Executive Board

(Systemwide Senate Review) Proposed Presidential Policy on Sustainable Practices

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Robert Horwitz
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Chair of the Assembly of the Academic Senate
Faculty Representative to the Regents
University of California
1111 Franklin Street, 12th Floor
Oakland, California 94607-5200

December 21, 2021

SUSAN CARLSON, VICE PROVOST
ACADEMIC PERSONNEL

Re: Revised Presidential Policy on Sustainable Practices

Dear Susan:

As requested, I distributed for systemwide Senate review the revised Presidential Policy on Sustainable Practices. All ten Academic Senate divisions submitted comments. These comments were discussed at Academic Council's December 15 meeting and are attached for your reference.

We understand that the revisions are intended to update and strengthen the University's sustainability policies, goals, and procedures. The updated areas include requirements for building design and efficiency, criteria for the purchase of carbon offsets, and goals around sustainable transportation. The revisions also update sustainability goals for UC Health locations, add a reference to climate justice in campus climate action plans, and a new section on health and well-being.

In general, the Senate supports the policy revisions as a meaningful step toward stronger sustainability policies and practices. In particular, Senate reviewers appreciate the new emphasis on high-quality carbon offsets, sustainable transportation, environmental justice, telecommuting and flexible work schedules, and health and well-being. However, faculty are concerned that the policy does not go far enough to address the climate crisis, includes insufficiently aggressive and vague targets for eliminating campus use of fossil fuels, overemphasizes the role of carbon offsets, and lacks clear accountability and enforcement mechanisms around the sustainability goals.

I will summarize a few key points made in the attached packet of campus letters, but encourage policy authors to consider all suggestions carefully as they further refine the policy. Also note that several campus Senates recently commissioned new standing committees, task forces, and other groups to study energy, electrification, and sustainability issues. The attached packet contains several letters from these groups that offer particularly detailed and informed analyses of the policy through a climate activist lens.

First, the Senate encourages the University to prioritize the reduction of on-campus fossil fuel combustion and accelerate target dates for campuses to reduce carbon emissions, transition to renewable energy, and move to a carbon-free vehicle fleet.

The Senate appreciates the inclusion of new criteria to guide the University's purchase of "high-quality" carbon offset credits, but we are deeply skeptical about offsets for several reasons. First it is unclear that the criteria as written will ensure that UC can successfully identify and use high-quality offsets. More fundamentally, purchasing offsets should not be a long-term strategy to reduce emissions, given widespread concerns about their credibility and verifiability and their reputation as a dodge that merely shifts responsibility for reducing carbon emissions, and away from the real need to reduce overall fossil fuels consumption. At a minimum, the University should report publicly about how its purchased offsets meet the new "high quality" criteria in the policy. But the University should really focus on alternatives to meet its clean energy goals and turn to offsets only as a partial and temporary measure.

Similarly, we appreciate the Policy's inclusion of increased targets for biogas combustion, but note that a common criticism of biogas is its use by the fossil fuel industry to extend the life of fossil fuel plants that should otherwise be retired. The University should tread cautiously here and consider as a more sustainable and credible longer term strategy the reallocation of money earmarked for offsets and generated by trading biogas credits, to planning for the electrification of the campuses.

In addition to stronger accountability and transparency mechanisms for offsets and biogas, the University should establish clear and accountable annual goals for decarbonization that carry real consequences if they are not met. It should make data and assessments about progress toward these goals accessible to all campus and community stakeholders.

The Senate appreciates the policy's new emphasis on sustainable transportation options and telecommuting; however, faculty also observe that it will be difficult for UC to reduce single occupancy vehicle (SOVs) trips to campus, given the lack of public transportation and affordable housing options in UC campus communities. Another concern is that additional restrictions on SOVs could fall disproportionately on lower income students who are more likely to commute from far away. That said, there is a strong demand for campus-provided transportation options that can help reduce the need for SOV commuting. Reviewers also note that the policy does not address travel commonly required of faculty for professional activities, including airline travel.

The Senate is aware that transitioning the University to a more sustainable future on a faster timeline will not be inexpensive. Several reviewers observed that the proposal does not provide information on the budgetary impacts of implementing the actions outlined in the policy. In addition to a budgetary analysis, they recommend an ongoing assessment of budgetary performance against the policy. Faculty also emphasize that it would be shortsighted to consider only the short term, upfront cost of change, and not the longer term costs of doing nothing.

The letters from Senate reviewers also suggest many small but significant practices that would enhance sustainability, including electric vehicle charging stations, more reflective whiter paint for campus building exteriors, an assessment of energy used for IT functions, and a plan for electronic waste. They also suggest that the new section on Health and Well-being could be sharpened to better articulate the issues and provide guidelines for future policies. Finally,

reviewers suggest the addition of a biodiversity sustainability section that addresses campus biodiversity goals.

In short, the Policy is effective as an aspirational set of best practices that provides a strong foundation for sustainability, but more meaningful and aggressive actions are needed on a much faster timeline. The attached letters reflect the faculty's urgent concern about the climate crisis and their enthusiasm for increasing the Senate's role in addressing the crisis. There is already much great work underway at the University, but also a hunger for more visionary action. The global scientific consensus is that as much fossil fuel infrastructure as possible needs to be retired in this decade to have the biggest impact on climate protection. Faculty climate activists observe that being net carbon-neutral is no longer enough. They urge the University to become net carbon-negative—that is, to leverage its resources to help remove existing carbon dioxide from the atmosphere. The state is looking to UC for scientific, technological, and moral leadership on climate and sustainability issues. The University has an opportunity to leverage its leadership and expertise toward greater public support and funding around these goals.

The work of the Global Climate Leadership Council (GCLC) and the Systemwide Climate Resilience Planning project should inform further development of the policy. We look forward to working with you, CFO Brostrom, Director of Sustainability St. Clair, and the GCLC to identify additional options for enhanced systemwide Senate involvement in highlighting and addressing climate crisis issues on the campuses.

We appreciate the opportunity to comment. Please do not hesitate to contact me if you have additional questions.

Sincerely,

Robert Horwitz, Chair
Academic Council

Cc: Director of Sustainability St. Clair
        Academic Council
        Campus Senate Directors
        Executive Director Baxter

Encl.

December 7, 2021

ROBERT HORWITZ
Chair, Academic Council

Subject: Systemwide Review of Proposed Revisions to Presidential Policy on Sustainable Practices

Dear Chair Horwitz:

On November 29, 2021, the Council of the Berkeley Division (DIVCO) discussed the proposed revisions to the *Presidential Policy on Sustainable Practices*, informed by written comments from the Committee on Academic Planning and Resource Allocation (CAPRA).

DIVCO supports the revisions, and agrees with the concerns and recommendations described in CAPRA's letter. There are two concerns at the level of guiding principles. First, the current draft does not sufficiently emphasize the need to reduce carbon emissions rapidly from campus heating and electrical systems, which account for the vast majority of UC's "scope 1" (direct) emissions. Second, although it sets out the principle that the university "will only use high-quality offset credits" to meet its emission reduction goals, it does not ensure compliance with that principle.

Below is a summary of recommendations provided by CAPRA, which DIVCO endorses:
1. Prioritize effort and funding towards reducing the on-campus combustion of fossil fuels. We encourage accelerating the target date for decarbonization plans to 2025, or as soon as feasible.
2. Consider whether the call to achieve 40% on-campus biogas combustion by 2025 is feasible, and what the implications of failing to achieve it would be.
3. In the near term, the policy counts on the use of purchased carbon offsets to achieve carbon neutrality. Offsets should be verifiable, additional, and equivalent. We encourage the university to investigate and report on whether any offsets available for purchase meet those conditions, and to make information about purchased offsets publicly available.
Please see the enclosed committee letter for more specificity.

Sincerely,

Ronald C. Cohen
Professor of Chemistry
Professor of Earth and Planetary Science
Chair, Berkeley Division of the Academic Senate

Enclosure

cc: Mary Ann Smart, Vice Chair, Berkeley Division of the Academic Senate
    Holly Doremus, Chair, Committee on Academic Planning and Resource Allocation
    Jocelyn Surla Banaria, Executive Director
    Deborah Dobin, Senate Analyst, Committee on Academic Planning and Resource Allocation

November 24, 2021

PROFESSOR RONALD COHEN
Chair, Berkeley Division of the Academic Senate

*Re: CAPRA comments on proposed revisions to the Presidential Policy
on Sustainable Practices*

At the November 17th CAPRA meeting, the committee discussed the updated Presidential Policy
on Sustainability Practices. This memo is intended to provide some general comments on the
policy through the lens of CAPRA's charge to consider issues of academic planning, budget, and
resource allocation. If DIVCO agrees with our comments, we ask that they be forwarded not
only to the Academic Council but also to Chancellor Carol Christ, Vice Chancellor Marc Fisher,
Associate Vice Chancellor Sally McGarrahan, and Chief Sustainability and Carbon Solutions
Officer Kira Stoll.

CAPRA is grateful for the attention that has been given to developing and revising this policy.
We understand that it deals with sustainability broadly, and in varying levels of detail. Much of it
is admirable. However, we have two concerns at the level of guiding principles. First, the current
draft does not sufficiently emphasize the need to reduce carbon emissions rapidly from campus
heating and electrical systems, which account for the vast majority of UC's "scope 1" (direct)
emissions. Second, although it sets out the principle that the university "will only use high-
quality offset credits" to meet its emission reduction goals, it does not ensure compliance with
that principle.

Summary of Recommendations

1. Prioritize effort and funding towards reducing the on-campus combustion of fossil fuels.
   We encourage accelerating the target date for decarbonization plans to 2025, or as soon
   as feasible.
2. Consider whether the call to achieve 40% on-campus biogas combustion by 2025 is
   feasible, and what the implications of failing to achieve it would be.
3. In the near term, the policy counts on the use of purchased carbon offsets to achieve
   carbon neutrality. Offsets should be verifiable, additional, and equivalent. We encourage
   the university to investigate and report on whether any offsets available for purchase
   meet those conditions, and to make information about purchased offsets publicly
   available.

Energy Systems

Roughly 90% of the university's "scope 1" emissions of carbon dioxide (i.e., emissions directly emanating from on-campus combustion of fossil fuels) stems from its ten methane-fired heat and power plants. Collectively, these emit about 1 million tons per year of heat-trapping carbon dioxide,[1] making a substantial contribution to global warming.

The draft policy includes Clean Energy elements that will indirectly reduce scope 1 emissions, including calls to reduce energy use intensity by 2% annually and to install renewable energy facilities. However, the only short-term step called for to directly reduce emissions from existing campus energy plants is increased use of biogas. We do not oppose this measure, but view it as sufficiently impractical that it is unlikely to produce the results anticipated by the draft policy.

Biogas is methane derived from recently grown organic matter, e.g., as derived from anaerobic digestion of landfill waste. Unlike the burning of fossil methane, the burning of biogas does not add new carbon to the system and so does not contribute to global warming. The draft says that by 2025 "at least 40% of the [methane] combusted on-site at each campus and health location will be biogas." Our concern is whether this can be achieved. It would require construction of new infrastructure for biogas delivery and storage on a rapid timeline. Even if it allowed purchase of biogas credits (so that biogas would be fed into the nation's methane pipelines rather than delivered directly to university facilities), the costs might be extremely high. In either case, the anticipated reductions in carbon emissions might not be realized, since the policy (understandably) makes implementation "subject to the constraints of . . . budgetary requirements."

It seems unwise, therefore, to rely on biogas substitution to reduce scope 1 emissions. We are disappointed with the timeline for implementing other measures. The current draft calls for each campus to complete an assessment of scope 1 emissions by 2035 (or sooner if power plants are due for major repairs or capital renewal) and at that point to determine the "best pathway . . . to decarbonize 80% of scope 1 emissions through means other than offsets." We urge the university to consider whether the assessment date could be substantially moved up. We are concerned that delay may leave the university unable to react swiftly to potential near-term funding opportunities. To ensure prudent capital planning, and position the university as a leader on sustainability, we believe the timeline for identifying decarbonization plans for each location should be as aggressive as feasible.

Carbon Offsets

In 2013, the UC Office of the President announced the Carbon Neutrality Initiative, which "commits UC to emitting net zero greenhouse gases from its buildings and vehicle fleet by 2025."[2] Overestimating the ability to switch to biogas and delaying decarbonization of onsite energy facilities will increase the demand for offsets as a method of achieving carbon neutrality.

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[1] https://electrifyuc.org/the-problem-with-methane/

[2] https://www.universityofcalifornia.edu/initiative/carbon-neutrality-initiative/our-commitment

As has been widely reported, however, many existing carbon offsets suffer from problems of verifiability, additionality, and equivalence.

The proposed revision to the policy introduces new language regarding carbon offsets, with the laudable goal of ensuring that they produce intended climate benefits. Nonetheless, legitimate concerns remain as to whether the purchase of carbon offsets is a prudent use of university funds.

The proposed revisions require that the university use only "high-quality carbon offsets" (section V.C.9) that are enforceable, additional, and durable. We agree that these are all important characteristics (although we suggest use of the term "verifiable" rather than "enforceable"). We urge deeper consideration, however, of how high-quality offsets can be identified, and what each of the listed characteristics means. For example, we urge careful accounting of the potential for leakage. We also encourage evaluation of durability at timescales that match the residence time of fossil carbon in the atmosphere, which is several orders of magnitude longer than the 40 years specified by the draft policy. In order to truly "offset" fossil fuel emissions, offsets must sequester an equivalent amount of carbon for the entire length of the atmospheric residence time of the fossil carbon.

Finally, given the extent to which the draft policy will require reliance on offsets, we urge the Office of the President to investigate whether there are any carbon offsets available for purchase that meet the conditions of being verifiable, additional, and equivalent. Expenditures on offsets that fail one or more of these criteria would squander resources that could be better spent directly reducing the university's scope 1 emissions.

Thank you for the opportunity to review this policy.

With best regards,

Holly Doremus, Chair
Committee on Academic Planning and Resource Allocation

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December 7, 2021

Robert Horwitz
Chair, Academic Council

RE: Proposed Revisions to Presidential Policy on Sustainable Practices

Dear Robert,

The proposed revisions to the Presidential Policy on Sustainable Practices were forwarded to all standing committees of the Davis Division of the Academic Senate. Seven committees responded: Planning and Budget (CPB) and the Faculty Executive Committees of the College of Agricultural and Environmental Sciences (CAES), the College of Biological Sciences (CBS), the College of Engineering (COE), the College of Letters and Science (L&S), the School of Nursing (SON), and the School of Veterinary Medicine (SVM).

Committees support the proposed revisions. COE notes that the policy reads as a set of best practices that are aspirational in nature, but the extent to which the best practices are actually followed is unclear. COE recommends that a "similarly comprehensive, point-by-point assessment of performance against the policy would be at least equally valuable." Similarly, CPB was unclear on what kind of budgetary analysis was performed for these policy revisions; such budgetary and periodic life cycle analyses would help to "contextualize policy changes" and "provide a framework to understand what policy changes may be meaningful in the long term."

The Davis Division appreciates the opportunity to comment.

Sincerely,

Richard P. Tucker, Ph.D.
Chair, Davis Division of the Academic Senate
University of California, Davis

Enclosed: Davis Division Committee Responses

c: Hilary Baxter, Executive Director, Systemwide Academic Senate

November 17, 2021

Richard Tucker
Chair, Davis Division of the Academic Senate

RE: Proposed Revisions to the Presidential Policy on Sustainable Practices

The Committee on Planning and Budget (CPB) has reviewed and discussed the Proposed Revisions to the Presidential Policy on Sustainable Practices. This policy has been reviewed annually since 2004, so the proposed revisions represent incremental updates approved by the Sustainability Steering Committee. The policy revisions strike the balance between flexibility and specificity, setting aspirational sustainability goals for each campus and health system to work toward within their limited resources. CPB supports the proposed revisions and offers the following comments for further consideration:

1. While the policy cover letter explains that the proposed revisions are the result of systemwide working groups (consisting of one or more stakeholders from each campus and health system) making recommendations to the Sustainability Steering Committee, it would be helpful if there was more information about these working groups to ensure that consultation included the stakeholders whom these proposed revisions would most affect. For example, CPB agreed that consulting with campus leadership in facilities management and design construction would be necessary for these annual policy updates, as they would be able to speak to the potential impacts of proposed changes.

2. Though it appears that Vice Chancellors for Administration and Chief Operating Officers from each campus and health system serve on the Sustainability Steering Committee, it was unclear to CPB what kind of budgetary analysis was performed to ensure the economic sustainability of these policy revisions. CPB members suggested that it would be helpful to include periodic life cycle analyses to contextualize policy changes. While the committee understands that the benefits of these changes may be difficult to measure, these data would provide a framework to understand what policy changes may be meaningful in the long term. CPB also noted that demonstrating savings and other benefits of achieving sustainability goals may help fundraising efforts.

3. For clarity and consistency, the policy document should either include or consistently strike past deadlines.

CPB appreciates the opportunity to comment.

Proposed Revisions to Presidential Policy on Sustainable Practices

FEC: College of Agricultural and Environmental Sciences Committee Response

November 19, 2021

The Faculty Executive Committee of the College of Agricultural and Environmental Sciences (CA&ES) discussed the Proposed Presidential Policy on Sustainable Practices at its regular meeting on 26 October 2021. The committee is supportive of the proposal. We are also aware of the UC-wide Climate Resilience Planning effort currently underway, and we suggest that this committee's work be considered in further developing this plan to move beyond sustainability to incorporate climate resilience.

The CA&ES faculty appreciates the opportunity to comment.

November 10, 2021

Richard Tucker
Chair, UC Davis Division of the Academic Senate

RE: Proposed Presidential Policy on Sustainable Practices

Dear Richard,

The Faculty Executive Committee of the College of Biological Sciences has reviewed the request for consultation regarding the Proposed Presidential Policy on Sustainable Practices. We support these policy changes and hope that the UC will set even more ambitious sustainability goals in the future. In the meantime, as an utterly mundane but meaningful contribution to sustainability, we would welcome the introduction of separate receptacles for compostable waste in university buildings.

The CBS FEC appreciates the opportunity to comment on this proposal.

Artyom Kopp
On behalf of the CBS Faculty Executive Committee

Proposed Revisions to Presidential Policy on Sustainable Practices

FEC: College of Engineering Committee Response

November 19, 2021

 The College of Engineering Faculty Executive Committee discussed the Presidential Policy on Sustainable Practices and its proposed 2021 revisions at its regular meeting on Nov. 3, 2021. No particular concerns were raised by the FEC as a result of this review. However, the Engineering FEC conveys the following observations:

1. Taken as a whole, the policy reads as a comprehensive set of "best practices," though many of its provisions are stated as commands ("The University will. . . "). What is less clear is the extent to which these best practices are actually followed, and the enforcement mechanisms that attend them. In this sense, the policy is perhaps properly regarded as aspirational in nature. The University rightly prides itself on its commitment to environmental protection in all its various aspects, but aspirations and policy goals are only one side of the equation. A similarly comprehensive, point-by-point assessment of performance against the policy would be at least equally valuable.

2. Some of the policy provisions, while advancing a green agenda, could be regarded as counterproductive in relation to the University's core functions. For example, some FEC members noted that flexible work hours, if widely implemented, could degrade both teaching and research activities. However, the Committee was quick to agree that not everyone needs to drive to campus. Long-term investments in remote parking arrangements, electric shuttle buses, and robust public-transportation interfaces should be part of the strategic picture.

The College of Engineering faculty appreciates the opportunity to comment.

Proposed Revisions to Presidential Policy on Sustainable Practices

FEC: School of Nursing Committee Response

November 19, 2021

We support the proposed revisions to the Presidential Policy on Sustainable Practices. It might be informative to provide an overall metric of the UC Davis carbon footprint and how much that footprint is being reduced each year based on policy and behavior.

November 24, 2021

Robert Horwitz
Chair, Academic Council

RE: Proposed Revisions to the Presidential Policy on Sustainable Practices

At its meeting on November 16, 2021, the Senate Cabinet reviewed the proposed revisions to the presidential policy on sustainable practices. The Council on Planning and Budget (CPB) and Council on Faculty Welfare, Diversity, and Academic Freedom (CFW) also reviewed the proposed revisions.

Overall, members endorsed the proposed revisions and found the policy's goals laudable. However, both CPB and CFW noted that the proposal does not provide any information on costs of implementation. CFW provided several additional recommendations and points of clarification in its written response.

The Irvine Division appreciates the opportunity to comment.

Sincerely,

Joanna Ho, Chair
Academic Senate, Irvine Division

Encl.: CPB, CFW memos

Cc: Georg Striedter, Chair Elect
        Gina Anzivino, Interim Executive Director

November 9, 2021

JOANNA HO, CHAIR
ACADEMIC SENATE, IRVINE DIVISION

RE: Systemwide Review of Proposed Presidential Policy on Sustainable Practices

At its October 13, 2021 meeting, the Council on Planning and Budget (CPB) discussed proposed updates to the existing Presidential Policy on Sustainable Practices.

The revisions update specific targets and add additional requirements to green building design, climate protection, transportation, water systems, and UC Health.

Overall, the Council endorsed the spirit of the proposed revisions. UC policies and practices must reflect values of planetary stewardship.

The Council offers the following comments:

- The proposal does not provide any information on cost. Efforts should be made to provide a quantitative estimate of cost to truly commit to making the UC more sustainable. Given the Council's remit on planning, members suggested that estimates may be extrapolated from prior policy adjustments. Without such information, the Council is unable to meaningfully evaluate the proposed revisions.
- It is unclear how the changes will be implemented. If there is a policy recommendation, there should be agreement on what the goals should be.
- Members noted questionable language such as "subject to changes" which dilute the policy.
- Additional clarification is needed on when to spend more versus less.

On behalf of the Council,

Alyssa A. Brewer

Alyssa Brewer, Chair

CC: Gina Anzivino, Associate Director, Academic Senate
     Michelle Chen, CPB Analyst

DMS 15

UCI | University of California, Irvine

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October 27, 2021

JOANNA HO, CHAIR
ACADEMIC SENATE – IRVINE DIVISION

Re: Systemwide Review of Proposed Revisions to the Presidential Policy on Sustainable Practices

Systemwide Academic Senate Chair Horwitz forwarded for review proposed updates to the existing Presidential Policy on Sustainable Practices.

The Council on Faculty Welfare, Diversity, and Academic Freedom (CFW) discussed this issue at its meeting on October 12, 2021. However, it became apparent during the discussion that members did not feel they had sufficient expertise to review the proposed policy revisions. It was suggested that CFW ask members of the upcoming ad hoc Climate Crisis Committee to review and provide comments and recommendations. The comments have been combined below.

Overall:

- All of the specific policies and goals pertaining to sustainable practices are laudable. There is little information, however, about how they will be funded.

- It generally aims to make UC a leader. Nonetheless, what defines leadership in some areas is unclear one might argue for more aggressive targets in others.

- So glad to see a focus on campus sustainable transportation programs to promote telecommuting opportunities.

By Section:

III.A "Green Building Design"

1. Under section A.1.e about lab buildings, why not also strive for LEED Gold as with the other new buildings?

III.B "Clean Energy"

1. This section should add a provision to require campuses by 2023 to create plans with targets and timelines for decommissioning or decarbonizing natural-gas fired power and steam generation. 40% renewable biogas is by 2025 is not sufficient for the UC to achieve its climate goals because the other 60% will need to be offset and there is still potential for methane leakage with high greenhouse warming potential.

III.C Policy on "Climate Protection"

    1. P2-15: missing the word "levels" in "*c. Maintain greenhouse gas (GHG) emissions at or below 1990 levels*".
    2. P2-16: The added guidelines on "carbon offsets" greatly strengthen the Climate Protection policy and make the policy more complete.

III.D "Sustainable Transportation"

    1. In section D.1, specify by what date 100% of vehicle acquisitions will be zero-emissions
    2. In section D.1.e, the aim should be to exceed (not just meet) state targets. It is possible that the state targets will become more stringent and the University should be prepared to meet stronger targets.
    3. For section D.2, it would be good to add targets for vehicle miles traveled as well as % of employees and students. From a sustainability and productivity perspective, it might be worth prioritizing reductions in long commutes. Also, define what these percentages mean. If a single employee commutes by SOV 3 days/week instead of 5, is that the same percentage reduction as going from 5 to 3 employees that commute by SOV every day?
    4. The section D.4 targets for ZEV commuting are weak. We've probably already met the 4.5% target. Automakers are vowing to stop producing gas-powered vehicles by 2035. I'd suggest a 10% target by 2025 and 90% by 2050.

III.F "Zero Waste"

    1. Section F.1.b mentions 90% landfill diversion. That's not zero waste, that's 10% waste. Could we aim for 100% landfill diversion?
    2. Section F.3: include targets and timelines for reducing lab and medical packaging, e.g. 90% reduction by 2030.
    3. Section F.4.e: add timeline and targets for the phase-out. By what year will plastic beverage bottles be gone from campus vendors? How about 2025?
    4. 1. P2-19: 4.a "Eliminate plastic bags in all retail and foodservice establishments in campus facilities or located on University owned land no later than January 1, 2021".
    5. 2. P2-19: 4.b. "Replace disposable single-use plastic foodware accessory items in all foodservice facilities with reusables or locally compostable alternatives and provide only upon request no later than July 1, 2021."

III.I "Sustainable Water Systems"

    1. P2-21: "1. Locations will reduce growth-adjusted potable water consumption 20% by after 2020, and 36% by 2025, when compared to a three-year average baseline of FY2005/06, FY2006/07, and FY2007/08."

III.J "Sustainability at UC Health"

    1. P2-24: "3. In line with campus targets, health locations will reduce growth-adjusted potable water consumption 20% by after 2020 and 36% by 2025, when compared to a three-year average baseline of FY2005/06, FY2006/07, and FY2007/08."

V.C Procedure on "Climate Protection"

    1. P2-33&P2-34: There is no mention of the priorities laid out in the policy section (III.C.2) for "carbon offsets". Section III.C.2 should be cited or referred to somewhere in this procedure section.

    2. P2-34: Suggest mentioning the priority policy in the following statement: "h. Decisions affecting offset procurement will be made in the context of the location's climate action plan while following the offset priorities (Section III.C.2) and requirements set forth in this Policy."

V.F "Zero Waste"

    1. For section F.7, why are construction, landscaping, and agricultural waste excluded from the policy? These are potentially large sources of waste that should be addressed; this is a big loophole.

V.A "Green Building Design"

    1. In subsection 1.b, documenting compliance is detailed, but not mention is made of enforcing that compliance.
    2. In subsection 1.e.iii, is cost-effectiveness the only criterion needed?
    3. In subsection 1.f, "Table 2" should be capitalized
    4. In subsection 1.g, the two lines off-setting lists (that each begin with "Projects are . . ." and "The following very . . .," respectively) need to be consistent in spacing and use of colon to off-set the lists below them.
    5. In subsection 1.h, "are encouraged" could be revised to include accountability
    6. In subsection 3.a, "listing" should just be "list"
    7. In subsection 5.a, specify with whom the "best practices" should be share (internally within schools and/or centers; to other campuses, etc)
    8. In subsection 5.d, space needed between "I2SL" and "the"

V.B "Clean Energy"

    1. In subsection 1, "US" should be "U.S." for consistency with previous paragraph
    2. In subsection 2.b, To what end do locations periodically evaluate feasibility? Is there a mechanism for checking on whether locations are doing so and/or doing anything about their findings?
    3. In subsection 3.b, cut "on" to read simply "reported annually."

V.C "Climate Protection"

    1. In subsection 3, "gasses" should be "gases"
    2. In subsection 5, line 2, cut additional space after "levels"
    3. Also in subsection 5, last item in list doesn't read correctly: should be revised to read "(d) integrating considerations of environmental justice, adaptation, and resilience." That said, the last two terms are vague and should be specified.
    4. In subsection 9.a.i, there needs a period at end of sentence

Sincerely,

Terry Dalton, Chair
Council on Faculty Welfare, Diversity, and Academic Freedom

C: Gina Anzivino, Associate Director
Academic Senate

Matthew Hurley, Cabinet Analyst
Academic Senate

December 6, 2021

Robert Horowitz
Chair, UC Academic Senate

Re: Proposed Presidential Policy on Sustainable Practices

Dear Chair Horowitz,

The Divisional Executive Board, councils, and committees appreciate the opportunity to review the Proposed Presidential Policy on Sustainable Practices. The Executive Board reviewed the proposal and divisional council and committee feedback at its meeting on December 2, 2021.

Members generally supported the proposed policy although they questioned whether the proposal goes far enough to address the climate crisis. While the proposed policy places constraints on use of carbon offsets, it does not appear to move far enough to eliminate use of fossil fuels. Members appreciated the effort to rein in the volatile market of carbon offsets, but did not want UC to ignore the more fundamental effort to reduce fossil fuel use. Members also noted the importance of incorporating faculty research expertise into any implementation process. Overall, members suggested the policy proposal would benefit from more concrete and actionable rather than aspirational goals.

Sincerely,

Jody Kreiman
Chair
UCLA Academic Senate

Cc: Jessica Cattelino, Vice Chair/Chair Elect, UCLA Academic Senate
        Shane White, Immediate Past Chair, UCLA Academic Senate
        April de Stefano, Executive Director, UCLA Academic Senate

UCLA Academic Senate

November 21, 2021

Jody Kreiman
Chair, Academic Senate

Re: Systemwide Senate Review of Proposed Presidential Policy on Sustainable Practices

Dear Chair Kreiman,

The Council of Faculty Chairs reviewed the Proposed Presidential Policy on Sustainable Practices at their November 18, 2021 meeting. Members unanimously agreed that the steps summarized in the policy seem reasonable, but the targets neither go far enough to address the issues nor have sufficient built-in accountability. Members urged the university to elevate goals for fossil fuel emission reductions relative to carbon reduction alone.

Sincerely,

Jody Kreiman
Chair
UCLA Academic Senate

Cc: Jessica Cattelino, Vice Chair/Chair Elect, UCLA Academic Senate
        Shane White, Immediate Past Chair, UCLA Academic Senate
        April de Stefano, Executive Director, UCLA Academic Senate

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November 8, 2021

To: Jody Kreiman, Chair, UCLA Academic Senate

From: Leah Lievrouw, Chair, Graduate Council

Re: Systemwide Senate Review: Presidential Policy on Sustainable Practices

At its meeting on October 22, 2021, the Graduate Council reviewed and discussed the Presidential Policy on Sustainable Practices.

Members found the policy to be straightforward and wondered whether and how sustainable water practices might influence landscaping at the campuses. Members inquired whether there are mitigation strategies and water controls being considered at the campus level. Some members were concerned about the campus look and feel since students respond well to manicured outdoor spaces.

Thank you for the opportunity to opine. If you have any questions, please contact us via Graduate Council Analyst, Estrella Arciba, at earciba@senate.ucla.edu.

3125 Murphy Hall
410 Charles E. Young Drive East
Los Angeles, California 90095

October 21, 2021

To: Jody Kreiman, Chair, UCLA Academic Senate

From: Kathleen Bawn, Chair, Undergraduate Council

Re: **Systemwide Review of Presidential Policy on Sustainable Practices**

At its meeting on October 15, 2021, the Undergraduate Council discussed the proposed revisions to the Presidential Policy on Sustainable Practices.

Members addressed several areas of the proposal warranting further consideration. Specifically, members noted that the policy raises ambitious goals for commuting, and asked whether it was realistic to lower the target percentage of single-occupancy vehicles alongside a projected increase in transfer student enrollment. Members agreed that single-occupancy vehicles should be considered alongside low-emissions vehicles when outlining sustainability targets. Members also encouraged the proposers to address improvements to bicycle infrastructure, which seem to be overlooked in the current report. Some expressed concern at the University's previous failures to achieve waste reduction targets, and recommended the implementation of more rigorous accountability metrics and mechanisms to ensure that sustainability goals will be met.

Thank you for the opportunity to opine. If you have any questions, please contact us via the Undergraduate Council's analyst, Julia Nelsen, at jnelsen@senate.ucla.edu.

cc: April de Stefano, Executive Director, Academic Senate
        Jessica Cattelino, Vice Chair/Chair Elect, Academic Senate
        Julia Nelsen, Committee Analyst, Undergraduate Council
        Shane White, Immediate Past Chair, Academic Senate

October 26, 2021

Jody Kreiman, Chair
Academic Senate

Re: (Systemwide Senate Review) Proposed Presidential Policy on Sustainable Practices
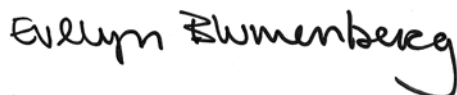
Dear Chair Kreiman,

At its meeting on October 25, 2021, the Council on Planning and Budget (CPB) had an opportunity to review the Proposed Presidential Policy on Sustainable Practices. Members offered the following comments.

Members expressed that many of the stated goals seem fine on paper but may prove complex to implement, such as reducing travel to campus by single occupancy vehicles. Similarly, members would have liked to see the proposed policy include language about relying on faculty expertise from the various UC campuses, and not limiting the scope of consultation to administrative experts. A few members highlighted section 3B under "Sustainable Food Services" which singles out candy and chocolate (page 40), commenting that it is not necessarily a great use of people's time penalizing these foods.

Finally, other members expressed that the document was written with good intentions but that many aspects of the policy are wishful thinking, as evidenced by the language used throughout.

If you have any questions for us, please do not hesitate to contact me at eblumenb@ucla.edu or via the Council's analyst, Elizabeth Feller, at efeller@senate.ucla.edu.

Sincerely,

Evelyn Blumenberg, Chair
Council on Planning and Budget

cc: Jessica Cattelino, Vice Chair/Chair-Elect, Academic Senate
        Shane White, Immediate Past Chair, Academic Senate
        April de Stefano, Executive Director, Academic Senate
        Elizabeth Feller, Assistant Director, Academic Senate
        Members of the Council on Planning and Budget

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OFFICE OF THE ACADEMIC SENATE
LEROY WESTERLING, CHAIR, ACADEMIC SENATE
senatechair@ucmerced.edu

UNIVERSITY OF CALIFORNIA, MERCED
5200 NORTH LAKE ROAD
MERCED, CA 95343

December 7, 2021

To: Robert Horwitz, Chair, Academic Council

From: LeRoy Westerling, Chair, UCM Divisional Council

Re: Proposed Revisions to Presidential Policy on Sustainable Practices

The proposed revisions to the Presidential Policy on Sustainable Practices were distributed for comment to the Merced Division Senate Committees and the School Executive Committees. The following committees offered several comments for consideration. Their comments are appended to this memo.

- Graduate Council (GC)
- Faculty Advisory Committee on Sustainability (FACS)
- School of Social Sciences, Humanities, and Arts Executive Committee (SSHA EC)

GC endorsed the proposed revisions. The Council's comments specifically pertaining to UC Merced are appended to this memo.

FACS considered the revisions in light of the policy as a whole and also the UC Policy on Integrated Pest Management. The committee had four main comments (additional comments and line edits are appended to this memo):

1. While aspects of biodiversity appear in the plan under various topics — for example the benefit of drought tolerant plants for reducing water usage — these are always incidental. The revised policy therefore lacks "Policy Text" and "Procedures" for a fundamental target area: biodiversity.
2. In recent years, a dichotomy has emerged among UC advocates of 'carbon free' versus 'carbon neutral' climate solutions. This juxtaposition is unlikely to be resolved by the current policy wherein plans to decarbonize fleet extend out as far in the future as 2045. We suggest there is a third solution which recognizes [i] the need to do more sooner and [ii] the substantial inertia intrinsic in existing infrastructure. This third solution, which can be referred to as 'carbon negative' for simplicity, recognizes the need to not only reduce and zero-out carbon emissions but to also start *removing* carbon from the atmosphere, and can be attained through a variety of natural in situ (see #2 above) and economic (e.g. offsets), and, in the future, technological solutions.
3. The offset language overall appears to treat offsets as a fallback strategy or option of last resort. But other forward-looking efforts e.g. carbon capture could be more central to sustainability strategies. In other words, most of the policy's efforts are aimed towards limiting the negative, but not promoting

positive action.

4. It has been brought to FACS' attention that some members of the GCLC discussed in that V.C.6 should include Climate Action plans that include a pathway to decarbonization without offsets. The date is currently as late as 2035, and it seems appropriate to develop the 'carbon free' plan now, along with a 'carbon negative' plan, even if the 'carbon free' plan is not implemented until 2035.

SSHA EC heartily supports this policy and is particularly pleased that a section on health and well-being has been added to the conceptualization of sustainability.

Divisional Council reviewed the committees' comments via email and supports their various points and suggestions.

The Merced Division thanks you for the opportunity to comment on this proposed policy.

CC: Divisional Council
     Hilary Baxter, Executive Director, Systemwide Academic Senate Michael
     LaBriola, Assistant Director, Systemwide Academic Senate
     Senate Office

OFFICE OF THE ACADEMIC SENATE
ERIN HESTIR, CHAIR, GRADUATE COUNCIL
ehestir@ucmerced.edu

UNIVERSITY OF CALIFORNIA, MERCED
5200 NORTH LAKE ROAD
MERCED, CA 95343

OCTOBER 22, 2021

TO: **LEROY WESTERLING, CHAIR, DIVISIONAL COUNCIL**

FROM: ERIN HESTIR, CHAIR, GRADUATE COUNCIL

RE: **PROPOSED PRESIDENTIAL POLICY ON SUSTAINABLE PRACTICES**

_____

Graduate Council (GC) has reviewed the proposed revisions to Presidential Policy on Sustainable Practices, and is pleased to endorse the proposed revisions. Specifically for UC Merced, GC wishes to address the following:

- As the recent campus survey shows, there is a high demand for campus-provided transportation that would reduce the need for single-occupant vehicle commuting. GC encourages the campus to expand the current services to offer more frequent campus shuttles that reach a wider area of Merced county including Atwater.

- As the campus considers new student housing projects, we also urge holistic planning that considers transportation as a critical design element.

Graduate Council appreciates the opportunity to opine.

CC: Graduate Council
         Senate Office

Enclosure: 0

23 November 2021

Faculty Advisory Committee on Sustainability Comment on Presidential Policy on Sustainable Practices

Dear Chair Westerling,

Thank you for the option to comment on the revisions to the *Presidential Policy on Sustainable Practices (PPSP)*, and for collating these responses. The Faculty Advisory Committee on Sustainability (FACS) considered the revisions in light of the *PPSP* as a whole and also the recently released *UC Policy on Integrated Pest Managem*ent (*UCPIPM*) on which we also comment separately. Four main comments are provided below, and followed by several more specific questions or comments and line-edits.

Sincerely,

Michael N Dawson

Chair, and on behalf of, FACS

(1) While aspects of biodiversity appear in the plan under various topics — for example the benefit of drought tolerant plants for reducing water usage — these are always incidental. The revised PPSP therefore lacks "Policy Text" and "Procedures" for a fundamental target area: biodiversity. Biodiversity is the defining attribute of this planet that has made it, and can keep it, habitable and hospitable. As a new "Health and Wellness" section was added this year, we suggest also development of a biodiversity sustainability section that incorporates all UC's properties — not limited to the UC Natural Reserve System, which addresses some biodiversity goals in part — including the enrichment and replacement of non-native campus landscaping with locally relevant California natives.

(2) In recent years, a dichotomy has emerged among UC advocates of 'carbon free' versus 'carbon neutral' climate solutions. This juxtaposition is unlikely to be resolved by the current policy wherein plans to decarbonize fleet extend out as far in the future as 2045. We suggest there is a third solution which recognizes [i] the need to do more sooner and [ii] the substantial inertia intrinsic in existing infrastructure. This third solution, which can be referred to as 'carbon negative' for simplicity, recognizes the need to not only reduce and zero-out carbon emissions but to also start *removing* carbon from the atmosphere, and can be attained through a variety of natural in situ (see #2 above) and economic (e.g. offsets), and, in the future, technological solutions. Thus, a carbon negative policy can be implemented immediately, while the move to carbon free continues at a manageable pace.

(3) Building on #2, The offset language overall appears to treat offsets as a fallback strategy or option of last resort. But other forward-looking efforts e.g. carbon capture could be more central to sustainability strategies. In other words, most of the policy's efforts are aimed towards limiting the negative, but not promoting positive action. For example, the only mention of carbon capture is that its feasibility should be assessed as part of assessment of Scope 1. Is that enough?

(4) On related lines, it has been brought to our attention that some members of the GCLC discussed in that V.C.6 should include Climate Action plans that include a pathway to decarbonization without offsets. The date is currently as late as 2035, and it seems appropriate to develop the 'carbon free' plan now, along with a 'carbon negative' plan, even if the 'carbon free' plan is not implemented until 2035.

Additional comments and questions

Definitions

The document defines Climate Neutrality. Is this the same is Carbon-Neutrality? If so, carbon neutral policies can be easily mistaken for carbon zero policies and vice versa, but they are quite different. Carbon neutral policies place carbon offsets in a central role, whereas carbon zero policies rely on offsets as a fallback. Because the role of offsets in the document appear to be more as a fallback strategy rather than a preferred strategy, it may be helpful to more clearly define which practices fall under the guise of carbon neutrality and which fall under the guise of carbon zero.

"High-quality carbon offsets" has a definition with seemingly a lot of latitude; it is defined as an Additional, Durable, Enforceable offset. Durable: (high likelihood the offset will remain out of the atmosphere for 40 years or through commitments to replace credits) seems very nebulous. What is a high enough likelihood? How are commitments enforced?

Food service: It is not clear whether or not third party food trucks fall under this definition. Specifically the definition uses the term 'establishments' which may not capture mobile services, but should it?

Sustainable Transportation

While the goals for reducing SOV commuting are stated, there isn't any mention of promoting alternative green transportation options. If SOV is reduced, it has to be replaced with something else, and whatever replaces it should be carbon-zero. Providing incentives for carbon-zero replacement options (for example, bicycle access to campuses) would seem to be an important missing piece.

There is no mention of green alternatives such as bicycle access in the Sustainable Transportation section.

DEI - if a larger proportion of under-represented students rely on SOV commuting, how do we reduce this option while maintaining campus access to groups that may be disproportionately impacted? Should there be checks and balances for how reducing SOV commuting intersects with equity?

Other

The document does not address changes to sustainability policies introduced by the COVID pandemic. In

anticipation of future pandemics, should there not be strategies in place to allow continuance of sustainability practices even under these conditions? For example, with respect to disposables and waste, where sustainability efforts were dropped to deal with the pandemic … as such crises are anticipated again, we should have policies in place that take those conditions in mind.

Line edits

P2 – P6 – Plastic bags => should include only naturally compostable items; there should be no petroleum sourced or 'industrial' compostable bags. Strategies including reduction and re-usable bags are under-valued.

P12 – C.1.c => does this change indicate we did not meet this goal? The removal of a date by which to achieve the goal is problematic. This comment applies throughout the document where dates are removed.

P13 – D.1.e => Why cannot the transition to new vehicles be set for 2035 be brought forward 10 years? And correspondingly advance the 2045 date?

P15-16 – F4 => UC Merced campus is already out of compliance with single use plastics mandates.

P19 – H.1.a & 2.a => what is the definition of sustainable? In addition to prioritizing plant-based foods, these should also be organically sourced, and local.

P20 – I.1.a => replace "including California natives" with "especially California natives"

Section III.F.3. deleting "will" leaves the sentence without a verb, so do not delete "will" in this case:

1. "~~By 2020, t~~The University ~~will~~ prohibit the sale,

SCHOOL OF SOCIAL SCIENCES, HUMANITIES AND ARTS

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FAX (209) 228-4007

9 October 2021

To: Leroy Westerling, Chair, DivCo
From: Susan Amussen, Chair, SSHA EC
Re: Presidential Policy on Sustainable Practices

We heartily support this policy; we are particularly pleased that a section on health and well-being has been added to the conceptualization of sustainability.   We realize our campus has done many things that move us toward these goals. However, we want to note that the campus and the Merced community will have to make significant investments in public transportation to move toward the decrease in the percentage of SOV use.

UNIVERSITY OF CALIFORNIA, RIVERSIDE

CHAIR, ACADEMIC SENATE
RIVERSIDE DIVISION
UNIVERSITY OFFICE BUILDING, RM 225

JASON STAJICH
PROFESSOR OF BIOINFORMATICS
RIVERSIDE, CA 92521-0217
TEL: (951) 827-6193
EMAIL: JASON.STAJICH@UCR.EDU

November 10, 2021

Robert Horwitz, Chair, Academic Council
1111 Franklin Street, 12th Floor
Oakland, CA 94607-5200

RE: Proposed Presidential Policy on Sustainable Practices

Dear Robert,

I write to provide the Riverside Division's response to *Proposed Presidential Policy on Sustainable Practices* that the Riverside Executive Council discussed on November 8, 2021 with no additional comments to the attached local committee memos.

Sincerely yours,
/s/Jason
Jason Stajich
Professor of Bioinformatics and Chair of the Riverside Division

CC: Hilary Baxter, Executive Director of the Academic Senate
       Cherysa Cortez, Executive Director of UCR Academic Senate Office

COMMITTEE ON PHYSICAL RESOURCES PLANNING

October 27, 2021

To: Jason Stajich, Chair
        Riverside Division

From: Chandra Reynolds, Chair   *Chandra A. Reynolds*
        Committee on Physical Resources Planning

Re: Systemwide Review: Proposed Presidential Policy on Sustainable Practices

The Committee on Physical Resources Planning reviewed the Proposed Presidential Policy on Sustainable Practices and offer the following comments:

With respect to "Green Building Design", a tangible way in which UCR could further enhance their leadership in sustainable buildings would be to add greater detail to the requirement for "cool roofs", that may be part of the extant CA building code. To be more ambitious, a further requirement to the "whiteness" of the paint may add a lot of value for negligeable cost. [c.f. https://pubs.acs.org/doi/10.1021/acsami.1c02368 and popular press explanation here: https://www.purdue.edu/newsroom/releases/2021/Q2/the-whitest-paint-is-here-and-its-the-coolest.-literally..html]

The description of the CBC requirements for new buildings and major renovations would benefit from clarification (document page 9 of 43; section A.1.a): i.e., a clearer statement that exceeding 20% is required whereas exceeding 30% is a goal. Added clarity here will avoid possible confusion in Section V.A.1.b (document page 21 of 43), where it is stated that new buildings and major renovations must "outperform CBC energy efficiency standards by at least 20%".

A minimum indoor air quality standard should be described. This is interconnected with sustainability, health and well-being, and climate/environment on page 22 of the PDF, section L. Health and Well-being" (document page 19 of 43). Co-benefit solutions should be sought. Overall, Section L was positively viewed as potentially impactful. However, policy goal 1 is so broad that almost any work conducted by the Healthy Campus Network (HCN) will be viewed as a success. Thus, some refinement and specifics would be helpful, such as that suggested with respect to an indoor air quality standard. Health equity should be defined in the document.

Does the "parking management and pricing strategies" in Section IV.D.4 and IV.D.8.b. consider the potentially uneven burden of aggressive pricing on students who commute and are unable to utilize alternative modes of transportation; or on students who live on campus, but depend on single occupancy commuting to get to off-campus jobs or continuing medical care; or, is this covered by financial aid, and not in the form of student loans?

October 29, 2021

To: Jason Stajich, Ph.D., Chair, Academic Senate, UCR Division

From: Declan McCole, Ph.D., Chair, Faculty Executive Committee, UCR School of Medicine

Subject: [Systemwide Review] Proposed Policy: *Proposed Presidential Policy on Sustainable Practices*

Dear Jason,

The SOM Faculty Executive Committee has reviewed the Proposed Presidential Policy on Sustainable Practices. We approve of the policy and have the following additional comments for consideration. The Committee offered feedback that there is no incentive for anyone who drives an electric car. The charging stations are few and far between and they charge too much to charge one's car.

Possible solutions/incentives to EV cars for UC students, faculty, and staff could include:
1. Add more charging stations.
2. Add fast charging stations, perhaps inviting Electrify America and Tesla to add a few at their own cost (hence one would need only 10-30 min to recharge).
   Users would have their own paying plans with those companies, this in theory would be at zero cost to UC.
3. Include a daily parking pass with the cost of the EV charging and/or provide discounted parking passes for EV vehicles (follow same CA rules used for HOV stickers for example).
4. The current rate of 0.75/hr (UCR level II stations provide max 6-7 kWh depending on the car – some cars can only draw max 3 kW per hour) is at the best similar to the one offered at UCSD ($0.15 per kWh). However it jumps to $0.5-0.6 per kWh after 2 hours. At UCSD it is constant at $0.15/kWh. The UCSD pricing seems more reasonable and fair (pay for what you draw).

Yours sincerely,

Declan McCole

Declan F. McCole, Ph.D.
Chair, Faculty Executive Committee School of Medicine

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November 23, 2021

Professor Robert Horwitz
Chair, Academic Senate
University of California

Re: Divisional Review of Proposed Revisions to Presidential Policy on Sustainable Practices

Dear Professor Horwitz,

The proposed revisions to the Presidential Policy on Sustainable Practices were distributed to San Diego Divisional Senate standing committees and discussed at the November 8, 2021 Divisional Senate Council meeting. Despite strong reservations expressed by various committees, Senate Council chose not to raise objections to the proposal. However, the Council provided the following comments for consideration.

The proposed revisions are a step in the right direction and Senate Council was pleased with many of the revisions, but had serious concerns about items that are still missing from the policy, especially in terms of transparency and accountability. Without accountability, the proposed goals, albeit ambitious, are a cause of concern for the Council in terms of substantive outcomes. In order to be clear if targets are being reached, related data and assessments would need to be accessible and transparent to all campus and community stakeholders. Given the consensus that as much fossil fuel infrastructure as possible needs to be retired in this decade to have the biggest impact on climate protection, many of the proposed goals are not aggressive enough. Tangible actions need to be taken sooner rather than later. The budgetary impacts of and allocations needed for the proposed actions are also not sufficiently spelled out. Recognizing the budgetary implications, some Council members expressed concern that the Chief Financial Officer is not the appropriate role to be the responsible authority for overseeing this Policy: that position may be constrained by competing priorities that could be contrary to sustainability practices. These members asked for this issue to be worked out more explicitly. To help alleviate potential conflict of interest situations and to provide additional expertise, it was strongly suggested that the Academic Senate should be kept apprised of decisions related to the implementation of this policy.

The responses from the Divisional Committee on Campus Climate Change, Committee on Campus and Committee Environment, Committee on Planning and Budget, and Committee on Faculty Welfare are attached.

Sincerely,

Tara Javidi
Chair
San Diego Divisional Academic Senate

Attachments

November 1, 2021

TARA JAVIDI, CHAIR
Academic Senate, San Diego Division

SUBJECT: Presidential Policy on Sustainable Practices Proposed Revisions

The Committee on Campus Climate Change (CCCC) is grateful for the opportunity to comment on the latest version of the UC Presidential Policy on Sustainable Practices. We appreciate UC's proposed efforts to reduce waste and improve energy efficiencies, and we agree with and applaud some of the updates to the policy. However, we have major concerns that the central issue of actual reductions in on-campus greenhouse gas emissions is not adequately addressed. Our concerns fall under three headings: accountability, climate protection and transportation.

1. Accountability

The pattern of setting targets and then failing to meet them without comment or consequence has to be broken. It has been the norm at UC as elsewhere to adopt ambitious goals with 5-30 year time frames, and then to delay actions until the end of the time frame, if the goals are remembered at all. To be effective, the long-term framework must include annual goals and real consequences when they are not fulfilled. For example, one of the proposed amendments to the policy is that the 2020 emissions goals should be maintained. It is not clear to us that these targets were achieved, given the lack of accessible information. It is also not clear what part the pandemic played in lowering the environmental impact of university operations. These data must be transparent, and there should be consequences including sanctions if goals are not met.

2. Climate Protection

Given the accelerating severity of the climate crisis, the policy of "Carbon Neutrality by 2025" is incompatible with the stated goal of climate protection. It is clear that as much fossil fuel infrastructure as possible needs to be retired in this decade if we are to have any hope of keeping global temperatures at a livable level. Despite the overwhelming consensus that such measures have to be taken, UC's present strategy is to continue powering the campuses with fossil fuels, emitting over 1 million tons of carbon dioxide per year, and to try to "offset" the resulting emissions of greenhouse gases through projects that sequester carbon in Rwanda, Ecuador, Tanzania, etc. Two campuses have also invested in low-cost landfill combustion credits in low-regulation U.S. states (i.e. paying for biomethane to be burned with open flares), and UCOP has been profitably trading biogas credits from plants in Louisiana, Wisconsin, and California. The CCCC perceives this strategy for emissions reduction to be undermined in its intent by the wholly inadequate duration criterion, which is set at 40 years, as well as suffering from the near-universal problem of unprovable and dubious additionality.

The UC offset proposal also generates a conflict of interest. On p. 31, the document suggests that investing in projects designed and overseen by UC faculty provides more oversight and accountability. But this conveys a cozy relationship between climate leadership and offset providers. The projects that

received seed money in 2019 are mostly worthy in their own right (in which respect they fail the test of additionality, because they could therefore be achieved by other means), but to entangle them in the University's climate neutrality goals runs the risk of appearing compromised. Furthermore, the committee charged with judging the suitability of proposed offsets should not be composed mainly of University employees obligated to support the use of offsets by their supervisors, but of faculty and students who have diverse and independent perspectives on the offsets 'solution.'

Given the depth and breadth of the problems with carbon offsetting, we urge that the climate protection aspect of this sustainability policy be redirected. The money earmarked for purchasing offsets, including the funds generated by trading biogas credits, should be reallocated to planning for electrification. The policy suggests that planning for real campus decarbonization should *begin* around 2035. This would be unacceptably late. We must start now. If the world has any hope of hitting the target of a 45% reduction in GHG emissions by 2030, as laid out in the 2018 IPCC report, the UC must lead the way. Admitting that offsets cannot get the job done would be an unparalleled opportunity to get out in front of the conversation. Such an announcement would have a seismic effect on the debate, and advance the cause of climate justice with a vision and ambition worthy of the University of California.

3. Transportation

The report falls short in addressing the campus fleet emissions as well as the approximately 500,000 tonnes per year of carbon dioxide emissions that come from Scope 3 (other ground transportation and aviation). As it stands, the only concrete actions concern the campus fleets. However, the dates are put so far in the future as to appear of little value, e.g. the goal of 2050 for 30% of new vehicle acquisitions to be zero emissions. This means that our large campuses will continue to burn substantial amounts of methane in buses over the next few decades. Apart from this, there are only vague suggestions for policies that encourage low-emissions commuting, with no indication that anything will be implemented or accountable. There is also no mention of aviation. We understand that aviation and commuting are tough nuts to crack, as they concern individual choices by students, staff and faculty, but we can certainly generate some more creative ideas about changing the incentive structures. The committee would be happy to brainstorm about this question and make some suggestions.

Sincerely,

Fonna Forman, Chair
Committee on Campus Climate Change

cc: N. Postero

October 27, 2021

TARA JAVIDI, CHAIR
Academic Senate, San Diego Division

SUBJECT: Presidential Policy on Sustainable Practices Proposed Revisions

The Committee on Campus & Community Environment (CCCE) discussed the Presidential Policy on Sustainable Practices proposed revisions at its October meeting. The committee endorsed the proposed policy revisions. The committee appreciated the addition of three new areas to the policy, particularly the one addressing health and well-being. Some questions arose regarding the use of carbon offsets to meet climate protection goals, which should only be a temporary, short-term measure, instead of other longer-term measures that seek to reduce energy consumption and invest in alternative ways of generating electricity. The committee also noted the need for additional budget allocations to fund the achievement of the goals outlined in the policy, which otherwise might be unfeasible.

Sincerely,

Jorge Cortes, Chair
Committee on Campus Community and Environment

cc: N. Postero

October 29, 2021

TARA JAVIDI, CHAIR
Academic Senate, San Diego Division

SUBJECT: Presidential Policy on Sustainable Practices Revisions

The Committee on Faculty Welfare (CFW) reviewed the Presidential Policy on Sustainable Practices revisions at its October meeting. CFW would like to congratulate Executive Vice President Brostrom and the President's Office on producing such a comprehensive, succinct and meticulously detailed document on Sustainable Practices. This report leaves very little room for further improvement or detail. We have two points:

1. In Sec.D.2.a and b, where the report talks about "*By 2025, each location will strive to reduce its percentage of employees and student commuting by SOV by 10%...*" and projects similar optimistic numbers for 2050, no concrete strategy is suggested by which such targets will be achieved. A relatively simple suggestion might be to create disincentives for campus parking by pausing further construction of expensive parking structures or increasing parking fees, and perhaps channel the unused resources into subsidizing or incentivizing ridership in public transport systems. Such practices are prevalent around the world, in developed and not-so developed countries.

2. At the cost of this second point being perceived as uninviting, and the fact that the request for the response is narrowly focused on the proposed policy revisions, we will share it anyway, given its enormous and direct impact on the climate crisis. This report has emphasized throughout, and rightfully so, its effort at climate protection. A facet that is almost never addressed in the Western World is that "*global toilet paper production wipes out about 27,000 trees per day, which comes out to almost 9 million trees per year*". Given the leadership role that UC has assumed in the climate crisis, maybe it's time for the University to gently encourage the use of water bidets (as is resorted to by nearly two billion people around the world) by installing them in some of the dorms and buildings and slowly attempt to get the population away from the use of toilet paper. Even though bidets may require paper, they use much less of it (and paper production is very water intensive so that compensates the added water use). This would be a good way of changing people's habits, given the number of students, faculty, and staff in the system. This will tie in nicely as a sub-section of item 3. Water Action Plans.

Sincerely,

Shantanu Sinha, Chair
Committee on Faculty Welfare

cc: N. Postero

October 28, 2021

TARA JAVIDI, CHAIR
Academic Senate, San Diego Division

SUBJECT: Presidential Policy on Sustainable Practices Proposed Revisions

The Committee on Planning and Budget (CPB) discussed the Presidential Policy on Sustainable Practices proposed revisions at its October meeting. The new emphasis on telecommuting, flexible work schedules, integration of environmental justice and the new section on health and well-being were welcomed and appreciated by the committee.

The CPB notes that the budgetary impacts of the proposed actions are not clear. Implementation "within constraints of research needs and budgetary requirements" implies that additional scenario planning and simulations are needed. We would like to request more clarity and transparency, especially as the responsible authority is now the CFO, who will be constrained by desiderata that are contrary to sustainability practices.

The committee recommends additional Senate involvement in the Carbon Abatement Technical Committee. The committee could leverage the rich research experience of the faculty, which will be critically important in shifting the campus away from fossil fuel sources.

The committee noticed that the performance assessment (p. 45) is underspecified and vague. There are no measurable metrics, no plan for third-party validation, and no clear carbon reduction targets specified. The only sentence, "The rating must be for a current certified STARS report, and under the current STARS point allocations" is not meaningful. Full details of how UCSD will measure the success of its sustainability practices should be provided, and these should include independent assessments.

The committee noticed that throughout the document, the word "shall" was replaced by the word "will". In critical documents, "shall" typically denotes something that is required, and "will" tends to imply future possibility. The committee wishes to know whether this softening of language reflects a less firm commitment towards important sustainability goals.

Last but not least, the committee recommends the preparation of a concise and clear executive summary of the Sustainability Practices Policy that can be shared with students, staff, faculty and other stake holders of the University.

Sincerely,

Gedeon Deák, Chair
Committee on Planning & Budget

cc: N. Postero

UNIVERSITY OF CALIFORNIA – (Letterhead for interdepartmental use)

UCSF Academic Senate

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https://senate.ucsf.edu

Steven W. Cheung, MD, Chair
Steve Hetts, MD, Vice Chair
Pamela Ling, MD, Secretary
Kathy Yang, PharmD, Parliamentarian

December 6, 2021

Robert Horwitz
Chair, Academic Council
Systemwide Academic Senate
University of California Office of the President
1111 Franklin St., 12th Floor
Oakland, CA 94607-5200

Re: UCSF Comments on the Proposed Revisions to the Presidential Policy on Sustainable Practices
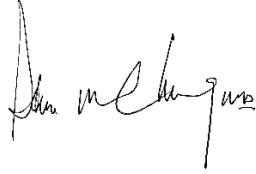
Dear Robert:

The San Francisco Division of the Academic Senate recently reviewed the amendments to the proposed revisions to the Presidential Policy on Sustainable Practices. The UCSF Senate is appreciative of the efforts that the Office of the President is taking to require sustainable practices on UC campuses and achieve decarbonization as quickly as possible.

With that in mind, our standing Committee on Sustainability made the following comments:
1. *Emissions Targets*: UCSF is supportive of the revision recognizing that telecommuting and other flexible work arrangements provide an opportunity to reduce emissions. However, the current targets for scope 3 emissions may be too modest and too slow.

2. *Onsite Combustion*: Given the serious environmental and health consequences of the continued use of fossil fuels, the UCSF Senate supports setting explicit targets to reduce the use of fossil fuel combustion to emergency situations only. Additionally, the policy currently requires that 40% of onsite combustion be biogas by 2025; it is worthwhile to ask why this target is not closer to 100%.

3. *Fleet Sustainability*: Although we support the requirement to develop a Fleet Sustainability Implementation Plan by January 1, 2022, we feel that the goals in are again too modest. The Policy sets the goal that all new passenger cars and light-duty trucks all medium-and heavy-duty vehicles acquired after January 1, 2035 and after January 1, 2045 respectively, will be zero-emission vehicles. Although this goal conforms to current State guidelines, setting faster targets for UC campuses may be possible.

4. *Health Facilities*: UCSF recognizes that water usage and solid waste generation may be truly unique to acute care facilities, resulting in different targets for these facilities. However, it is worthwhile to state explicitly reasons for variances.

5. *Carbon Offsets*: Carbon offsets should be used as a temporary bridge to true carbon neutrality, and therefore argue that their use should be obligatory and not merely optional. In addition, it is curious why high-quality carbon offsets are not explicitly required when all other options for meeting carbon neutrality goals have been exhausted.

Thank you for the opportunity to opine on the revisions to this important Presidential Policy. If you have any questions, please let me know.

Sincerely,

Steven W. Cheung, MD, 2021-23 Chair
UCSF Academic Senate

Enclosures (1)
Cc: Chelsea Landolin, Chair, UCSF Sustainability Committee

Communication from the Committee on Sustainability
Chelsea Landolin, RN, MS, NP, Chair

November 29, 2021

TO: Steven Cheung, Chair of the UCSF Division of the Academic Senate

FROM: Chelsea Landolin, Chair, UCSF Committee on Sustainability

CC: Todd Giedt, Executive Director of the UCSF Academic Senate Office

RE: Systemwide Review of the Proposed Revisions to Presidential Policy on Sustainable
                Practices

Dear Chair Cheung:

The Committee on Sustainability writes to comment on the Systemwide Review of the Proposed Revisions to the Presidential Policy on Sustainable Practices. Overall, the Committee is supportive of efforts to require sustainable practices on UC campuses and achieve true carbon neutrality as quickly as possible. We believe that this is an intermediate step toward a higher goal of full decarbonization. As a part of a campus dedicated to "advancing health worldwide," we feel that it is important to tackle the health impacts of climate change and air pollution urgently and with vigor. In accordance with the findings of the Intergovernmental Panel on Climate Change in the past five years, avoiding the worst impacts of climate change requires a dramatic upscaling of interventions and moving at a far more aggressive pace than is currently occurring. It is incumbent upon our system to ensure that the reach of these changes and the pace at which they are made are in alignment with the state of the science.

To this end, the Committee is supportive of the goals to achieve climate neutrality from scope 1 and 2 emissions by 2025. The Committee is also supportive of the revision recognizing that telecommuting and other flexible work arrangements provide an opportunity to reduce emissions. However, the Committee unanimously views the current targets for scope 3 emissions to be too modest and too slow. The shift to working from home during the COVID-19 pandemic has provided a unique opportunity to re-evaluate commuting and business travel needs, and the Committee is concerned that the revised version of the policy does not fully leverage this rare and potentially game-changing opportunity to reduce costs, improve quality of life, and further decarbonize the UC system. The Committee would therefore like to ask whether faster, more stringent targets for scope 3 emissions had been considered, and, if not, why that is the case. We strongly support the rapid, comprehensive implementation of such targets along with appropriate accountability mechanisms.

The Committee supports prohibiting new buildings and major renovations from using onsite fossil fuel combustion but would argue that the current policies should be strengthened so as to truly minimize fossil fuel combustion as much as possible. Currently, the policy allows connections to existing onsite combustion. The committee would ask whether onsite combustion is truly necessary in most cases or whether the University should strive to only use fossil fuel combustion in the case of loss of power emergencies. Given the serious environmental and health consequences of the continued use of fossil fuels, the Committee supports setting explicit targets to reduce the use of fossil fuel combustion to emergency situations only. Additionally, the policy currently requires that 40% of onsite combustion be biogas by 2025; the Committee would like to ask why this target is not closer to 100%.

The Committee supports the requirement to develop a Fleet Sustainability Implementation Plan by January 1, 2022. However, the Committee feels that the goal that all new passenger cars and light-duty trucks acquired after January 1, 2035, and all medium-and heavy-duty vehicles acquired or operated after January 1, 2045, will

be zero-emission vehicles is too modest. Although this goal conforms to current state guidelines, the Committee would be supportive of setting faster targets for UC campuses. Additionally, the Committee feels that the goals of a 10% reduction in single-occupancy vehicle commuting to campus by 2025 relative to 2015 levels, 4.5% zero-emission commuting vehicles by 2025, and 30% zero-emission commuting vehicles by 2050 are far too modest. Powerful tools are available to limit on-campus parking and encourage less carbon-intense commuting options, especially given recent experiences with telecommuting. The Committee would therefore like to ask whether more stringent targets for both the fleet and commuting vehicles had been considered.

The Committee is also supportive the establishment of a clear systemwide policy for health facilities with specific solid waste and water use targets that are unified across campuses. The Committee recognizes that water usage and solid waste generation may be truly unique to acute care facilities, resulting in different targets for these facilities. However, the Committee would ask whether health facilities should be held to the same requirements for construction and operating energy use as other campus facilities are, rather than having their own targets. The Committee also questions whether the solid waste and water use targets for UCHealth are sufficiently ambitious. Finally, for all facilities, the Committee would like to ask whether LEED Silver is sufficiently ambitious or whether Gold should be the minimum target, with Platinum desired.

The Committee is supportive of the revisions to the policy defining standards for the quality of any carbon offsets purchased. The Committee believes that their use as a merely temporary bridge to true carbon neutrality should be emphasized. However, the Committee would also argue that their use should be obligatory and not merely optional, as the policy is currently written. The Committee therefore asks why high-quality carbon offsets are not explicitly required when all other options for meeting carbon neutrality goals have been exhausted.

Finally, the Committee would like to ask about the intentions underpinning the changes throughout the document from "shall" to "will." To the extent that the two words are synonyms and the University intends to achieve its goals on or ahead of schedule, the Committee is supportive of this change. However, if the intent behind this change is to make these goals appear to be non-binding or to make routine the process of requesting and receiving exemptions, then the Committee is not supportive of this change.

Thank you for the opportunity to comment on this important issue. If you have any questions on the Committee on Sustainability's comments, please contact me or Academic Senate Analyst Liz Greenwood (liz.greenwood@ucsf.edu).

Academic Senate
Susannah Scott, Chair
Shasta Delp, Executive Director

1233 Girvetz Hall
Santa Barbara, CA 93106-3050
http://www.senate.ucsb.edu

UC SANTA BARBARA

December 7, 2021

To: Robert Horwitz, Chair
        Academic Senate

From: Susannah Scott, Chair
        Santa Barbara Division

Re: Systemwide Review of Proposed Revisions to the Presidential Policy on Sustainable
        Practices

The Santa Barbara Division distributed the proposed policy for comment to the Council on
Planning and Budget (CPB), Council on Faculty Welfare, Academic Freedom, and Awards
(CFW), and the Committee on Research Policy and Procedures (CRPP). CRPP opted not to
opine. The individual responses are attached for your review.

CPB recognized the current draft as an improvement, however, they note "several gaps remain
that represent a lost opportunity to provide useful guidance to campuses." CFW members
agreed that the policy, in general, is a step in the right direction for the university. Both groups
offer a number of comments for consideration, below.

CPB called attention to the fact that the policy does not address California's lack of affordable
housing, especially in the cities surrounding UC campuses. CPB felt that this is a "conspicuous
omission since the University's sustainable transportation and health equity goals cannot be
achieved if students, faculty, and staff cannot access affordable housing near the universities
where they work." The Council also pointed out that the current policy does not address travel
commonly required for professional activities (such as conferences, program reviews,
workshops, etc.). CPB considered whether the University should develop policies that
incentivize additional use of online or hybrid meetings, given that jet fuel dramatically increases
carbon emissions.

Both CPB and CFW noted that the new section on Health and Well-being is vague, with CPB
stating that the section fails to articulate the issues or provide guidelines for future policies.

CFW also offered the following list of specific questions and observations for continued
reflection:
- The omission of light emitting diodes (LEDs) for lighting is a bit of a surprise. They
  provide an advantage in energy savings as well as avoid mercury, a major risk to health
  and environment. If they are not already implicit in new building design, LEDs should

certainly be considered in the replacement of fluorescent or compact fluorescent lamps when practical, in the course of maintenance or renovations.

- The university should be mindful, in the design of new buildings and remodeling of old, to consider future climate change and provide sufficient cooling in the face of the increased frequency of hot weather. Perhaps more unique to the Santa Barbara campus but certainly a consideration in the context of climate change is also campus accessibility in the context of sea level rise. Because this policy predates COP26, are the practices contained herein in alignment/compliance with the goals established there? Are there any areas where we are behind?
- The policy appears to be without enforcement mechanisms for those who are non-compliant; it would be more effective to outline the ramifications of failure to meet targets.
- The concept of sustainability continues to evolve with time; it is noted this policy has taken different forms since the Regents first approved sustainability policy principles in 2003. That said, some members questioned the definition of sustainability that is assumed but not strictly defined within the policy, and the UC's commitment to standards that are set by external agencies over whom we have no control/input.
- Some members would like to see the policy incorporate regenerative approaches and traditional ecological knowledges of California's Indigenous populations. Relatedly, the policy does not include mention of conservation or campus wildlife, and could do more to encourage sustainable farming in its Foodservices section. Fair trade and ethical practices should be a consideration in Foodservices (as it is in Procurement).
- Some members are concerned about the lack of mention of nuclear energy in the document. Similarly, they offer a critique in the focus on electric vehicles in that the cobalt required comes from exploited miners in Central Africa (and thus are not sustainable).

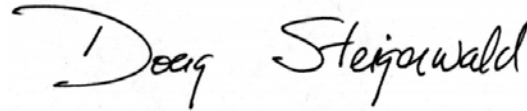We thank you for the opportunity to comment.

November 3, 2021

To: Susannah Scott, Divisional Chair
              UCSB Academic Senate

From: Douglas Steigerwald, Chair
              Council on Planning & Budget

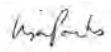Re: Systemwide Sustainable Practices Policy

The Council on Planning & Budget (CPB) has reviewed the systemwide proposal for updates to the Presidential Policy on Sustainable Practices. The proposal updated the University's sustainability policies in several key areas (Green Building Design, Climate Protection, Transportation, Water Systems, and UC Health). It also added a section (Health and Well-being) recognizing the need to address the health inequities that arise from climate change and unequal access to healthy food. In all areas, the systemwide policies seek to meet or exceed by 20-30% the current state standards for maximizing energy efficiency, increasing reliance on clean energy supplies, reducing carbon emissions, and achieving carbon neutrality. The University pledges to purchase only "high-quality [carbon] offset credits to meet its climate protection goals." It plans to prioritize investing in offset projects that advance the University's research mission and social justice goals. The proposal identifies new benchmarks, but it does not outline a plan for reaching them. In reaching any goal, the Council feels it would be helpful to share best practices among campuses, with an eye toward continued innovation and improvement.

While the revisions include admirable improvements over earlier drafts, the CPB notes that several gaps remain that represent a lost opportunity to provide useful guidance to campuses. Most notably, the Systemwide Sustainable Practices policy does not address California's lack of affordable housing, especially in locales near UC campuses. We see this as a conspicuous omission since the University's sustainable transportation and health equity goals cannot be achieved if students, faculty, and staff cannot access affordable housing near the universities where they work. The new section on Health and Well-being is vague and fails to articulate the issues or provide guidelines for future policies. Finally, the University's sustainable practices policies do not address travel commonly required for professional activities (such as conferences, program reviews, workshops, etc.). Given that jet fuel dramatically increases carbon emissions, should the University develop policies that incentivize the creation of more online or hybrid online/in-person meetings?

cc: Shasta Delp, Academic Senate Executive Director

December 2, 2021

To: Susannah Scott, Divisional Chair
        Academic Senate

From: Lisa Parks, Chair
        Council on Faculty Welfare, Academic Freedom, and Awards

Re: **Systemwide Review of Proposed Presidential Policy on Sustainable Practices**

The Council on Faculty Welfare, Academic Freedom, and Awards met on December 1, 2021 to discuss the Proposed Presidential Policy on Sustainable Practices.

While some members questioned their own expertise in being able to offer recommendations for substantive changes, it was generally agreed that this policy is a step in the right direction for the university, and members are supportive of its goals. It is noted that the policy has the endorsement of our campus's Chancellor's Sustainability Committee. The council offers some questions and observations for continued reflection below:

- The omission of light emitting diodes (LEDs) for lighting is a bit of a surprise. They provide an advantage in energy savings as well as avoid mercury, a major risk to health and environment. If they are not already implicit in new building design, LEDs should certainly be considered in the replacement of fluorescent or compact fluorescent lamps when practical, in the course of maintenance or renovations.

- The university should be mindful, in the design of new buildings and remodeling of old, to consider future climate change and provide sufficient cooling in the face of the increased frequency of hot weather. Perhaps more unique to the Santa Barbara campus but certainly a consideration in the context of climate change is also campus accessibility in the context of sea-level rise. Because this policy predates COP26, are the practices contained herein in alignment/compliance with the goals established there? Are there any areas where we are behind?

- The policy appears to be without enforcement mechanisms for those who are non-compliant; it would be more effective to outline the ramifications of failure to meet targets.

- The concept of sustainability continues to evolve with time; it is noted this policy has taken different forms since the Regents first approved sustainability policy principles in 2003. That said, some members questioned the definition of sustainability that is assumed but not strictly defined within the policy, and the UC's commitment to standards that are set by external agencies over whom we have no control/input.

- Some members would like to see the policy incorporate regenerative approaches and traditional ecological knowledges of California's Indigenous populations. Relatedly, the policy does not include mention of conservation or campus wildlife, and could do more to encourage

sustainable farming in its Foodservices section. Fair trade and ethical practices should be a consideration in Foodservices (as it is in Procurement).

- Some members are concerned about the lack of mention of nuclear energy in the document and the waste produced by the creation of nuclear weapons. Similarly, they offer a critique in the focus on electric vehicles in that the cobalt required comes from exploited miners in Central Africa (and thus are not sustainable).

- Members praised the section on Health and Well-Being but suggest that the language is very vague. They suggest working to expand and explain.

CC: Shasta Delp, Executive Director, Academic Senate

1156 HIGH STREET
SANTA CRUZ, CALIFORNIA 95064

Office of the Academic Senate
SANTA CRUZ DIVISION
125 CLARK KERR HALL
(831) 459 - 2086

December,7 2021

Robert Horwitz, Chair
Academic Council

RE: Systemwide Review of Proposed Presidential Policy on Sustainable Practices

Dear Robert,

The Santa Cruz Division of the Academic Senate has completed its review of the Proposed Revisions to Presidential Policy on Sustainability Practices with the Committees on Information Technology (CIT), Research (COR), and Planning and Budget (CPB) responding. All committees offered specific recommendations regarding the key changes brought forward in an effort to improve the readability and clarify the intent of the policy. Overall, they appreciated the desire to mitigate environmental impacts and update sustainability practices.

While generally supportive of the policy, CPB calls for a "bolder vision of the energy system that is necessary towards achieving these goals." This is echoed by CIT, which also suggests that "the university could be more aggressive with sustainability goals." The committees noted some omissions and provided recommendations in areas lacking feasibility and edits where needed.

CIT advised that there was "little to no discussion of energy used for IT functions, including cooling" in the proposed revisions, while COR highlighted the "absence of a plan for electronic waste, such as reuse and recycling." These areas were not addressed in the proposal and their inclusion is recommended.
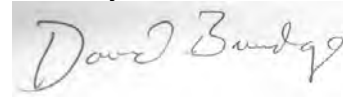
Several procedures seemed impractical to the committees. In particular, CPB strongly "recommends a firmer and perhaps shorter timeline towards exiting the 'transitional strategy' of using carbon offsets, and of moving towards truly carbon neutral or carbon negative energy." Both CPB and CIT were concerned about the Green Lab Program, with CPB recommending that "it might be better to specify the sorts of results or outcomes that are expected and indicate that the campus designates a body to oversee the process and collect the results, but leave the methodology to the individual campuses." CIT notes that "placing the financial and resource burden on individual PIs to update their labs would likely prevent compliance." More broadly COR urges the Office of the President to provide overall implementation and financial support for this policy.

In alignment with the recent divestment from fossil fuels, COR calls for more support for renewable energy use, with CIT noting "new UCSC solar plant provides 2% of campus energy. This could be increased dramatically with additional solar installations at UCSC and sister campuses."

Specific edits are called for by CPB in regards to two instances of outdated information and inconsistency with point 1a of the Green Building Design section.

As always, thank you for the opportunity to comment. I am enclosing the committee responses and hope these observations prove useful in the continued development of this important policy.

Sincerely,

David Brundage, Chair
Academic Senate, Santa Cruz

cc: Peter Alvaro, Chair, Committee on Information Technology
           Jarmila Pittermann, Chair, Committee on Research
           Dard Neuman, Chair, Committee on Planning and Budget

November 30, 2021

David Brundage, Chair
Academic Senate

Re: Proposed Revisions to Presidential Policy on Sustainability Practices

Dear David,

During its meeting of October 13, 2021, the Committee on Information Technology (CIT) reviewed the proposed revisions to the Presidential Policy on Sustainable Practices, which aim to clarify intent, and include the updating of specific targets, additional requirements, and a new Health and Well-Being section. Members questioned how the policy will affect IT energy consumption, how implementation will be encouraged with regards to laboratories, and suggested that the university could be more aggressive with sustainability goals.

Information Technology (IT) consumes large amounts of energy and renewables on each campus. Members were therefore concerned to find that there is little to no discussion of energy used for IT functions, including cooling, in the proposed revisions. With regards to renewables, members questioned how the policy affects the Cogeneration Plant (Cogen), which is diesel dependent. A policy on Sustainability Practices could include a goal of having solar backup batteries at campus plants, which could reduce the overall carbon footprint, and aid in the prevention of lost power, which greatly hinders faculty research.

With regards to implementation, members questioned whether subsidies would be provided to assist principal investigators (PIs) in making labs more green under the UC Green Laboratories Action Plan. CIT notes that placing the financial and resource burden on individual PIs to update their labs would likely prevent compliance with the action plan and detract from overarching sustainability goals.

Although the policy states that the campus will be using 100% clean energy by 2025, as faculty, members suggested that the University could be more aggressive. Members noted that the new UCSC solar plant provides 2% of campus energy. This could be increased dramatically with additional solar installations at UCSC and sister campuses.

Sincerely,

Peter Alvaro, Chair
Committee on Information Technology

December 2, 2021

DAVID BRUNDAGE, Chair
Academic Senate, Santa Cruz Division

Re: Systemwide Review of Proposed Presidential Policy on Sustainable Practices

Dear David,

Thank you for the opportunity to opine the updates to the Presidential Policy on Sustainable Practices.

The committee was overall pleased with the proposed goals that seek to address the current suite of environmental crises stemming from anthropogenic impacts.

We understand that this document presents targets as envisioned by the leadership but we urge the President's Office to work with the campuses and ultimately provide stakeholders and members of UC communities with planning assistance for implementation of such policies, as well as means of financial support.

While the policy was ambitious in its scope, the committee noticed the absence of a plan for electronic waste, such as reuse and recycling. Mishandled electronic waste can be a significant source of pollution and environmental toxins, while the continued demand for electronic products and their components strains both sustainability and social responsibility.

Secondly, we suggest that the University of California proactively seek investment in renewable energies and projects grounded in sustainability, carbon neutrality and social justice. The University of California has recently divested from fossil fuels so we urge the administration to include in its policy a strong statement of support for investment in sustainable businesses and other types of forward-looking enterprise.

Thank you for your consideration, and we hope that our feedback is useful.

Sincerely,
/s/
Jarmila Pittermann, Chair
Committee on Research

December 1, 2021

David Brundage, Chair
Academic Senate

RE: Systemwide Review of Proposed Presidential Policy on Sustainable Practices

Dear David,

At its meeting of November 18, 2021, the Committee on Planning and Budget (CPB) reviewed the proposed Presidential Policy on Sustainable Practices. Overall, CPB welcomes this "transitional strategy" (p. 11) and appreciates the guidelines for the use of offsets (pp. 27-29) given the extensive criticism of some carbon offsets as being uncertain and on occasion fraudulent. Moreover, CPB appreciates that the proposed policy addresses some of the well-known problems with carbon offsets. More broadly, CPB would welcome a bolder vision of the energy system that is necessary towards achieving these goals. CPB provides the following concerns, recommendations, and edits:

- Even with well-designed guidelines, it is not clear and therefore likely impractical for the UC to adequately monitor the quality of distant offset projects. **CPB therefore recommends a firmer and perhaps shorter timeline towards exiting the "transitional strategy" of using carbon offsets, and of moving towards truly carbon neutral or carbon negative energy**.
- Regarding the Green Building Design, there is an inconsistency with point 1a: the same sentence appears multiple times and with different percentages. Specifically, it states that UC aims at outperforming the California Building Code (CBC) efficiency standards by at least 20% (first sentence), and then by at least 30% (second sentence). Hopefully the costs incurred to outperform the California Building Code (CBC) efficiency standards by at least 20% (or 30%) will not result in "no new buildings at all.'' which is of course the greenest possible choice.
- The policy's approach specifies processes that may not be suitable at every campus.
  - For example, on page 13, point 2, the document states that "All campuses will maintain an ongoing Green Lab Assessment Program supported by a department on campus to assess operational sustainability of research groups, labs and research spaces. At least one staff or faculty member from the campus must have the role of managing the Green Lab Assessment Program'' It is not clear why the Green Lab Assessment Program is delegated to one department on campus, and if those faculty or staff members should be from the delegated department. How can faculty or staff from one department assess what is going on in a lab from another? The procedure E4 (page 31) to implement sustainable building and laboratory operations says that campuses will assess at least three new research groups through their Green Assessment Programs. Who chooses such groups?
  - It might be better to specify the sorts of results or outcomes that are expected and indicate that the campus designates a body to oversee the process and collect the results, but leave the methodology to the individual campuses.

- On two occasions there appears to be outdated information:
  - On page 32, there appear to be outdated timelines. The document states that the policy on sustainable practices is being revised in 2021 but at page 32 point 3 the document states that "By the end of 2018 locations other than health locations will submit new waste management plans...''
  - On page 38 (Sustainable water system), point I.1.c.ii, the potable water usage target for 2025 is computed using a baseline period that is three consecutive years FY05/06, 06/07 and 07/08 for each location. The baseline is about 15 years old. This target does not take into account the dynamics of each UC campus, i.e., different growth rates. It seems

reductive to simply multiply these 2005-2008 baseline numbers by the same constant factor for all UCs to come up with a potable water usage target for 2025.

CPB appreciates the opportunity to comment on the proposed policy revisions.

Sincerely,

Dard Neuman, Chair
Committee on Planning and Budget

cc: COR Chair Pitterman
        CIT Chair Alvaro
        CFW Chair Orlandi
        CDF Chair Holl
        CAAD Chair Silva Gruesz

December 6, 2021

Robert Horowitz
Chair, UC Academic Senate

Re: Proposed Presidential Policy on Sustainable Practices

Dear Chair Horowitz,

The Divisional Executive Board, councils, and committees appreciate the opportunity to review the Proposed Presidential Policy on Sustainable Practices. The Executive Board reviewed the proposal and divisional council and committee feedback at its meeting on December 2, 2021.

Members generally supported the proposed policy although they questioned whether the proposal goes far enough to address the climate crisis. While the proposed policy places constraints on use of carbon offsets, it does not appear to move far enough to eliminate use of fossil fuels. Members appreciated the effort to rein in the volatile market of carbon offsets, but did not want UC to ignore the more fundamental effort to reduce fossil fuel use. Members also noted the importance of incorporating faculty research expertise into any implementation process. Overall, members suggested the policy proposal would benefit from more concrete and actionable rather than aspirational goals.

Sincerely,

Jody Kreiman
Chair
UCLA Academic Senate

Cc: Jessica Cattelino, Vice Chair/Chair Elect, UCLA Academic Senate
        Shane White, Immediate Past Chair, UCLA Academic Senate
        April de Stefano, Executive Director, UCLA Academic Senate

Sustainable Practices

Responsible Officer:	EVP – Chief Financial Officer
Responsible Office:	ES – Energy & Sustainability
Issuance Date:	X/X/2021
Effective Date:	X/X/2021
Last Review Date:	1/28/2021
Scope:	All Campuses, Health Locations, and the Lawrence Berkeley National Laboratory

Contact:	Matthew St. Clair
Title:	Director of Sustainability, UCOP
Email:	Matthew.StClair@ucop.edu
Phone:	(510) 287-3897

TABLE OF CONTENTS

I. POLICY SUMMARY

The Sustainable Practices Policy ("Policy") establishes goals in 12 areas of sustainable practices: green building, clean energy, climate protection, transportation, sustainable operations, zero waste, procurement, foodservice, water, health care, performance assessment, and health and well-being.

II. DEFINITIONS

Association for the Advancement of Sustainability in Higher Education (AASHE): The higher education association that sets sustainability standards for universities and colleges. Its mission is to support sustainability in higher education through empowering faculty, administrators, staff, and students to be effective change agents and drivers of sustainability innovation.

Addressable Spend: Spend that can be impacted through sourcing activities. For the purposes of this Policy, it relates to the spend within a specific product or service category.

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

California Building Code (CBC): This refers to the California Building Code, Title 24 portion of the California Code of Regulations

Clean Transportation Fuel: A clean transportation fuel is a fuel derived from a net carbon-neutral fuel source with a carbon intensity of zero, or less. These transportation

fuels are typically produced from nonpetroleum renewable sources. Common examples include natural gas or hydrogen derived from the capture of gases from sewage waste, manure collection, or green waste decomposition. A fuel's carbon intensity can vary based on how it is produced. For a California Air Resources Board's maintained list of certified carbon intensities for alternative fuels see the website LCFS Pathway Certified Carbon Intensities.

Climate Neutrality: Climate neutrality is a goal for the University to 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 Second Nature's Carbon Commitment. This 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.

Combustion: As defined by CalRecycle, combustion is a rapid conversion of chemical energy into thermal energy. The reaction is exothermic. Organic matter is oxidized with sufficient air (or oxygen) for reactions to go to completion. The carbon and hydrogen are oxidized to carbon dioxide and water, respectively.

Construction and Demolition Waste: Waste generated by construction projects that do not occur every year or are not a result of regular operations and maintenance (e.g., building renovations or new construction).

Diversion from Landfill: Institutions divert materials from the landfill, combustion, or other non-allowable thermal conversion by recycling, composting, donating, reselling, or reusing.

Economically and Socially Responsible (EaSR) Spend: Spend on products or services supplied by a business holding one of the UC-recognized certifications listed in the UC Sustainable Procurement Guidelines.

Expanded Polystyrene (EPS): As defined by the City of San Francisco, blown polystyrene and expanded and extruded foams which are thermoplastic petrochemical materials utilizing a styrene monomer and processed by various techniques including fusioning polymer spheres (expanded bead polystyrene), injection molding, foam molding, and extrusion-blown molding (extruded foam polystyrene).

Fleet: University-owned or operated vehicles and mobility equipment (e.g., passenger vehicles, trucks, vans, shuttles, agricultural vehicles, marine equipment, etc.) including vehicles operated under contract with the University and for which the University/Campus maintains operational control.

Foodservice: Dining establishments such as cafeterias, restaurants, cafes, retail stores, or similar places in which food or drink is stored, prepared, packaged, served, or sold for consumption on premises or elsewhere. This includes locations that administer meal plans. Health location foodservice is defined as cafeterias.

Foodware Accessory Items: all types of items usually provided alongside food in containers and cups, including utensils, chopsticks, napkins, cup lids, cup sleeves, food or beverage trays, condiment containers and saucers, straws, stirrers, and toothpicks.

Foodware: products that are used to serve or transport food or beverages, including cups, bowls, plates, and hinged containers, as well as accessory items (see above definition). This does not include prepackaged, sealed food that is mass-produced by a third party vendor off the premises for resale at University locations (e.g., grab-and-go items, such as prepackaged sandwiches and snacks resold in campus stores)

Green Lab Assessment Programs: A program that works with individual laboratories and researchers to inform, collect best practices, and assess areas for improvement in research efficiency, including engagement, and targeted initiatives around efficiency in natural resources and other environmental issues. This assessment program could be based on the My Green Labs (MGL) Systemwide Checklist or another similar tool. The MGL checklist was developed based on best practices from several UC campuses as well as the expertise of My Green Lab

Gross Square Foot: Pursuant to the definition in the Facilities Inventory Guide (Appendix C, page C.19), 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."

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

Leadership in Energy and Environmental Design (LEED)^{TM}: 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 Interior Design and Construction (LEED-ID+C) for renovation projects;

> LEED for Building Operations and Maintenance (LEED-O+M) for the ongoing operational and maintenance practices in buildings; and,

> LEED for Building Design and Construction (LEED-BD+C) for new buildings and major renovations of existing buildings.

Locally Compostable: Products that can be composted in the local facilities that provide service to the campus. Acceptable products will vary by facility. Locally compostable may include but is not limited to products made of plastic, paper, wood, and bamboo. Compostable products must meet the criteria outlined in the Sustainable Procurement Guidelines.

Locally Recyclable: Products that can be recycled by the local facilities that provide service to the campus. Acceptable products will vary by facility.

Location: As used in this Policy, means all UC campuses, health locations, 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, medical waste or other material used as Alternative Daily Cover (ADC); however, it does include construction and demolition waste, diverted recyclables and organic waste. Non-health location waste targets refer to municipal solid waste only. Health Locations waste targets use the Practice Greenhealth definition of "Total Solid Waste," see section III.J.

Organic: As defined by CalRecycle, material containing carbon and hydrogen. Organic material in municipal solid waste includes the biomass components of the waste stream as well as hydrocarbons usually derived from fossil sources (e.g., most plastics, polymers, the majority of waste tire components, and petroleum residues).

Packaging Foam: Any open or closed cell, solidified, polymeric foam used for cushioning or packaging, including: Ethylene-vinyl acetate (EVA) foam, Low-density polyethylene (LDPE) foam, Polychloroprene foam (Neoprene), Polypropylene (PP) foam, Polystyrene (PS) foam (including EPS, extruded polystyrene foam (XPS) and polystyrene paper (PSP)), Polyurethane (PU) foams, Polyethylene foams, Polyvinyl chloride (PVC) foam, and Microcellular foam. Not included are easily biodegradable, plant-based foams such as those derived from corn or mushrooms.

Partner for Change: An award given through Practice Greenhealth's Environmental Excellence Awards program that recognizes health care organizations that have implemented a significant number of environmental programs and who can demonstrate continuous improvement and expansion of these programs on the path to sustainability.

Plant-Based Foods: As defined by the Culinary Institute of America's Menus of Change program, these include fruits and vegetables (produce); whole grains; beans; other legumes (pulses), and soy foods; nuts and seeds; plant oils; herbs and spices; simple combinations of these foods and their derivatives, and vegetarian/vegan alternatives to meat and dairy.

Plant-Forward: As defined by the Culinary Institute of America's Menus of Change program, this represents a style of cooking and eating that emphasizes and celebrates, but is not limited to, plant-based foods—including fruits and vegetables (produce); whole grains; beans, other legumes (pulses), and soy foods; nuts and seeds; plant oils; and herbs and spices—and that reflects evidence-based principles of health and sustainability. Often used synonymously with "vegetable-centric," "vegetable-forward," and "plant-centric."

Plastic Bags: a carryout bag, regardless of the thickness of the material, made of plastic that is provided by a store or foodservice facility to a customer at the point of sale to hold customer's purchases. This does not include bags that are locally compostable.

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

Practice Greenhealth: The leading membership and networking organization for sustainable health care, delivering environmental solutions to hospitals and health systems across the United States.

Preferred Level Green Spend: The amount spent on products meeting the UC Preferred Level of environmental sustainability criteria as laid out in the UC Sustainable Procurement Guidelines.

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 Energy: 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 by the California Energy Commission (Renewables Portfolio Standard Guidebook).

Required Level Green Spend: The minimum spend that meets sustainability criteria required for a product or service category. For Required Level Green Spend criteria see the UC Sustainable Procurement Guidelines.

Research Group: When counting the laboratories assessed via a green lab assessment program, a laboratory will be counted as a research group rather by physical rooms. As defined in the Laboratory Hazard Assessment Tool, (LHAT) this group includes the workers that report to one Principal Investigator (PI) or Responsible Person. While some PI's may have multiple groups, one assessment for the purposes of this Policy will include all the people working under one PI or Responsible Person, and all of the rooms they occupy or share, and field sites, if any. Total number of PI's and Responsible People will be tracked according to LHAT or a similar tracking method at campuses not using LHAT. LHAT includes research and teaching laboratories.

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.

Single-Pass Cooling: Single-Pass or once-through cooling systems flow water through a piece of equipment to absorb heat and dispose the water down the drain without recirculation. Replacing and managing these types of systems is a recommended best practice by the International Institute for Sustainable Laboratories (I²SL), US Office of Energy Efficiency & Renewable Energy, and the EPA. Equipment typically using this type of cooling includes hydraulic equipment, distillation condensers, refrigeration condensers, air compressors, vacuum pumps, electron microscopes, mass spectrometers, lasers, helium recovery, and electro-magnets.

Single-Occupancy Vehicle (SOV): A vehicle driven by a single driver with no passengers. SOV percentages may separate the percentage of vehicle trips occurring

in zero- or low-emission vehicles from carbon-fuel vehicles (e.g., SOV-standard fuel and SOV-alternative fuel).

Solicitation: The process of seeking information, bid proposals, and quotations from suppliers.

Sustainability Tracking, Assessment and Rating System (STARS): A transparent, self-reporting framework for colleges and universities to measure their sustainability performance. STARS provides a framework for understanding sustainability in all sectors of higher education through using a common set of measurements that enables meaningful comparisons over time and across institutions.

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 Food: Food and beverage purchases that meet the AASHE STARS Technical Manual's requirements for sustainably and ethically produced food for campuses and Practice Greenhealth's sustainable food for health locations.

Sustainable Procurement: Modified from the UK Government's Sustainable Procurement Task Force (2012) Purchasing that takes into account the economic, environmental, and socially responsible requirements of an entity's spending. Sustainable Procurement allows organizations to procure their goods and services in a way that achieves value for money on a whole-life basis in terms of generating benefits not only to the organization but also to society and the economy, while remaining within the carrying capacity of the environment.

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.

Takeback program: A program that allows customers to return used products or materials to either the producer or distributor for responsible re-use or recycling consistent with applicable state and federal laws. These programs encourage responsible design for disassembly and recyclability, and protect the environment by keeping bulky or toxic products and packaging out of the waste stream.

Transportation Demand Management(TDM): 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.

Total Cost of Ownership (TCO): An analysis of cost that considers not only purchase price, but also any costs associated with the acquisition, use, and disposal of the product. These costs may include some or all of the following: freight, taxes and fees, installation, operation/energy use, maintenance, warranty, collection, end-of-life disposal or recycling, as well as social or environmental costs, such as the cost of purchasing pollution offsets or monitoring labor practices.

UC Green Laboratories Action Plan: A document created with the goal of setting campus-specific targets, documenting the strengths and areas for improvement within sustainable operations of research laboratories via gap analysis, and outlining actions that can be implemented to further targets.

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.

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

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.

Weighted Campus User (WCU): As defined in the current AASHE STARS Technical Manual. This calculation applies only to campuses and not to health locations or LBNL.

Zero-emissions vehicle (ZEV): As defined by the California Air Resources Board (CARB) ZEV program standards, a vehicle that emits no tailpipe pollutants (e.g., criteria air pollutants, precursors, or greenhouse gases) from the onboard source of power under any possible operational modes or conditions. Common examples include battery electric and fuel cell vehicles.

Zero waste: The University zero waste goal is made up of incremental waste reduction and waste diversion targets. The University recognizes the attainment of reduction goals stated in this Policy and a 90% diversion of municipal solid waste as minimum compliance standard to be defined as a zero waste for locations other than health locations.

III.   POLICY TEXT

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. The goals outlined throughout these policy and procedures sections shall be applied within the constraints of research needs and budgetary requirements and in compliance with safe operating practices and all applicable rules, regulations and laws. Policy goals are presented below in twelve areas of sustainable practices.

A. Green Building Design

1. New Buildings

   a. All new building projects, other than acute care facilities, will be designed, constructed, and commissioned to outperform the California Building Code (CBC) energy-efficiency standards by at least 20% or meet the whole-building energy performance targets listed in Table 1 of Section V.A.1. The University will strive to design, construct, and commission buildings that outperform CBC energy efficiency standards by 30% or more, or meet the stretch whole-building energy performance targets listed in Table 1 of Section V.A.1, whenever possible within the constraints of program needs and standard budget parameters.

   b. Acute care/hospital facilities and medical office buildings will be designed, constructed, and commissioned to outperform ASHRAE 90.1 - 2010 by at least 30% or meet the whole-building energy performance targets listed in Table 2 in Section V.A.1.

   c. No new building or major renovation that is approved after June 30, 2019, will use onsite fossil fuel combustion (e.g., natural gas) for space and water heating (except those projects connected to an existing campus central thermal infrastructure). Projects unable to meet this requirement will document the rationale for this decision, as described in Section V.A.1.d.

   d. 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.

   e. The University of California will design, construct, and commission new laboratory buildings to achieve a minimum of LEED "Silver" certification. Design, construction, and commissioning processes will strive to optimize the energy efficiency of systems not addressed by the CBC energy efficiency standards.

   f. All new building projects will achieve at least two points within the available credits in LEED-BD+C's Water Efficiency category (in support of section III.I.) and prioritize earning waste reduction and recycling credits (per section V.F.)

2. Building Renovations

   a. Major Renovations of buildings are defined as projects 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) will at a minimum comply with III.A.1.d. or III.A.1.e. Such projects will outperform CBC Title 24, Part 6, currently in effect, by 20%. This does not apply to acute care facilities.

   b. Acute care facilities and medical office buildings undertaking major renovations, as defined above, will outperform ASHRAE 90.1- 2010 by 30%.

   c. Renovation projects with a project cost of $5 million or greater (CCCI 5000) that do not constitute a Major Renovation as defined in item III.A.2.a. will at a minimum achieve a LEED-ID+C Certified rating and register with the utilities' Savings by Design program, if eligible. This does not apply to acute care facilities.

B. Clean Energy

In support of the climate neutrality goals outlined in Section C of this Policy, the University of California is committed to reducing its greenhouse gas emissions by reducing energy use and switching to clean energy supplies.

1. Energy Efficiency

Each location will implement energy efficiency actions in buildings and infrastructure systems to reduce the location's energy use intensity by an average of least 2% annually.

2. On-campus Renewable Electricity

Campuses and health locations will install additional on-site renewable electricity supplies and energy storage systems whenever cost-effective and/or supportive of the location's Climate Action Plan or other goals.

3. Off-campus Clean Electricity

By 2025, each campus and health location will obtain 100% clean electricity. The UC Clean Power Program will provide 100% clean electricity to participating locations.

4. On-campus Combustion

By 2025, at least 40% of the natural gas combusted on-site at each campus and health location will be biogas.

C. Climate Protection

1. Greenhouse Gas Emissions

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

a. Achieve climate neutrality from scope 1 and 2 sources by 2025

b. Achieve climate neutrality from specific scope 3 sources (as defined by Second Nature's Carbon Commitment) by 2050 or sooner

c. Maintain greenhouse gas (GHG) emissions at or below 1990, pursuant to the California Global Warming Solutions Act of 2006.

For purposes of this section, campuses will include their related health location for all goals. GHG emissions reduction goals pertain to emissions of the six Kyoto greenhouse gasses (carbon dioxide, methane, nitrous oxide, sulfur hexafluoride, hydrofluorocarbons, and perfluorocarbons) originating from all scope 1 and scope 2 sources as specified by the Climate Registry, and from scope 3 emissions as specified by Second Nature's Carbon Commitment, which

includes air travel paid through the institution; and commuting to and from campus by students, faculty and other academic appointees, and staff. These goals will be pursued while maintaining the research, education, and public service missions 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 or participation in the CARB Cap-and-Trade Program will perform to those regulatory requirements.

2. Offsets

   a. The University will prioritize direct reductions of its covered scope 1, 2, and 3 emissions. This Policy does not require the University, as a system and as individual campuses and units, to purchase carbon offsets to meet their carbon neutrality goals; instead, it sets priorities and minimum standards if they decide to purchase offsets. In meeting the UC Sustainable Practices Policy climate goals as outlined in section III.C., the University will use offsets as a transitional strategy, while implementing all feasible reductions in its scope 1, 2, and 3 emissions. The University will reevaluate and update section III.C and V.C of the Sustainable Practices Policy by 2025.

   b. The University will only use high-quality offset credits to meet its climate protection goals, beyond its requirements under California's cap-and-trade program, and will draw on the University's academic capacity to vet the quality of all voluntary offset credits it uses.

   c. To align its voluntary offset program with its research, education, and public service mission, the University will choose offset projects that demonstrate or advance scalable climate solutions aligned with a path towards deep decarbonization; prioritize projects that advance University research and support student education; prioritize projects with health and social justice benefits, and benefits to the UC community and communities surrounding the campuses; and prioritize projects with the potential for climate benefits well beyond the credited reductions, recognizing the urgency of near-term reductions. The University will analyze the ecological, health, social, and human rights impacts of its offset decisions to avoid negative outcomes for low-income communities, communities of color, and other marginalized populations, and to prioritize projects that benefit these communities.

   d. The University will develop and implement its voluntary offset procurement strategy in a way that advances understanding of, and models, how institutions of higher education and in other sectors can use offsets as an effective climate mitigation strategy aligned with their institutional mission.

D. Sustainable Transportation

The University will implement transportation programs and greenhouse gas (GHG) emission reduction strategies that reduce the environmental impacts from

commuting, fleet and business air travel related to achieving the Climate Protection section of this Policy (see Section III.C.).

1. Each location will reduce GHG emissions from its fleet and report annually on its progress. Locations will implement strategies to reduce emissions from University-owned or operated fleet vehicles to align with UC's 2025 carbon neutrality goals (as defined in the Climate Protection sections of this Policy). Carbon neutral fleets can be achieved if vehicles produce no tailpipe emissions, use a clean transportation fuel, and/or if carbon offsets are purchased.

   To support this goal, each location will ensure that:

   a. After July 1, 2023, zero-emission vehicles, plug-in hybrid, or dedicated clean transportation fueled vehicles will account for at least 50% of all vehicle acquisitions (including both leased and purchased vehicles).

   b. All sedans and minivan acquisitions will be of zero-emission or plug-in hybrid vehicles, except for public safety vehicles with special performance requirements.

   c. In applications where zero-emission vehicles are not available, regardless of vehicle size class, the use of clean transportation fuels and other low-emission fuels will be prioritized

   Furthermore:

   d. Any carbon offsets purchased to meet the carbon neutrality goal will be coordinated with the location's Office of Sustainability, will support the location's overall carbon neutrality strategy, and will follow the guidelines laid out in the Climate Protection section of this Policy (see Section III.C.).

   e. Vehicle acquisitions plans should meet the State's goal (outlined in Executive Order N-79-20) that all new passenger cars and light-duty trucks (under 8,500 lbs.) acquired after January 1, 2035, and all medium-and heavy-duty vehicles acquired or operated after January 1, 2045, will be zero-emission.

   Lawrence Berkeley National Laboratory will follow federal fleet requirements in the case where federal and UC fleet requirements conflict.

2. The University recognizes that single-occupant vehicle (SOV) commuting is a primary contributor to commute-related GHG emissions and localized transportation impacts.

   a. By 2025, each location will strive to reduce its percentage of employees and students commuting by SOV by 10% relative to its 2015 SOV commute rates;

   b. By 2050, each location will strive to have no more than 40% of its employees and no more than 30% of all employees and students commuting to the location by SOV.

3. Recognizing that flexible work arrangements, including telecommuting, are a low-cost, effective way to reduce emissions and carbon footprint, each location should review and update local employee telecommute and flexible work policies,

guidelines, procedures, and other applicable documents to normalize and promote telecommuting options and other flexible scheduling, as aligned appropriately based on business needs.

4. Consistent with the State of California goal of increasing alternative fuel – specifically electric – vehicle usage, the University will promote purchases and support investment in alternative fuel infrastructure at each location.

    a. By 2025, each location will strive to have at least 4.5% of commuter vehicles be zero-emissions vehicles (ZEV).

    b. By 2050, each location will strive to have at least 30% of commuter vehicles be ZEV.

5. Each location will develop a business-case analysis for any proposed parking structures serving University affiliates or visitors to campus to document how a capital investment in parking aligns with each campus' Climate Action Plans and/or sustainable transportation policies.

E. Sustainable Building and Laboratory Operations for Campuses

1. Each campus will seek to certify as many buildings as possible through the LEED-O+M rating system, within budgetary constraints and eligibility limitations.

2. All campuses will maintain an ongoing Green Lab Assessment Program supported by a department on campus to assess the operational sustainability of research groups and the laboratories and other research spaces.

    a. At least one staff or faculty member from the campus must have the role of managing the Green Lab Assessment Program.

    b. Any green lab assessment programs and related efforts will adhere to all relevant UC, state and national policies and laws. Safety will never be compromised to accommodate sustainability goals.

    c. All campuses will maintain a UC Green Laboratories Action Plan.

F. Zero Waste

1. The University will achieve zero waste through prioritizing waste reduction in the following order: reduce, reuse, and then recycle and compost (or other forms of organic recycling) as described in section V.F.6. Minimum compliance for zero waste, at all locations other than health locations, is as follows:

    a. Reduce per capita municipal solid waste generation by:

        i. 25% per capita from FY2015/16 levels by 2025

        ii. 50% per capita from FY2015/16 levels by 2030.

    b. Divert 90% of municipal solid waste from the landfill.

2. The University supports the integration of waste, climate and other sustainability goals, including the reduction of embodied carbon in the supply chain through the promotion of a circular economy and the management of organic waste to

promote atmospheric carbon reduction. In support of this goal, waste reporting will include tracking estimated scope 3 greenhouse gas emissions.

3. The University prohibit the sale, procurement, or distribution of packaging foam, such as food containers and packaging material, other than that utilized for laboratory supply or medical packaging and products. The University seeks to reduce, reuse, and find alternatives for packaging foam used for laboratory and medical packaging products.

   a. No packaging foam or expanded polystyrene (EPS) will be used in foodservice facilities for takeaway containers.

   For implementation guidelines as they relate to the procurement of goods for University of California campuses, reference the University of California Sustainable Procurement Guidelines.

4. The University is committed to the reduction and elimination of single-use items in line with the University's and the State of California's Zero Waste goals and in recognition of the severe environmental impact single-use products have globally. In recognition of this commitment, locations will reduce single-use products by taking the following actions:

   a. Eliminate plastic bags in all retail and foodservice establishments in campus facilities or located on University owned land no later than January 1, 2021

   b. Replace disposable single-use plastic foodware accessory items in all foodservice facilities with reusables or locally compostable alternatives and provide only upon request no later than July 1, 2021

   c. Provide reusable foodware items for food consumed onsite at dine-in facilities and to-go facilities no later than July 1, 2022.

   d. Replace single-use plastic foodware items with reusable or locally compostable alternatives at to-go facilities no later than July 1, 2022

   e. Phase out the procurement, sale and distribution of single-use plastic beverage bottles. Non-plastic alternatives will be locally recyclable or compostable.

      i. Foodservice facilities will provide alternatives no later than January 1, 2023.

      ii. Locations are encouraged to prioritize the installation of water refill stations to support the transition from single-use plastics to reusables.

      iii. Locations will consider eliminating single-use plastic beverage bottles when contracting with suppliers, or upon contract renewal and/or extension if current contract terms prohibit (e.g., vending machines, departmental purchases, etc.).

   f. When selecting prepackaged, sealed food that is mass produced off premises and resold at University locations (e.g., grab-and-go items, such as chips, candy, prepackaged sandwiches, etc.), preference should be given in

contract award and negotiations to suppliers that utilize locally compostable or locally recyclable packaging options.

This Policy section (III.F.4.) also applies to third-party foodservice facilities that lease space or provide contracted services at locations. Locations will include these Policy provisions in lease language as new leases and contracts are negotiated or existing leases are renewed and work to incorporate these practices, as much as possible, within the timeframe of current leases. When procuring catering services, where possible, select providers that can provide alternatives to single-use plastics.

G. Sustainable Procurement

Recognizing the substantial impact that procurement decisions have on the environment, society, and the economy, the University of California will maximize its procurement of sustainable products and services. The goals outlined throughout these policy and procedures sections will be applied within the constraints of research needs and budgetary requirements and in compliance with all applicable rules, regulations, and laws.

1. The University values the health and wellbeing of its students, staff, faculty and other academic appointees, visitors, and suppliers. The University seeks to provide healthy and accessible conditions for the communities it serves, and this will be considered as a fundamental factor when making procurement decisions. Where functional alternatives to harmful products or impacts exist, they are to be strongly preferred.

2. Per III.F.1. the University prioritizes waste reduction in the following order: reduce, reuse, and then recycle. Accordingly, sustainable procurement will look to reduce unnecessary purchasing first, then prioritize the purchase of surplus or multiple-use products, before looking at recyclable or compostable products.

3. The University's sustainable purchasing requirements (detailed in the UC Sustainable Procurement Guidelines) are:

   a. 100% compliance with Required Level Green Spend criteria within three fiscal years of the addition of those products and/or product categories to the Guidelines.

   b. 25% Preferred Level Green Spend as a total percentage of spend per product category; target to be reached within three fiscal years after a category is added to the Guidelines.

   c. 25% Economically and Socially Responsible Spend as a total percentage of addressable spend; target to be reached within five fiscal years of adoption of this section in the Guidelines.

4. The University's sustainable purchasing reporting requirements are:

   a. Reporting on percent Preferred Level Green Spend beginning at the close of the first full Fiscal Year after a category is added to the Guidelines.

    b. Reporting on percent Economically and Socially Responsible Spend beginning at the close of Fiscal Year 2018/19.

5. Each University's Procurement department will integrate sustainability into its processes and practices, including competitive solicitations, to satisfy the sustainable purchasing goals outlined above for products, as well as for the procurement of services. The University will do so by:

    a. Allocating a minimum of 15% of the points utilized in solicitation evaluations to sustainability criteria. Criteria may include, but is not limited to, sustainable product attributes, supplier diversity, supplier practices, contributions to health and wellbeing, and materials safety. Exceptions to this Policy may only be granted by the appropriate Policy Exception Authority. Decisions to grant an exception will be made in the context of a location's need to support teaching, research and public service when there is a demonstrable case that the inclusion of a minimum of 15% of the points utilized in solicitation evaluation for sustainability criteria will conflict with the project teams' ability to execute a competitive solicitation.

    b. Supporting outreach, education, and providing equal access to small, diverse, and disadvantaged suppliers for all applicable University procurement opportunities in accordance with BUS-43 policy.

    c. Comparing the Total Cost of Ownership when evaluating costs for goods and services in the selection of suppliers, whenever feasible.[1]

    d. Targeting sustainable products and services for volume-discounted pricing to make less competitive or emerging sustainable products and services cost-competitive with conventional products and services.

    e. Leveraging its purchasing power and market presence to develop sustainable product and service options where not already available.

    f. Requiring packaging for all products procured by the University be designed, produced, and distributed to the end-user in a sustainable manner.

    g. Contracting with suppliers of products (e.g., electronics, furniture, lab consumables) that have established (preferably non-manufacturer specific) end-of-life reuse, recycling, and/or takeback programs at no extra cost to the University, and in compliance with applicable federal, state, and University regulations regarding waste disposal.

    h. Requiring sustainability-related purchasing claims to be supported with UC-recognized certifications and/or detailed information on proven benefits, durability, recycled content, and recyclability properties, in accordance with

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[1] Public Contract Code§ 10507.8 states: "As provided for in this article, when the University of California determines that it can expect long-term savings through the use of life cycle cost methodology, the use of more sustainable goods and materials, and reduced administrative costs, the lowest responsible bidder may be selected on the basis of the best value to the University. To implement this method of selection, the Regents of the University of California will adopt and publish policies and guidelines for evaluating bidders that ensure that best value selections by the University are conducted in a fair and impartial manner."

the [Federal Trade Commission's (FTC) Green Guides](#) for the use of environmental marketing claims.

    i.   Working with its suppliers to achieve greater transparency and sustainable outcomes throughout the supply chain. This may include maximizing the procurement of products that optimize the use of resources from extraction through manufacturing and distribution (e.g., EPA's SmartWay Program).

6.   All procurement staff will consult the UC [Sustainable Procurement Guidelines](#) document for minimum mandatory sustainability requirements to be included in solicitations for a given product or service category.

H. Sustainable Foodservices

1.   Campus and Health Location Foodservice Operations

    a.   Food Procurement

    Each campus foodservice operation will strive to procure 25% sustainable food products by the year 2030 as defined by AASHE STARS and each health location foodservice operation will strive to procure 30% sustainable food products by the year 2030 as defined by Practice Greenhealth, while maintaining accessibility and affordability for all students and health location's foodservice patrons.

    b.   Education

    Each campus and health location will provide patrons and foodservice staff with access to educational and training materials that will help support their food choices.

    c.   Menu Development

    Each campus and health location will strive to reduce greenhouse gas emissions of their food purchases through globally- inspired, culturally-acceptable plant-forward menus.

       i.   Campuses and health centers will establish a baseline and goal in 2020.

Progress will be tracked annually by reporting the percentage of plant- based foods procured beginning in 2021.

2.   Foodservice Operations in Leased Locations:

    a.   Foodservice operations leased in campuses and health locations owned by the University of California and contractors providing foodservices in campus and health locations will strive to meet the policies in III.H.1.a-c.

    b.   Campuses and health locations will include Section H of this Policy in lease language as new leases and contracts are negotiated or existing leases are renewed. However, campus and health 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

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. Locations will reduce growth-adjusted potable water consumption 20% by 2020, and 36% by 2025, when compared to a three-year average baseline of FY2005/06, FY2006/07, and FY2007/08. Locations that achieve this target early are encouraged to set more stringent goals to further reduce potable water consumption.

   a. Each campus will strive to reduce potable water used for irrigation by converting to recycled water, implementing efficient irrigation systems, planting drought-tolerant landscaping (including California native plants where feasible and appropriate), and/or by removing turf.

2. Each location will develop and maintain a Water Action Plan that identifies long term strategies for achieving sustainable water systems.

3. Each campus will identify once-through cooling systems, constant flow sterilizers, constant-flow autoclaves and other water-to-waste cooling systems. Each campus will develop and implement plans for eliminating or replacing these systems with recirculating systems, or other means of cooling that do not drain water to waste after one use.

4. New equipment requiring liquid cooling will be connected to an existing recirculated building cooling water system, new local chiller vented to building exhaust or outdoors, or to the campus chilled water system through an intervening heat exchange system, if available.

   a. Once-through or single-pass cooling systems will not be allowed for soft-plumbed systems using flexible tubing and quick connect fittings for short term research settings.

   b. If no alternative to single-pass cooling exists, water flow must be metered, automated and controlled to reduce water waste.

5. Required water efficiency measures applicable to building projects are outlined in Section A of this Policy on Green Building Design, New Building.

6. Guidelines for the sustainable procurement of water fixtures, as applicable, are listed in the UC Sustainable Procurement Guidelines.

J. Sustainability at UC Health

1. Health locations will achieve Practice Greenhealth's award "Greenhealth Partner for Change."

2. Health locations will achieve a target of 25lbs of total solid waste as defined by Practice Greenhealth per Adjusted Patient Day by 2025 and strive for 20lbs of total waste per Adjusted Patient Day by 2030. In meeting these goals, Health locations will follow the provisions as outlined in section F of this Policy on Zero

Waste, including limiting combustion and reducing the use of foam and single use products.

a. Practice Greenhealth defines total solid waste as municipal solid waste as well as all forms of regulated waste. This includes but is not limited to regulated medical waste, biohazardous waste, pharmaceutical waste, and universal waste. It does not include construction and demolition waste.

3. In line with campus targets, health locations will reduce growth-adjusted potable water consumption 20% by 2020 and 36% by 2025, when compared to a three-year average baseline of FY2005/06, FY2006/07, and FY2007/08.

4. Acute care/hospital facilities and medical office buildings in health locations will be designed, constructed and commissioned, or renovated as outlined in Section A of this Policy on Green Building Design.

5. Health locations will strive to procure 30% sustainable food products by the year 2030 as defined by Practice Greenhealth and outlined in Section H of this Policy on Sustainable Foodservices.

K. General Sustainability Performance Assessment

1. All undergraduate campuses must maintain a certified AASHE STARS report.

2. All campuses must achieve a Silver STARS rating and strive for Gold by 2023.

L. Health and Well-Being

Health, equity, and the environment, including climate, are deeply interconnected, thus health, inequity, and environmental and climate change require intersectoral and collaborative solutions. Healthful food, healthy buildings, and active transportation are just some examples in which health, sustainability, and equity are synergistic. The Healthy Campus Network (HCN) leadership will use a Health in All Policies[2] framework and broad stakeholder engagement to better address health inequities; to support a culture of health for all faculty, staff, and students; to foster community collaborations across the UC system and California; and to meet the policy goals outlined below.

1. By the end of 2022, the HCN will review the strengths and gaps in the UC Sustainable Practices Policy and make recommendations for integration based on:

a. Environmental and human health co-benefits,

b. Social, physical, and emotional well-being, and

c. Health equity.

2. By the end of 2021, the HCN will review and revise healthy vending goals with stakeholders to propose for inclusion in this Policy.

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[2] Rudolph, L., Caplan, J., Ben-Moshe, K., & Dillon, L. (2013). Health in All Policies: A Guide for State and Local Governments. Washington, DC and Oakland, CA: American Public Health Association and Public Health Institute

3. By the end of 2021, the HCN will review the chemicals of concern criteria detailed in the Sustainable Procurement Guidelines and make recommendations for the inclusion of specific Policy targets.

IV.   COMPLIANCE/RESPONSIBILITIES

A. Implementation

The Executive Vice President- Chief Financial Officer is the Responsible Officer for this Policy. The UC Sustainability Steering Committee, which is chaired by the Executive Vice President- Chief Financial Officer, provides oversight for all aspects of the Policy.

B. Revisions

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- Chief Financial Officer. Proposed previsions accepted by the UC Sustainability Steering Committee and the Executive Vice President- Chief Financial Officer will 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 and other academic appointees, administrators, and external representatives in further development and implementation of this Policy.

C. Compliance

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.

D. Reporting

On an annual basis, the President will report to the Regents on the University's sustainability efforts in each area of the Policy. Unless otherwise specified, reporting on progress on each section of this Policy will be to UCOP as part of the development of the [Annual Report on Sustainable Practices.](#)

V. PROCEDURES

A. Green Building Design

1. New Buildings and Major Renovations

   a. Projects will utilize the versions of the CBC energy efficiency standards and of LEED-BD+C that are in effect at the time of the first submittal of "Preliminary Plans" (design development drawings and outline specifications) as defined in the State Administrative Manual.[3]

   b. If eligible, all new buildings and major renovations (as defined in III.A) will register with the Savings By Design program to document compliance with the requirement to outperform CBC energy efficiency standards by at least 20%.

   c. Projects other than acute care facilities that opt to use energy performance targets for compliance with III.A.1.a. will at a minimum use the whole-building energy performance target listed below that corresponds to the year of the project's budget approval.

      i. The whole-building energy performance target is expressed as a percentage of the sum of the Annual Electricity and Annual Thermal targets (converted to kBtu/gsf-yr) as developed for UC Building 1999 Energy Benchmarks by Campus, in Sahai, et al. 2014 and updated with a new "100% Lab Space" use type in the spreadsheet 2016 Whole-Building Quantitative Energy Performance Targets (2020 update).[4]

Table 1

Calendar Years	Compliance Target	Stretch Target
2015-16	65%	50%
2017-18	60%	45%
2019-20	55%	40%
2021-22	50%	35%
2023-24	45%	30%
2025 or after	40%	25%

   d. Projects will report their target energy use and how much they anticipate exceeding the CBC energy-efficiency standards (campuses), ASHRAE 90.1 - 2010 (Health Locations), or the UC Building Benchmarks at plan phase (P-Phase) approval. This information will be confirmed with modeled energy

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[3] The State Administrative Manual is a reference source for statewide policies, procedures, regulations and information developed and issued by authoring agencies such as the Governor's Office, Department of General Services , Department of Finance , and Department of Personnel Administration.

[4] The "UC Building 1999 Energy Benchmarks by Campus" and "2016 Whole-Building Quantitative Energy Performance Targets (2020 update)" documents can be found in the Green Building section of the UC Sustainability website.

estimates, at approval of the start of construction (completion of the W-Phase). Final efficiency will be reported at closeout (generally a year after the building has been occupied).

e. Decisions affecting energy efficiency, fossil fuel use, and connection to existing central thermal services will be made in the context of the location's climate action plan. Where on-site fossil fuel combustion within the building is deemed necessary, the rationale for this decision will be documented as part of the existing project approval process. The submittal should include the following:

  i.   An estimate of annual electricity and gas use for the project as well as the project's target design energy use in thousand British thermal units (kBtu) per square foot.

  ii. An explanation of why fossil fuel combustion is required for the project and what other alternatives were evaluated.

  iii. An analysis explaining why fossil-fuel combustion is the most cost-effective energy source for the identified project-specific applications.

  iv. A plan to mitigate, by 2025, the associated greenhouse gas emissions in accordance with the location's Climate Action Plan.

  This documentation is part of the broader project approval process and does not require separate UCOP approval. Draft information should be submitted prior to budget approval as part of a Project Planning Guide, Delegated Authority Project Certification Checklist or related ancillary document. This information should be updated prior to design approval.

f. Acute care facilities and medical office buildings opting to use energy performance targets for compliance with III.A.1.c. will at a minimum use the whole-building energy performance target listed in table 2 below. The whole-building energy performance target is expressed as a percentage of the sum of the Annual Electricity and Annual Thermal targets (converted to kBTU/gsf-yr) based on ASHRAE (2012) Advanced Energy Design Guidelines for Large Hospitals.

Table 2

	Acute Care			Medical Office Buildings		
	Benchmark Average	Target	Stretch Target	Benchmark Average	Target	Stretch Target
UC Davis Health	230	160	115	85	60	43
UC Irvine Health	230	160	115	80	56	40
UCLA Health	230	160	115	80	56	40
UC San Diego	230	160	115	80	56	40
UC San Francisco Health	230	160	115	80	56	40

g. Locations will demonstrate compliance based on the results of energy modeling that represents a best estimate of as-operated, whole-building energy use, before accounting for on-site energy generation. Targets are intended to be verifiable in actual operation following building occupancy.

Projects are also required to model and report on the following metrics:

- annual electricity consumption (kWh/gsf/yr)
- annual thermal consumption (therms/gsf/yr)
- peak electricity (W/gsf)
- peak chilled water (tons/kgsf) (if applicable)
- peak thermal (therms/hr/kgsf)

The following very high-intensity process loads may be subtracted out of the total building energy use intensity if they can be metered separately.

- Clean room
- Data center
- Micro-chip fabrication
- Accelerator (e.g., laser, light source)
- Bio-safety level III Laboratory
- Magnetic Resonance Imaging (MRI)
- Positron Emission Tomography (PET)
- Computer Tomography (CT)
- Pharmacies

If a building has more than 6 Operating Rooms (ORs), additional ORs (defined as any ORs beyond the baseline of 6 ORs) may be subtracted out of total building energy use intensity if they meet the following two requirements:

  i. OR heating, ventilation and air conditioning (HVAC) is metered separately; and,

  ii. A commitment is made by an appropriate official within the hospital's administration to implement an OR HVAC setback program in the subtracted ORs.

h. 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.

2. Privatized Development

a. All privatized development of New Buildings or Major Renovations on University-owned land that is constructed in whole or in substantial part for University-related purposes (i.e., in furtherance of the University's mission, both programmatic and auxiliary uses), and build-to-suit projects not on University-owned land constructed for University-related purposes, will comply with section III.A. of this Policy. 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).

3. Building Renovations

a. At budget approval, all renovation projects should include a listing of sustainable measures under consideration.

b. 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 will strive to comply with the appropriate Policy requirements in III.A.2.

4. Waiver Conditions Applicable to all Projects

a. Waivers will only be granted in exceptional circumstances and will not be considered if the project negatively impacts the ability to comply with the goals of this Policy, in particular the goal of achieving carbon neutrality by 2025.

b. Any proposed waiver from section III.A of the Policy may be requested administratively from the UCOP Executive Director of Capital Programs prior to first project approval.

c. New Building and Major Renovation projects applying for an exception from section III.A.1.d. 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 will submit a request for an exception with a LEED scorecard and supporting documentation to the UCOP Executive Director of Capital Programs, showing the credits that the project would achieve.

d. Such waiver requests will indicate the applicable section of the Policy and/or Procedures; the proposed solution; and demonstrate equivalency with Policy intent.

5. General/Miscellaneous

   a. The University will develop a program for sharing best practices.

   b. 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.

   c. The University planning and design process will include explicit consideration of life cycle 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.

   d. The University will work closely with the USGBC, I²SLthe 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. Energy Efficiency: The energy efficiency goal follows the spirit of the US Department of Energy's Better Building Challenge. Each location's percent reduction in energy use intensity (EUI) will be reported annually based on the sum of weather-adjusted energy use divided by the sum of the maintained gross square footage (OGSF50). The average annual reduction will be calculated using an established baseline as detailed in the UC EUI Tracking Methods and References. UCOP will use energy usage data from the systemwide purchased utility database for reporting campus energy use intensity, based on the campus-specified set of utility accounts and associated maintained gross square footage. Electric and gas site energy will be converted to kBTU and normalized for weather. Policy goals will be evaluated and adjusted as appropriate following the 2025 reporting year.

2. On-campus Renewable Energy

   a. 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 regularly.

   b. Locations will periodically evaluate the feasibility of new on-site renewable electricity projects. The financial evaluation of these projects will fully account for the anticipated avoided costs associated with decreased on-site power production from combined heat and power plants and/or purchased electricity as well as the avoided cost of carbon.

3. Off-campus Clean Electricity

   a. Clean electricity is defined as having a residual greenhouse gas emission factor that is less than 150 lbs. CO_2/MWh.

   b. Clean electricity will be procured through the following methods and reported on annually:

      i. A location may opt-in to a utility provided green power program for its purchased electricity that meets the definition of clean electricity specified in V.B.3.a.

      ii. The UC Clean Power Program, which will procure and supply to participating campuses 100% clean electricity.

      iii. Those locations without access to a green power program may purchase Renewable Energy Credits (REC) to offset purchased electricity. To be counted, such RECs will be transferred to UC or retired on behalf of UC.

4. Where feasible, the University will seek to benefit from the economies of scale and to reduce risk by developing a portfolio for systemwide clean energy procurement contracts from which locations may benefit.

5. On-campus Combustion

   a. The University will develop and procure biogas supplies under the direction of the Energy Services Unit Governing Board (The Governing Board). The Governing Board will establish acceptable pricing for biogas projects and determine how the biogas will be allocated to each location. Locations may also implement local projects to directly transport biogas to the location.

C. Climate Protection

1. Each campus will maintain individual membership with [The Climate Registry](#) (TCR).[5] Campuses will include their health locations in their membership.

2. Each campus will complete a Greenhouse Gas (GHG) emissions inventory annually. Campuses will include their health locations in their inventories.

3. To comply with TCR and the Second Nature Carbon Commitment requirements,[6] inventories should contain emissions of the six Kyoto greenhouse gasses from scope 1 and 2 emission sources outlined in the TCR General Reporting Protocol; and scope 3 emissions sources outlined by the Second Nature Carbon Commitment's Implementation Guide. All UC campuses will report their updated emissions inventories through the Second Nature Carbon Commitment online reporting tool at least biennially. Campuses must verify all emissions inventories through TCR. Campuses may either pursue verification annually (for the previous

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[5] The Climate Registry 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.

[6] The Second Nature Carbon Commitment requirements are outlined at [Second Nature: The Presidents' Climate Leadership Commitments](#).

year's emissions inventory) or biennially (for the emissions inventories from the previous two years).

4. Campuses subject to the United States Environmental Protection Agency (USEPA) Greenhouse Gas Reporting Program, California Air Resources Board (CARB) Mandatory Greenhouse Gas Emissions Reporting, or participation in the CARB Cap-and-Trade Program will complete the relevant emissions inventories outlined in the USEPA and CARB reporting protocols.

5. Each campus will regularly update its climate action plan for (a) maintaining GHG emissions at or below 1990 levels ; (b) achieving climate neutrality for scope 1 and 2 sources by calendar year 2025 (annual 2025 emissions reported in 2026); (c) achieving climate neutrality for the Second Nature Carbon Commitment-specified scope 3 sources (as defined by Second Nature's Carbon Commitment) for calendar year 2050 (annual 2050 emissions reported in 2051); and, (d) climate action planning will integrate environmental justice, adaptation, and resilience. This will include an annual review and update, if needed, of the GHG reduction strategies reported by the campus to the UC Office of the President (UCOP). Campuses will include their health locations in the action plan.

6. Each campus will complete an assessment of Scope 1 emissions from natural gas combustion by 2035 or at the date when that location's combined heat & power plant (or any other major fossil fuel-using campus infrastructure) is planned for capital renewal or major repair, whichever occurs first. The assessment should determine the best pathway, at that point, to decarbonize 80% of scope 1 emissions through means other than offsets. A de-carbonization assessment should evaluate, but is not limited to, (1) progress toward de-carbonization of piped gas, (2) the feasibility of installing on-site carbon capture, (3) electrification of carbon-emitting plant equipment, (4) hydrogen or synthetic methane injection, (5) emergent technologies, and (6) energy efficiency directed at Scope 1 footprint reductions. The assessment should be provided to campus leadership and inform each campus's Climate Action Plan.

7. 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.

8. The CCWG will develop protocols for growth adjustment, data normalization, and accurate reporting procedures, as required.

9. The University will use only high-quality carbon offsets to meet its climate protection goals beyond its requirements under California's cap-and-trade program. High-quality offsets represent real, additional, quantifiable, durable, and

enforceable emissions reduction or carbon removal, that have undergone third-party verification.[7]

   a. For the purposes of this section, offsets are considered:

      i. Additional if the credited reductions would not have occurred were it not for the offset program or the University's climate protection policy. Additionality can be assessed for an individual project or for a project type

      ii. Durable if there is a very high likelihood that they will remain out of the atmosphere for 40 years on-site or through commitments to replace credits.

      iii. Enforceable if the University is able to reasonably ensure that its quality standards are met.

   b. The University recognizes that not all offset credits available for purchase from projects registered in the major offset registries represent high-quality emissions reductions.

   c. The University will evaluate the quality of each offset project it uses, involving a peer review process overseen by the Carbon Abatement Technical Committee (CATC). The CATC will be made up of at least one representative from each University of California campus, LBNL, Office of the President, and at least one student and one faculty member representative from the University. This review will include evaluating individual projects, or types of projects, against the University's offset quality criteria by appropriate experts. Peer review is in addition to third-party verification.

   d. Credits are considered to be real if the quantity of credits generated and used by a project, or a project type, does not exceed conservative estimates of the actual effect of the project, or the set of projects of the project type, on emissions. When there is uncertainty in emissions reduction/removal estimates, estimates are conservative when they are more likely to under-represent than to over-represent actual emissions reductions/removals achieved. Evaluations will take into account the following factors as detailed in the UC Offset Procurement Guidelines: project additionality, conservativeness of methods used to estimate emission reductions including the baseline, and effects outside of project boundaries such as through leakage.[8]

   e. The results of these evaluations, including quantitative assessments of credit quality and justifications for the assumptions and determinations made, will be

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[7] Third-Party Verification will involve an audit of offset project eligibility or claimed reductions or removals against an approved methodology by an independent party.

[8] An offset project results in leakage when it reduces an activity, in turn causing that activity, and the associated emissions, to shift location to somewhere outside of the offset project boundaries. For example, a project that increases forest carbon by reducing timber harvesting can result in increased harvesting on other forestlands to meet timber demand.

released publicly for all offset projects or project types the University uses to meet its climate targets.

f. The CATC will develop and maintain additional criteria, guidelines, and procedures for evaluating offset projects against the University's quality and mission criteria in the UC Offset Procurement Guidelines to be published in 2022.

g. The University recognizes the quality and mission benefits of implementing its own offset projects. UC-initiated offset projects give the University greater knowledge about the project with which it can ensure the projects' additionality and have confidence in the emission reduction estimates. UC-initiated offsets can also support the University's mission by researching, testing, and refining climate mitigation solutions and supporting student education which can have climate mitigation benefits far beyond the reduction from the credited offset project. The University system and its individual campuses and units will prioritize offset projects with active University involvement.

h. Decisions affecting offset procurement will be made in the context of the location's climate action plan while following the offset requirements set forth in this Policy.

D. Sustainable Transportation

1. The Sustainable Transportation Working Group, with input from the Climate Change Working Group, will develop normalized data reporting protocols to track progress on the implementation of sustainable transportation programs. Annually, each location will collect and report:

   a. Fleet efficiency metrics: fleet fuel consumption, total vehicle inventory, and total number and percent of new ZEV fleet acquisitions.

   b. Commute data: employee and campus-wide mode split, including telecommute and compressed week, average vehicle ridership (AVR), and percent of commuter alternative fuel vehicles including ZEVs.

      i. Average vehicle ridership is calculated by dividing all person trip arrivals by private vehicle trips, with adjustments for telecommuting, compressed work weeks, and zero-emission vehicles (based on the South Coast Air Quality Management District's methodology).

   c. Number and type of alternative fuel infrastructure (e.g., electric vehicle charging stations, natural gas, etc.).

2. Due to the unique characteristics of each campus' fleet management protocols, each location will:

   a. Develop a Fleet Sustainability Implementation Plan by January 1, 2022, to document the infrastructure and financial needs to implement a low-carbon fleet program and lower campus fleet carbon emissions through 2025.

b. Implement practical measures to improve fleet emissions, including, but not limited to, managing vehicle fleet size, eliminating non-essential vehicles, purchasing the cleanest and most efficient vehicles and fuels, and investing in clean bus operations.

c. Establish a local process for centralized review and approval of vehicle acquisitions to ensure that those acquisitions comply with this Policy, that non-compliant acquisitions are operationally and financially justified, and that locations take advantage of opportunities to improve fleet utilization and efficiency.

3. Explore partnerships with local agencies, including the Department of Energy's Clean Cities program, on opportunities to improve sustainable transportation access to and around University facilities in addition to developing its own transportation programs.

4. Each location will implement parking management and pricing strategies to support emissions reduction, trip reduction, and sustainable transportation goals, including variable pricing and unbundling parking and housing costs.

5. The University will pursue strategic programs and data collection to offset greenhouse gas emissions related to commutes and business-related campus air travel. The Sustainable Transportation and Climate Change Working Groups will set an interim emissions reduction target for transportation-related scope 3 emissions.

6. The Sustainable Transportation Working Group will support central and local Human Resource Offices, and other key stakeholders, in developing systemwide best practices guidance on telecommuting, flexible work schedules, and other alternative work arrangements. Any recommendations should take into consideration issues surrounding costs, savings, challenges, and equity.

7. This Policy will be consulted for all new campus development – including acquisitions and leases – to evaluate how the development or acquisition would meet the transportation policies and goals of the campus and University.

8. The Sustainable Transportation Working Group will regularly update the systemwide best practices guide for implementing this Policy and take steps to implement the best practices identified throughout the UC system. Mechanisms for reducing transportation emissions include, but are not limited to:

a. Constructing additional on-campus housing (e.g., student housing and temporary housing for new faculty)

b. Expanding transportation demand management (TDM) programs: car share, carpool/rideshare, vanpool, shuttles, transit, bicycle circulation system, pedestrian circulation system, emergency rides home, parking management and pricing, employee service, and retail amenities, etc.

c. Expanding intra-campus transportation programs such as shuttles, car share, bike share, bicycle, and pedestrian infrastructure, etc.

    d. Encouraging flexible work schedules and/or telecommuting programs to provide alternative commute flexibility and options in accordance with local practices.

    e. Replacing fleet vehicles with newer, more fuel-efficient vehicles when ZEV are not available

    f. Rightsizing fleets (determining the appropriate fleet size, revising business practices to reduce the need for travel)

    g. Reducing overall fleet miles traveled

    h. Increasing use of fuels with lower GHG emissions

    i. Installation of telematics and GPS to measure and help reduce fuel consumption by monitoring and reducing excessive idling and speeding.

E. Sustainable Building and Laboratory Operations for Campuses

1. The University will incorporate the Sustainable Building and Laboratory 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-O+M rating system and the USGBC's "Application Guide for Multiple Buildings and On-Campus Buildings."

3. Campuses will use the LEED-O+M certification process to advance the University's educational and research mission by using the buildings as living, learning laboratories.

4. Campuses will assess at least three new research groups through their Green Lab Assessment Program .

5. Campuses will maintain a UC Green Laboratories Action Plan determine strengths and areas for improvement within the operations of research laboratories with respect to sustainability and carbon neutrality. A standard template for this with required sections will be maintained and updated by the Sustainable Building and Laboratory Operations Working Group and this plan will be updated every four-years (2018, 2022, 2026 and so on).

6. Each campus will report annually on their Green Labs program progress, including the number of researchers directly and indirectly engaged by the program each year.

F. Zero Waste

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 will be prioritized in seeking LEED credits for LEED-BD+C, LEED-ID+C, and LEED-O+M projects.

3. By the end of 2018, locations other than health locations will submit new waste management plans, including planned waste reduction strategies. Plans will include campus and regional waste management practices and options, evaluate progress towards Policy goals, and determine the associated costs of achieving Policy goals. Waste management plans will be updated and submitted to the Office of the President's Associate Vice President of Capital Programs, Energy and Sustainabilityevery five-years.

   a. The 2023 updates to locations' waste management plans will identify the next steps to take (including costs, responsible parties, etc.) towards eliminating non-essential single-use plastics by 2030 and assess other opportunities for eliminating other single-use products. The findings of these assessments will be used to recommend changes and additions to section III.F.4. of this Policy, no later than July 1, 2024.

4. In line with the objective to minimize the use of single-use products (Section III.F.4), all locations will,

   a. Create a local implementation procedure that includes the delineation of an exception/exemption protocol (i.e., identifying campus authority, implementation authority, etc.) for cases where reasonable alternatives to plastic do not exist. Key stakeholders could include sustainability, dining, athletics, event services, and other departments that operate foodservice facilities. Local procedures may consider allowing plastic water bottles for emergency services, emergency water storage, and at events where alternatives are not practically available.

   b. Work to identify and reduce single-use plastics that are not identified in section III.F.4.

   c. Recognize that accessibility for and inclusion of the disability community is a priority, and integrate best practices into their local implementation procedures to ensure this Policy and its implementation do not create barriers to access or an unwelcoming environment. This includes providing reasonable alternatives to single-use plastic products. If reasonable alternatives are not available, a small stock of single-use plastics (including, but not limited to, plastic straws) should be maintained and made readily available for individuals who need them either at the point of service/cashier; or upon request at dine-in facilities.

5. Exceptions will be considered for entities that 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 Zero Waste 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.

7. Waste Reduction: For the purposes of measuring waste reduction, reporting will be in waste generated per capita per day. Waste generated includes municipal solid waste that goes to landfill and all waste that is diverted through recycling, organics or conversion technologies. Not included in waste reduction calculations are:

a. Waste generated as part of major construction and demolition projects;

b. Organic waste generated due to landscape management;

c. Agricultural, and animal-related waste.

8. Per capita metrics will be understood in the context of business operations and activities:

a. Campuses will use Weighted Campus User

b. LBNL will use Full Time Equivalent

Other locations should use the per capita metric that best supports their business operations.

9. Locations, other than health locations, will strive to achieve 90% diversion of municipal solid waste as soon as feasible through steps that include but are not limited to partnering with local waste haulers to maximize diversion opportunities available and actively engaging with their local campus users to improve source separation. These locations will outline their strategy for maximizing diversion in their waste management plans and updates. Every year, locations will report to UCOP on their progress and next steps towards meeting this target and identify common barriers and opportunities.

10. The Zero Waste Working Group will coordinate the development of a systemwide best practices guide to outlining methods for quantifying waste generation and diversion at University locations. This guide will include recommendations on boundaries, calculation methodologies, contamination rates, tools, best practices for waste reduction and diversion, etc.

11. Where significant data methodology errors are found in benchmark years, an appropriate alternative methodology will be determined by agreement with UCOP and the Zero Waste Working Group.

12. Reporting of solid waste and recycling data will follow ULs Environmental Claim Validation Procedure for Zero Waste to Landfill (UL2799: 2017-03-22: 3rd Edition) and should be applied in principle to future standards/ editions. Where there are discrepancies between UC policy definitions and goals and UL2799 and subsequent editions, the Policy language will apply.

13. Campuses will be able to meet up to 10% of their diversion targets through combustion until the end of FY2021/22 after which the UC will no longer accept combustion as a form of diversion. No campus will increase the percentage of combustion reported as diversion from reported FY2015/16 levels. Up to 10% of total waste generated per campus may be disposed of through allowable thermal residual conversion after FY2021/22. To count, (non-combustion) waste converted through thermal processes must include an integrated materials recovery facility (MRF) or equivalent sorting system to recover recyclables and compostable material prior to conversion. The total value of converted materials counted as diversion from landfill is not to exceed 10%.

    a. Consistent with CalRecycle and the Southern California Conversion Technology Project, Allowable Thermal Residual Conversion includes: thermal, chemical, mechanical, and/or biological processes capable of converting post-recycled residual solid waste into useful products and chemicals, green fuels like ethanol and biodiesel, and clean, renewable energy. It does not include combustion. Examples include the transformation of post-recycled residual materials into usable heat or electricity through gasification, pyrolysis, distillation, or biological conversion other than composting. To count as allowable residual conversion, the process must include an integrated materials recovery facility (MRF) or equivalent sorting system to recover recyclables and compostable material prior to conversion. Materials that are otherwise landfilled or incinerated, including biomass conversion operations that exclusively incinerate organic materials, landfill-gas-to-energy (LFGTE) facilities, and other facilities that do not employ integrated materials recovery or equivalent sorting and recovery systems may not be considered as converted residual waste.

G. Sustainable Procurement

1. This section V.G. will be applied within the constraints of research needs and budgetary requirements and in compliance with applicable rules, regulations and laws.

2. The University will work to remove harmful chemicals from products brought onto campus by increasing the purchase of products and materials that disclose known hazards (e.g., in compliance with the requirements of LEED BD+C v4 "Building product disclosure and optimization - material ingredients" - or updated equivalent) and choosing products with reduced concentrations of chemical

contaminants that can damage air quality, human health, productivity, and the environment.

3. The University will require suppliers to clearly identify products with UC-recognized certifications, as defined by the Guidelines, in both hosted and punch out catalog e-procurement environments.

    a. Commodity/Contract Managers will work with all contracted suppliers to ensure that contract items that meet the UC criteria for Green and Economically and Socially Responsible (EaSR) Spend as outlined in the Guidelines will be prioritized in all product searches.

    b. Unless locations request otherwise, products that do not meet the University's minimum criteria requirements will be blocked in all hosted catalogs and punch out catalogs upon contract award.

4. The University will require all strategically sourced suppliers to report annually on their sustainable business operations, and quarterly on the University's sustainable purchasing activity. Quarterly spend reports will be collected by the appropriate University of California Procurement Services department. Quarterly spend reports must be filterable, include all products and services purchased, use an Excel-compatible software, include information on a single sheet, and include the following fields:

    - Campus

    - Department and/or delivery location

    - SKU and/or manufacturer number

    - Item description

    - 8-digit UNSPSC code

    - Product category/Title of UNSPSC code

    - Quantity

    - Unit of measure

    - Price

    - Third-party sustainability attribute or certification as recognized in the Guidelines

5. Locations, not including health locations or the Lawrence Berkeley National Lab, will report annually to the UC Office of the President (UCOP) their percent Preferred Level Green Spend and EaSR Spend for product and service categories defined in the Guidelines. For the first two years of reporting, reports on Preferred Level Green Spend will include, at minimum, a location's share of products purchased from systemwide strategically sourced suppliers, with reports to be provided by the suppliers to UCOP and locations. EaSR Spend reporting will be compiled at the campus level, with the support of UCOP. Reports will be reviewed by each location for accuracy and signed by the location's Chief

Procurement Officer, with reporting due 60 days after fiscal close. Reporting procedures will be reviewed after two years of reporting under this Policy.

6. The University Standards for all packaging materials will be outlined in all solicitations. Suppliers will be required to demonstrate how their standards and practices for packaging materials meet the UC Standards.

   a. Additional consideration in bid evaluations will be given to suppliers who meet more than one criteria listed in 8 (a) - (e) for packaging, and with preference given to bids meeting 8 (b).

7. In accordance with section III.F.3., the University has disallowed the use of packaging foam after 2020. For implementation procedures, reference the University of California Sustainable Procurement Guidelines.

8. The University requires that all packaging be compliant with the Toxics in Packaging Prevention Act (AB 455) as to be free of any intentionally introduced lead, cadmium, mercury or hexavalent chromium, and containing no incidental concentrations of these regulated metals greater than 100 parts per million (ppm) by weight. In addition, the University requires that all packaging meet at least one of the criteria listed below:

   a. Uses bulk packaging;

   b. Uses reusable packaging (e.g., totes reused by delivery service for next delivery);

   c. Uses innovative packaging that reduces the weight of packaging, reduces packaging waste, or utilizes packaging that is a component of the product;

   d. Maximizes recycled content and/or meets or exceeds the minimum post-consumer content level for packaging in the U.S. Environmental Protection Agency Comprehensive Procurement Guidelines;

   e. Uses locally recyclable or certified compostable material.

9. Suppliers, when interacting with the University, will be prohibited from providing hard copies of presentations or other materials. Suppliers will be required to present all information in an electronic format that is easily transferable to University staff, who may choose to print their own copies in accordance with UC Policy if necessary. Materials may be provided if specifically required or requested by a UC representative.

10. All recyclers of the University's electronic equipment must be e-Steward certified by the Basel Action Network (BAN) . 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 (e-Stewards for Enterprises).

11. The responsible authority for granting exceptions to items III.G.5.a. and V.G.7. in the Sustainable Procurement section of this Policy will be the Chief Procurement Officer for a non-UC Health systemwide or Office of the President contract; the AVP, UC Health Procurement for a UC Health Systemwide contract; and

otherwise by the Procurement/Supply Chain Director of the campus, medical center, or Laboratory.

H. Sustainable Foodservices

1. Campus and health location foodservice operations subject to this Policy will include self-operated and contract-operated foodservices, as well as foodservices in leased locations.

2. Sustainable food is defined as food and beverage purchases that meet AASHE STARS' "sustainably and ethically produced" food for campuses and Practice Greenhealth's "sustainable food" for health locations, as outlined below:

   a. AASHE STARS 2.2 Sustainably and Ethically Produced for campuses;

   b. Practice Greenhealth Healthier Food Purchasing Standards for health locations.

3. Plant-based foods as defined by the Culinary Institute of America's Menus of Change program includes fruits and vegetables (produce); whole grains; beans; other legumes (pulses), and soy foods; nuts and seeds; plant oils; herbs and spices; simple combinations of these foods and their derivatives, and vegetarian/ vegan alternatives to meat and dairy.

   a. AASHE STARS provides additional guidance on processed food items.

   b. Animal products (i.e., meat, poultry, fish, seafood, eggs, and dairy) and their derivatives, drinking water, and most ultra-processed foods do NOT qualify as plant-based foods. Examples of ultra-processed foods include sweet or savory packaged snacks; chocolate and candies (confectionary); mass-produced packaged breads and buns; cookies (biscuits), pastries, cakes, and cake mixes; instant sauces; many ready to heat products including pre-prepared pies and pasta and pizza dishes; powdered and packaged 'instant' soups, noodles and desserts; carbonated drinks; 'energy' drinks; 'fruit' drinks; and distilled alcoholic beverages such as whiskey, gin, rum, and vodka.

4. All foodservice operations should track and report annually the percentage of total annual food budget spent on sustainable food and plant- based products.

5. Each campus and health location procurement department will integrate sustainability into competitive solicitations. Procurement departments will allocate a minimum of 15% of the points utilized in solicitation evaluations to sustainability criteria. Additional guidelines for procurement are listed in III G and the UC Sustainable Procurement Guidelines.

6. The University prioritizes waste reduction in the following order: Reduce, reuse, and then recycle and compost. Campuses, health locations, and leased foodservice operations are encouraged to utilize compostable foodservice containers and packages that have recycled and/or sustainably harvested content wherever possible. Guidelines for compostable foodware are listed in the UC Sustainable Procurement Guidelines.

7. Each campus and health location is encouraged to maintain accessibility and affordability for all students, staff, and patrons. Campuses are encouraged to explore food recovery programs that can support campus basic needs programs.

I. Sustainable Water Systems

1. Reporting Methods

    a. 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).

    b. Locations with health locations may choose to report health locations data and progress toward the target separately from the main campus.

    c. All locations will report water usage in a tabular format using the following methods:

        i. Measure per capita water consumption by Weighted Campus User (WCU) for main campuses and Adjusted Patient Day (APD) for health locations. If necessary, WCU and APD may be combined using the following calculation: [(APD/360) * 1.5] + WCU;

        ii. Potable water usage for a baseline period that is three consecutive fiscal years including FY 2005/06, 2006/07, and FY 2007/08:

            • Total location potable water usage, in gallons, for each of the three years comprising the baseline period,

            • WCU, or APD, for each of the three years comprising the baseline period,

            • Baseline Potable Water Usage: calculate the baseline metric as follows: Step 1: Divide each year's 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,

            • Multiply the Baseline Potable Water Usage figure by 0.64 to derive the location's 2025 Potable Water Usage Target, and

            • 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

        iii. Potable water usage for the most recent fiscal year.

            • If using only the most recent fiscal year, and not an average, list in the table the following:

                o Total location potable water usage, in gallons, for the most recent fiscal year,

                o WCU or APD for the most recent fiscal year,

          o Divide the gallons by the WCU or APD to derive the Current Potable Water Usage, and

       • 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, using the methodology described above;

    iv. If data is available, total location non-potable water usage, in gallons, for the most recent fiscal year.

    v. If data is available, report or estimate 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.

2. Reporting Schedule

  a. Each location prepared a Water Action Plan as specified below and submitted it to the Office of the President by December 2013.

  b. 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.

3. Water Action Plans

  a. Each Water Action Plan will include:

    i. Water usage and reduction strategies addressing major categories of usage such as irrigation and landscaping, potable water, non-potable water, industrial water, sterilized water, reclaimed water, wastewater, and any other water systems;

    ii. Stormwater management, including stormwater capture and reuse (or reference to the campus' separate stormwater management plan, if one exists);

    iii. Suggestions for implementation of innovative water-efficient technologies as part of capital projects and renovations (e.g., installation of WaterSense certified fixtures and appliances, greywater reuse, rainwater harvesting, and watershed restoration); and

    iv. Education and outreach on water conservation.

  b. Each Water Action Plan, and the water conservation and water efficiency strategies they contain, will also take into account relevant regional conditions and regulatory requirements, will recognize historical progress, and will acknowledge current location best practices implemented.

J. Sustainability at UC Health

1. The UC Health Sustainability Working Group, with input from relevant working groups for each subject area, will develop normalized data reporting protocols to track the implementation of sustainability programs at health locations. Annually,

the UC Health Sustainability Working Group will report to the University of California Health Center Chief Operating Officer Group and the University of California Sustainability Steering Committee.

2. Health locations will participate in Practice Greenhealth's reporting program and report at a minimum metrics for energy, carbon, water, and waste. To meet the reporting requirements, reporting to Practice Greenhealth will reflect UC Health location boundaries and will use either adjusted patient encounters or adjusted patient days as appropriate to reflect non-licensed patient encounters. Reporting to Practice Greenhealth will be based on the most recently complete fiscal year.

3. Health locations may discretionarily submit additional facility-specific applications to Practice Greenhealth for award consideration in addition to a total site/campus application. The stated goal of achieving Practice Greenhealth Partner for Change Awards may be at the campus or facility level.

K. General Sustainability Performance Assessment

1. The rating must be for a current certified STARS report, and under the current STARS point allocations.

L. Health and Well-Being

1. The Healthy Campus Network will build a systemwide working group that will work closely with campus, health location and community stakeholders to build out and coordinate implementation of this section of the Policy.

VI. RELATED INFORMATION

AASHE STARS 2.2 Sustainably and Ethically Produced (Food and Beverage Purchasing)

AASHE STARS guidance on processed food items

BFB-BUS-43 Purchases of Goods and Services; Supply Chain Management

BFB-BUS-38: Disposition of Excess Property and Transfer of University-Owned Property

California Air Resources Board LCFS Pathway Certified Carbon Intensities

California Building Code, Title 24

California Energy Commission's Renewables Portfolio Standard Guidebook

e-Stewards for Enterprise

Facilities Inventory Guide

Federal Trade Commission's (FTC) Green Guides

Practice Greenhealth Healthier Food Purchasing Standards for health locations

Public Contract Code: Materials, Goods, and Services, Section 10507.8

Public Contract Code: Construction

State Administrative Manual

The Climate Registry

Trademark Licensing Code of Conduct

UC Annual Report on Sustainable Practices

UC Flexible Work Arrangements and Telecommuting Website

UC Sustainability Website

UC Sustainable Procurement Guidelines

UC Sustainable Procurement Website

UC 2016 Whole-Building Quantitative Energy Performance Targets (2020 update)UL 2799 Environmental Claim Validation Procedure for Zero Waste to Landfill

U.S. Environmental Protection Agency Comprehensive Procurement Guidelines

VII.   FREQUENTLY ASKED QUESTIONS

Not applicable.

VIII.   REVISION HISTORY

XXX, 2021: Policy revised to update the following sections with new goals, procedures, and clarifications: Green Building Design, Climate Protection, Sustainable Transportation, Sustainable Water Systems, and Sustainability at UC Health. Added a Health and Well-Being Policy section. Made minor clarifications to water and procurement sections.

Updated the Green Building Design section to reference an updated list of whole building performance targets that include 100% Lab Space and include reporting on the energy efficiency policy requirement for new buildings.

Included new provisions establishing criteria for the purchase of carbon offsets to the Climate Protection sections, added a reference to climate justice in campus's Climate Action Plans, and clarified that GHG reductions should be maintained after the 2020 target date.

Replaced the fleet targets in the Sustainable Transportation section with ones that better reflect State policy and technological advances. Incorporated telecommuting into the Sustainable Transportation goals.

Updated the Sustainable Water Systems section to make it easier to read and removed expired dates and details that are already regulatory requirements.

Revised the water and waste goals for health locations so that the same targets are now applicable to each health location.

July 2020: Policy revised to update the following sections with new goals, procedures, and clarifications: clean energy, climate protection, sustainable building and laboratory operations for campuses, sustainable foodservice, zero waste, and UC Health. Policy

expanded to add a section for general sustainability performance assessment. The following provides more details on the updates:

Added a new provision to the Climate Protection section to require that campuses formally assess options for reducing emissions from combined heat and power plants before capital renewal or major repairs.

Updated the Zero Waste section to integrate the waste diversion and minimization targets into a new zero waste goal and adding a new Policy provision to begin phasing out single-use plastic bags and foodware items.

Replaced the 2020 goal in the Sustainable Food Services section, which has already been met, with a new 2030 goal that aligns with the Association for the Advancement of Sustainability in Higher Education's (AASHE) Sustainability Tracking, Assessment and Rating System (STARS) and Practice Greenhealth's requirements.

Added a General Sustainability Performance Assessment section that codifies participation by all undergraduate campuses in the AASHE STARS rating system and achieving a gold rating by 2023.

Updated the UC Health Policy Section to include new waste and water targets for UCI Health and to reference existing green building and sustainable food requirements.

Made other small formatting and wording changes to improve the clarity and readability of the Policy and to clarify which Policy sections apply to the Lawrence Berkeley National Laboratory.

January 2019: Policy revised to clarify the following sections: climate protection, zero waste, and sustainable procurement.

August 2018: Policy expanded to include UC Health and change the name of the Environmental Preferable Purchasing section to Sustainable Procurement. Policy revised to update the following sections with new goals and clarifying language: definitions, green building design, clean energy, zero waste, and sustainable procurement.

June 2017: Policy remediated for accessibility according to Web Content Accessibility Guidelines (WCAG) 2.0

Policy revised to reflect the University Carbon Neutrality Initiative, adding definitions of green lab assessment programs, "research group" as defined by the Laboratory Hazard Assessment Tool (LHAT), and the inclusion of the UC Green Laboratories Action Plan. Changes were also made to the sections for Sustainable Building Operations for Campuses.

June 2016: Policy revised to update the following sections with new goals and clarifying language: definitions, green building design, sustainable transportation, and sustainable water systems.

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 (UCOP Sustainability)

Sustainable Practices

Responsible Officer:	EVP – ~~Chief Financial Officer~~Chief Operating Officer
Responsible Office:	ES – Energy & Sustainability
Issuance Date:	X/X/2021
Effective Date:	X/X/2021
Last Review Date:	1/28/2021
Scope:	All Campuses, Health Locations, and the Lawrence Berkeley National Laboratory

Contact:	Matthew St. Clair
Title:	Director of Sustainability, UCOP
Email:	Matthew.StClair@ucop.edu
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TABLE OF CONTENTS

I.   POLICY SUMMARY

The Sustainable Practices Policy ("Policy") establishes goals in ~~nine~~ 12 areas of sustainable practices: green building, clean energy, ~~transportation,~~ climate protection, transportation, sustainable operations, zero waste ~~reduction and recycling,~~ ~~sustainable~~ procurement, ~~sustainable~~ foodservice, ~~sustainable~~ water ~~systems~~, health care, performance assessment, and health and well-being.

II.   DEFINITIONS

Association for the Advancement of Sustainability in Higher Education (AASHE): ~~The Association for the Advancement of Sustainability in Higher Education is t~~The higher education association that sets sustainability standards for universities and colleges. Its mission is to support sustainability in higher education through empowering faculty, administrators, staff, and students to be effective change agents and drivers of sustainability innovation.

Addressable Spend: Spend that can be impacted through sourcing activities. For the purposes of this ~~p~~Policy, it relates to the spend within a specific product or service category.

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

~~**Allowable Thermal Residual Conversion:** Consistent with CalRecycle and the Southern California Conversion Technology Project, residual conversion includes: thermal, chemical, mechanical, and/or biological processes capable of converting post-~~

~~recycled residual solid waste into useful products and chemicals, green fuels like ethanol and biodiesel, and clean, renewable energy. It does not include combustion.~~

~~Examples include the transformation of post-recycled residual materials into usable heat or electricity through gasification, pyrolysis, distillation, or biological conversion other than composting. To count as allowable residual conversion, the process must include an integrated materials recovery facility (MRF) or equivalent sorting system to recover recyclables and compostable material prior to conversion. Materials that are otherwise landfilled or incinerated, including biomass conversion operations that exclusively incinerate organic materials, landfill-gas-to-energy (LFGTE) facilities, and other facilities that do not employ integrated materials recovery or equivalent sorting and recovery systems may not be considered as converted residual waste.~~

~~**Average Vehicle Ridership (AVR):** The average vehicle ridership is calculated by dividing the number of all person trip arrivals by the number of private vehicle trips, with adjustments for telecommuting, compressed work weeks, and zero-emission vehicles (based on the South Coast Air Quality Management District method).~~

California Building Code (CBC): This refers to the California Building Code, Title 24 portion of the California Code of Regulations

Clean Transportation Fuel: A clean transportation fuel is a fuel derived from a net carbon-neutral fuel source with a carbon intensity of zero, or less. These transportation fuels are typically produced from nonpetroleum renewable sources. Common examples include natural gas or hydrogen derived from the capture of gases from sewage waste, manure collection, or green waste decomposition. A fuel's carbon intensity can vary based on how it is produced. For a California Air Resources Board's maintained list of certified carbon intensities for alternative fuels see the website LCFS Pathway Certified Carbon Intensities.

Climate Neutrality: Climate neutrality is a goal for the University to 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 Second Nature's Carbon Commitment. This 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.

Combustion: As defined by CalRecycle, combustion is a rapid conversion of chemical energy into thermal energy. The reaction is exothermic. Organic matter is oxidized with sufficient air (or oxygen) for reactions to go to completion. The carbon and hydrogen are oxidized to carbon dioxide and water, respectively.

Construction and Demolition Waste: Waste generated by construction projects that do not occur every year or are not a result of regular operations and maintenance (e.g., building renovations or new construction).

Diversion from Landfill: Institutions divert materials from the landfill, combustion, or other non-allowable thermal conversion by recycling, composting, donating, reselling, or reusing.

Economically and Socially Responsible (EaSR) Spend: Spend on products or services supplied by a business holding one of the UC-recognized certifications listed in the UC Sustainable Procurement Guidelines.

Expanded Polystyrene (EPS): As defined by the City of San Francisco, blown polystyrene and expanded and extruded foams which are thermoplastic petrochemical materials utilizing a styrene monomer and processed by ~~any number~~various ~~of~~ techniques including ~~but not limited to,~~ fusion~~ing~~ ~~of~~ polymer spheres (expanded bead polystyrene), injection molding, foam molding, and extrusion-blown molding (extruded foam polystyrene).

Fleet: University-owned or operated vehicles and mobility equipment (e.g., passenger vehicles, trucks, vans, shuttles, agricultural vehicles, marine equipment, etc.) including vehicles operated under contract with the University and for which the University/Campus maintains operational control.

Foodservice ~~Facilities~~: Dining establishments such as cafeterias, r~~R~~estaurants, cafes, retail stores, or similar places in which food or drink is stored, prepared, packaged, served, or sold for consumption on premises or elsewhere. This includes locations that administer meal plans. Health location foodservice is defined as cafeterias.

Foodware Accessory Items: all types of items usually provided alongside food in containers and cups, including utensils, chopsticks, napkins, cup lids, cup sleeves, food or beverage trays, condiment containers and saucers, straws, stirrers, and toothpicks.

Foodware: products that are used to serve or transport ~~ready-to-consume~~ food or beverages, including cups, bowls, plates, and hinged containers, as well as accessory items (see above definition). This does not include prepackaged, sealed food that is mass-produced by a third party vendor off the premises for resale at University locations (e.g., grab-and-go items, such as prepackaged sandwiches and snacks resold in campus stores)

Full Time Equivalent (FTE): ~~A full-time equivalent employee is the hours worked by one employee on a full-time basis and can be used to convert the hours worked by several part-time employees into the hours worked by full-time employees. A full-time employee is assumed to work 40 hours in a standard week.~~

Green Lab Assessment Programs: A program that works with individual laboratories and researchers to inform, collect best practices, and assess areas for improvement in research efficiency, including engagement, and targeted initiatives around efficiency in natural resources and other environmental issues. This assessment program could be based on the My Green Labs (MGL) Systemwide Checklist or another similar tool. The MGL checklist was developed based on best practices from several UC campuses as well as the expertise of My Green Lab

~~Green Spend:~~ ~~The amount spent on products meeting the UC "Preferred Level" of environmental sustainability criteria as laid out in the UC Sustainable Procurement Guidelines.~~

Gross Square Foot: Pursuant to the definition in the Facilities Inventory Guide (Appendix C, page C.19), 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."

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

Leadership in Energy and Environmental Design (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 Interior Design and Construction (LEED-ID+C) for renovation projects;

LEED for Building Operations and Maintenance (LEED-O+M) for the ongoing operational and maintenance practices in buildings; and,

LEED for Building Design and Construction (LEED-BD+C) for new buildings and major renovations of existing buildings.

Locally Compostable: Products that can be composted in the local facilities that provide service to the campus. Acceptable products will vary by facility. Locally compostable may include but is not limited to products made of plastic, paper, wood, and bamboo. Compostable products must meet the criteria outlined in the Sustainable Procurement Guidelines.

Locally Recyclable: Products that can be recycled by the local facilities that provide service to the campus. Acceptable products will vary by facility.

Location: As used in this Policy, means ~~any or~~ all UC campuses, health locations, 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, medical waste or other material used as ~~Average~~ Alternative Daily Cover (ADC); however, it does include construction and demolition waste, diverted recyclables and organic waste. Non-health location waste targets refer to municipal solid waste only. Health Locations waste targets use the Practice Greenhealth definition of "Total Solid Waste," see section III.J.

Organic: As defined by CalRecycle, material containing carbon and hydrogen. Organic material in municipal solid waste includes the biomass components of the waste stream as well as hydrocarbons usually derived from fossil sources (e.g., most plastics, polymers, the majority of waste tire components, and petroleum residues).

Packaging Foam: Any open or closed cell, solidified, polymeric foam used for cushioning or packaging, including ~~but not limited to~~: Ethylene-vinyl acetate (EVA) foam,

Low-density polyethylene (LDPE) foam, Polychloroprene foam (Neoprene), Polypropylene (PP) foam, Polystyrene (PS) foam (including EPS, extruded polystyrene foam (XPS) and polystyrene paper (PSP)), Polyurethane (PU) foams, Polyethylene foams, Polyvinyl chloride (PVC) foam, and Microcellular foam. Not included are easily biodegradable, plant-based foams such as those derived from corn or mushrooms.

Partner for Change: An award given through Practice Greenhealth's Environmental Excellence Awards program that recognizes health care organizations that have implemented a significant number of environmental programs and who can demonstrate continuous improvement and expansion of these programs on the path to sustainability.

Plant-Based Foods: As defined by the Culinary Institute of America's Menus of Change program, these include fruits and vegetables (produce); whole grains; beans; other legumes (pulses), and soy foods; nuts and seeds; plant oils; herbs and spices; simple combinations of these foods and their derivatives, and vegetarian/vegan alternatives to meat and dairy.

Plant-Forward: As defined by the Culinary Institute of America's Menus of Change program, this represents a style of cooking and eating that emphasizes and celebrates, but is not limited to, plant-based foods—including fruits and vegetables (produce); whole grains; beans, other legumes (pulses), and soy foods; nuts and seeds; plant oils; and herbs and spices—and that reflects evidence-based principles of health and sustainability. Often used synonymously with "vegetable-centric," "vegetable-forward," and "plant-centric."

Plastic Bags: a carryout bag, regardless of the thickness of the material, made of plastic that is provided by a store or foodservice facility to a customer at the point of sale to hold customer's purchases. This does not include bags that are locally compostable.

Policy Exception Authority: The responsible authority for granting exceptions to item III.G.5.a. in the Sustainable Procurement section of this Policy will be the Chief Procurement Officer for a non-UC Health systemwide or Office of the President contract and otherwise by the senior procurement officer of the campus.

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

Practice Greenhealth: The leading membership and networking organization for sustainable health care, delivering environmental solutions to hospitals and health systems across the United States.

Preferred Level Green Spend: The amount spent on products meeting the UC Preferred Level of environmental sustainability criteria as laid out in the UC Sustainable Procurement Guidelines.

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 Energy: 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 by the California Energy Commission (Renewables Portfolio Standard EligibilityGuidebook).

Required Level Green Spend criteria: The minimum certification standardspend that meets sustainability criteria required for a product or service category. For Required Level Green Spend criteria see the UC Sustainable Procurement Guidelines.

Research Group: When counting the number of laboratories assessed via a green lab assessment program, a laboratory will be counted as a research group rather by physical rooms. As defined in the Laboratory Hazard Assessment Tool, (LHAT) this group includes the workers that report to one Principal Investigator (PI) or Responsible Person. While some PI's may have multiple groups, one assessment for the purposes of this Policy will include all the people working under one PI or Responsible Person, and all of the rooms they occupy or share, and field sites, if any. Total number of PI's and Responsible People will be tracked according to LHAT or a similar tracking method at campuses not using LHAT. LHAT includes research and teaching laboratories.

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.

Single-Pass Cooling: Single-Pass or once-through cooling systems flow water through a piece of equipment to absorb heat and dispose the water down the drain without recirculation. Replacing and managing these types of systems is a recommended best practice by the International Institute for Sustainable Laboratories (I^{2}SL)(formerly Labs 21), US Office of Energy Efficiency & Renewable Energy, and the EPA. Equipment typically using this type of cooling includes hydraulic equipment, distillation condensers, refrigeration condensers, air compressors, vacuum pumps, electron microscopes, mass spectrometers, lasers, helium recovery, and electro-magnets.

Single-Occupancy Vehicle (SOV): A vehicle driven by a single driver with no passengers. SOV percentages may separate the percentage of vehicle trips occurring in zero- or low-emission vehicles from carbon-fuel vehicles (e.g., SOV-standard fuel and SOV-alternative fuel).

Solicitation: The process of seeking information, bid proposals, and quotations from suppliers.

Sustainability Tracking, Assessment and Rating System (STARS): The Sustainability Tracking, Assessment and Rating System is a A transparent, self-reporting framework for colleges and universities to measure their sustainability performance. STARS provides a framework for understanding sustainability in all

sectors of higher education through using a common set of measurements that enables meaningful comparisons over time and across institutions.

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 Food: Food and beverage purchases that meet the AASHE STARS Technical Manual's requirements for sustainably and ethically produced food for campuses and Practice Greenhealth's sustainable food for health locations.

Sustainable Procurement: [Modified from the UK Government's Sustainable Procurement Task Force (2012)] Purchasing that takes into account the economic, environmental, and socially responsible requirements of an entity's spending. Sustainable Procurement allows organizations to procure their goods and services in a way that achieves value for money on a whole-life basis in terms of generating benefits not only to the organization but also to society and the economy, while remaining within the carrying capacity of the environment.

~~**Sustainable Spend:** The intersection of Green and EaSR Spend. UC Sustainable Spend is defined as spending that meets the criteria and requirements for Green Spend as well as EaSR Spend as laid out in the UC Sustainable Procurement Guidelines.~~

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.

Takeback program: A program that allows customers to return used products or materials to either the producer or distributor for responsible re-use or recycling consistent with applicable state and federal laws. These programs encourage responsible design for disassembly and recyclability, and protect the environment by keeping bulky or toxic products and packaging out of the waste stream.

~~**TDM:**~~ **Transportation Demand Management**~~.~~ **(TDM):** ~~TDM is t~~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.

Total Cost of Ownership (TCO): An analysis of cost that considers not only purchase price, but also any costs associated with the acquisition, use, and disposal of the product. These costs may include some or all of the following: freight, taxes and fees, installation, operation/energy use, maintenance, warranty, collection, end-of-life

disposal or recycling, as well as social or environmental costs, such as the cost of purchasing pollution offsets or monitoring labor practices.

Total Solid Waste: Total solid waste includes municipal solid waste as well as all forms of regulated waste, this includes but is not limited to regulated medical waste, biohazardous waste, pharmaceutical waste, universal waste, and construction and demolition waste. Unlike campus targets, health location diversion rates and reduction targets use total solid waste rather than municipal solid wasteas defined by Practice Greenhealth, which does not include construction and demolition waste.

Vehicle Miles Traveled (VMT): The number of miles driven by a given vehicle(s) over a given period of time.

UC Green Laboratories Action Plan: A document created with the goal of setting campus-specific targets, documenting the strengths and areas for improvement within sustainable operations of research laboratories via gap analysis, and outlining actions that can be implemented to further targets.

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.

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

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.

Weighted Campus User (WCU): As defined in the current AASHE STARS Technical Manual. This calculation applies only to campuses and not to health locations or LBNL.

Zero-emissions vehicle (ZEV): As defined by the current California Air Resources Board (CARB) ZEV program standards, a vehicle that emits no tailpipe pollutants (e.g., criteria air pollutants, precursors, or greenhouse gases) from the onboard source of power under any possible operational modes or conditions.and may include subcategories as defined by CARB. Common examples include battery electric and fuel cell vehicles.

Zero waste: The University zero waste goal is made up of incremental waste reduction and waste diversion targets. The University recognizes the attainment of reduction goals stated in this Policy and a 90% diversion of municipal solid waste as minimum compliance standard to be defined as a zero waste for locations other than health locations.

III.   POLICY TEXT

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. The goals outlined

throughout these policy and procedures sections shall be applied within the constraints of research needs and budgetary requirements and in compliance with safe operating practices and all applicable rules, regulations and laws., ~~consistent with available funding and safe operational practices.~~ Policy goals are presented below in ~~nine~~twelve areas of sustainable practices.

A. Green Building Design

1. New Buildings

   a. All new building projects, other than acute care facilities, ~~shall~~ will be designed, constructed, and commissioned to outperform the California Building Code (CBC) energy-efficiency standards by at least 20% or meet the whole-building energy performance targets listed in Table 1 of Section V.A.1. The University will strive to design, construct, and commission buildings that outperform CBC energy efficiency standards by 30% or more, or meet the stretch whole-building energy performance targets listed in Table 1 of Section V.A.1, whenever possible within the constraints of program needs and standard budget parameters.

   b. Acute care/hospital facilities and medical office buildings ~~shall~~ will be designed, constructed, and commissioned to outperform ASHRAE 90.1 - 2010 by at least 30% or meet the whole-building energy performance targets listed in Table 2 in Section V.A.1.

   c. No new building or major renovation that is approved after June 30, 2019, ~~shall~~will use onsite fossil fuel combustion (e.g., natural gas) for space and water heating (except those projects connected to an existing campus central thermal infrastructure). Projects unable to meet this requirement ~~shall~~will document the rationale for this decision, as described in Section V.A.1~~4~~.d.

   d. 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.

   e. 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)[1]. Laboratory spaces in new buildings also shall meet at least the prerequisites of Labs21 EPC.~~ Design, construction, and commissioning processes ~~shall~~will strive to optimize the energy efficiency of systems not addressed by the CBC energy efficiency standards.

~~[1] 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 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.~~

  f. All new building projects will achieve at least two points within the available credits in LEED-BD+C's Water Efficiency category (in support of section III.I.) and prioritize earning waste reduction and recycling credits (per section V.F.)

 2. Building Renovations

  a. Major Renovations of buildings are defined as projects 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~~will at a minimum comply with III.A.1.d. or III.A.1.e~~, above~~. Such projects ~~shall~~will outperform CBC Title 24, Part 6, currently in effect, by 20%. This does not apply to acute care facilities.

  b. Acute care facilities and medical office buildings undertaking major renovations, as defined above, will outperform ASHRAE 90.1- 2010 by 30%.

  c. Renovation projects with a project cost of $5 million or greater (CCCI 5000) that do not constitute a Major Renovation as defined in item III.A.2.a. ~~shall~~will at a minimum achieve a LEED-ID+C Certified rating and register with the utilities' Savings by Design program, if eligible. This does not apply to acute care facilities.

B. Clean Energy

In support of the climate neutrality goals outlined in Section C of this ~~P~~policy, the University of California is committed to reducing its greenhouse gas emissions by reducing energy use and switching to clean energy supplies.

 1. Energy Efficiency

 Each location will implement energy efficiency actions in buildings and infrastructure systems to reduce the location's energy use intensity by an average of least 2% annually.

 2. On-campus Renewable Electricity

 Campuses and health locations will install additional on-site renewable electricity supplies and energy storage systems whenever cost-effective and/or supportive of the location's Climate Action Plan or other goals.

 3. Off-campus Clean Electricity

 By 2025, each campus and health location will obtain 100% clean electricity. ~~By 2018,~~ ~~T~~the ~~University's Wholesale~~ UC Clean Power Program will provide 100% clean electricity to participating locations.

 4. On-campus Combustion

 By 2025, at least 40% of the natural gas combusted on-site at each campus and health location will be biogas.

C. Climate Protection

1. Greenhouse Gas Emissions

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

   a. Achieve ~~C~~climate neutrality from scope 1 and 2 sources by 2025

   b. Achieve ~~C~~climate neutrality from specific scope 3 sources (as defined by Second Nature's Carbon Commitment) by 2050 or sooner

   ~~In addition, at a minimum, meet the following intermediate goal in pursuit of climate neutrality:~~

   c. ~~Reduce~~ Maintain greenhouse gas (GHG) emissions ~~to~~ at or below 1990 ~~levels by 2020~~, pursuant to the California Global Warming Solutions Act of 2006.

   For purposes of this section, campuses ~~shall~~will include their related health location for all goals. GHG emissions reduction goals pertain to emissions of the six Kyoto greenhouse gasses[2] (carbon dioxide, methane, nitrous oxide, sulfur hexafluoride, hydrofluorocarbons, and perfluorocarbons) originating from all scope 1 and scope 2 sources as specified by the Climate Registry, and from scope 3 emissions as specified by Second Nature's Carbon Commitment, which includes air travel paid through the institution; and commuting to and from campus by students, faculty and other academic appointees, and staff. These goals will be pursued while maintaining the research, education, and public service missions 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 or participation in the CARB Cap-and-Trade Program ~~shall~~will perform to those regulatory requirements.

2. Offsets

   a. The University will prioritize direct reductions of its covered scope 1, 2, and 3 emissions. This Policy does not require the University, as a system and as individual campuses and units, to purchase carbon offsets to meet their carbon neutrality goals; instead, it sets priorities and minimum standards if they decide to purchase offsets. In meeting the UC Sustainable Practices Policy climate goals as outlined in section III.C., the University will use offsets as a transitional strategy, while implementing all feasible reductions in its scope 1, 2, and 3 emissions. The University will reevaluate and update section III.C and V.C of the Sustainable Practices Policy by 2025.

   b. The University will only use high-quality offset credits to meet its climate protection goals, beyond its requirements under California's cap-and-trade

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[2] ~~The six greenhouse gasses identified in the Kyoto Protocol are carbon dioxide, methane, nitrous oxide, sulfur hexafluoride, hydrofluorocarbons, and perfluorocarbons.~~

program, and will draw on the University's academic capacity to vet the quality of all voluntary offset credits it uses.

c.   To align its voluntary offset program with its research, education, and public service mission, the University will choose offset projects that demonstrate or advance scalable climate solutions aligned with a path towards deep decarbonization; prioritize projects that advance University research and support student education; prioritize projects with health and social justice benefits, and benefits to the UC community and communities surrounding the campuses; and prioritize projects with the potential for climate benefits well beyond the credited reductions, recognizing the urgency of near-term reductions. The University will analyze the ecological, health, social, and human rights impacts of its offset decisions to avoid negative outcomes for low-income communities, communities of color, and other marginalized populations, and to prioritize projects that benefit these communities.

d.   The University will develop and implement its voluntary offset procurement strategy in a way that advances understanding of, and models, how institutions of higher education and in other sectors can use offsets as an effective climate mitigation strategy aligned with their institutional mission.

D. Sustainable Transportation

The University will implement transportation programs and greenhouse gas (GHG) emission reduction strategies that reduce the environmental impacts from commuting, fleet and business air travel related to achieving the Climate Protection section of this Policy (see Section III.C.).

1. Each location will reduce GHG emissions from its fleet and report annually on its progress. Locations shall will implement strategies to reduce fleet emissions and improve the fuel efficiency of all from uUniversity-owned or operated fleet vehicles to align with UC's 2025 carbon neutrality goals (as defined in the Climate Protection sections of this Policy).and equipment where practical options exist through acquisition and fleet operation protocols. Carbon neutral fleets can be achieved if vehicles produce no tailpipe emissions, use a clean transportation fuel, and/or if carbon offsets are purchased.

To support this goal, each location will ensure that:

   a. By 2025 After July 1, 2023, zero-emission vehicles or hybrid vehicles, plug-in hybrid, or dedicated clean transportation fueled vehicles will shall account for at least 50% of all new light-duty vehicle acquisitions (including both leased and purchased vehicles).

   b. All sedans and minivan acquisitions will be of zero-emission or plug-in hybrid vehicles, except for public safety vehicles with special performance requirements.

   c. In applications where zero-emission vehicles are not available, regardless of vehicle size class, the use of clean transportation fuels and other low-emission fuels will be prioritized

Furthermore:

    d. Any carbon offsets purchased to meet the carbon neutrality goal will be coordinated with the location's Office of Sustainability, will support the location's overall carbon neutrality strategy, and will follow the guidelines laid out in the Climate Protection section of this Policy (see Section III.C.).

    b.e.   Vehicle acquisitions plans should meet the State's goal (outlined in Executive Order N-79-20) that all new passenger cars and light-duty trucks (under 8,500 lbs.) acquired after January 1, 2035, and all medium-and heavy-duty vehicles acquired or operated after January 1, 2045, will be zero-emission.

Lawrence Berkeley National Laboratory will follow federal fleet requirements in the case where federal and UC fleet requirements conflict.

2. The University recognizes that single-occupant vehicle (SOV) commuting is a primary contributor to commute-related GHG emissions and localized transportation impacts.

    a. By 2025, each location shallwill strive to reduce its percentage of employees and students commuting by SOV by 10% relative to its 2015 SOV commute rates;

    b. By 2050, each location shallwill strive to have no more than 40% of its employees and no more than 30% of all employees and students commuting to the location by SOV.

3. Recognizing that flexible work arrangements, including telecommuting, are a low-cost, effective way to reduce emissions and carbon footprint, each location should review and update local employee telecommute and flexible work policies, guidelines, procedures, and other applicable documents to normalize and promote telecommuting options and other flexible scheduling, as aligned appropriately based on business needs.

3.4.   Consistent with the State of California goal of increasing alternative fuel – specifically electric – vehicle usage, the University shallwill promote purchases and support investment in alternative fuel infrastructure at each location.

    a. By 2025, each location shallwill strive to have at least 4.5% of commuter vehicles be zero-emissions vehicles (ZEV).

    b. By 2050, each location shallwill strive to have at least 30% of commuter vehicles be ZEV.

4.5.   Each location will develop a business-case analysis for any proposed parking structures serving University affiliates or visitors to campus to document how a capital investment in parking aligns with each campus' Climate Action Plans and/or sustainable transportation policies.

E. Sustainable Building and Laboratory Operations for Campuses

1. Each campus will submit for certification one pilot building at a LEED-O+M "Certified" level or higher.

2. ~~Each campus shall~~will register a master site to certify campus-wide LEED-O+M credits and prerequisites to streamline the certification of multiple buildings through the LEED-O+M rating system by July 1, 2015. Each campus shall~~will certify their campus-wide credits as soon as possible after the master site has been registered.~~

1. Each campus ~~shall~~will seek to certify as many buildings as possible through the LEED-O+M rating system, within budgetary constraints and eligibility limitations.

2. All campuses ~~shall~~will ~~implement~~ maintain an ongoing Green Lab Assessment Program supported by a department on campus to assess the operational sustainability of research groups and the laboratories and other research spaces ~~they use by Summer 2018~~.

   a. At least one staff or faculty member from the campus must have the role of managing the Green Lab Assessment Program.

   b. Any green lab assessment programs and related efforts will adhere to all relevant UC, state and national policies and laws. Safety will never be compromised to accommodate sustainability goals.

   c. All campuses ~~shall~~will ~~submit~~ maintain a UC Green Laboratories Action Plan ~~by Summer 2018~~.

F. Zero Waste

1. The University will achieve zero waste through prioritizing waste reduction in the following order: reduce, reuse, and then recycle and compost (or other forms of organic recycling) as described in section V.F.6. Minimum compliance for zero waste, at all locations other than health locations, is as follows:

   a. Reduce per capita ~~total~~ municipal solid waste generation by:

      i. 25% per capita from FY2015/16 levels by 2025

      ii. 50% per capita from FY2015/16 levels by 2030.

   b. Divert 90% of municipal solid waste from the landfill.

2. The University supports the integration of waste, climate and other sustainability goals, including the reduction of embodied carbon in the supply chain through the promotion of a circular economy and the management of organic waste to promote atmospheric carbon reduction. In support of this goal, waste reporting will include tracking estimated scope 3 greenhouse gas emissions.

3. ~~By 2020, t~~The University ~~will~~ prohibit the sale, procurement, or distribution of packaging foam, such as food containers and packaging material, other than that utilized for laboratory supply or medical packaging and products. The University seeks to reduce, reuse, and find alternatives for packaging foam used for laboratory and medical packaging products.

   a. No packaging foam or expanded polystyrene (EPS) ~~shall~~will be used in foodservice facilities for takeaway containers.

For implementation guidelines as they relate to the procurement of goods for University of California campuses, reference the University of California Sustainable Procurement Guidelines.

4. The University is committed to the reduction and elimination of single-use items in line with the University's and the State of California's Zero Waste goals and in recognition of the severe environmental impact single-use products have globally. In recognition of this commitment, locations will reduce single-use products by taking the following actions:

   a. Eliminate plastic bags in all retail and foodservice establishments in campus facilities or located on Uuniversity owned land no later than January 1, 2021

   b. Replace disposable single-use plastic foodware accessory items in all foodservice facilities with reusables or locally compostable alternatives and provide only upon request no later than July 1, 2021

   c. Provide reusable foodware items for food consumed onsite at dine-in facilities and to-go facilities no later than July 1, 2022.

   d. Replace single-use plastic foodware items with reusable or locally compostable alternatives at to-go facilities no later than July 1, 2022

   e. Phase out the procurement, sale and distribution of single-use plastic beverage bottles. Non-plastic alternatives shallwill be locally recyclable or compostable.

      i. Foodservice facilities will provide alternatives no later than January 1, 2023.

      ii. Locations are encouraged to prioritize the installation of water refill stations to support the transition from single-use plastics to reusables.

      iii. Locations will consider eliminating single-use plastic beverage bottles when contracting with suppliers, or upon contract renewal and/or extension if current contract terms prohibit (e.g., vending machines, departmental purchases, etc.).

   f. When selecting prepackaged, sealed food that is mass produced off premises and resold at University locations (e.g., grab-and-go items, such as chips, candy, prepackaged sandwiches, etc.), preference should be given in contract award and negotiations to suppliers that utilize locally compostable or locally recyclable packaging options.

This Ppolicy section (III.F.4.) also applies to third-party foodservice facilities that lease space or provide contracted services at UC locations. Locations will include these Policy provisions in lease language as new leases and contracts are negotiated or existing leases are renewed and work to incorporate these practices, as much as possible, within the timeframe of current leases. When procuring catering services, where possible, select providers that can provide alternatives to single-use plastics.

G. Sustainable Procurement

Recognizing the substantial impact that procurement decisions have on the environment, society, and the economy, the University of California will maximize its procurement of sustainable products and services. The goals outlined throughout these policy and procedures sections ~~shall~~will be applied within the constraints of research needs and budgetary requirements and in compliance with all applicable rules, regulations, and laws.

1. The University values the health and wellbeing of its students, staff, faculty and other academic appointees, visitors, and suppliers. The University seeks to provide healthy and accessible conditions for the communities it serves, and this will be considered as a fundamental factor when making procurement decisions. Where functional alternatives to harmful products or impacts exist, they are to be strongly preferred.

2. Per III.F.1. the University prioritizes waste reduction in the following order: reduce, reuse, and then recycle. Accordingly, sustainable procurement will look to reduce unnecessary purchasing first, then prioritize the purchase of surplus or multiple-use products, before looking at recyclable or compostable products.

3. The University's sustainable purchasing requirements (detailed in the UC Sustainable Procurement Guidelines) are [3]:

   a. 100% compliance with Required Level Green Spend criteria within three fiscal years of the addition of those products and/or product categories to the Guidelines.

   b. 25% Preferred Level Green Spend as a total percentage of spend per product category; target to be reached within three fiscal years after a category is added to the Guidelines.

   c. 25% Economically and Socially Responsible Spend as a total percentage of addressable spend; target to be reached within five fiscal years of adoption of this section in the Guidelines.

4. The University's sustainable purchasing reporting requirements are:

   a. Reporting on percent Preferred Level Green Spend beginning at the close of the first full Fiscal Year after a category is added to the Guidelines.

   b. Reporting on percent Economically and Socially Responsible Spend beginning at the close of Fiscal Year 2018/19.

   ~~Reporting on percent Sustainable Spend will be piloted by UCOP beginning at the close of Fiscal Year 2018/19.~~

5. Each University's Procurement department will integrate sustainability into its processes and practices, including competitive solicitations, ~~in order~~ to satisfy the

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[3] ~~Detailed criteria for~~ Preferred Level Green Spend, ~~and~~ Economically and Socially Responsible (EaSR) Spend, ~~and their combined intersection, Sustainable Spend……………,~~ can be found in the UC Sustainable Procurement Guidelines~~.~~

sustainable purchasing goals outlined above for products, as well as for the procurement of services. The University will do so by:

a. Allocating a minimum of 15% of the points utilized in solicitation evaluations to sustainability criteria. Criteria may include, but is not limited to, sustainable product attributes, supplier diversity, supplier practices, contributions to health and wellbeing, and materials safety. ~~This requirement will go into effect on July 1st, 2019.~~ Exceptions to this ~~p~~Policy may only be granted by the appropriate Policy Exception Authority. Decisions to grant an exception ~~shall~~will be made in the context of a location's need to support teaching, research and public service when there is a demonstrable case that the inclusion of a minimum of 15% of the points utilized in solicitation evaluation for sustainability criteria will conflict with the project teams' ability to execute a competitive solicitation.

b. Supporting outreach, education, and providing equal access to small, diverse, and disadvantaged suppliers for all applicable University procurement opportunities in accordance with BUS-43 policy.

c. Comparing the Total Cost of Ownership when evaluating costs for goods and services in the selection of suppliers, whenever feasible.[4]

d. Targeting sustainable products and services for volume-discounted pricing to make less competitive or emerging sustainable products and services cost-competitive with conventional products and services.

e. Leveraging its purchasing power and market presence to develop sustainable product and service options where not already available.

f. Requiring packaging for all products procured by the University be designed, produced, and distributed to the end-user in a sustainable manner.

g. Contracting with suppliers of products (e.g., electronics, furniture, lab consumables) that have established (preferably non-manufacturer specific) end-of-life reuse, recycling, and/or takeback programs at no extra cost to the University, and in compliance with applicable federal, state, and University regulations regarding waste disposal.

h. Requiring sustainability-related purchasing claims to be supported with UC-recognized certifications and/or detailed information on proven benefits, durability, recycled content, and recyclability properties, in accordance with the Federal Trade Commission's (FTC) Green Guides for the use of environmental marketing claims.

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[4] Public Contract Code§ 10507.8 states: "As provided for in this article, when the University of California determines that it can expect long-term savings through the use of life cycle cost methodology, the use of more sustainable goods and materials, and reduced administrative costs, the lowest responsible bidder may be selected on the basis of the best value to the ~~Uu~~niversity. ~~In order t~~To implement this method of selection, the Regents of the University of California ~~shall~~ will adopt and publish policies and guidelines for evaluating bidders that ensure that best value selections by the ~~u~~University are conducted in a fair and impartial manner."

      i. Working with its suppliers to achieve greater transparency and sustainable outcomes throughout the supply chain. This may include maximizing the procurement of products that optimize the use of resources from extraction through manufacturing and distribution (e.g., EPA's SmartWay Program).

6. All procurement staff will consult the UC <u>Sustainable Procurement Guidelines</u> document for minimum mandatory sustainability requirements to be included in solicitations for a given product or service category.

H. Sustainable Foodservices

1. Campus and Health Location Foodservice Operations

   a. Food Procurement

   Each campus foodservice operation will strive to procure 25% sustainable food products by the year 2030 as defined by AASHE STARS and each health location foodservice operation will strive to procure 30% sustainable food products by the year 2030 as defined by Practice Greenhealth, while maintaining accessibility and affordability for all students and health location's foodservice patrons.[5]

   b. Education

   Each campus and health location will provide patrons and foodservice staff with access to educational and training materials that will help support their food choices.

   c. Menu Development

   Each campus and health location will strive to reduce greenhouse gas emissions of their food purchases through globally- inspired, culturally-acceptable plant-forward menus.

         i. Campuses and health centers will establish a baseline and goal in 2020.

Progress will be tracked annually by reporting the percentage of plant- based foods procured beginning in 2021.

2. Foodservice Operations in Leased Locations:

   a. Foodservice operations leased in campuses and health locations owned by the University of California and contractors providing foodservices in campus and health locations will strive to meet the policies in III.H.1.a-c. ~~above.~~

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

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[5] ~~For the purposes of this policy, campus foodservice operations is defined as locations that are managed by entities that administer meal plans. Health location foodservice is defined as cafeterias.~~

I. Sustainable Water Systems[6]

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. Locations will reduce growth-adjusted potable water consumption 20% by 2020, and 36% by 2025, when compared to a three-year average baseline of FY2005/06, FY2006/07, and FY2007/08. Locations that achieve this target early are encouraged to set more stringent goals to further reduce potable water consumption.

    a. Each ~~Campus~~ campus ~~shall~~will strive to reduce potable water used for irrigation by converting to recycled water, implementing efficient irrigation systems, planting drought-tolerant landscaping (including California native plants where feasible and appropriate)~~drought-tolerant planting selections~~, and/or by removing turf.

~~3.~~2. Each location will develop and maintain a Water Action Plan that identifies long term strategies for achieving sustainable water systems. ~~The next update of the plan shall be completed in December 2016.~~

    ~~a. Campuses will include in this update quantification of total square feet of used turf and under-used turf areas on campus as well as a plan for phasing out un-used turf irrigated with potable water.~~

3. Each campus ~~shall~~will identify once-through cooling systems, constant flow sterilizers, constant-flow autoclaves and other water-to-waste cooling systems. Each campus ~~shall~~will develop and implement plans for eliminating or replacing these systems with recirculating systems, or other means of cooling that do not drain water to waste after one use.

~~4. Each location shall identify existing single-pass cooling systems and constant flow sterilizers and autoclaves in laboratories and develop a plan for replacement.~~

~~5.~~4. New equipment requiring liquid cooling ~~shall~~will be connected to an existing recirculated building cooling water system, new local chiller vented to building exhaust or outdoors, or to the campus chilled water system through an intervening heat exchange system, if available.

    a. Once-through or single-pass cooling systems ~~shall~~will not be allowed for soft-plumbed systems using flexible tubing and quick connect fittings for short term research settings.

    b. If no alternative to single-pass cooling exists, water flow must be metered, automated and controlled to ~~avoid~~reduce water waste.

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[6] ~~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.~~

5. Required water efficiency measures applicable to building projects are ~~As~~ outlined in Section A of this Policy on ~~this Policy Text: A.~~ Green Building Design, New Building.~~s, Section 6) All new building projects will achieve at least two points within the available credits in LEED-BD+C's Water Efficiency category~~

6. Guidelines for the sustainable procurement of water fixtures, as applicable, are listed in the UC Sustainable Procurement Guidelines.

J. Sustainability at UC Health

1. Health locations will achieve Practice Greenhealth's award "Greenhealth Partner for Change."

2. Health locations will achieve a target of 25lbs of total solid waste as defined by Practice Greenhealth per Adjusted Patient Day by 2025 and strive for 20lbs of total waste per Adjusted Patient Day by 2030. In meeting these goals, Health locations will follow the provisions as outlined in section F of this Policy on Zero Waste, including limiting combustion and reducing the use of foam and single use products.

   a. Practice Greenhealth defines total solid waste as municipal solid waste as well as all forms of regulated waste. This includes but is not limited to regulated medical waste, biohazardous waste, pharmaceutical waste, and universal waste. It does not include construction and demolition waste.

~~1.~~3.   In line with campus targets, health locations will reduce growth-adjusted potable water consumption 20% by 2020 and 36% by 2025, when compared to a three-year average baseline of FY2005/06, FY2006/07, and FY2007/08.

~~2. Locations will use the definitions in Practice Greenhealth to set medical-center-specific goals for waste diversion and reduction as well as water reduction.~~

- ~~UC San Francisco Health and UCLA Health have the following waste and water targets:~~
  - ~~Waste~~
    - ~~By 2020, 50% of total solid waste diverted from landfill and incineration.~~
    - ~~By 2020, 40lbs of total solid waste per Adjusted Patient Day.~~
  - ~~Water~~
    - ~~In line with campus targets, UC San Francisco Health and UCLA Health will reduce growth-adjusted potable water consumption 20% by 2020 and 36% by 2025, when compared to a three-year average baseline of FY2005/06, FY2006/07, and FY2007/08.~~
- ~~UC Irvine Health has the following waste and water targets:~~
  - ~~Waste~~

- By 2020, 50% of total solid waste diverted from landfill and incineration.
  - Water
    - In line with campus targets, UC Irvine Health will reduce growth-adjusted potable water consumption 20% by 2020 and 36% by 2025, when compared to a three-year average baseline of FY2005/06, FY2006/07, and FY2007/08.
  - UC San Diego Health and UC Davis Health will have target commitments by December 31, 2020.

3.4. Acute care/hospital facilities and medical office buildings in health locations shallwill be designed, constructed and commissioned, or renovated as outlined in Section A of this pPolicy on Green Building Design.

5. Health locations will strive to procure 30% sustainable food products by the year 2030 as defined by Practice Greenhealth and outlined in Section H of this pPolicy on Sustainable Foodservices.

K. General Sustainability Performance Assessment

1. All undergraduate campuses must maintain a certified AASHE STARS report.

2. All campuses must achieve a Silver STARS rating and strive for Gold by 2023.

L. Health and Well-Being

Health, equity, and the environment, including climate, are deeply interconnected, thus health, inequity, and environmental and climate change require intersectoral and collaborative solutions. Healthful food, healthy buildings, and active transportation are just some examples in which health, sustainability, and equity are synergistic. The Healthy Campus Network (HCN) leadership will use a Health in All Policies[7] framework and broad stakeholder engagement to better address health inequities; to support a culture of health for all faculty, staff, and students; to foster community collaborations across the UC system and California; and to meet the policy goals outlined below.

1. By the end of 2022, the HCN will review the strengths and gaps in the UC Sustainable Practices Policy and make recommendations for integration based on:

   a. Environmental and human health co-benefits,

   b. Social, physical, and emotional well-being, and

   c. Health equity.

2. By the end of 2021, the HCN will review and revise healthy vending goals with stakeholders to propose for inclusion in this pPolicy.

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[7] Rudolph, L., Caplan, J., Ben-Moshe, K., & Dillon, L. (2013). Health in All Policies: A Guide for State and Local Governments. Washington, DC and Oakland, CA: American Public Health Association and Public Health Institute

3. By the end of 2021, the HCN will review the chemicals of concern criteria detailed in the Sustainable Procurement Guidelines and make recommendations for the inclusion of specific Policy targets.

IV.   COMPLIANCE/RESPONSIBILITIES

A. Implementation ~~of the Policy~~

The Executive Vice President- Chief Financial Officer ~~Chief Operating Officer~~ is the Responsible Officer for this Policy. The UC Sustainability Steering Committee, which is chaired by the Executive Vice President- Chief Financial Officer~~Chief Operating Officer~~, provides oversight for all aspects of the Policy.

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- Chief Financial Officer~~Chief Operating Officer~~. Proposed previsions accepted by the UC Sustainability Steering Committee and the Executive Vice President- Chief Financial Officer ~~Chief Operating Officer shall~~will 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 and other academic appointees, 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. ~~(Annual Report on Sustainable Practices).~~

D. Reporting

On an annual basis, the President will report to the Regents on the University's sustainability efforts in each area of the Policy. Unless otherwise specified, reporting on progress on each section of this Policy will be to UCOP as part of the development of the ~~(~~Annual Report on Sustainable Practices~~.)~~.

V. PROCEDURES

A. Green Building Design

1. New Buildings and Major Renovations

   a. Projects will utilize the versions of the CBC energy efficiency standards and of LEED-BD+C that are in effect at the time of the first submittal of "Preliminary Plans" (design development drawings and outline specifications) as defined in the <u>State Administrative Manual</u>.[8]

   b. If eligible, all new buildings and major renovations (as defined in III.A) 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%.

   c. Projects other than acute care facilities that opt to use energy performance targets for compliance with III.A.1.<u>a.</u> will at a minimum use the whole-building energy performance target listed below that corresponds to the year of the project's budget approval.

      i. The whole-building energy performance target is expressed as a percentage of the sum of the Annual Electricity and Annual Thermal targets (converted to kB<u>tu</u>~~TU~~/gsf-yr) ~~published as Table 1,~~ <u>as developed for</u> UC Building 1999 Energy Benchmarks by Campus, in Sahai, et al. 2014~~.~~[9] <u>and updated with a new "100% Lab Space" use type in the spreadsheet 2016 Whole-Building Quantitative Energy Performance Targets (2020 update).</u>[10]

Table 1

Calendar Years	Compliance Target	Stretch Target
2015-16	65%	50%
2017-18	60%	45%
2019-20	55%	40%
2021-22	50%	35%
2023-24	45%	30%
2025 or after	40%	25%

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[8] The State Administrative Manual ~~(SAM)~~ is a reference source for statewide policies, procedures, regulations and information developed and issued by authoring agencies such as the Governor's Office, Department of General Services ~~(DGS)~~, Department of Finance ~~(DOF)~~, and Department of Personnel Administration.

[9] ~~Sahai, R., Kniazewycz, C., Brown, K, 2014. Benchmark-based, Whole-Building Energy Performance Targets for UC Buildings. University of California Office of the President and California Institute of Energy and Environment.~~

[10] <u>The "UC Building 1999 Energy Benchmarks by Campus" and "2016 Whole-Building Quantitative Energy Performance Targets (2020 update)" documents can be found in the Green Building section of the UC Sustainability website.</u>

d. Projects will report their target energy use and how much they anticipate exceeding the CBC energy-efficiency standards (campuses), ASHRAE 90.1 - 2010 (Health Locations), or the UC Building Benchmarks at plan phase (P-Phase) approval. This information will be confirmed with modeled energy estimates, at approval of the start of construction (completion of the W-Phase). Final efficiency will be reported at closeout (generally a year after the building has been occupied).

d.e. Decisions affecting energy efficiency, fossil fuel use, and connection to existing central thermal services ~~shall~~ will be made in the context of the location's climate action plan. Where on-site fossil fuel combustion within the building is deemed necessary, the rationale for this decision ~~shall~~ will be documented as part of the existing project approval process. The submittal should include the following:

  i. An estimate of annual electricity and gas use for the project as well as the project's target design energy use in thousand British thermal units (kBtu) per square foot.

  ii. An explanation of why fossil fuel combustion is required for the project and what other alternatives were evaluated.

  iii. An analysis explaining why fossil-fuel combustion is the most cost-effective energy source for the identified project-specific applications.

  iv. A plan to mitigate, by 2025, the associated greenhouse gas emissions in accordance with the location's Climate Action Plan.

  This documentation is part of the broader project approval process and does not require separate UCOP approval. Draft information should be submitted prior to budget approval as part of a Project Planning Guide, Delegated Authority Project Certification Checklist or related ancillary document. This information should be updated prior to design approval.

e.f. Acute care facilities and medical office buildings opting to use energy performance targets for compliance with III.A.~~2~~1.c. will at a minimum use the whole-building energy performance target listed in table 2 below. The whole-building energy performance target is expressed as a percentage of the sum of the Annual Electricity and Annual Thermal targets (converted to kBTU/gsf-yr) based on ASHRAE (2012) Advanced Energy Design Guidelines for Large Hospitals.-[11]

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[11] ~~ASHRAE (2012) Advanced Energy Design Guidelines for Large Hospitals~~

Table 2

	Acute Care			Medical Office Buildings		
	Benchmark Average	Target	Stretch Target	Benchmark Average	Target	Stretch Target
UC Davis Health	230	160	115	85	60	43
UC Irvine Health	230	160	115	80	56	40
UCLA Health	230	160	115	80	56	40
UC San Diego	230	160	115	80	56	40
UC San Francisco Health	230	160	115	80	56	40

f.g. Locations will demonstrate compliance based on the results of energy modeling that represents a best estimate of as-operated, whole-building energy use, before accounting for on-site energy generation. Targets are intended to be verifiable in actual operation following building occupancy.

Projects are also required to model and report on the following metrics:

- annual electricity consumption (kWh/gsf/yr)

- annual thermal consumption (therms/gsf/yr)

- peak electricity (W/gsf)

- peak chilled water (tons/kgsf) (if applicable)

- peak thermal (therms/hr/kgsf)

The following very high-intensity process loads may be subtracted out of the total building energy use intensity if they can be metered separately.

- Clean room

- Data center

- Micro-chip fabrication

- Accelerator (e.g., laser, light source)

- Bio-safety level III Laboratory

- Magnetic Resonance Imaging (MRI)

- Positron Emission Tomography (PET)

- Computer Tomography (CT)

- Pharmacies

If a building has more than 6 Operating Rooms (ORs), additional ORs (defined as any ORs beyond the baseline of 6 ORs) may be subtracted out of total building energy use intensity if they meet the following two requirements:

i. OR heating, ventilation and air conditioning (HVAC) is metered separately; and,

ii. A commitment is made by an appropriate official within the hospital's administration to implement an OR HVAC setback program in the subtracted ORs.

g.h. 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.

2. Privatized Development

a. All privatized development of New Buildings or Major Renovations on University-owned land that is constructed in whole or in substantial part for University-related purposes (i.e., in furtherance of the University's mission, both programmatic and auxiliary uses), and build-to-suit projects not on University-owned land constructed for University-related purposes, shallwill comply with section III.A. of this Policy. 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).

3. Building Renovations

a. At budget approval, all renovation projects should include a listing of sustainable measures under consideration.

b. 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 shallwill strive to comply with the appropriate Policy requirements in III.A.2. , as appropriate.

4. Waiver Conditions Applicable to all Projects

a. Waivers will only be granted in exceptional circumstances and will not be considered if the project negatively impacts the ability to comply with the goals of this pPolicy, in particular the goal of achieving carbon neutrality by 2025.

b. Any proposed waiver from section III.A of the Policy may be requested administratively from the UCOP Executive Director of Capital Programs prior to first project approval.

c. New Building and Major Renovation projects applying for an exception from section III.A.1.d. 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 shallwill submit a request for an exception with a LEED scorecard and supporting documentation to the UCOP Executive Director of Capital Programs, showing the credits that the project would achieve.

d. Such waiver requests ~~shall~~will indicate the applicable section of the Policy and/or Procedures; the proposed solution; and demonstrate equivalency with ~~p~~Policy intent.

5. General/Miscellaneous

a. The University will develop a program for sharing best practices.

b. 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.

c. The University planning and design process will include explicit consideration of life cycle 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.

d. The University will work closely with the USGBC, I²SL~~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. Energy Efficiency: The energy efficiency goal follows the spirit of the US Department of Energy's Better Building Challenge. Each location's percent reduction in energy use intensity (EUI) will be reported annually based on the sum of weather-adjusted energy use divided by the sum of the maintained gross square footage (OGSF50). The average annual reduction will be calculated using an established baseline as detailed in the UC EUI Tracking Methods and References. UCOP will use energy usage data from the systemwide purchased utility database for reporting campus energy use intensity, based on the campus-specified set of utility accounts and associated maintained gross square footage. Electric and gas site energy will be converted to kBTU and normalized for weather. Policy goals will be evaluated and adjusted as appropriate following the 2025 reporting year.

2. On-campus Renewable Energy

a. 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~~ regularly~~ basis~~.

b. Locations will periodically evaluate the feasibility of new on-site renewable electricity projects. The financial evaluation of these projects will fully account for the anticipated avoided costs associated with decreased on-site power production from combined heat and power plants and/or purchased electricity as well as the avoided cost of carbon.

3. Off-campus Clean Electricity

   a. Clean electricity is defined as having a residual greenhouse gas emission factor that is less than 150 lbs. CO_2/MWh.

   b. Clean electricity ~~shall~~will be procured through the following methods and reported on annually:

      i. A location may opt-in to a utility provided green power program for its purchased electricity that meets the definition of clean electricity specified in V.B.3.a.

      ii. The UC ~~Wholesale~~ Clean Power Program, which will procure and supply to participating campuses 100% clean electricity ~~by 2018~~.

      iii. Those locations without access to a green power program may purchase Renewable Energy Credits (REC) to offset purchased electricity. ~~In order t~~To be counted, such RECs will be transferred to UC or retired on behalf of UC.

4. Where feasible, the University will seek to benefit from the economies of scale and to reduce risk by developing a portfolio for systemwide clean energy procurement contracts from which locations may benefit.

5. On-campus Combustion

   a. The University will develop and procure biogas supplies under the direction of the Energy Services Unit Governing Board (The Governing Board). The Governing Board will establish acceptable pricing for biogas projects and determine how the biogas will be allocated to each location. Locations may also implement local projects to directly transport biogas to the location.

C. Climate Protection

1. Each campus will maintain individual membership with The Climate Registry (TCR).[12] Campuses ~~shall~~will include their health locations in their membership.

2. Each campus will complete a Greenhouse Gas (GHG) emissions inventory annually. Campuses ~~shall~~will include their health locations in their inventories.

3. To comply with TCR and the Second Nature Carbon Commitment requirements,[13] inventories should contain emissions of the six Kyoto greenhouse gasses from scope 1 and 2 emission sources outlined in the TCR General Reporting Protocol; and scope 3 emissions sources outlined by the Second Nature Carbon Commitment's Implementation Guide. All UC campuses will report their updated emissions inventories through the Second Nature Carbon Commitment online reporting tool at least biennially. Campuses must

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[12] The Climate Registry 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.

[13] The Second Nature Carbon Commitment requirements are outlined at Second Nature: The Presidents' Climate Leadership Commitments.

verify all emissions inventories through TCR. Campuses may either pursue verification annually (for the previous year's emissions inventory) or biennially (for the emissions inventories from the previous two years).

4. Campuses subject to the United States Environmental Protection Agency (USEPA) Greenhouse Gas Reporting Program, California Air Resources Board (CARB) Mandatory Greenhouse Gas Emissions Reporting, or participation in the CARB Cap-and-Trade Program ~~shall~~will complete the relevant emissions inventories outlined in the USEPA and CARB reporting protocols.

5. Each campus will regularly update its climate action plan for (a) maintaining ~~reducing~~ GHG emissions ~~to~~ at or below 1990 levels ~~by calendar year 2020 (annual 2020 emissions to be reported in 2021)~~; (b) achieving climate neutrality for scope 1 and 2 sources by calendar year 2025 (annual 2025 emissions reported in 2026)~~;, and~~ (c) achieving climate neutrality for the Second Nature Carbon Commitment-specified scope 3 sources (as defined by Second Nature's Carbon Commitment) for calendar year 2050 (annual 2050 emissions reported in 2051); and, (d) climate action planning will integrate environmental justice, adaptation, and resilience. This will include an annual review and update, if needed, of the GHG reduction strategies reported by the campus to the UC Office of the President (UCOP). Campuses ~~shall~~will include their health locations in the action plan.

6. Each campus will complete an assessment of Scope 1 emissions from natural gas combustion by 2035 or at the date when that location's combined heat & power plant (or any other major fossil fuel-using campus infrastructure) is planned for capital renewal or major repair, whichever occurs first. The assessment should determine the best pathway, at that point, to decarbonize 80% of scope 1 emissions through means other than offsets. A de-carbonization assessment should evaluate, but is not limited to, (1) progress toward de-carbonization of piped gas, (2) the feasibility of installing on-site carbon capture, (3) electrification of carbon-emitting plant equipment, (4) hydrogen or synthetic methane injection, (5) emergent technologies, and (6) energy efficiency directed at Scope 1 footprint reductions. The assessment should be provided to campus leadership and inform each campus's Climate Action Plan.

7. 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.

8. The CCWG will develop protocols for growth adjustment, data normalization, and accurate reporting procedures, as required.

9. The University will use only high-quality carbon offsets to meet its climate protection goals beyond its requirements under California's cap-and-trade program. High-quality offsets represent real, additional, quantifiable, durable, and

enforceable emissions reduction or carbon removal, that have undergone third-party verification.[14]

a. For the purposes of this section, offsets are considered:

i. Additional if the credited reductions would not have occurred were it not for the offset program or the University's climate protection policy. Additionality can be assessed for an individual project or for a project type

ii. Durable if there is a very high likelihood that they will remain out of the atmosphere for 40 years on-site or through commitments to replace credits.

iii. Enforceable if the University is able to reasonably ensure that its quality standards are met.

b. The University recognizes that not all offset credits available for purchase from projects registered in the major offset registries represent high-quality emissions reductions.

c. The University will evaluate the quality of each offset project it uses, involving a peer review process overseen by the Carbon Abatement Technical Committee (CATC). The CATC will be made up of at least one representative from each University of California campus, LBNL, Office of the President, and at least one student and one faculty member representative from the University. This review will include evaluating individual projects, or types of projects, against the University's offset quality criteria by appropriate experts. Peer review is in addition to third-party verification.

d. Credits are considered to be real if the quantity of credits generated and used by a project, or a project type, does not exceed conservative estimates of the actual effect of the project, or the set of projects of the project type, on emissions. When there is uncertainty in emissions reduction/removal estimates, estimates are conservative when they are more likely to under-represent than to over-represent actual emissions reductions/removals achieved. Evaluations will take into account the following factors as detailed in the UC Offset Procurement Guidelines: project additionality, conservativeness of methods used to estimate emission reductions including the baseline, and effects outside of project boundaries such as through leakage.[15]

e. The results of these evaluations, including quantitative assessments of credit quality and justifications for the assumptions and determinations made, will be

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[14] Third-Party Verification will involve an audit of offset project eligibility or claimed reductions or removals against an approved methodology by an independent party.

[15] An offset project results in leakage when it reduces an activity, in turn causing that activity, and the associated emissions, to shift location to somewhere outside of the offset project boundaries. For example, a project that increases forest carbon by reducing timber harvesting can result in increased harvesting on other forestlands to meet timber demand.

released publicly for all offset projects or project types the University uses to meet its climate targets.

   f. The CATC will develop and maintain additional criteria, guidelines, and procedures for evaluating offset projects against the University's quality and mission criteria in the UC Offset Procurement Guidelines to be published in 2022.

   g. The University recognizes the quality and mission benefits of implementing its own offset projects. UC-initiated offset projects give the University greater knowledge about the project with which it can ensure the projects' additionality and have confidence in the emission reduction estimates. UC-initiated offsets can also support the University's mission by researching, testing, and refining climate mitigation solutions and supporting student education which can have climate mitigation benefits far beyond the reduction from the credited offset project. The University system and its individual campuses and units will prioritize offset projects with active University involvement.

   h. Decisions affecting offset procurement will be made in the context of the location's climate action plan while following the offset requirements set forth in this Policy.

D. Sustainable Transportation

   1. The Sustainable Transportation Working Group, with input from the Climate Change Working Group, will develop normalized data reporting protocols to track progress on the implementation of sustainable transportation programs. Annually, each location will collect and report:

      a. Fleet efficiency metrics: fleet fuel consumption, total vehicle inventory, and total number and percent of new ZEV fleet acquisitions.

      b. Commute data: employee and campus-wide mode split, including telecommute and compressed week, average vehicle ridership (AVR), and percent of commuter alternative fuel vehicles including ZEVs.

         i. Average vehicle ridership is calculated by dividing all person trip arrivals by private vehicle trips, with adjustments for telecommuting, compressed work weeks, and zero-emission vehicles (based on the South Coast Air Quality Management District's methodology).

      c. Number and type of alternative fuel infrastructure (e.g., electric vehicle charging stations, natural gas, etc.).

   2. Due to the unique characteristics of each campus' fleet management protocols, each location shall will:

      a. dDevelop a Fleet Sustainability Implementation Plan by January 1, 202218, to document the infrastructure and financial needs to implement a low-carbon fleet program and lower campus fleet carbon emissions through 2025.

b.   ~~Location fleets shall i~~Implement practical measures to improve fleet emissions, including, but not ~~necessarily~~ limited to, managing vehicle fleet size, eliminating non-essential vehicles, purchasing the cleanest and most efficient vehicles and fuels, and investing in clean bus ~~shuttle~~ operations.

c.   Establish a local process for centralized review and approval of vehicle acquisitions to ensure that those acquisitions comply with this Policy, that non-compliant acquisitions are operationally and financially justified, and that locations take advantage of opportunities to improve fleet utilization and efficiency.

3. ~~To amplify the impact of campus programs, each location is encouraged to partner~~ Explore partnerships with local agencies, including the Department of Energy's Clean Cities program, on opportunities to improve sustainable transportation access to and around U~~u~~niversity facilities in addition to developing its own transportation programs.

4. Each location ~~shall~~ will implement parking management and pricing strategies to support emissions reduction, trip reduction, and sustainable transportation goals, including variable pricing and unbundling parking and housing costs.

5. The University will pursue strategic programs and data collection to offset greenhouse gas emissions related to commutes and business-related campus air travel. The Sustainable Transportation and Climate Change Working Groups will set an interim emissions reduction target for transportation-related scope 3 emissions.

6.   The Sustainable Transportation Working Group will support central and local Human Resource Offices, and other key stakeholders, in developing systemwide best practices guidance on telecommuting, flexible work schedules, and other alternative work arrangements. Any recommendations should take into consideration issues surrounding costs, savings, challenges, and equity.

~~6.~~7.   This Policy ~~shall~~ will be consulted for all new campus development – including acquisitions and leases – to evaluate how the development or acquisition would meet the transportation policies and goals of the campus and University.

~~7.~~8.   The Sustainable Transportation Working Group will ~~coordinate the development of a~~regularly update the systemwide best practices guide for ~~campus units~~ implementing this Policy and take steps to implement the best practices identified throughout the UC system. Mechanisms for reducing transportation emissions include, but are not limited to:

a. Constructing additional on-campus housing (e.g., student housing and temporary housing for new faculty)

b. Expanding transportation demand management (TDM) programs: car share, carpool/rideshare, vanpool, shuttles, transit, bicycle circulation system, pedestrian circulation system, emergency rides home, parking management and pricing, employee service, and retail amenities, etc.

   c. Expanding intra-campus transportation programs such as shuttles, car share, bike share, bicycle, and pedestrian infrastructure, etc.

   d. Encourage~~ing opportunities for employees to participate in~~ flexible work schedules and/or telecommuting programs to provide alternative commute flexibility and options in accordance with local practices.

   e. Replacing fleet vehicles with newer, more fuel-efficient vehicles when ZEV are not available

   f. Rightsizing fleets (determining the appropriate fleet size, revising business practices to reduce the need for travel)

   g. Reducing overall fleet ~~vehicle~~ miles traveled

   h. Increasing use of fuels with lower GHG emissions

   i. Installation of telematics and GPS to measure and help reduce fuel consumption by monitoring and reducing excessive idling and speeding.

E. Sustainable Building and Laboratory Operations for Campuses

1. The University will incorporate the Sustainable Building and Laboratory 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-O+M rating system and the USGBC's "Application Guide for Multiple Buildings and On-Campus Buildings."

3. Campuses will use the LEED-O+M certification process to advance the University's educational and research mission by using the buildings as living, learning laboratories.

4. Campuses will assess at least three new research groups through their Green Lab Assessment Program ~~by Summer 2018.~~.

5. Campuses ~~shall~~will ~~complete~~ maintain a UC Green Laboratories Action Plan ~~by summer 2018 to~~ determine strengths and areas for improvement within the operations of research laboratories with respect to sustainability and carbon neutrality. A standard template for this with required sections will be maintained and updated by the Sustainable Building and Laboratory Operations Working Group and this plan will be updated ~~on a~~every four-year~~s~~ ~~cycle~~ (2018, 2022, 2026 and so on).

6. Each campus will report annually on their Green Labs program progress, including the number of researchers directly and indirectly engaged by the program each year.

F. Zero Waste

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~~will be prioritized in seeking LEED credits for LEED-BD+C, LEED-ID+C, and LEED-O+M projects.

3. By the end of 2018, locations other than health locations will submit new waste management plans, including planned waste reduction strategies. Plans will include campus and regional waste management practices and options, evaluate progress towards ~~P~~policy goals, and determine the associated costs of achieving ~~p~~Policy goals. Waste management plans will be updated and submitted to the Office of the President's Associate Vice President of Capital Programs, Energy and Sustainability~~, Office of the President,~~ on a every five-year~~s cycle~~.

   a. The 2023 updates to locations' waste management plans ~~shall~~will identify the next steps to take (including costs, responsible parties, etc.) towards eliminating non-essential single-use plastics by 2030 and assess other opportunities for eliminating other single-use products. The findings of these assessments will be used to recommend changes and additions to section III.F.4. of this ~~p~~Policy, no later than July 1, 2024.

4. In line with the objective to minimize the use of single-use products (Section III.F.4), all locations will,

   a. Create a local implementation procedure ~~, by December 2020~~ that includes the delineation of an exception/exemption protocol (i.e., identifying campus authority, implementation authority, etc.) for cases where reasonable alternatives to plastic do not exist. Key stakeholders could include sustainability, dining, athletics, event services, and other departments that operate foodservice facilities. Local procedures may consider allowing plastic water bottles for emergency services, emergency water storage, and at events where alternatives are not practically available.

   b. Work to identify and reduce single-use plastics that are not identified in section III.F.4.

   c. Recognize that accessibility for and inclusion of the disability community is a priority, and integrate best practices into their local implementation procedures to ensure this ~~p~~Policy and its implementation do not create barriers to access or an unwelcoming environment. This includes providing reasonable alternatives to single-use plastic products. If reasonable alternatives are not available, a small stock of single-use plastics (including, but not limited to, plastic straws) should be maintained and made readily available for individuals who need them either at the point of service/cashier; or upon request at dine-in facilities.

5. Exceptions will be considered for entities that 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 Zero Waste 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.

7. Waste Reduction: For the purposes of measuring waste reduction, reporting will be in waste generated per capita per day. Waste generated includes municipal solid waste that goes to landfill and all waste that is diverted through recycling, organics or conversion technologies. Not included in waste reduction calculations are:

   a. Waste generated as part of major construction and demolition projects;

   b. Organic waste generated due to landscape management;

   c. Agricultural, and animal-related waste.

8. Per capita metrics will be understood in the context of business operations and activities:

   a. Campuses will use Weighted Campus User

   b. LBNL will use Full Time Equivalent

   Other locations should use the per capita metric that best supports their business operations.

9. Locations, other than health locations, will strive to achieve 90% diversion of municipal solid waste as soon as feasible through steps that include but are not limited to partnering with local waste haulers to maximize diversion opportunities available and actively engaging with their local campus users to improve source separation. These locations ~~shall~~will outline their strategy for maximizing diversion in their waste management plans and updates. Every year, ~~after 2020, these~~ locations will report to UCOP on their progress and next steps towards meeting this target and identify common barriers and opportunities.

10. The Zero Waste Working Group will coordinate the development of a systemwide best practices guide to outlining methods for quantifying waste generation and diversion at Uuniversity locations. This guide will include recommendations on boundaries, calculation methodologies, contamination rates, tools, best practices for waste reduction and diversion, etc.

11. Where significant data methodology errors are found in benchmark years, an appropriate alternative methodology will be determined by agreement with UCOP and the Zero Waste Working Group.

12. Reporting of solid waste and recycling data will follow ULs Environmental Claim Validation Procedure for Zero Waste to Landfill (UL2799: 2017-03-22: 3rd Edition) and should be applied in principle to future standards/ editions. Where there are discrepancies between UC policy definitions and goals and UL2799 and subsequent editions, the pPolicy language will apply.

13. Campuses will be able to meet up to 10% of their diversion targets through combustion until the end of FY2021/22 after which the UC will no longer accept combustion as a form of diversion. No campus will increase the percentage of combustion reported as diversion from reported FY2015/16 levels. Up to 10% of total waste generated per campus may be disposed of through allowable thermal residual conversion after FY2021/22. To count, (non-combustion) waste converted through thermal processes must include an integrated materials recovery facility (MRF) or equivalent sorting system to recover recyclables and compostable material prior to conversion. The total value of converted materials counted as diversion from landfill is not to exceed 10%.

    a. Consistent with CalRecycle and the Southern California Conversion Technology Project, Allowable Thermal Residual Conversion includes: thermal, chemical, mechanical, and/or biological processes capable of converting post-recycled residual solid waste into useful products and chemicals, green fuels like ethanol and biodiesel, and clean, renewable energy. It does not include combustion. Examples include the transformation of post-recycled residual materials into usable heat or electricity through gasification, pyrolysis, distillation, or biological conversion other than composting. To count as allowable residual conversion, the process must include an integrated materials recovery facility (MRF) or equivalent sorting system to recover recyclables and compostable material prior to conversion. Materials that are otherwise landfilled or incinerated, including biomass conversion operations that exclusively incinerate organic materials, landfill-gas-to-energy (LFGTE) facilities, and other facilities that do not employ integrated materials recovery or equivalent sorting and recovery systems may not be considered as converted residual waste.

G. Sustainable Procurement

1. This section V.G. shallwill be applied within the constraints of research needs and budgetary requirements and in compliance with applicable rules, regulations and laws.

2. The University will work to remove harmful chemicals from products brought onto campus by increasing the purchase of products and materials that disclose known hazards (e.g., in compliance with the requirements of LEED BD+C v4 "Building product disclosure and optimization - material ingredients" - or updated equivalent) and choosing products with reduced concentrations of chemical contaminants that can damage air quality, human health, productivity, and the environment.

3. The University will require suppliers to clearly identify products with UC-recognized certifications, as defined by the Guidelines, in both hosted and punch out catalog e-procurement environments.

    a. Commodity/Contract Managers will work with all contracted suppliers to ensure that contract items that meet the UC criteria for Green and Economically and Socially Responsible (EaSR) Spend as outlined in the Guidelines will be prioritized in all product searches.

    b. Unless locations request otherwise, products that do not meet the University's minimum criteria requirements will be blocked in all hosted catalogs and punch out catalogs upon contract award.

4. The University will require all strategically sourced suppliers to report annually on their sustainable business operations, and quarterly on the University's sustainable purchasing activity. Quarterly sustainable spend reports will be collected by the appropriate University of California Procurement Services department. Quarterly spend reports must be filterable, include all products and services purchased, use an Excel-compatible software, include information on a single sheet, and include the following fields:

    - Campus

    - Department and/or delivery location

    - SKU and/or manufacturer number

    - Item description

    - 8-digit UNSPSC code

    - Product category/Title of UNSPSC code

    - Quantity

    - Unit of measure

    - Price

    - Third-party sustainability attribute or certification as recognized in the Guidelines

5. UC Locations, not including health locations or the Lawrence Berkeley National Lab, will report annually to the UC Office of the President (UCOP) their percent Preferred Level Green Spend and EaSR Spend for product and service categories defined in the Guidelines. For the first two years of reporting, reports

on Preferred Level Green Spend will include, at minimum, a location's share of products purchased from systemwide strategically sourced suppliers, with reports to be provided by the suppliers to UCOP and locations. EaSR Spend reporting will be compiled at the campus level, with the support of UCOP. Reports will be reviewed by each location for accuracy and signed by the location's Chief Procurement Officer, with reporting due 60 days after fiscal close. Reporting procedures will be reviewed after two years of reporting under this Ppolicy.

6. The University Standards for all packaging materials will be outlined in all solicitations. Suppliers will be required to demonstrate how their standards and practices for packaging materials meet the UC Standards.

    a. Additional consideration in bid evaluations will be given to suppliers who meet more than one criteria listed in 8 (a) - (e) for packaging, and with preference given to bids meeting 8 (b).

7. In accordance with section III.F.3., the University has disallowed the use of packaging foam by after 2020. For implementation procedures, reference the University of California Sustainable Procurement Guidelines.

8. The University requires that all packaging be compliant with the Toxics in Packaging Prevention Act (AB 455) as to be free of any intentionally introduced lead, cadmium, mercury or hexavalent chromium, and containing no incidental concentrations of these regulated metals greater than 100 parts per million (ppm) by weight. In addition, the University requires that all packaging meet at least one of the criteria listed below:

    a. Uses bulk packaging;

    b. Uses reusable packaging (e.g., totes reused by delivery service for next delivery);

    c. Uses innovative packaging that reduces the weight of packaging, reduces packaging waste, or utilizes packaging that is a component of the product;

    d. Maximizes recycled content and/or meets or exceeds the minimum post-consumer content level for packaging in the U.S. Environmental Protection Agency Comprehensive Procurement Guidelines;

    e. Uses locally recyclable or certified compostable material.

9. Suppliers, when interacting with the University, shallwill be prohibited from providing hard copies of presentations or other materials. Suppliers will be required to present all information in an electronic format that is easily transferable to University staff, who may choose to print their own copies in accordance with UC Policy if necessary. Materials may be provided if specifically required or requested by a UC representative.

10. All recyclers of the University's electronic equipment must be e-Steward certified by the Basel Action Network (BAN) (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 (e-Stewards for Enterprises).

10.11.   The responsible authority for granting exceptions to items III.G.5.a. and V.G.7. in the Sustainable Procurement section of this Policy will be the Chief Procurement Officer for a non-UC Health systemwide or Office of the President contract; the AVP, UC Health Procurement for a UC Health Systemwide contract; and otherwise by the Procurement/Supply Chain Director of the campus, medical center, or Laboratory.

H. Sustainable Foodservices

1. Campus and health location foodservice operations subject to this Policy shallwill include self-operated and contract-operated foodservices, as well as foodservices in leased locations.

2. Sustainable food is defined as food and beverage purchases that meet AASHE STARS' "sustainably and ethically produced" food for campuses and Practice Greenhealth's "sustainable food" for health locations, as outlined below:

    a. AASHE STARS 2.2 Sustainably and Ethically Produced for campuses;

    b. Practice Greenhealth Healthier Food Purchasing Standards for health locations.

3. Plant-based foods as defined by the Culinary Institute of America's Menus of Change program includes fruits and vegetables (produce); whole grains; beans; other legumes (pulses), and soy foods; nuts and seeds; plant oils; herbs and spices; simple combinations of these foods and their derivatives, and vegetarian/ vegan alternatives to meat and dairy.

    a. AASHE STARS provides additional guidance on processed food items.

    b. Animal products (i.e., meat, poultry, fish, seafood, eggs, and dairy) and their derivatives, drinking water, and most ultra-processed foods do NOT qualify as plant-based foods. Examples of ultra-processed foods include sweet or savory packaged snacks; chocolate and candies (confectionary); mass-produced packaged breads and buns; cookies (biscuits), pastries, cakes, and cake mixes; instant sauces; many ready to heat products including pre-prepared pies and pasta and pizza dishes; powdered and packaged 'instant' soups, noodles and desserts; carbonated drinks; 'energy' drinks; 'fruit' drinks; and distilled alcoholic beverages such as whiskey, gin, rum, and vodka.

4. All foodservice operations should track and report annually the percentage of total annual food budget spent on sustainable food and plant- based products.

5. Each campus and health location procurement department will integrate sustainability into competitive solicitations. Procurement departments will allocate a minimum of 15% of the points utilized in solicitation evaluations to sustainability criteria. Additional guidelines for procurement are listed in III G and the UC Sustainable Procurement Guidelines.

6. The University prioritizes waste reduction in the following order: Reduce, reuse, and then recycle and compost. Campuses, health locations, and leased foodservice operations are encouraged to utilize compostable foodservice containers and packages that have recycled and/or sustainably harvested

content wherever possible. Guidelines for compostable food~~service~~ ware are listed in the [UC Sustainable Procurement Guidelines](#).

7. Each campus and health location is encouraged to maintain accessibility and affordability for all students, staff, and patrons. Campuses are encouraged to explore food recovery programs that can support campus basic needs programs.

I. Sustainable Water Systems

1. Reporting Methods

   a. 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).

   b. Locations with health locations may choose to report health locations data and progress toward the target separately from the main campus.

   c. All locations ~~shall~~will report water usage in a tabular format using the following methods:

      i. Measure per capita water consumption by Weighted Campus User (WCU) for main campuses and Adjusted Patient Day (APD) for health locations. If necessary, WCU and APD may be combined using the following calculation: $[(APD/360) * 1.5] + WCU$;

      ii. Potable water usage for a baseline period that is three consecutive fiscal years including FY 2005/06, 2006/07, and FY 2007/08:

         • Total location potable water usage, in gallons, for each of the three years comprising the baseline period,

         • WCU, or APD, for each of the three years comprising the baseline period,

         • Baseline Potable Water Usage: calculate the baseline metric as follows: Step 1: Divide each year's 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,

         • Multiply the Baseline Potable Water Usage figure by 0.64 to derive the location's 2025 Potable Water Usage Target, and

         • 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;~~

      iii. Potable water usage for the most recent fiscal year[16].

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[16] ~~An average of the three most current fiscal years is allowed but not required.~~

- If using only the most recent fiscal year, and not an average, list in the table the following:
  - o Total location potable water usage, in gallons, for the most recent fiscal year,
  - o WCU or APD for the most recent fiscal year,
  - o Divide the gallons by the WCU or APD to derive the Current Potable Water Usage, and
- 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;

iv. ~~Total~~ If data is available, total location non-potable water usage, in gallons, for the most recent fiscal year.

v. ~~Report~~If data is available, 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.

2. Reporting Schedule

   a. Each location prepared a Water Action Plan as specified below and submitted it to the Office of the President by December 2013.

   b. 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.

3. Water Action Plans

   a. Each Water Action Plan will include:

      i. Water usage and reduction strategies addressing major categories of usage such as irrigation and landscaping, potable water, non-potable water, industrial water, sterilized water, reclaimed water, wastewater, and any other water systems;

      ii. Stormwater management, including stormwater capture and reuse (or reference to the campus' separate stormwater management plan, if one exists);

      iii. Suggestions for implementation of innovative water-efficient technologies as part of capital projects and renovations (e.g., installation of WaterSense certified fixtures and appliances, greywater reuse, rainwater harvesting, and watershed restoration); and

      iv. Education and outreach on water conservation.

   ~~a.~~b. Each Water Action Plan, and the water conservation and water efficiency strategies ~~they~~it contain~~,~~s will ~~also~~ take into account relevant regional

conditions and regulatory requirements, will recognize historical progress, and will acknowledge current location best practices ~~being~~ implemented.

4. ~~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 36% below baseline reduction in per capita potable water consumption;~~

   d. ~~Outlines location-specific strategies for achieving the target for reduced potable water consumption;~~

   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:~~

      o ~~Projected costs and savings of the identified water-use strategies,~~

      o ~~Indirect costs and savings associated with reduced energy consumption due to the energy use embodied in water use,~~

      o ~~Savings associated with reduced or avoided infrastructure costs, and~~

      o ~~Other avoided costs; and~~

   h. ~~Sets a timeline for the strategies being implemented to reach the water usage reduction target.~~

5. ~~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.~~

~~6. Each location's 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 other academic appointees, and staff to implement sustainable water systems on campuses and other locations;~~

~~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.~~

~~7. Each location's Water Action Plan will include a section called Irrigation and Landscape that includes:~~

~~a. Total square feet of turf area and breaks out used and underused turf areas, and;~~

~~b. A description and plan to reduce irrigation with potable water.~~

J. Sustainability at UC Health

1. The UC Health Sustainability Working Group, with input from relevant working groups for each subject area, will develop normalized data reporting protocols to track the implementation of sustainability programs at health locations. Annually, the UC Health Sustainability Working Group will report to the University of California Health Center Chief Operating Officer Group and the University of California Sustainability Steering Committee.

2. Health locations will participate in Practice Greenhealth's reporting program and report at a minimum metrics for energy, carbon, water, and waste. To meet the reporting requirements, reporting to Practice Greenhealth will reflect UC Health location boundaries and will use either adjusted patient encounters or adjusted patient days as appropriate to reflect non-licensed patient encounters. Reporting

to Practice Greenhealth will be based on the most recently complete fiscal year. ~~Beginning in the 2018/19 fiscal year, these reports will be used for the Annual Report on Sustainable Practices that is presented to the UC Regents.~~

3. Health locations may discretionarily submit additional facility-specific applications to Practice Greenhealth for award consideration in addition to a total site/campus application. The stated ~~policy~~ goal of achieving Practice Greenhealth Partner for Change Awards may be at the campus or facility level.

4. ~~Health locations will set targets for their facilities for waste diversion and reduction as well as for water reduction in accordance with the schedule outlined in section III.J. If targets require a comparison to a baseline dataset, Practice Greenhealth's 2017 report will be used as a baseline. These targets will be recommended to the system wide Sustainability Steering Committee for addition to the Policy at the meeting following the due dates listed in section III.J.~~

K. General Sustainability Performance Assessment

1. The rating must be for a current certified STARS report, and under the current STARS point allocations.

L. Health and Well-Being

1. The Healthy Campus Network will build a systemwide working group that will work closely with campus, health location and community stakeholders to build out and coordinate implementation of this section of the ~~p~~Policy.

VI.   RELATED INFORMATION

~~Annual Report on Sustainable Practices~~

AASHE STARS 2.2 Sustainably and Ethically Produced (Food and Beverage Purchasing)~~for campuses~~

AASHE STARS guidance on processed food items

BFB-BUS-43 Purchases of Goods and Services; Supply Chain Management

BFB-BUS-38: Disposition of Excess Property and Transfer of University-Owned Property

California Air Resources Board LCFS Pathway Certified Carbon Intensities

California Building Code, Title 24

California Energy Commission's Renewables Portfolio Standard Guidebook

e-Stewards for Enterprise

Facilities Inventory Guide

Federal Trade Commission's (FTC) Green Guides

Practice Greenhealth Healthier Food Purchasing Standards for health locations

Public Contract Code: Materials, Goods, and Services, Section 10507.8

Public Contract Code: Construction

State Administrative Manual

The Climate Registry

Trademark Licensing Code of Conduct

UC Annual Report on Sustainable Practices

UC Flexible Work Arrangements and Telecommuting Website

UC Sustainability Website

UC Sustainable Procurement Guidelines

UC Sustainable Procurement Website

UC 2016 Whole-Building Quantitative Energy Performance Targets (2020 update)

UL 2799 Environmental Claim Validation Procedure for Zero Waste to Landfill

U.S. Environmental Protection Agency Comprehensive Procurement Guidelines

VII.   FREQUENTLY ASKED QUESTIONS

Not applicable.

VIII.   REVISION HISTORY

XXX, 2021: Policy revised to update the following sections with new goals, procedures, and clarifications: Green Building Design, Climate Protection, Sustainable Transportation, Sustainable Water Systems, and Sustainability at UC Health. Added a Health and Well-Being Policy section. Made minor clarifications to water and procurement sections.

Updated the Green Building Design section to reference an updated list of whole building performance targets that include 100% Lab Space and include reporting on the energy efficiency policy requirement for new buildings.

Included new provisions establishing criteria for the purchase of carbon offsets to the Climate Protection sections, added a reference to climate justice in campus's Climate Action Plans, and clarified that GHG reductions should be maintained after the 2020 target date.

Replaced the fleet targets in the Sustainable Transportation section with ones that better reflect State policy and technological advances. Incorporated telecommuting into the Sustainable Transportation goals.

Updated the Sustainable Water Systems section to make it easier to read and removed expired dates and details that are already regulatory requirements.

Revised the water and waste goals for health locations so that the same targets are now applicable to each health location.

July 2020: Policy revised to update the following sections with new goals, procedures, and clarifications: clean energy, climate protection, sustainable building and laboratory operations for campuses, sustainable foodservice, zero waste, and UC Health. Policy expanded to add a section for general sustainability performance assessment. The following provides more details on the updates:

Added a new provision to the Climate Protection section to require that campuses formally assess options for reducing emissions from combined heat and power plants before capital renewal or major repairs.

Updated the Zero Waste section to integrate the waste diversion and minimization targets into a new zero waste goal and adding a new P~p~olicy provision to begin phasing out single-use plastic bags and foodware items.

Replaced the 2020 goal in the Sustainable Food Services section, which has already been met, with a new 2030 goal that aligns with the Association for the Advancement of Sustainability in Higher Education's (AASHE) Sustainability Tracking, Assessment and Rating System (STARS) and Practice Greenhealth's requirements.

Added a General Sustainability Performance Assessment section that codifies participation by all undergraduate campuses in the AASHE STARS rating system and achieving a gold rating by 2023.

Updated the UC Health Policy Section to include new waste and water targets for UCI Health and to reference existing green building and sustainable food requirements.

Made other small formatting and wording changes to improve the clarity and readability of the ~p~Policy and to clarify which ~p~Policy sections apply to the Lawrence Berkeley National Laboratory.

January 2019: Policy revised to clarify the following sections: climate protection, zero waste, and sustainable procurement.

August 2018: Policy expanded to include UC Health and change the name of the Environmental Preferable Purchasing section to Sustainable Procurement. Policy revised to update the following sections with new goals and clarifying language: definitions, green building design, clean energy, zero waste, and sustainable procurement.

June 2017: Policy remediated for accessibility according to Web Content Accessibility Guidelines (WCAG) 2.0

Policy revised to reflect the University Carbon Neutrality Initiative, adding definitions of green lab assessment programs, "research group" as defined by the Laboratory Hazard Assessment Tool (LHAT), and the inclusion of the UC Green Laboratories Action Plan. Changes were also made to the sections for Sustainable Building Operations for Campuses.

June 2016: Policy revised to update the following sections with new goals and clarifying language: definitions, green building design, sustainable transportation, and sustainable water systems.

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 (UCOP Sustainability)

EXECUTIVE VICE PRESIDENT—
CHIEF FINANCIAL OFFICER

OFFICE OF THE PRESIDENT
1111 Franklin Street, 12ʰ Floor
Oakland, California 94607-5200
510/987-9029

September 16, 2021

CHANCELLORS
ACADEMIC COUNCIL CHAIR HORWITZ
LABORATORY DIRECTOR WITHERELL
ANR VICE PRESIDENT HUMISTON

Re: Systemwide Review of Proposed Presidential Policy on Sustainable Practices

Dear Colleagues:

Enclosed for systemwide review are proposed revisions to Presidential Policy on Sustainable Practices.

The systemwide Sustainability Steering Committee is the governing body for the Sustainable Practices Policy and reviews the policy annually for required updates and revisions. This year, the Sustainability Steering Committee approved several policy updates to the Green Building Design, Climate Protection, Sustainable Transportation, Sustainable Water Systems, and Sustainability at UC Health sections. These changes included updating specific targets and adding additional requirements. In addition, a new Health and Well-Being section was added, and a number of minor revisions were made to clarify the intent and improve the readability of the policy.

The specific changes are summarized below by policy section:

- Green Building Design: Updated the section to reference a revised list of whole building performance targets that include 100% Lab Space and clarify the reporting process for the existing energy efficiency requirement for new buildings.
- Climate Protection: Included new provisions establishing criteria for any purchase of carbon offsets, added guidance to integrate environmental justice, adaptation, and resilience into each campus's Climate Action Plan, and clarified that greenhouse gas emissions reductions should be maintained after the 2020 target date.
- Sustainable Transportation: Replaced the fleet targets with ones that better reflect State policy and technological advances and incorporated telecommuting into the commute goals.
- Sustainable Water Systems: Updated the section to make it easier to read and removed expired dates and details that are already covered by regulatory requirements.
- Sustainability at UC Health: Revised the water and waste goals for health locations so that the same targets are now applicable to each health location.
- Multiple changes were made throughout to better reflect guidance in the UC Policy Stylebook, minimize footnotes, move definitions into the text, define acronyms, standardize formatting, etc.

The Sustainable Practices Policy has been reviewed annually since its issuance in 2004 by the Sustainability Steering Committee and the working groups it formed to develop and implement each section of the policy. The review process includes the following three main steps:

September 16, 2021

1. Each section in the policy is governed by a separate systemwide working group. Those working groups evaluate their respective policy sections annually and propose revisions as needed. Each working group consists of one or more stakeholders from each campus and health system. These are the individuals responsible for implementing the associated policy requirements and reporting on implementation progress at their respective campus or health system. The working groups make decisions based on consensus. For example, campus fleet managers all agreed on the updated fleet targets in this year's proposed revisions.

2. The Sustainability Steering Committee reviews and discusses the proposed policy changes. The Sustainability Steering Committee includes senior management representation from every campus. This is usually the Vice Chancellor for Administration for campuses and the Chief Operating Officer from each health system. The committee also includes faculty appointed by the Academic Senate as well as appointed undergraduate and graduate student representatives and the Student Regent.

3. The Sustainability Steering Committee approves the recommended policy revisions.

This year's proposed changes have gone through all three steps above. The only change the Sustainability Steering Committee made to the draft revisions recommended by the working groups was to align the waste and water targets so each health system has the same goal. Previously, some health systems had policy targets that were less aggressive than others. All health systems agreed to adopt the same more aggressive waste and water targets.
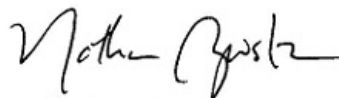
Systemwide Review

Systemwide review is a public review distributed to the Chancellors, the Chair of the Academic Council, the Director of the Lawrence Berkeley National Laboratory, and the Vice President of Agriculture and Natural Resources requesting that they inform the general University community, especially affected employees, about policy proposals. Systemwide review also includes a mandatory, 90-day full Senate review.

Employees should be afforded the opportunity to review and comment on the draft policy. Attached is a Model Communication which may be used to inform non-exclusively represented employees about these proposals. The Labor Relations Office at the Office of the President is responsible for informing the bargaining units representing union membership about policy proposals.

We would appreciate receiving your comments no later than December 15, 2021. Please submit your comments to Matthew.StClair@ucop.edu. If you have any questions, please contact Chief Sustainability Officer Matt St.Clair at Matthew.StClair@ucop.edu.

Sincerely,

Nathan Brostrom
Executive Vice President and Chief Financial Officer

Enclosures:
1) Draft Presidential Policy on Sustainable Practices (clean copy)

September 16, 2021

   2) Draft Presidential Policy on Sustainable Practices (redline copy)
   3) Model Communication

cc: President Drake
      Provost and Executive Vice President Brown
      Executive Vice Chancellors/Provosts
      Executive Vice President and Chief Operating Officer Nava
      Senior Vice President Bustamante
      Vice President and Vice Provost Gullatt
      Vice President Lloyd
      Vice President Maldonado
      Vice Provost Carlson
      Vice Provosts/Vice Chancellors of Academic Affairs/Personnel
      Deputy General Counsel Woodall
      Associate Vice Provost Lee
      Associate Vice President Phillips
      Assistant Vice Provosts/Assistant Vice Chancellors/Directors – Academic Personnel
      Executive Director Baxter
      Executive Director and Chief of Staff Henderson
      Executive Director Silas
      Chief of Staff Kao
      Chief of Staff Levintov
      Chief of Staff Peterson
      Chief of Staff Werdick
      Chief Policy Advisor McAuliffe
      Director Grant
      Director St.Clair
      Director Sykes
      Associate Director Bell
      Manager Crosson
      Manager Smith
      Analyst Durrin
      Policy Advisory Committee