

The Regents of the University of California

**COMMITTEE ON GROUNDS AND BUILDINGS**

January 18, 2011

The Committee on Grounds and Buildings met on the above date at Price Center, San Diego campus.

Members present: Regents DeFreece, Hime, Makarechian, Ruiz, Schilling, and Zettel; Advisory members Anderson and Hallett

In attendance: Regents Cheng and Newsom, Regent-designate Mireles, Faculty Representative Simmons, Secretary and Chief of Staff Griffiths, Associate Secretary Shaw, General Counsel Robinson, Executive Vice President Brostrom, Vice President Lenz, Chancellors Birgeneau, Fox, Kang, and Katehi, and Recording Secretary McCarthy

The meeting convened at 3:00 p.m. with Committee Chair Schilling presiding.

**1. APPROVAL OF MINUTES OF PREVIOUS MEETING**

Upon motion duly made and seconded, the minutes of the meeting of November 16, 2010 were approved.

**2. ANNUAL REPORT ON SUSTAINABILITY PRACTICES**

[Background material was mailed to the Committee in advance of the meeting, and a copy is on file in the Office of the Secretary and Chief of Staff.]

Executive Vice President Brostrom showed a video created by UC production staff and shown at the Global Green USA June awards ceremony at which UC received their Millennium Environmental Award. He reported that UC has 50 Leadership in Energy and Environmental Design (LEED) certified projects, more than any other university in the nation. Mr. Brostrom displayed a graph demonstrating that the green building policy requirements adopted in 2007 for renovations have begun to result in LEED certifications of renovations projects during the prior two years.

Integrating sustainability principles into UC's design process allows UC to consider ongoing operational and maintenance costs in addition to initial construction costs, giving a more accurate picture of total life cycle costs. To date, 180 University projects totaling over 20 million gross square feet (GSF) have been registered with the utilities' energy efficient design programs. When these projects are completed, the University will have avoided approximately \$7 million per year in energy costs and will have received more than \$8 million in incentive payments from utility companies.

Mr. Brostrom reported that the California Green Building Standards Code (CALGreen) became effective on January 1, 2011. The University is in the process of evaluating these new standards to determine how to implement them most cost effectively and efficiently. CALGreen's mandatory measures do not replace the LEED certification required by UC policy. CALGreen requirements mandate the equivalent of only 13 LEED points out of the 60 required to earn the LEED Silver rating required by UC policy. UC staff is examining the overlap of CALGreen and LEED requirements to determine the most efficient ways to meet both without duplication of effort.

In 2004, UC entered an energy efficiency partnership with the California State University system and investor-owned utilities, allowing UC to invest in energy efficiency projects that generate significant operational savings. Such projects have included lighting retrofits, building recommissioning, and upgrades to heating and air-conditioning. Energy efficiency investments continued in 2010; to date UC has received more than \$38 million in grant money, with resulting operational savings of more than \$21 million annually.

Mr. Brostrom turned to climate protection, which he stated presents both a leadership opportunity and a business risk for the University. UC demonstrated leadership by being among the first in the nation to complete climate action plans and by aggressively implementing these plans. UC San Diego received the First Annual Climate Leadership Award for institutional excellence from the American College and University Presidents' Climate Commitment. Mr. Brostrom noted that aggressively pursuing emissions reductions benefits the University financially by reducing energy costs and reducing the cost of compliance with new State regulation. New cap-and-trade regulations could cost UC between \$7 million and \$28 million per year for the purchase of required emissions allowances.

Turning to sustainable transportation, Mr. Brostrom stated that UC seeks to reduce the environmental impact of commuting, fleet, and business air travel. Each campus developed goals for reducing transportation-related greenhouse gas emissions. In 2010, UC Santa Barbara received the Bicycle Friendly Business Gold Award from the League of American Bicyclists; UC Irvine received a Green California Leadership Award for ZOTWheels, the first automated bike-sharing program in the state; and UC Davis received the Green Fleet Award from *Government Fleet* magazine. Significant program advances in 2010 included an 86 percent reduction in particulate emissions in diesel fleet vehicles at UC San Diego, acquisition of five hydrogen fuel cells at UCLA, installation of new compressed natural gas fueling stations at UC San Diego, and use of shuttle busses with larger capacity for bicycle trailers at UC Santa Cruz.

Environmental, financial, and human health benefits from improving environmentally-friendly operations and maintenance practices in existing buildings include reduced costs as a result of increased energy and water efficiency, and reduced occupant and employee exposure to toxic cleaning agents and pesticides. To benchmark and improve its operational performance, UC uses the LEED for Existing Buildings: Operations and Maintenance (LEED-EBOM) ratings system. Mr. Brostrom stated that implementation of this system has been uneven, with five campuses having completed a pilot project and

three having scaled their existing building operations to certify multiple buildings. In the prior year, UC Santa Barbara received two additional LEED-EBOM certifications, bringing their campus total to five. Mr. Brostrom noted that the U.S. Green Building Council (USGBC) Application Guide for Multiple Buildings and On-Campus Building Projects (AGMBC) now allows the University to get credits for campus-wide improvements, greatly streamlining the LEED certification process.

In the area of waste reduction, UC's prior goal was to divert 50 percent of municipal solid waste from landfills by June 2008, and its current goal is to divert 75 percent by 2012. Mr. Brostrom stated that much of the prior reduction was from diversion of construction and demolition material. UC Davis diverted 90 percent of the waste from its stadium for the Environmental Protection Agency (EPA) Game Day, winning first place by a wide margin.

Turning to sustainable purchasing, Mr. Brostrom noted that the Working Smarter initiative is attempting to get improved data on procurement and purchasing. During the prior year, more suppliers reported on sustainable products that the University purchases. The portion of purchases through systemwide contracts that meet one or more sustainable product criteria increased from 12 percent in 2008-09 to 23 percent in 2009-10.

Mr. Brostrom described the unique collaboration among UC students, faculty, and staff toward sustainability, which encompasses the entire teaching, research, and public service mission of the University. In 2010, campuses won grant funding for sustainability internship programs, integrated renewable energy systems, use of the UCLA campus as a living laboratory for research on creating a smart grid, and creation of multiple clean energy research projects at UC San Diego. UC Berkeley participated in an international exchange of student sustainability leaders through the prestigious International Alliance of Research Universities. UC sustainability projects have been mentioned in over 100 news stories. UCSF's Medical Center and Children's Hospital earned Practice Greenhealth's Environmental Excellence Award; UC Santa Cruz won Acterra's 2010 Business Environmental Award for its outstanding sustainability projects and programs; and UCOP was honored by Alameda County Waste Management Authority's 2010 Business Efficiency Award.

Mr. Brostrom described the University's planned future steps toward sustainability. UC has begun work with the Air Resources Board to reduce emissions. The Climate Solutions Steering Group will start to implement some large-scale, systemwide carbon reduction initiatives. The University will begin to certify campus-wide LEED credits to streamline the certification process and evaluate the CALGreen Building Standards Code requirements. In addition, UC will convene a Water Working Group to analyze and propose appropriate water policy goals for addition to the UC Policy on Sustainable Practices.

UC Irvine Vice Chancellor for Administrative and Business Services Wendell Brase explained that the Climate Solutions Steering Group has worked for several years toward the goal of complete climate neutrality for the entire UC system, going far beyond the

carbon reduction plans of the state's utilities. UC's overall carbon footprint is approximately two million metric tons per year. Mr. Brase stated that onsite carbon neutrality is not possible at most of the campuses. Mr. Brase emphasized that the significant costs of carbon must be anticipated and avoided. Current large solar power and wind facilities are located in inland areas, far from most campuses. Some campuses have the capacity to store thermal energy in large thermal storage tanks, the most proven and reliable form of energy storage. This storage capacity is important because wind power produces more energy at night. Mr. Brase stated that half of UC's carbon footprint is associated with cogeneration and that UC must find a way to make cogeneration climate neutral. In order to make the whole University carbon-neutral, the University must have access to these remote energy sources and be able to transport the energy to the campuses, whether it is in the form of biogas or electricity.

Mr. Brase reported that the campuses are intently focused on the policy goal of reducing 2014 greenhouse gas emissions systemwide to year 2000 levels, which would require deep energy efficiency projects and more extensive statewide energy partnership projects. Procuring carbon attributes is widely seen as the last resort in solving this problem. If necessary, UC should develop its own offset fund, so that if an individual campus should need to purchase offsets, the monies would stay within the UC system.

Mr. Brase summarized that attaining systemwide carbon neutrality would require development of mega-scale off-site projects that produce renewable power or biogas. Biogas would enable UC to use the existing natural gas combustion infrastructure. This would also require the ability to transport the power or gas from large, off-site projects to the campuses. Mr. Brase noted that more details would be forthcoming in the upcoming year.

Regent Zettel inquired whether the University would take part in the new San Diego Gas and Electric Company's Sunrise Powerlink project, which would carry wind and solar energy to San Diego from East County and the Imperial Valley. Mr. Brase responded that some of the power UC San Diego buys would come from that source. Regent Zettel asked if UC has investigated any partnership with the Marine Corps Air Station Miramar, which has a methane gas pipeline. Mr. Brostrom replied that officials from the California Air Resources Board had suggested that UC meet with various components of the armed services for possible energy partnerships. Mr. Brase stated that UC San Diego has been very aggressive in pursuing biogas to operate fuel cell projects. Sustainability Manager for the Office of the President Matthew St. Clair stated that a UC San Diego fuel cell project would use power from a waste treatment plant where the captured methane would be piped to a 2.8-megawatt fuel cell on campus.

Regent Makarechian asked whether the carbon footprint of two million metric tons includes new construction materials or refers only to energy usage. Mr. Brase answered that the figure includes Type 1 (created on campuses through combustion of carbon-based fuels), Type 2 (indirect, procuring of energy from utility), and Type 3 (commuter emissions, and faculty and staff air travel) greenhouse gas emissions. It does not include embodied carbon content in new construction materials. Mr. St. Clair

added that UC Berkeley conducted a study that examined life cycle impact embedded in all the construction projects and the goods purchased by the University, to complement their climate action plan. He stated that these life cycle emissions could be almost as great as the total Type 1, 2, and 3 emissions.

Regent Makarechian asked if the goal of achieving 2000-level emissions by the year 2014 is realistic, given current budget reductions and the disparity among campuses in progress toward the goal. Mr. Brase agreed that the goal is ambitious and noted that the goal is not growth-adjusted. However, Mr. Brase stated that during the first phase of the statewide energy partnership it was discovered that the potential for energy savings is much greater than originally thought. Specifically, he recalled that just a few years ago the goal was to save ten percent in direct consumption of energy across the UC system, whereas now it is understood that many projects can save 50 percent. Many lighting projects from UC Davis' California Lighting Technology Center and Smart Lab projects at UC Irvine are saving more than 50 percent. UC Berkeley and UC San Diego have set goals for themselves that are even lower than 2000 levels. In terms of budget reductions, Mr. Brostrom pointed out that on-campus changes actually yield operational savings. The larger challenge will be to develop large-scale off-site renewable energy sources. Much will depend on the cost of carbon, natural gas, and electricity after the Air Resources Board guidelines go into place.

Regent Makarechian asked about the cost of transporting energy from remote desert locations to campuses. Mr. Brostrom responded that UC has been talking with the California Department of Water Resources about the possibility of placing solar panels along the California aqueduct. A large biomethane digester in the Central Valley is also being considered.

Regent-designate Mireles asked where the \$21 million savings in annual energy costs is being spent. Mr. Brostrom responded that it pays debt service for loans in relation to these projects and utility expenses at the campuses. Regent-designate Mireles asked what the utility companies gain from investing \$61 million in energy projects at UC Davis and UCSF. Mr. Brostrom responded that this is a Public Utilities Commission (PUC)-mandated statewide program affecting all campuses involved with investor-owned utilities. From the utilities' perspective, the program represents an inexpensive way to buy capacity since UC is reducing energy consumption. It is less expensive for the utilities to invest in UC's reducing its energy consumption than it would be for them to build additional power plants.

Regent-designate Mireles also asked whether water policies would be included in future sustainability reports. Mr. St. Clair stated that water policies are currently addressed through the green building requirements. He noted that the systemwide Sustainability Steering Committee concluded that water should be considered in a stand-alone section in the sustainability policies and this process has been initiated.

Regent Ruiz noted that energy is cheaper in Texas than in California, primarily because of direct access. He noted that Pacific Gas and Electric Company has a program for direct

access and asked if UC is investigating this program. Mr. Brostrom responded that several UC campuses are direct access customers. UC participated in the last two auctions, but those resulted in fairly negligible amounts. He continued that UC would like to pursue this matter aggressively with the PUC or the State to allow UC to be a direct access customer. UC could gain access to its own renewables and in essence become a wholesale power provider.

Regent Ruiz asked what impact the current budget crisis would have on UC's sustainability programs. Mr. Brostrom responded that UC has lost personnel who worked on sustainability because of budget cuts. He noted that most of the equity investment and other external financing have been stable so far. He stated that on-campus efforts would continue to thrive, because sustainability programs present an opportunity to accomplish desirable deferred maintenance such as building retrofits. Mr. Brostrom stated that he questions whether development of off-site renewable energy sources is possible at a cost of energy that is affordable to the campuses in this period of budget cuts.

Regent Ruiz urged continuing support for Lawrence Berkeley National Laboratory's (LBNL) work in eliminating UC's carbon footprint. Mr. Brostrom agreed that UC benefits tremendously from research on energy efficiency done on its own campuses and that LBNL's proposed second site would be almost entirely devoted to research regarding energy efficiency.

Regent Newsom complimented the work UC has accomplished and noted his strong interest in sustainability as former mayor of San Francisco. He expressed his support for UC's sustainability policies and his commitment to work closely with the University in this area. Mr. Brostrom commented that many of UC's initiatives would depend on a partnership with the State.

Regent Hime asked if the campuses were capable of determining where water is used on campus. Mr. St. Clair responded that UC Berkeley conducted a study of water use, which showed how much water was used in student residences, in laboratories, and for campus infrastructure. The study found that more water was used in student residences than had been anticipated. Conservation campaigns could be targeted accordingly. Mr. St. Clair pointed out that the campuses' ability to meter water use is limited. Regent Hime stated his support for further analysis of water use so that conservation messages could be effective. He raised the possibility of charging students for utility use based on their consumption.

Regent Cheng expressed his support for a strong water conservation policy that would educate students.

### 3. PUBLIC COMMENT

The following person addressed the Committee.

Miguel Daal, UC Berkeley student and president of the Graduate Assembly at UC Berkeley, spoke in support of the Lower Sproul Plaza renovation project, which the Committee would consider at the current meeting. He noted that the project would renovate and revitalize the UC Berkeley Student Union, student services, and the leadership area, which are currently in poor condition. The project represents a financial partnership between UC Berkeley students and the campus' administration. Faculty have positively reviewed the project through multiple input channels and students voted by a two-to-one margin to impose a fee upon themselves to fund this project. He stated that he hopes the Regents share the Berkeley students' enthusiasm for the project.

4. **CONSENT AGENDA**

A. ***Approval of the Budget for Capital Improvements and the Capital Improvement Program and Approval of External Financing, Landfair and Glenrock Apartments Redevelopment, Los Angeles Campus***

The President recommended that:

- (1) The 2010-11 Budget for Capital Improvements and the Capital Improvement Program be amended to include the following project:

Campus: Landfair and Glenrock Apartments Redevelopment – preliminary plans, working drawings, construction, and equipment – \$57,538,000, to be funded from external financing (\$56,340,000) and Los Angeles Housing System Reserves (\$1,198,000)

- (2) The scope of this project shall be substantially as follows: This project replaces aged apartment buildings on four owned properties near campus on Landfair and Glenrock Avenues. It constructs 104 apartment units with 367 beds for upper-level undergraduate and transfer students. The number of available bed spaces would increase by 126, from 241 to 367. Unit types would be mostly two-bedroom two-bathroom units, with some one-bedroom and studio units.

- (3) The President be authorized to obtain external financing not to exceed \$56,340,000 to finance the Landfair and Glenrock Apartments Redevelopment project. The Los Angeles campus shall satisfy the following requirements:

- a. Interest only, based on the amount drawn, shall be paid on the outstanding balance during the construction period.

- b. Repayment of any debt shall be from the General Revenues of the Los Angeles campus and as long as the debt is outstanding, General Revenues shall be maintained in amounts sufficient to pay the debt service and to meet the related requirements of the

authorized financing.

c. The general credit of the Regents shall not be pledged.

(4) The President be authorized to execute all documents necessary in connection with the above.

Vice President Lenz stated that the Landfair and Glenrock Apartments were built between 1953 and 1968, and are currently well beyond their useful life. This project would combine the properties and construct 104 apartment units accommodating 367 beds.

Regent Zettel asked about the variance in cost per bed between this item and the subsequent consent agenda item. UCLA Vice Chancellor for Finance, Budget, and Capital Programs Steven Olsen responded that the construction cost for this project is \$241 per gross square foot. The change in grade at the project site is 50 vertical feet, so shoring is necessary, as well as demolition of the existing facilities in their very compressed site. Mr. Lenz added that this project includes parking, which is not included in the subsequent UC Davis proposal.

**B. *Approval of the Budget for Capital Improvements and the Capital Improvement Program and Approval of External Financing, Tercero Student Housing Phase 3, Davis Campus***

The President recommended that:

(1) The 2010-11 Budget for Capital Improvements and the Capital Improvement Program be amended to include the following project:

Davis Campus: Tercero Student Housing Phase 3 – preliminary plans, working drawings, construction, and equipment – \$80,243,000, to be funded from external financing (\$60,182,000) and the Davis Housing System Reserves (\$20,061,000)

(2) The scope of the Tercero Student Housing Phase 3 project shall include approximately 216,108 assignable square feet which is anticipated to accommodate 1,200 beds.

(3) The President be authorized to obtain external financing not to exceed \$60,182,000 to finance the Tercero Student Housing Phase 3 project. The Davis campus shall satisfy the following requirements:

a. Interest only, based on the amount drawn, shall be paid on the outstanding balance during the construction period.

b. Repayment of any debt shall be from the General Revenues of the



Davis campus and as long as the debt is outstanding, General Revenues shall be maintained in amounts sufficient to pay the debt service and to meet the related requirements of the authorized financing.

c. The general credit of the Regents shall not be pledged.

(4) The President be authorized to execute all documents necessary in connection with the above.

[Background material was mailed to the Committee in advance of the meeting, and a copy is on file in the Office of the Secretary and Chief of Staff.]

Mr. Lenz stated that this consent item involves housing built in 1967, some of which has been rated seismically “poor” and which does not meet current building codes.

Faculty Representative Anderson asked for an explanation of the statement in the item that “the risk of continued occupancy for one additional year was comparable to the risk of occupying a new building that meets current codes....Beyond one year, the risk of continuing occupancy grows exponentially.” UC Davis Vice Chancellor for Administrative and Resource Management John Meyer responded that the report commissioned by UC Davis to assess the urgency of the project concluded that the residence halls had another year of life. He reported that demolition would begin in July.

Regent Ruiz reiterated Regent Zettel’s comment about the difference in cost per bed between the UCLA and Davis projects. Mr. Meyer pointed out that there is no parking component at the Davis project. In addition, he stated that the difference between the flat landscape at UC Davis and the extreme grades at UCLA would result in different delivery techniques.

Upon motion duly made and seconded, the Committee approved the President’s recommendations and voted to present them to the Board.

**5. APPROVAL OF PARTIAL PRELIMINARY PLANS FUNDING, LOWER SPROUL PROJECTS, BERKELEY CAMPUS**

The President recommended that:

A. The 2010-11 Budget for Capital Improvements be amended as follows:

Berkeley: Lower Sproul Projects – preliminary plans – \$7,098,000 from campus funds.

B. The President be authorized to execute all documents necessary in connection with the above.

[Background material was mailed to the Committee in advance of the meeting, and a copy is on file in the Office of the Secretary and Chief of Staff.]

Vice President Lenz stated that this item is a significant undertaking by the Berkeley campus, requesting approval of partial preliminary plans for the \$223 million project with \$209 million of external financing and \$14 million from gifts.

Chancellor Birgeneau confirmed his enthusiastic support for this project, and recalled that he could see its need when he began as UC Berkeley Chancellor six and a half years ago. He pointed out that renovation of Eshleman Hall is critical, since it is one of the most seismically vulnerable buildings on campus. The project also fulfills former Chancellor Berdahl's 1999 commitment to UC Berkeley students to create a robust multicultural center. Chancellor Birgeneau added that Sproul Plaza is the face of the campus to Bancroft Avenue and is currently uninviting. During the last few years, UC Berkeley has had the outstanding student leadership necessary to forge a partnership between the administration and the student body, and students agreed through a student referendum to pay more than half the cost of the project.

President of UC Berkeley's Associated Students of the University of California (ASUC) Noah Stern acknowledged that, under current budget constraints, the Regents are obligated to scrutinize every proposed building project. Mr. Stern explained how the Lower Sproul Plaza project would reinvigorate the student experience at UC Berkeley. The student referendum to impose a student fee to support the project passed with an overwhelming two-to-one majority, providing the campus with a mandate to move forward. The key to success was cooperation between students and campus administration, both during the initial referendum and continuing through program decisions.

Mr. Stern stated that the Lower Sproul Plaza project would serve as a campus hub and would create space for activities vital to students' experience, including practice and performance space for dance groups, a permanent multicultural center, an expanded public service center, a new career center, and 24-hour study space. The project will meet the highest level of sustainability. Mr. Stern stated that students support the project because they would see their fees go directly to a tangible project that would fulfill students' needs. The new building would symbolize the impact that students can have when they exercise their collective voice. Despite recent fee increases, students were willing to pay for a project that will benefit future generations of Cal students. He requested Regental support for the project.

Vice Chancellor for Student Affairs Harry Le Grande stated that Lower Sproul Plaza, located at a primary campus entrance and a center of student life and culture, currently is surrounded by a complex of buildings built in the 1960s. The project would address issues of seismic and access deficiencies, obsolete building systems, growth and change of the student body over the past 50 years, and a historic lack of investment in student life facilities. The project elements include Lower Sproul Plaza, Eshleman Hall, King Student Union, Chavez Student Center, and Anthony Hall.

Mr. Le Grande reviewed the chronology of the project. In 1997, the Seismic Action Plan for Facilities Enhancement and Renewal found that 27 percent of the Berkeley campus required seismic work. In 2006-07, at students' request, a concept study of Lower Sproul potential was done. The campus funded a Master Plan and selected an architect in 2008, and held workshops with students and other stakeholders in 2008-09. A Lower Sproul Master Plan was published in 2009; the project scope was aligned with funding capacity in 2009-10. During this process, the scope of the project was reduced from \$400 million to \$223 million. Students passed the Lower Sproul Plaza Fee referendum in the spring of 2010, and in July 2010 the President approved the Lower Sproul Plaza Fee. Students began paying the fee this fall. In December 2010, the Program Committee approved the project program and a fit test was done to ensure that everything the students had envisioned could be accommodated in the plan's footprint.

The goal of the project is to make Lower Sproul Plaza a vital and inclusive 24-hour multicultural community center, creating an active, secure, accessible place, which would enhance the student experience by accommodating group and team study, social and cultural interaction, exhibits and performances, presentations and publications, community service, and student governance.

Mr. Le Grande continued that the project's scope would include seismic replacement of Eshleman Hall, site and access improvements to Lower Sproul Plaza, selective renovations and expansion of King Student Union, selective renovations of Chavez Student Center and Anthony Hall, and seismic relocation of the Career Center.

Regarding the budget for the project, Mr. Le Grande stated that external financing of \$210 million would include \$112 million from the Lower Sproul Plaza Fee and \$98 million from campus funds. Equity funding of \$13 million would include \$10 million from the Life Safety Fee, \$2 million from the Lower Sproul Plaza Fee, and \$1 million from campus funds. This funding strategy reflects a campus-student partnership, with the campus contribution supporting up to half the cost of specific elements of the capital budget up to \$99 million. Lower Sproul Plaza Fee revenues would also contribute to the ongoing operational and maintenance costs, capital renewal, and 24-hour security. One-third of fee revenues would be reserved for student aid.

Mr. Le Grande stated that the current item requests \$7.098 million partial preliminary plans (P) authorization, which would enable the Berkeley campus to continue to refine and confirm the project scope, ensure the project scope aligns with the project budget, and complete the schematic design within the current academic year. This partial P authorization would include the master plan phase, the program phase, and the schematic design phase.

Regent Makarechian asked how the team arrived at a project budget without having any preliminary plans and if they will be able to stay within their budget. He also asked whether the campus funds for the project are available now or if they are part of future budgets. Chancellor Birgeneau responded that the \$223 million cost is an absolute upper

limit that cannot be exceeded. Should the project cost exceed that limit after development of detailed design plans, then the design would be scaled back. He added that, while very little has been invested in student life and student facilities at Berkeley over the past several decades, the amount of additional money that students are contributing to the campus through the fee increases of the past three years is over \$100 million per year. Chancellor Birgeneau stated that the campus decided that it was only reasonable, given that students were willing to pay the Lower Sproul Plaza Fee, that \$5 million be set aside from increased student fee income to help fund this project.

Mr. Le Grande reiterated that the program's cost had already been reduced from \$400 million to \$223 million. The campus had an amount they were willing to contribute and students performed a financing calculation to determine how much students would be willing to pay for the project. From these figures, an upper limit for the total cost of the project was determined and the project is being planned not to exceed this total cost. Regent Makarechian summarized that the project would be designed to stay within \$223 million. Chancellor Birgeneau stated that more than half of the cost would be for replacement of Eshleman Hall, a seismically dangerous building.

Vice Chancellor for Facilities Services Edward Denton added that the campus exercised due diligence to arrive at the total project cost by developing conceptual plans. The architect hired international cost estimator Davis Langdon who developed an estimate. Additionally, the campus hired Cambridge CM, Inc., to develop another estimate, realizing that expectations are established at the beginning of a project.

Regent Zettel congratulated student leadership for this collaborative project. She asked what would be the source of the \$99 million in campus funds for the project. Chancellor Birgeneau responded that the funds are from resident and nonresident student fees. Regent Zettel recalled that Chancellor Birgeneau had stated that \$5 million would come from student fees, but that the project budget includes \$99 million of campus funds. Chancellor Birgeneau responded that \$5 million would be the average cost of the debt service for the project.

Regent Zettel asked about the one-third of the student fee that would be reserved for return-to-aid. Chancellor Birgeneau responded that there is a one-third set-aside for financial aid from almost all student fees in order to protect low-income students. Regent Zettel asked how possible future cost overruns would be paid. Chancellor Birgeneau responded that the project budget would include a contingency for cost overruns and reiterated that the project cannot go above \$223 million. Mr. Denton echoed that the project budget includes a contingency to deal with the unforeseen.

Regent DeFreece affirmed his support for the project, which will serve as a campus center and will also serve the community by providing a fitting entrance for Zellerbach Hall, one of the leading cultural centers in the Bay Area. He congratulated both student and campus leadership.

Regent Hime asked the team to consider allocating some space in the new project for an alumni center, which could help provide funding through alumni contributions.

Faculty Representative Anderson asked if the additional student fee of \$35 per year covered the student portion or whether further student authorization would be required. He also asked about the source of the \$7 million requested for the planning phase. Associate Vice Chancellor for Budget and Resource Planning Erin Gore responded that no additional funds would be needed for the student portion. The \$7 million, if authorized, would come from a combination of existing student fees and an advance on campus funds.

Upon motion duly made and seconded, the Committee approved the President's recommendation and voted to present it to the Board.

6. **AMENDMENT OF THE BUDGET FOR CAPITAL IMPROVEMENTS AND THE CAPITAL IMPROVEMENT PROGRAM, APPROVAL OF EXTERNAL FINANCING, CERTIFICATION OF ENVIRONMENTAL IMPACT REPORT, AND APPROVAL OF DESIGN, SOLAR ENERGY RESEARCH CENTER PROJECT, BERKELEY CAMPUS AND LAWRENCE BERKELEY NATIONAL LABORATORY**

A. The President recommended that:

- (1) The 2010-11 Budget for Capital Improvements and the Capital Improvement Program be amended as follows:

From: Berkeley: Helios Energy Research Facilities East site: preliminary plans, working drawings, and construction - \$54,400,000 to be funded from State lease revenue bonds (\$30,000,000) and gifts and grants (\$24,400,000).

To: Berkeley and Lawrence Berkeley National Laboratory: Solar Energy Research Center: preliminary plans, working drawings, and construction - \$54,400,000 to be funded from State lease revenue bonds (\$30,000,000), external financing (\$14,400,000), and grants (\$10,000,000).

- (2) The project scope is consistent with the scope approved by the Regents in September 2009. The Solar Energy Research Center will construct a 38,940 GSF building to house research focused on nanoscale photovoltaic and electrochemical solar energy systems; to be constructed on Regents-owned property within the Lawrence Berkeley National Laboratory site.

**Deletions shown by strikethrough; additions by underscore**

- (3) The President be authorized to obtain external financing not to exceed \$14,400,000 to finance the Solar Energy Research Center project. Lawrence Berkeley National Laboratory shall satisfy the following requirements:
  - a. Interest only, based on the amount drawn down, shall be paid on the outstanding balance during the construction period.
  - b. As long as the debt is outstanding, the distributions from donations received for the project established for the program shall be maintained to pay a portion of the debt service and to meet the related requirements of the financing to the extent possible. In addition, the Lawrence Berkeley National Laboratory will submit a Facilities Capital Cost of Money proposal as the repayment source in accordance with Department of Energy Contract 31 Clause H.4a and Federal Acquisition Regulation (FAR) 31.205-36(b)(3) requirements to also pay a portion of the debt service.
  - c. The general credit of the Regents shall not be pledged.
- ~~(4) The President be authorized to obtain interim financing not to exceed \$14,400,000 prior to awarding a construction contract for any gift funds not received by that time and subject to the following conditions:~~
  - ~~a. Interest only, based on the amount drawn down, shall be paid on the outstanding balance during the construction period,~~
  - ~~b. Repayment of any debt shall be from gift funds. If the gift funds are insufficient, and some or all of the debt remains outstanding, then the Berkeley campus' share of the University Opportunity Fund shall be maintained in amounts sufficient to pay the debt service and to meet the related requirements of the authorized financing, and~~
  - ~~c. The general credit of The Regents shall not be pledged.~~
- (4) The President be authorized to execute all documents necessary in connection with the above.

B. The President recommended that, upon review and consideration of the Environmental Impact Report (EIR), the Committee on Grounds and Buildings:

- (1) Certify the Environmental Impact Report.
- (2) Adopt the Findings and Statement of Overriding Considerations.
- (3) Approve the design of Solar Energy Research Center Project.

[Background material was mailed to the Committee in advance of the meeting, and a copy is on file in the Office of the Secretary and Chief of Staff.]

[Regents were provided with a packet of correspondence received regarding this item, and a copy is on file in the Office of the Secretary and Chief of Staff.]

Committee Chair Schilling stated that each Committee member had been provided with the proposed item requesting approval of the Solar Energy Research Center (SERC) project located at the Lawrence Berkeley National Laboratory (LBNL) site, including an Environmental Impact Report (EIR), Mitigation Monitoring Program and Findings prepared pursuant to the California Environmental Quality Act (CEQA) to analyze the impacts of the project, and copies of all public comments received and responses prepared by the University. The members of the Committee had reviewed and considered the information contained in the environmental documents, including all comments received in writing or presented to the Committee on the current date, and had balanced the specific benefits of the proposed project against its unavoidable adverse environmental effects.

UC Berkeley Vice Chancellor Edward Denton stated that the proposed project is a collaboration between the Berkeley campus and LBNL, and would become a capital asset of UC Berkeley. LBNL Department Head for Capital Projects Jerry O’Hearn noted that LBNL is located east of the main Berkeley campus on 202 acres, 83 of which are parcel-leased to the Department of Energy (DOE). The SERC project would be adjacent to the site of the General Purpose Laboratory project, which was presented to the Committee the past summer.

Mr. O’Hearn discussed the history of the SERC project. In May 2008, the Regents certified the EIR and approved the design of the Helios Energy Research Facility, a joint LBNL and UC Berkeley project, to be located on the perimeter of LBNL. In November 2008, the Regents decertified that EIR and rescinded design approval; in September 2009, the Regents approved construction of two facilities: Helios West currently under construction at UC Berkeley and Helios East to be located at LBNL, the subject of the current item. In January 2010, the Regents approved the design of Helios West and Helios East was renamed the Solar Energy Research Center (SERC).

The proposed project would be a three-story office and laboratory building, containing approximately 39,000 gross square feet (GSF) dedicated to solar energy research, for instance in the use of nanotechnology to create photosynthesis artificially. It would be located at the site of current DOE facility buildings 25A, 44, 44A, and 44B. Funding would come from State lease revenue bonds, the California Public Utilities Commission (PUC), and external financing. Construction would begin in August 2011 and would be completed by July 2013. The project is currently on schedule and on budget.

Mr. O’Hearn displayed a slide of the site plan, showing that SERC’s entryway would share a plaza with the General Purpose Laboratory. The loading dock would be on an

existing driveway to the west. Both SERC and the General Purpose Laboratory would protect an existing sequoia grove. SERC's first floor would hold support space and laboratory space for vibration-sensitive research, such as laser laboratories. The second story, ground level at the plaza, would contain offices; the third story would hold chemistry research laboratories. Some mechanical systems would be on the building's roof. Mr. O'Hearn displayed a section drawing showing that SERC's second story offices would open onto the plaza, across from the first floor offices of the General Purpose Laboratory, facilitating collaboration. SERC would share the simple architectural vocabulary of the Molecular Foundry and the recently completed User Support Building, both funded by DOE, and completed on schedule and on budget.

Regarding sustainability, Mr. O'Hearn explained that the project's goal is a Leadership in Energy and Environmental Design (LEED) Gold certified building that is energy efficient and sustainable, to support its mission of alternative energy research. The building would be at least 30 percent more energy efficient than the California Energy Commission's Title 24 standards. Rooftop solar panels would generate 30 percent of the building's hot water heating, and the building would be equipped with regenerative elevators, integrated daylighting and lighting design, a green roof with drought-tolerant native species, and high efficiency interior equipment.

Turning to the environmental review, Mr. O'Hearn noted that the project is within the scope of LBNL's Long Range Development Plan and the site-wide EIR. A public scoping meeting was held on May 26, 2010; the draft EIR was circulated for public review in September and October 2010, with a public hearing on September 23, 2010. The draft EIR found no project-specific significant unavoidable impacts. The project would contribute marginally to the cumulative traffic impact. One letter was received from East Bay Municipal Utilities District, three from community organizations, and three from individuals. The final EIR addresses all comments received. The DOE is in the process of completing its National Environmental Policy Act (NEPA) review; no construction will start until NEPA and CEQA reviews are complete.

In response to a question from Regent Ruiz regarding traffic, Mr. O'Hearn responded that the Laboratory contributes a small margin to the increase of traffic; in the EIR, the University has committed to its fair share of correcting the traffic problems along with the City of Berkeley.

Regent Makarechian inquired about the location of the building, given discussion at a prior meeting about soil studies, earthquake faults, and slide areas. Mr. O'Hearn responded that the building site is east of the General Purpose Laboratory and on the margin of the Moraga and the Orinda Formations. Since there is a basement in the building, the Moraga Formation will be excavated down to bedrock, so there will not be contact between two rock types. Mr. O'Hearn clarified that the area is not a fault area, but rather an area of contact between two different rock formations. He noted that the project's geotechnical engineer confirmed that the Moraga Formation rock will be dug out down to the Orinda Formation, eliminating any contact between different rock types.



Regent Newsom asked why the building would aim for LEED Gold rating rather than LEED Platinum rating, given that the building’s focus would be sustainability and that it had the potential to be a showpiece. Mr. O’Hearn responded that the project had moved from a LEED Silver rating to Gold, but that moving to a Platinum rating would be difficult because of cost considerations. Regent Newsom stated his opinion that the project should strive for a LEED Platinum rating.

Faculty Representative Simmons asked about the source of repayment of the lease revenue bonds, the external funding, and the additional \$14.4 million requested funding that had been previously approved as a gift. Mr. O’Hearn stated that the project still has the promise of the gift. A decision was made to apply the gift to pay down the debt instrument, rather than apply the gift in its entirety to the capital cost of the project. Mr. O’Hearn continued that external funding of \$14.4 million is from the Funds Functioning as an Endowment (FFE); \$10 million from the PUC, and \$30 million from State lease revenue bonds, with the bonds’ debt service covered by the State.

Regent Hime asked if the LEED certification process for Platinum costs more than the process for LEED Gold certification. Mr. Denton responded that the certification process cost difference would be negligible. He expressed the opinion that moving a building to a higher level of certification can often be done if the process is started early enough in the building’s design. Regent Hime reiterated his support for self-certification, given the expense of third-party certification.

Upon motion duly made and seconded, the Committee approved the President’s recommendation and voted to present recommendation A above to the Board.

7. **AMENDMENT OF STANDING ORDER 100.4, DUTIES OF THE PRESIDENT OF THE UNIVERSITY, TO EXTEND THE PILOT PHASE OF THE PROCESS OF REDESIGN FOR CAPITAL IMPROVEMENT PROJECTS, AND AMENDMENT OF REGENTS POLICY 8102 ON APPROVAL OF DESIGN, LONG RANGE DEVELOPMENT PLANS AND THE ADMINISTRATION OF THE CALIFORNIA ENVIRONMENTAL QUALITY ACT**

The President recommended that:

- A. Following service of appropriate notice, Standing Order 100.4(q)(2) and Standing Order 100.4(nn)(2) be amended, as shown in Attachment 1, to extend the pilot phase of the Delegated Process for Capital Improvement Projects to March 31, 2014. This item constitutes the notice of proposed amendments that is required pursuant to Standing Order 130.1.
- B. Regents Policy 8102: Approval of Design, Long Range Development Plans and the Administration of the California Environmental Quality Act, be amended as shown in Attachment 2.

[Background material was mailed to the Committee in advance of the meeting, and a copy is on file in the Office of the Secretary and Chief of Staff.]

Vice President Lenz stated that this item would involve projects of \$60 million or less. All the campuses have come forward with their Long Range Development Plans, which the Committee has reviewed and approved. Approximately 23 projects have been initiated under the redesigned process and one has been completed. He stated that Regent Makarechian had been concerned about the completion of additional projects, a review, and a report back to the Regents about the effectiveness of the redesigned process prior to making it permanent. The current item requests an extension of the pilot phase until March 31, 2014, in order to permit such a review and report.

Upon motion duly made and seconded, the Committee approved the President's recommendation and voted to present it to the Board.

The meeting adjourned at 4:45 p.m.

Attest:

Secretary and Chief of Staff

## ATTACHMENT 1

### Deletions shown by ~~strikeout~~; additions shown by underscore

#### STANDING ORDER 100.4

#### DUTIES OF THE PRESIDENT OF THE UNIVERSITY

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(q)(1)

Except as provided in paragraph (q)(2) below, the President is authorized to approve amendments to the Capital Improvement Program for projects not to exceed \$10 million. The President is also authorized to approve amendments to the Capital Improvement Program for projects exceeding \$10 million up to and including \$20 million, provided that concurrence is obtained from the Chairman of the Board and the Chairman of the Committee on Grounds and Buildings and also provided that all actions taken in excess of \$10 million up to and including \$20 million under this authority be reported at the next following meeting of the Board. However, the following shall be approved by the Board: (1) projects with a total cost in excess of \$20 million, (2) for projects in excess of \$20 million, any modification in project cost over standard cost-rise augmentation in excess of 25%, or (3) capital improvement projects of any construction cost when, in the judgment of the President, a project merits review and approval by The Regents because of special circumstances related to budget matters, external financing, fundraising activities, project design, environmental impacts, community concerns, or substantial program modifications.

(q)(2)

This paragraph shall apply exclusively to capital projects for those campus entities on ~~campuses~~ approved by the Committee on Grounds and Buildings for inclusion in the pilot phase of the Delegated Process Redesign for Capital Improvement Projects.

The President is authorized to approve amendments to the Capital Improvement Program for projects not to exceed \$60 million. However, the following shall be approved by the Board: (1) projects with a total cost in excess of \$60 million, (2) for projects in excess of \$60 million, any modification in project cost over standard cost-rise augmentation in excess of 25%, or (3) capital improvement projects of any construction cost when, in the judgment of the President, a project merits review and approval by The Regents because of special circumstances related to budget matters, external financing, fundraising activities, project design, environmental impacts, community concerns, or substantial program modifications.

This paragraph shall become inoperative and is repealed on ~~March 31, 2014~~ March 31, 2014, unless a later Regents' action, that becomes effective on or before ~~March 31, 2014~~ March 31, 2014, deletes or extends the date on which it becomes inoperative and is repealed.

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(nn)(1)

Except as provided in paragraph (nn)(2) below, The President shall be the manager of all external financing of the Corporation. The President is authorized to obtain external financing for amounts up to and including \$10 million for the planning, construction, acquisition, equipping, and improvement of projects. The President is also authorized to obtain external financing for amounts in excess of \$10 million up to and including \$20 million, provided that concurrence is obtained from the Chairman of the Board and the Chairman of the Committee on Finance, and also provided that all actions taken to obtain external financing for amounts in excess of \$10 million up to and including \$20 million be reported at the next following meeting of the Board. External financing in excess of \$20 million requires Board approval. The President shall have the authority to (1) negotiate for and obtain interim financing for any external financing, (2) design, issue, and sell revenue bonds or other types of external financing, (3) issue variable rate or fixed rate debt, and execute interest rate swaps to convert fixed or variable rate debt, if desired, into variable or fixed rate debt, respectively, (4) refinance existing external financing for the purpose of realizing lower interest expense, provided that the President's authority to issue such refinancing shall not be limited in amount, (5) provide for reserve funds and for the payment of costs of issuance of such external financing, (6) perform all acts reasonably necessary in connection with the foregoing, and (7) execute all documents in connection with the foregoing, provided that the general credit of The Regents shall not be pledged for the issuance of any form of external financing.

(nn)(2)

This paragraph shall apply exclusively to capital projects for those campus entities on campuses approved by the Committee on Grounds and Buildings for inclusion in the pilot phase of the Delegated Process Redesign for Capital Improvement Projects.

The President shall be the manager of all external financing of the Corporation. The President is authorized to obtain external financing for amounts up to and including \$60 million for the planning, construction, acquisition, equipping, and improvement of projects. The President shall have the authority to (1) negotiate for and obtain interim financing for any external financing, (2) design, issue, and sell revenue bonds or other types of external financing, (3) issue variable rate or fixed rate debt, and execute interest rate swaps to convert fixed or variable rate debt, if desired, into variable or fixed rate debt, respectively, (4) refinance existing external financing for the purpose of realizing lower interest expense, provided that the President's authority to issue such refinancing shall not be limited in amount, (5) provide for reserve funds and for the payment of costs of issuance of such external financing, (6) perform all acts reasonably necessary in connection with the foregoing, and (7) execute all documents in connection with the foregoing, provided that the general credit of The Regents shall not be pledged for the issuance of any form of external financing.

This paragraph shall become inoperative and is repealed on ~~March 31, 2011~~ March 31, 2014, unless a later Regents' action, that becomes effective on or before ~~March 31, 2011~~ March 31, 2014, deletes or extends the date on which it becomes inoperative and is repealed.

**Additions shown by underscoring; deletions shown by strikethrough**

**REGENTS' POLICY 8102: APPROVAL OF DESIGN, LONG RANGE DEVELOPMENT PLANS, AND THE ADMINISTRATION OF THE CALIFORNIA ENVIRONMENTAL QUALITY ACT**

- (1) The Regents designates the following categories of projects as requiring design approval by the Committee on Grounds and Buildings:
  - (a) Except as provided in subparagraph (c), building projects with a total project cost in excess of \$10,000,000, except when such projects consist of the following:
    - (i) alternations or remodeling where the exterior of the building is not materially changed;
    - (ii) buildings or facilities located on agricultural, engineering or other field stations; or
    - (iii) agriculture-related buildings or facilities located in areas of a campus devoted to agricultural functions.
  - (b) Capital improvement projects of any construction cost when, in the judgment of the President, a project merits review and approval by The Regents because of budget matters, fundraising activities, environmental impacts, community concerns, or other reasons.
  - (c) Building projects for those on ~~on~~ campuses which have been approved by the Committee on Grounds and Buildings for inclusion in the pilot phase of the Delegated ~~Redesign~~ Process for Capital Improvement Projects with a total project cost in excess of \$60 million subject to the same exclusions as subparagraph (a). This subparagraph shall become inoperative and is repealed on ~~March 31, 2014~~ March 31, 2014, unless later Regents' action, that becomes effective on or before ~~March 31, 2014~~ March 31, 2014, deletes or extends the date on which it becomes inoperative and is repealed.
- (2) The approval of building projects other than those subject to approval by the Committee on Grounds and Buildings as set forth above is governed by applicable Bylaws, Standing Orders, and delegations.
- (3) Consistent with applicable Bylaws and Standing Orders, the President shall determine the responsibility for unique project approvals and other actions significantly affecting land use that, given their nature, do not involve a design approval.
- (4) All building project approvals shall be generally in accordance with an applicable Long Range Development Plan. Adoption by The Regents is required for new and substantially updated LRDPs. All LRDP amendments or actions having the practical effect of an LRDP amendment shall be approved at the following level:

- a. The Committee on Grounds and Buildings shall consider for approval all LRDP amendments except those delegated in b. below;
  - b. The President is authorized to approve minor LRDP amendments provided that the amendment preserves the fundamental planning principles of the LRDP and is limited to:
    - i. siting a building project of \$10,000,000 or less;
    - ii. shifting less than 30,000 gross square feet of allocated building space; and/or
    - iii. changing land-use boundaries and designations for 4 acres or less of land.
- (5) The President has the responsibility for the administration of the University's compliance with the California Environmental Quality Act. As provided by CEQA, the certification or adoption of environmental documents is undertaken at the level of the associated project approval. The modification of environmental documents, including mitigation measures, may occur at the same level as the original certification or adoption, provided that the President is authorized to modify an environmental document certified or adopted by The Regents so long as the modification does not result in new or increased significant impacts.
- (6) Notwithstanding the foregoing, the approval of the Committee on Grounds and Buildings, or in appropriate circumstances The Regents, may be required for any project or other action addressed by this policy when, in the judgment of the President, an action merits review and approval by the Regents because of budget matters, fundraising activities, environmental impacts, community concerns, or other reasons.