# 103

**Office of the President**

**TO THE MEMBERS OF THE COMMITTEE ON GROUNDS AND BUILDINGS:**

**DISCUSSION ITEM**

***For the Meeting of January 18, 2005***

**ANNUAL REPORT ON GREEN BUILDING AND CLEAN ENERGY POLICY**

**EXECUTIVE SUMMARY**

- This is the first annual report on steps to implement the Green Building and Clean Energy Policy. Initial procedures have been developed for the Green Building Policy, and campuses have submitted proposed baseline implementation plans. Campuses have also drafted preliminary Clean Energy Standard Implementation Plans.

- Highlights of first-year achievements include receiving several large grants to assist implementation work and recognition from federal officials for the University's leadership.

At the December 13, 2002 meeting, the Committee on Grounds and Buildings requested that the President undertake a feasibility study for the adoption of a Green Building Policy and Clean Energy Standard for all proposed and to-be-renovated buildings. At the July 17, 2003 meeting, The Regents approved "as University policy for all capital projects, 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." On June 16, 2004, the President formally issued the Presidential Policy on Green Building Design and Clean Energy Standards (the Policy).

The development of the Policy was informed by a committee made up of State government officials from the California Energy Commission and the State Consumer Services Agency, faculty members with expertise in these disciplines, and administrators from each of the ten campuses and the Office of the President. The committee met at five separate, all-day meetings, with numerous subgroups and held ad hoc meetings to complete the work within a five-month time frame. In late February 2003, student representatives from each campus that had passed referenda requesting that the University develop policies for integrating sustainability into its energy purchasing practices and building guidelines met with the committee to share information and provide input about the draft sustainability policy.

The final feasibility studies and policy recommendations of the committee were presented to the Committee on Grounds and Buildings in June 2003 and to the Board in July 2003, where they were passed unanimously.

***Status of Green Building and Clean Energy Policy***

Implementation progress for each item in the Policy is summarized in Attachment 1. This section summarizes the procedures developed to implement the Policy, while the following section provides a list of some of the major implementation progress achievements to date.

Implementation actions undertaken to implement the Green Building Policy include finalizing UC's green building application guidelines, developing campus baseline information and arranging with the investor-owned utilities to provide documentation and financial incentives for energy efficiency in new construction. Among other requirements, the Green Building Policy mandates that new UC buildings outperform Title 24 energy parameters by 20 percent and achieve a level of sustainability equivalent to at least a Leadership in Energy and Environmental (LEED) certified rating.

The UC green building application guidelines outline the use of LEED standards in UC buildings with additional requirements for laboratory buildings that were derived from the Labs21 Environmental Performance Criteria. The guidelines outline the procedures for establishing

campus green building baselines. The campus baselines have been developed to streamline the administration of the green building certification process and were developed using numerous sources, while being primarily based on the U.S. Green Building Council's standards. The University modified these to address the unique character of its campus communities. These baselines allow each campus the opportunity to highlight the past efforts towards sustainable development, such as storm-water drainage systems, energy generation efforts, and sustainable land use planning, as well as commit to future efforts for every new construction project.

Effective July 1, 2004, projects approved for inclusion in the University's capital improvement program must meet the Policy's requirements and must provide the following commitment: "As required by this policy, the project will adopt the principals of energy efficiency and sustainability to the fullest extent possible, consistent with budgetary constraints and regulatory and programmatic requirements. Specific information regarding energy efficiency and sustainability will be provided when the project is presented for design approval." Nine new projects approved by The Regents in November as part of the State-funded 2005-06 Budget for Capital Improvements include this formal commitment. In addition, many projects with budgets approved before 2004-05 have incorporated sustainable features in order to comply with the spirit of the new policy.

Implementation of the Clean Energy Standard began with the campuses producing initial drafts of Clean Energy Standard Implementation Plans. The plans project energy consumption growth at the campuses over the next decade and the amount of energy efficiency and renewable energy that will be required to offset this load growth in order to comply with the Policy.

***Highlights of First Year Accomplishments***

*Energy Efficiency in New and Existing Buildings*
A partnership program with investor-owned utilities and The California State University (CSU) provides $15 million towards implementing energy efficiency projects in the UC and CSU systems. The California Public Utilities Commission (CPUC) selected the UC-CSU program in a competitive solicitation, in part due to UC's far-reaching Clean Energy Standard. In addition to funding energy efficiency retrofits and existing building tune-ups through "monitoring-based commissioning" projects, the program also provides extensive training to UC staff in project management, facilities, and other related campus units.

A second grant from the CPUC provides the nonprofit organization Alliance to Save Energy with $2.5 million to manage pilot student energy conservation programs on the Berkeley, Santa Barbara, and San Diego campuses. UC and CSU have also received additional funding of approximately $3 million from the California Energy Commission for demonstrating new emerging energy technologies.

*Onsite Generation and Procurement of Renewable Energy*

In 2004, graduate students at UC Berkeley completed a solar site assessment for their campus, identifying priority buildings for solar projects and analyzing possible financing approaches. Also at the Berkeley campus, the Associated Students (ASUC) and the Graduate Student Assembly allocated $300,000 for a solar photovoltaic (PV) system on the Martin Luther King Student Union, which earned an additional $300,000 in State rebates. The ASUC has now secured $500,000 from Follett (the Campus Bookstore operator) for energy efficiency retrofits and to install additional solar PV systems. Three UC sites participated in a California Power Authority pilot program to bid out solar PV projects, as part of the goal of seeking cost-effective solar PV projects. Solar projects are still prohibitively expensive in most cases but are expected to become more cost effective during the next decade.

*Staff and Student Participation in Sustainability Activities*
With resources from the grants described above, the Facilities Administration Department created the position of Sustainability Specialist to manage portions of those grant programs and to coordinate communications with students, faculty, administrators, and external representatives in further development and implementation of the Policy. For example, in addition to ongoing communication and campus visits, the Sustainability Specialist and other Division of Business and Finance staff held several meetings with the leadership of the California Student Sustainability Coalition. The Sustainability Specialist serves as a member of the Chancellor's Advisory Committee on Sustainability at UC Berkeley and a parallel committee at UC San Francisco. With leadership and support from the Division of Business and Finance, staff, students, and faculty are working to create similar committees on other UC campuses to better coordinate and promote implementation of the Policy.

*Partnerships with Government and Nonprofit Organizations*
The Department of Energy invited the University to become a Partner in its Rebuild America program, which provides resources and expertise for further implementation of the Clean Energy Standard as well as providing structure for ongoing collaboration between students and the University on sustainability. The University has also developed a working relationship with the U.S. Green Building Council to assist campuses going through the LEED certification process and to comment on green building standards currently under development. The University also actively participates in the California State Green Building Task Force and the California State Energy Policy Advisory Committee.

*Training*
The University continues to promote excellence through training, with the following successful programs as examples. The third annual UC Green Building-Sustainability Conference hosted by the Santa Barbara campus in June 2004 attracted over 300 attendees from the UC and CSU systems. This conference highlighted and shared best practices in energy efficiency, green buildings, and sustainability on UC and CSU campuses. The conference was sponsored in part by the California Public Utilities Commission grant mentioned above. In November 2004, the UC Project Management Institute launched a series of monthly trainings sponsored by the CPUC

grant. More than fifty UC staff attended the first course, "Exceeding Title 24," which focused on meeting the policy goal for exceeding Title 24 energy standards by at least 20 percent in new building construction. In December 2004, a second course, "Laboratories for the 21st Century," trained another 45 UC staff in high performance laboratory design. Additionally, the U.S. Green Building Council has offered training for its new green building standard for existing buildings, with a total of about 70 UC staff attending special training sessions held at the Santa Barbara and Berkeley campuses.

*Procurement*
The University successfully used "buying power" to encourage manufacturers of laboratory-grade refrigerators and freezers to build more efficient units. In addition, the University obtained funding and issued a contract to test more energy-efficient fume hood technology for possible use in UC laboratories. The University is also partnering with the Environmental Protection Agency and the Alameda County Waste Management Authority to provide expert technical assistance to begin an Environmentally Preferable Purchasing Program in conjunction with the Strategic Sourcing Program under the direction of the Vice President–Financial Management.

*External Recognition for UC*
The Regents continue to receive extensive recognition for approving the Green Building and Clean Energy Policy. Federal officials praised the University's Policy at a September ceremony dedicating an Energy Star plaque earned by the Office of the President building in Oakland. Articles chronicling the Policy have appeared in several local, state, and national publications. University staff have been invited to give speeches and other presentations on the Policy at numerous national and international fora, such as the National Association of State Universities and Land-Grant Colleges Annual Meeting, the International Environmental Management for Sustainable Universities Conference in Mexico, the North American Conference on Sustainability in Higher Education, and the Laboratories for a 21st Century Annual Conference.

*Future Action*
This first Annual Report describes the initial steps towards implementation of the Policy. At the November 2005 meeting, the second year annual report will detail and analyze the impact of the University's sustainability efforts on energy use and building design and the effects on the overall capital program and University operating costs.

(Attachment)