainable water systems.

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## II. DEFINITIONS

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**Adjusted Patient Day:** Inpatient Days x (Gross Patient Revenue/Inpatient Revenue) where Gross Patient Revenue is Outpatient Revenue + Newborn Revenue + Inpatient Revenue.

**Climate Neutrality:** Climate neutrality means that the University will have net zero climate impacts from greenhouse gas (GHG) emissions attributed to scope 1 direct emission sources and scope 2 indirect emission sources as defined by The Climate Registry, and specific scope 3 emissions as defined by the American College and University Presidents' Climate Commitment (ACUPCC). This neutrality will be achieved by minimizing GHG emissions from these sources as much as possible and using carbon offsets or other measures to mitigate the remaining GHG emissions.

**CBC:** California Building Code, Title 24 portion of the California Code of Regulations

**Domestic Water:** Potable and non-potable water provided for domestic indoor (e.g., toilets, urinals, showers, and faucets) and outdoor (e.g., landscape irrigation) use.

**Environmentally preferable products:** designation for those products whose manufacture, use, and disposal results in relatively less environmental harm than comparable products.

**Gross Square Foot:** Pursuant to the definition in the Facilities Inventory Guide<sup>1</sup>, gross square footage is the Outside Gross Area, or OGSF50, and equals the sum of Basic Gross Area (the sum of all areas, finished and unfinished, on all floors of an enclosed structure, for all stories or areas which have floor surfaces) + 50% Covered Unenclosed Gross Area (the sum of all covered or roofed areas of a building located outside of the enclosed structure). OGSF50 is also known as "California Gross."

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<sup>1</sup> Facilities Inventory Guide, Attachment 8, Appendix C, pages 13-15.

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**Industrial Water:** Water provided for specific industrial applications such as heating, cooling, or lubricating equipment.

**LEED™:** Leadership in Energy and Environmental Design. LEED is a registered trademark of the U.S. Green Building Council (USGBC). This trademark applies to all occurrences of LEED in this document. LEED is a green building rating system developed and administered by the non-profit U.S. Green Building Council. The four levels of LEED certification, from lowest to highest, are Certified, Silver, Gold, and Platinum. LEED has several rating systems. This policy refers to the following rating systems:

**LEED for Commercial Interiors (LEED-CI)** for renovation projects;

**LEED for Existing Buildings: Operations and Maintenance (LEED-EBOM)** for the ongoing operational and maintenance practices in buildings; and,

**LEED for New Construction (LEED-NC)** for new buildings and major renovations of existing buildings.

**Location:** As used in this Policy, means any or all campuses, medical centers, and the Lawrence Berkeley National Laboratory as referred to in the “Scope” above.

**Municipal Solid Waste:** Garbage, refuse, sludges, and other discarded solid materials resulting from residential activities, and industrial and commercial operations which are legally accepted in CalRecycle permitted landfills. Municipal Solid Waste does not include any regulated hazardous/universal waste or medical waste.

**Post-Consumer Waste (PCW):** waste produced by the end-user of a product. Post-consumer waste is differentiated from pre-consumer waste, which refers to waste produced in the manufacture of a product.

**Potable Water:** Water that meets state water quality standards for human consumption.

**Reclaimed or Recycled Water:** Wastewater treated with the intention of reuse, including:

- Direct Potable Reuse: Treated wastewater reused for human consumption
- Indirect Potable Reuse: Treated wastewater blended with groundwater or other water sources reused as potable or non-potable water.
- Non-Potable Reuse: Treated wastewater reused for purposes other than human consumption, such as irrigation, fire suppression, and industrial processes.

**Renewable power:** energy generated from inexhaustible sources, such as the sun or wind, or from sources that can quickly be replenished, such as biomass. For the purposes of this policy, an energy source is renewable if it has been designated as such

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by the California Energy Commission

(<http://www.cpuc.ca.gov/PUC/energy/Renewables/FAQs/01REandRPSeligibility.htm>).

**Savings by Design:** an energy efficiency program offered by California's four investor-owned utility companies and the Sacramento Municipal Utility District. Savings By Design provides design assistance, energy analysis, life-cycle costing, and financial incentives for new construction and major renovation projects. The Savings By Design program is also known as the Non-Residential New Construction Program.

**Sterilized Water:** Water that has been cleaned to remove, deactivate, or kill microorganisms present that may be harmful to humans; primarily used in medical facilities and research.

**Stormwater:** Water that originates during precipitation events.

**Strategic sourcing:** a process designed to maximize the purchasing power of large, decentralized organizations, such as the University of California, by consolidating and leveraging common purchases.

**Sustainable Water Systems:** Water systems or processes that maximize water use conservation or efficiency, optimize water resource management, protect resources in the context of the local watershed, and enhance economic, social and environmental sustainability while meeting operational objectives.

**Wastewater:** Water that is discharged from domestic, industrial, or other use.

**TDM:** Transportation Demand Management. TDM is the application of strategies and policies to reduce travel demand (specifically that of single-occupancy private vehicles). TDM programs may include: car sharing (car share), carpools (rideshare), vanpools, bus pools, shuttles, transit, bicycle circulation systems, pedestrian circulation systems, emergency rides home, telecommuting, flexible schedules, parking management (amount, access, fees), etc.

**USGBC:** U.S. Green Building Council. The USGBC is a membership-based non-profit organization dedicated to sustainable building design and construction, and is the developer of the LEED building rating system.

**Weighted Campus User:**  $(1 \times \text{number of on-campus residents}) + (0.75 \times \text{number of non-residential or commuter full-time students, faculty, and staff members}) + (0.5 \times \text{number of non-residential or commuter part-time students, faculty, and staff members})$  as defined by Association for the Advancement of Sustainability in Higher Education (AASHE). When using Weighted Campus User, state whether fall-quarter/semester headcount, three quarter/two semester average headcount, or another measure was used in the Weighted Campus User calculation. This calculation applies only to campuses and not to medical centers or LBNL.

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**Watershed:** In the context of this policy, a watershed is the area of land that drains to a common waterway, such as a stream, lake, estuary, wetland, aquifer, bay, or ocean.

**Water systems:** Natural and/or human made systems that provide water to and support the functions of watersheds and/or human communities.

**Zero waste:** For the purposes of measuring compliance with UC's zero waste goal, locations need to meet or exceed 95% diversion of municipal solid waste. Ultimately, UC's zero waste goal strives for the elimination of all materials sent to the landfill by 2020.

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### III. POLICY STATEMENT

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*The University of California (“University”) is committed to responsible stewardship of resources and to demonstrating leadership in sustainable business practices. The University’s locations should be living laboratories for sustainability, contributing to the research and educational mission of the University, consistent with available funding and safe operational practices. Policy goals are presented below in nine areas of sustainable practices.*

#### A. Green Building Design

##### New Buildings

1. All new building projects, other than acute care facilities, shall be designed, constructed, and commissioned to outperform the CBC energy-efficiency standards by at least 20%. The University will strive to design, construct, and commission buildings that outperform CBC energy efficiency standards by 30% or more, whenever possible within the constraints of program needs and standard budget parameters.
2. Standards for energy efficiency for acute care facilities will be developed in consultation with campuses and medical centers.
3. All new buildings will achieve a USGBC LEED “Silver” certification at a minimum. All new buildings will strive to achieve certification at a USGBC LEED “Gold” rating or higher, whenever possible within the constraints of program needs and standard budget parameters.
4. The University of California will design, construct, and commission new laboratory buildings to achieve a minimum of LEED- “Silver” certification as well as meeting at least the prerequisites of the Laboratories for the 21st Century (Labs21) Environmental Performance Criteria (EPC)<sup>2</sup>. Laboratory spaces in new

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<sup>2</sup> Labs21 is a voluntary partnership program that offers training and resources to support the design and operation of high-performance laboratories. Labs21 is co-sponsored by the Department of Energy and the Environmental Protection Agency. The Labs21 Environmental Performance Criteria (EPC) is a rating system that consists of

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buildings also shall meet at least the prerequisites of Labs21 EPC. Design, construction, and commissioning processes shall strive to optimize the energy efficiency of systems not addressed by the CBC energy efficiency standards.

5. All new building projects will achieve at least two points within the available credits in LEED-NC's Water Efficiency category.

## Building Renovations

6. 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) shall at a minimum comply with III.A.3 or III.A.4, above. Such projects shall outperform CBC Title 24, Part 6, currently in effect, by 20%. This does not apply to acute care facilities.
7. Renovation projects with a project cost of \$5 million or greater (CCCI 5000) that do not fall under item III.A.6. shall at a minimum achieve a LEED-CI Certified rating and register with the utilities' Savings by Design program, if eligible. This does not apply to acute care facilities.

## **B. Clean Energy**

1. The University will reduce consumption of non-renewable energy by using a portfolio approach that includes 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.
2. The University will provide up to 10 megawatts of on-site renewable power as of 2014.
3. The University will use energy efficiency retrofit projects to reduce system-wide growth-adjusted energy consumption by 10% or more as of 2014 from the year 2000 base consumption level.

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prerequisites and credits in several laboratory-specific areas, including laboratory equipment water use, chemical management, and ventilation. Labs21 EPC is designed as a complement to LEED.

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## **C. Climate Protection**

Each campus and the UC Office of the President will develop strategies for meeting the following UC goals:

1. Climate neutrality from scope 1 and 2 sources by 2025
2. Climate neutrality from specific scope 3 sources (as defined by the American College and University Presidents' Climate Commitment (ACUPCC)) by 2050 or soon

And at minimum, meet these following intermediate goals in pursuit of climate neutrality:

3. reducing greenhouse gas (GHG) emissions to 1990 levels by 2020, pursuant to the California Global Warming Solutions Act of 2006.

For purposes of this section, campuses shall include their medical centers for all goals. GHG emissions reduction goals pertain to emissions of the six Kyoto greenhouse gasses<sup>3</sup> originating from all scope 1 and scope 2 sources as specified by the Climate Registry, and from scope 3 emissions as specified by the ACUPCC, which include air travel paid for by or through the institution; and commuting to and from campus on a day-to-day basis by students, faculty, and staff. These goals will be pursued while maintaining the research and education mission of the University.

Campuses subject to the United States Environmental Protection Agency (USEPA) Greenhouse Gas Reporting Program, California Air Resources Board (CARB) Mandatory Greenhouse Gas Emissions Reporting, and participation in the CARB Cap-and-Trade Program shall perform to those regulatory requirements.

## **D. Sustainable Transportation**

1. Each location will develop GHG emission reduction goals for transportation, including the emission categories of fleet, commute, and business travel, and report annually on progress toward achieving the goals.
2. Location fleets 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 sustainability measures.
3. The University will pursue the expansion of Transportation Demand Management (TDM) programs and projects to reduce the environmental impacts from commuting. In conjunction with this effort, locations will engage in advocacy efforts with local transit districts to improve routes to better serve student and staff ridership.
4. To the extent practicable, locations will develop a business-case analysis for any proposed parking structure projects.

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<sup>3</sup> The six greenhouse gasses identified in the Kyoto Protocol are carbon dioxide, methane, nitrous oxide, sulfur hexafluoride, hydrofluorocarbons, and perfluorocarbons.

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## **E. Sustainable Building Operations for Campuses**

1. Each campus will submit for certification one pilot building at a LEED-EBOM “Certified” level or higher.
2. Each campus shall register a master site to certify campus-wide LEED-EBOM credits and prerequisites to streamline the certification of multiple buildings through the LEED-EBOM rating system by July 1, 2015. Each campus shall certify their campus-wide credits as soon as possible after the master site has been registered.
3. Each campus shall seek to certify as many buildings as possible through the LEED-EBOM rating system, within budgetary constraints and eligibility limitations.

## **F. Recycling and Waste Management**

1. The University prioritizes waste reduction in the following order: reduce, reuse, and then recycle.
2. The University’s goal for diverting municipal solid waste from landfills is as follows:
  - 50% as of June 30, 2008
  - 75% as of June 30, 2012
  - Ultimate goal of zero waste<sup>4</sup> by 2020

## **G. Environmentally Preferable Purchasing**

1. Environmentally preferable purchasing underlies and enables all other areas of sustainable practice in this *Policy*. Therefore, the University will maximize its procurement of environmentally preferable products and services.
2. The University will use its purchasing power to target environmentally preferable products and services for volume-discounted pricing to make them cost-competitive with conventional products and services.
3. For products and services without available environmentally preferable alternatives, the University will work with its existing and potential suppliers and leverage the University’s purchasing power and market presence to develop sustainable choices.
4. The University will integrate sustainability requirements into its practices for competitive bidding in materiel and services procurement, allowing for suppliers that meet these requirements to earn additional evaluation points.

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<sup>4</sup> The University is in the process of developing implementation procedures for achieving zero waste, including a working definition of zero waste.



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5. Packaging for all products procured by the University should be designed, produced, and managed in an environmentally sustainable manner. The University shall seek products that have take-back programs, as appropriate.
6. When requested, suppliers citing environmentally preferable purchasing claims shall provide proper certification or detailed information on environmental claims, including benefits, durability, and take-back, reuse, and recyclable properties. Additionally, suppliers are responsible for providing proof of University of California-accepted third-party certification based upon the requirements of the University's Procurement Services Department located in the Office of the President.
7. The goal of this section G shall be applied within the constraints of research needs and budgetary requirements and in compliance with applicable rules, regulations and laws.

## **H. Sustainable Foodservices**

### **1. Campus and Medical Center Foodservice Operations**

Campuses and Medical Centers shall develop sustainability goals and initiatives in each of the four categories of sustainable foodservice practices listed below.

#### **a. Food Procurement**

Each campus and Medical Center foodservice operation shall strive to procure 20% sustainable food products by the year 2020, while maintaining accessibility and affordability for all students and Medical Center foodservice patrons.

#### **b. Education**

Each campus and Medical Center shall provide patrons with access to educational materials that will help support their food choices.

#### **c. Engagement With External Stakeholders**

Campus and Medical Center departments, organizations, groups, and individuals shall engage in activities with their surrounding communities that support common goals regarding sustainable food systems.

#### **d. Sustainable Operations**

Campus and Medical Center foodservice operations shall strive to earn third-party "green business" certifications for sustainable dining operations.

### **2. Retail Foodservice Operations:**

- a. Retail foodservice tenants will strive to meet the policies in III.H.1.a-d. above. Given the constraints faced by nationally-branded franchises that must

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purchase food through corporate contracts, location departments managing retail foodservice tenants will have the option of meeting III.H.1.a. (procuring 20% of all sustainable food products by the year 2020) by aggregating the purchases of all retail entities under the jurisdiction of a single operational unit on location.

- b. Locations will include Section H of this *Policy* in lease language as new leases and contracts are negotiated or existing leases are renewed. However, locations will also work with tenants to advance sustainable foodservice practices as much as possible within the timeframe of current leases.

## ***I. Sustainable Water Systems***<sup>5</sup>

With the overall intent of achieving sustainable water systems and demonstrating leadership in the area of sustainable water systems, the University has set the following goals applicable to all locations:

1. In line with the State of California’s law establishing a goal to reduce per capita potable water consumption by 20%<sup>6</sup>, each location will strive to reduce potable water consumption adjusted for population growth by 10% by year 2017 and 20% by the year 2020. Locations that have already achieved this target are encouraged to set more stringent goals to further reduce potable water consumption.
2. Each location will develop and maintain a Water Action Plan that identifies long term strategies for achieving sustainable water systems.

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## **IV. COMPLIANCE / RESPONSIBILITIES**

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### ***A. Implementation of the Policy***

The Executive Vice President-Business Operations is the Responsible Officer for this policy.

The UC Sustainability Steering Committee, which is chaired by the Executive Vice President-Business Operations, provides oversight for all aspects of the policy.

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<sup>5</sup> Related sections: Green Building Design policy III.A. 5, Green Building Design procedure V.A.4, and Sustainable Purchasing procedures V.G.10.e, V.G.15, V.G.16, and V.G.17.

<sup>6</sup> For more information on this goal, see [http://www.swrcb.ca.gov/water\\_issues/hot\\_topics/20x2020/](http://www.swrcb.ca.gov/water_issues/hot_topics/20x2020/)

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## **B. Revisions to the Policy**

The President is the approver of this *Policy* and has the authority to approve or delegate the approval of revisions to the *Policy*.

The systemwide Working Group corresponding to each section of the *Policy* recommends *Policy* revisions to the UC Sustainability Steering Committee and Executive Vice President-Business Operations. Proposed *policy* revisions accepted by the UC Sustainability Steering Committee and the Executive Vice President-Business Operations shall then be recommended to the President for approval or to the appropriate delegated authority, as stated above.

The Sustainable Practices *Policy* will be reviewed, at a minimum, once every three years with the intent of developing and strengthening implementation provisions and assessing the influence of the *policy* on existing facilities and operations, new capital projects, plant operating costs, fleet and transportation services, and accessibility, mobility, and livability. The University will provide for ongoing active participation of students, faculty, administrators, and external representatives in further development and implementation of this *Policy*.

## **C. Compliance with the Policy**

Chancellors and the Lawrence Berkeley National Laboratory Director are responsible for implementation of the *Policy* in the context of individual building projects, facilities operations, etc. An assessment of location achievements with regard to the *Policy* is detailed in an annual report to the Regents. The internal audit department may conduct periodic audits to assess compliance with this *policy*. ([www.universityofcalifornia.edu/sustainability/reports.html](http://www.universityofcalifornia.edu/sustainability/reports.html)).

## **D. Reporting**

On an annual basis, the President will report to the Regents' Committee on Grounds and Buildings on the University's sustainability efforts in each area of the *Policy*.

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## **V. REQUIRED PROCEDURES**

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### **A. Green Building Design**

#### New Buildings

1. Projects will utilize the versions of the CBC energy efficiency standards and of LEED-NC that are in effect at the time of first submittal of "Preliminary Plans" (design development drawings and outline specifications) as defined in the *State Administrative Manual*.<sup>7</sup>

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<sup>7</sup> The State Administrative Manual (SAM) (<http://sam.dgs.ca.gov/TOC/default.htm>) is a reference source for statewide policies, procedures, regulations and information developed and issued by authoring agencies such as

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2. All new buildings and complete renovations (as defined in III.A.1) will register with the Savings By Design program in order to document compliance with the requirement to outperform CBC energy efficiency standards by at least 20%.
3. 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 requirements in section III.A. of this *Policy*. Locations 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 section III.A. 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).
4. Locations are encouraged to coordinate with local water districts in efforts to conserve water and to meet reduced water use goals of the local districts.

## Building Renovations

5. At budget approval, all renovation projects should include a listing of sustainable measures under consideration.
6. 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, locations shall strive to comply with the *Policy* requirements in III.A.6 and III.A.7, as appropriate.

## General/Miscellaneous

7. The University will develop a program for sharing best practices.
8. The University will incorporate the requirements of sections III.A. and V.A. into existing training programs, with the aim of promoting and maintaining the goals of the *Policy*.

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9. Any proposed exception from section III.A of the *Policy* may be requested administratively from the Associate Vice President for Capital Resources Management 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.
10. Projects for new buildings applying for an exception from section III.A.3 of this *Policy* should strive to achieve a USGBC LEED “Certified” rating. New building and renovation projects that are unable to achieve a USGBC LEED “Certified” rating shall submit a request for an exception with a LEED scorecard and supporting documentation to the Associate Vice President for Capital Resources Management, showing the credits that the project would achieve.
11. 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.
12. The University will work closely with the USGBC, Labs21, the Department of Energy, the U.S. Environmental Protection Agency, state government, and other organizations to facilitate the improvement of evaluation methodologies to address University requirements.

### **B. Clean Energy**

1. Each location will determine the appropriate mix of measures to be adopted within its clean energy portfolio. The capacity to adopt these measures is driven by technological and economic factors and each location will need to reevaluate its mix of energy measures on a regular basis.
2. To achieve its renewable power goal, the University will continuously evaluate energy technology improvements for cost and technical efficiency.
3. The University will develop and implement a strategic plan for implementing energy efficiency projects for existing buildings and infrastructure.
4. The University will research possible funding sources and financing alternatives for energy efficiency, renewable energy, and clean energy projects that will enable locations to most economically address their energy needs consistent with Policy goals.
5. If available, the University will evaluate the marketing of emissions credits as a means to bridge the cost-feasibility gap for renewable power projects.

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## **C. Climate Protection**

1. Each campus will maintain individual membership with The Climate Registry (TCR)<sup>8</sup>. Campuses shall include their medical centers in their membership.
2. Each campus will complete a GHG emissions inventory annually. Campuses shall include their medical centers in the annual inventory. To comply with TCR and American College and University Presidents Climate Commitment (ACUPCC) requirements<sup>9</sup>, inventories should contain emissions of the six Kyoto greenhouse gasses from: scope 1 and 2 emissions sources outlined in the TCR General Reporting Protocol; and scope 3 emissions sources outlined by the ACUPCC Implementation Guide. . All UC campuses will report their updated emissions inventories through the ACUPCC on-line reporting tool at least biennially. Campuses must verify all emissions inventories through TCR, but campuses may either pursue verification annually (for the previous year's emissions inventory) or biennially (for the emissions inventories from the previous two years). Campuses subject to the United States Environmental Protection Agency (USEPA) Greenhouse Gas Reporting Program, California Air Resources Board (CARB) Mandatory Greenhouse Gas Emissions Reporting, and participation in the CARB Cap-and-Trade Program shall complete the relevant emissions inventories outlined in the USEPA and CARB reporting protocols.
3. Each campus will complete an update of its climate action plan for reducing GHG emissions to 1990 levels by calendar year 2020 (annual 2020 emissions to be reported in 2021); achieving climate neutrality for scope 1 and 2 sources by calendar year 2025 (annual 2025 emissions reported in 2026); and achieving climate neutrality for ACUPCC-specified scope 3 sources for calendar year 2050 (annual 2050 emissions reported in 2051). Campuses shall include their medical centers in the action plan.
4. The Climate Change Working Group (CCWG), under the UC Sustainability Steering Committee and represented on the President's Global Climate Leadership Council, will monitor progress toward reaching the stated goals for GHG reduction, and will evaluate suggestions for strategies and programs to reach these goals. The CCWG will develop protocols to allow for growth adjustment, normalization of data, and accurate reporting procedures among the UC campuses, as required and applicable.

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<sup>8</sup> The Climate Registry (<http://www.theclimateregistry.org/>) is a nonprofit collaboration among North American states, provinces, territories and Native Sovereign Nations that sets consistent and transparent standards to calculate, verify and publicly report greenhouse gas emissions into a single registry.

<sup>9</sup> ACUPCC requirements are outlined at <http://www.presidentsclimatecommitment.org/about/commitment>.

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## ***D. Sustainable Transportation***

1. With the goal of measuring fuel consumption reductions for their vehicular fleets, locations will collect and report fuel consumption annually to the Office of the President.
2. Each location 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.
3. Locations are encouraged to collect data on Average Vehicle Ridership (AVR) of commuters. AVR is defined as the number of trips to campus divided by the number of automobiles used for those trips ( $AVR = \text{trips}/\# \text{ automobiles}$ ). AVR data may be used to: set goals for reduction of fuel consumption; develop maps of distance “zones” surrounding the location in conjunction with transportation mode split data; and 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 location core).
4. The University 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.
5. Optional mechanisms for reducing transportation emissions:
  - a. Mechanisms for reducing fleet emissions include:
    - i. replacing vehicles with low or no emission vehicles
    - ii. rightsizing fleets (determining the appropriate fleet size, revising business practices to reduce need for travel)
    - iii. reducing fleet fuel consumption
    - iv. reducing fleet vehicle miles traveled
    - v. increasing use of fuels with lower GHG emissions.
  - b. Mechanisms for reducing commute emissions include:
    - i. constructing additional on-campus housing
    - ii. expanding Transportation Demand Management programs: car share, carpool (rideshare), vanpool, bus pool, shuttles, transit, bicycle circulation system, pedestrian circulation system, emergency rides home, telecommuting, flexible schedules, parking management, etc.
  - c. Mechanisms for reducing business air travel emissions include:
    - i. remote conferencing, such as teleconferencing, videoconferencing, and web conferencing.

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6. 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. This includes working with State agencies to facilitate the purchase and use of Low Emission Vehicles (LEV), Zero-Emission Vehicles (ZEV), and alternative fuel vehicles by the locations, and to find solutions for increasing the availability of an affordable supply.
7. The University will develop a mechanism for ongoing involvement of undergraduate and graduate students in efforts toward achieving sustainable transportation. The means may include, but are not limited to, undergraduate and graduate internships and/or scholarships for relevant conference attendance.

### ***E. Sustainable Building Operations for Campuses***

1. The University will incorporate the Sustainable Building Operations policy requirements into existing facilities-related training programs, with the aim of promoting and maintaining the goals of the *Policy*.
2. The University will work closely with the USGBC to address the needs and concerns of campuses in the further development of USGBC programs, including the LEED-EBOM rating system and the USGBC's "Application Guide for Multiple Buildings and On-Campus Buildings."
3. Locations will use the LEED-EBOM certification process to advance the University's educational and research mission by using the buildings as living, learning laboratories.

### ***F. Recycling and Waste Management***

1. The University will voluntarily comply with Chapter 18.5, the "State Agency Integrated Waste Management Plan," in California Public Resources Code Section 40196.3.
2. Waste reduction and recycling shall be prioritized in seeking LEED credits for LEED-NC, LEED-CI, and LEED-EBOM projects.
3. The University will seek to research funding sources for financing waste reduction projects.
4. Locations updated their waste diversion plans (formerly called integrated waste management plans) as of 2012 to evaluate their progress towards the 2020 targets, their waste reduction and regional recycling options, campus and medical center specific challenges and articulate their plan to reach the 2020 zero waste target. Campuses with medical centers are to include chapters or otherwise include their medical centers in the waste diversion plan.



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5. Exceptions will be considered for entities which represent less than 1% of the overall campus solid waste tonnage.
6. Reduction, reuse, recycling and composting are the primary methods to be counted toward the municipal solid waste diversion from landfill goals. The goal is to strive for the highest form of resource recovery methods and the best use of the materials. The hierarchy for resource recovery is as follows:
  - a. Source reduction: The reduction of waste is the highest form of resource recovery as it eliminates the products from being manufactured or transported in the first place.
  - b. Reuse: Reuse materials in their original form (e.g. use lumber for lumber, mugs instead of single use cups, reuse course readers in subsequent classes. These methods maintain the embodied energy in each material. )
  - c. Composting and recycling: Composting is the recycling of organics such as animal waste, bedding, greenwaste and foodwaste into compost and mulch. Recycling refers to the conversion of waste into basic materials so they can be made back into new products.
  - d. The methods of reusing and recycling waste vary and will evolve over time as technologies improve. The Solid Waste and Recycling Working Group – comprising waste and recycling professionals from each location – will continue to evaluate recycling methods and recommend their appropriateness for counting toward diversion goals.

### **G. *Environmentally Preferable Purchasing (EPP)***

#### Sustainable Economy

1. The University seeks to compare the total cost of ownership when evaluating the cost of goods and services for the selection of suppliers. The total cost of ownership includes the initial purchase price and all other initial costs, including installation, freight, taxes and fees where applicable, operating cost, maintenance cost, warranty cost, collection, and end-of-life disposal or recycling costs.
2. “Cradle to cradle” is the University’s preferred purchasing standard. It 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.
3. The University will complete the transition of all locations toward electronic and paperless e-procurement systems, and will use web-based catalogs, punch-out, and other electronic programs.

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4. The University will incorporate the credit requirements set forth by LEED-NC, LEED-CI, and LEED-EBOM into product and service sourcing and procurement when applicable.
5. The University will use its purchasing power and prominence to advance the development of sustainable technologies and products by pressing markets to continually lower resource use in the manufacturing and distribution processes and increase productivity of their plants, warehouses, and distribution methods.
6. Each Commodity Team working on a specific RFI, RFQ, or RFP for products will determine the appropriate sustainability requirements to be included in these documents. Additionally, the Commodity Team will decide if and how many Quality Points utilized in the Total Cost per Quality Point bid evaluation methodology will be allocated to sustainability requirements.

### Sustainability and the Supply Chain

7. The University will require all strategically sourced suppliers to present their organization's continuous improvement with the development of sustainable products and operational practices in the Procurement Services/Strategic Sourcing Quarterly Business Reviews.
8. The University will require all strategically sourced suppliers, and eventually all suppliers, to report annually on the qualitative aspects of their business operations and to report quarterly on the sales of products, which will result in the quantitative measurement of their EPP business with UC.
9. When requested, suppliers citing EPP claims shall provide proper certification or detailed information on environmental claims, including benefits, durability, and recyclability properties.
10. The University will recognize recycled content and the following third-party certifications and ratings for the purpose of calculating the percentage of sustainable products that the University purchases:
  - a. ENERGY STAR<sup>®</sup> - Energy Star is a standard for energy efficient consumer products administered by the U.S. Environmental Protection Agency and the U.S. Department of Energy.
  - b. EPEAT<sup>®</sup> - The Electronic Product Environmental Assessment Tool is a method for consumers to evaluate the effect of a product on the environment. It ranks products as gold, silver or bronze based on a set of environmental performance criteria. It is managed by the Green Electronics Council.
  - c. GREENGUARD<sup>®</sup> - The GREENGUARD Environmental Institute certifies products and materials for low chemical emissions.

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- d. Green Seal<sup>®</sup> - A Green Seal Certification Mark on a product means that it has gone through a stringent process to show that it has less impact on the environment and human health.
  - e. WaterSense<sup>®</sup> - WaterSense is a U.S. Environmental Protection Agency program designed to encourage water efficiency in the United States through the use of a special label on consumer products.
11. Standards for packaging materials and their appropriate reuse or disposal will be outlined in all RFIs, RFQs, and RFPs requiring potential bidders to document their standards and practices for packaging materials, including materials contained in the boxes of shipped products to protect goods, as well as the boxes and cartons themselves. Suppliers who have reusable tote programs should make these programs available to the University.
12. The University will specify that all packing materials abide by at least one, and preferably all, of the criteria listed below:
- a. Made from 100% post-consumer recycled materials and be recyclable or reusable
  - b. Non-toxic
  - c. Biodegradable
  - d. Produced with the minimum amount of resources and sized as small as possible, while still maintaining product protection during shipping; where feasible, packaging materials should be eliminated.
13. The University will use established programs or work with its suppliers to establish end-of-life reuse, recycling, or “take-back” programs at no extra cost to the University, and in compliance with federal, state, and local laws, and University environmental standards regarding waste disposal. The University may use other disposition methods, consistent with University Policy BUS-38, Disposition of Excess Property and Transfer of University-Owned Property<sup>10</sup>, or other appropriate University policies. When documentation is required to comply with federal, State, and local laws or University policy, this shall be incorporated into the end-of-life program.
14. In the case of usable products for which there is neither a need to redeploy on the location, nor a supplier take-back program, the University will use other disposal methods, including sale through the Excess and Salvage units, donation (if allowed under BUS-38, Disposition of Excess Material and Transfer of University-owned Material), or existing location-designated programs.

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<sup>10</sup> <http://www.ucop.edu/ucophome/policies/bfb/bus38.pdf>

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## Energy and Water

15. For product categories where ENERGY STAR<sup>®</sup>-rated or WaterSense<sup>®</sup> certified products are available, the University will focus its procurement efforts only on products with an ENERGY STAR<sup>®</sup> rating or WaterSense<sup>®</sup> certification, consistent with the needs of University researchers, faculty, and staff.
16. The University will use its Strategic Sourcing Program to negotiate better pricing and inclusion in the University's market basket for products that are certified through the US EPA's ENERGY STAR<sup>®</sup> and WaterSense<sup>®</sup> programs.
17. The University will engage with the ENERGY STAR<sup>®</sup> and WaterSense<sup>®</sup> programs to continually press the market for greater energy and water efficiency for the products and services regularly purchased by the University.
18. For all electronic equipment, the supplier will deliver the items to the University with energy efficiency and conservation features enabled and locations will work to ensure that features remain enabled.

## Paper

19. The University will phase out the use of virgin paper and adopt a minimum standard of 30% Post-Consumer Waste (PCW) recycled content paper to be used in all office equipment (e.g., multi-function devices, copiers, printers, and fax machines).
20. University Procurement Services will use its Strategic Sourcing Program to negotiate better pricing for commodities with recycled content compared to commodities without recycled content, where such opportunities exist.
21. Through the Strategic Sourcing Program, University Procurement Services will develop language and specifications for RFIs, RFQs, and RFPs stating that recycled content product offerings be required where they exist.
22. Suppliers are discouraged from bringing hard copies of presentations to Quarterly Business Reviews. Suppliers are encouraged to present all information in electronic format that is easily transferable to University staff.
23. Suppliers and consultants are encouraged to print RFIs, RFQs, RFPs, Price Schedule Agreements, and required reports on a minimum of 30% PCW recycled content paper, using narrow margins and both sides of the page. These documents shall be clearly marked to indicate that they are printed on recycled content paper.

## Electronics Equipment

24. All desktop computers, laptops, and computer monitors purchased by the University are required to have achieved a minimum Bronze-level registration or higher under the Electronic Products Environmental Assessment Tool (EPEAT<sup>®</sup>), where applicable.

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25. Preference will be given for electronics products that have achieved EPEAT<sup>®</sup> Silver or EPEAT<sup>®</sup> Gold registration. The registration criteria and a list of all registered equipment are provided at <http://www.epeat.net>.
26. All recyclers of the University's electronic equipment must be e-Steward certified by the Basel Action Network (BAN) ([www.ban.org](http://www.ban.org)). In cases where the University has established take-back programs with a manufacturer, the University will encourage the manufacturer to become a BAN-certified e-Steward Enterprise (<http://e-stewards.org/recycle-responsibly/enterprises/>).

### **H. Sustainable Foodservices**

#### Campuses and Medical Centers

1. Campus and Medical Center foodservice operations subject to this *Policy* shall include both self-operated and contract-operated foodservices.
2. In the context of this *Policy*, sustainable food is defined as food and beverage purchases that meet one or more of the criteria listed below, which are reviewed annually by the UC Sustainable Foodservices Working Group (under the UC Sustainability Steering Committee).
  - i. Locally Grown<sup>11</sup>
  - ii. Locally Raised, Handled, and Distributed
  - iii. Fair Trade Certified<sup>12</sup>
  - iv. Domestic Fair Trade Certified
  - v. Shade-Grown or Bird Friendly Coffee
  - vi. Rainforest Alliance Certified
  - vii. Food Alliance Certified
  - viii. USDA Organic
  - ix. AGA Grassfed
  - x. Grass-finished/100% Grassfed
  - xi. Certified Humane Raised & Handled
  - xii. American Humane Certified
  - xiii. Animal Welfare Approved
  - xiv. Global Animal Partnership (steps III, IV, V)
  - xv. Cage-free

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<sup>11</sup> Resulting from regional constraints, campus definitions of "Locally Grown" and "Locally Raised, Handled, and Distributed" may vary; however, "Locally Grown" and "Locally Raised, Handled, and Distributed" distances shall not exceed 500 miles.

<sup>12</sup> Fair Trade Certified products must be third party certified by one of the following: IMO Fair For Life, Fairtrade International (FLO), Fair Trade USA.

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- xvi. Protected Harvest Certified
  - xvii. Marine Stewardship Council
  - xviii. Seafood Watch Guide “Best Choices” or “Good Alternatives”
  - xix. Farm/business is a cooperative or has profit sharing with all employees
  - xx. Farm/business social responsibility policy includes (1) union or prevailing wages, (2) transportation and/or housing support, and (3) health care benefits
  - xxi. Other practices or certified processes as determined by the location and brought to the Sustainable Foodservices Working Group for review and possible addition in future *Policy* updates.
3. With the goal of achieving 20% sustainable food purchases, all Food Service Operations should track and report annually the percentage of total annual food budget spent on sustainable food.
  4. If cost effective, each campus and Medical Center will certify one facility through a third-party green business certification program 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.
  5. Campuses, Medical Centers, and retail foodservice operations will provide an annual progress report on these goals. 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.
  6. Campuses and Medical Centers are encouraged to form a campus-level foodservices sustainability working group to facilitate the campus goal setting and implementation process.
  7. The stakeholders who are involved with the implementation of the Sustainable Foodservice section of this *Policy* will participate in a system-wide working group to meet, network and to discuss their goals, best practices, and impediments to implementation.
  8. Campuses and Medical Centers are encouraged to implement training programs for all foodservice staff on sustainable foodservice operations, as well as, where applicable, on sustainable food products being served to patrons, so that staff can effectively communicate with the patrons about the sustainable food options.
  9. 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).
  10. 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.

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11. 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.

## ***I. Sustainable Water Systems***

### Reporting Methods

1. Explicitly identify the geographic and operational areas comprising the scope of location water usage (e.g., the campus as defined by its Long Range Development Plan boundary, excluding third-party operated facilities).
2. Locations with medical centers may choose to report medical center data and progress toward the target separately from the main campus and may select a different baseline than the main campus.
3. All locations shall report water usage in a tabular format using the following methods:
  - a. Measure per capita water consumption by Weighted Campus User (WCU) for main campuses and Adjusted Patient Day (APD) for medical centers. If necessary, WCU and APD may be combined using the following calculation:  $[(APD/360) * 1.5] + WCU$ ;
  - b. Potable water usage for a baseline period selected by the location that is three consecutive fiscal years between FY 1995/96 and FY 2009/10:
    - i. Total location potable water usage, in gallons, for each of the three years comprising the baseline period,
    - ii. WCU, or APD, for each of the three years comprising the baseline period
    - iii. Baseline Potable Water Usage: calculate the baseline metric as follows: Step 1: Divide each years' total water use in gallons by that years' WCU or APD population. Step 2: Average the three gallons/population calculations to derive the Baseline Potable Water Usage for the location,
    - iv. Multiply the Baseline Potable Water Usage figure by 0.80 to derive the location 2020 Potable Water Usage Target, and
    - v. Unless impracticable, provide average gallons of potable water usage per baseline year per gross square foot of location built space for which potable water consumption is being reported, mirroring (c)above;
  - c. Potable water usage for the most recent fiscal year<sup>13</sup>:
    - i. If using an average of the three most current fiscal years, which is allowed but not required, follow the method described above for

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<sup>13</sup> An average of the three most current fiscal years is allowed but not required.

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- deriving the baseline, but substitute the three most current fiscal years for the three baseline years,
- ii. If using only the most recent fiscal year, and not an average, list in the table the following:
    1. Total location potable water usage, in gallons, for the most recent fiscal year,
    2. WCU or APD for the most recent fiscal year,
    3. Divide the gallons by the WCU or APD to derive the Current Potable Water Usage; and
  - iii. If feasible, provide average gallons of potable water usage per gross square feet for either the three most current fiscal years, if that is the method adopted, or for the single most current fiscal year, again using the methodology described above;
  - d. Total location non-potable water usage, in gallons, for the most recent fiscal year.
  - e. Report, or estimate if metered data is not available, water usage in the following use categories at a minimum: buildings, landscape, and central plant including cooling towers, identifying the quantities of potable and non-potable used for these purposes;

## Reporting Schedule

4. Each location prepared a Water Action Plan as specified below and submitted it to the Office of the President by December 2013.
5. Beginning the following year, each location will provide an annual progress report on implementing its Water Action Plan to include progress on its water usage reduction.

## Water Action Plans

6. Each Water Action Plan and the water conservation and water efficiency strategies it contains will take into account relevant regional conditions and regulatory requirements, will recognize historical progress, and will acknowledge current location best practices being implemented.
7. Each Water Action Plan will include a section on Water Usage and Reduction Strategies that:
  - a. Describes the applicable types of water comprising water systems, including but not limited to potable water, non-potable water, industrial water, sterilized water, reclaimed water, stormwater, and wastewater;
  - b. Reports water usage in accordance with the methods set forth in these procedures;
  - c. Considers setting more stringent potable water reduction goals if the location has already achieved a 20% below baseline reduction in per capital potable water consumption;
  - d. Outlines location-specific strategies for achieving the target for reduced potable water consumption;



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- e. Encourages implementation of innovative water-efficient technologies as part of capital projects and renovations (e.g., installation of WaterSense certified fixtures and appliances, graywater reuse, rainwater harvesting, and watershed restoration);
  - f. Addresses use of non-potable water sources, and how those sources factor into overall sustainable water systems strategy;
  - g. Analyzes the identified water use reduction strategies using a full cost approach by considering:
    - i. Projected costs and savings of the identified water use strategies,
    - ii. Indirect costs and savings associated with reduced energy consumption due to the energy use embodied in water use,
    - iii. Savings associated with reduced or avoided infrastructure costs, and
    - iv. Other avoided costs; and
  - h. Sets a timeline for the strategies being implemented to reach the water usage reduction target.
8. Each Water Action Plan will include a section on Stormwater Management developed in conjunction with the location stormwater regulatory specialist that:
- a. Addresses stormwater management from a watershed perspective in a location-wide, comprehensive way that recognizes stormwater as a resource and aims to protect and restore the integrity of the local watershed(s);
  - b. References the location's best management practices for preventing stormwater pollution from activities that have the potential to pollute the watershed (e.g., construction; trenching; storage of outdoor equipment, materials, and waste; landscaping maintenance; outdoor cleaning practices; vehicle parking);
  - c. Encourages stormwater quality elements such as appropriate source control, site design (low impact development), and stormwater treatment measures to be considered during the planning stages of projects in order to most efficiently incorporate measures to protect stormwater quality;
  - d. If feasible, cites relevant and current location stormwater-related plans and permits in an appendix or reference list accompanying the Water Action Plan; and
  - e. Includes, to the extent feasible, full cost evaluation of stormwater management initiatives similar to the approach in the Water Usage and Reduction Strategies section above.
9. Each location Water Action Plan will include a section on Education and Outreach that:
- a. Presents potential opportunities to serve as a living laboratory for sustainable water projects;
  - b. Supports efforts of students, faculty and staff to implement sustainable water systems on campuses and other locations;

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- c. Identifies opportunities for pilot projects that illustrate the University's commitment to sustainable water practices through teaching, research, and service; and
- d. Identifies opportunities for new practices that could create behavior change with regard to water use and watershed management.

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## VI. RELATED INFORMATION

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- UC Sustainability Website: <http://www.universityofcalifornia.edu/sustainability/>
- Annual progress reports to The Regents: [www.universityofcalifornia.edu/sustainability/reports.html](http://www.universityofcalifornia.edu/sustainability/reports.html)
- UC Code of Conduct for Trademark Licensees: <http://policy.ucop.edu/doc/3000130>

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## VII. FREQUENTLY ASKED QUESTIONS

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Not applicable.

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## VIII. REVISION HISTORY

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June 2015: Policy revised to update the following sections: sustainable building operations, sustainable foodservices practices, green building design, and clean energy.

July 2011: Policy revised to update the following sections: green building design, climate protection practices, sustainable operations, environmentally preferable purchasing, and sustainable foodservice practices.

September 2009: Policy expanded to include sustainable foodservice

March 2007: Policy expanded to include sustainable operations, waste reduction, and environmentally preferable purchasing; renovations guidelines added to green building section, climate protection section refined

January 2006: Policy expanded to include transportation and climate protection

June 2004: President formally issued the "*Presidential Policy on Green Building Design and Clean Energy Standards*." This policy was subsequently renamed the *Policy on Sustainable Practices*

July 2003: The Regents approved sustainability policy principles (<http://www.universityofcalifornia.edu/sustainability/documents/regpolicy.pdf>).