

Chancellor's Sustainability Committee Meeting Minutes

Tuesday, May 24th, 2022 10:00 - 11:30 PM

Inperson - 5824 Ellison Hall

Zoom Option

Attendance (Committee Members): Julie Hendricks, Garry Mac Pherson, Krista Fritzen, Mark Rousseau, David Lea (Co-Chair), Roland Geyer, Ken Hiltner, Cali Pflieger, Mo Lovegreen (Advisor), Renee Bahl (Co-Chair), Gildas Hall, Julie Maldonado, Mark Brzezinski, Jewel Persad (Staff)

Attendance (Other): Jordan Sager, Katie Maynard, Andrew Riley

Open Forum/Introductions (10:00 - 10:05) - None

Announcements (10:05 - 10:10):

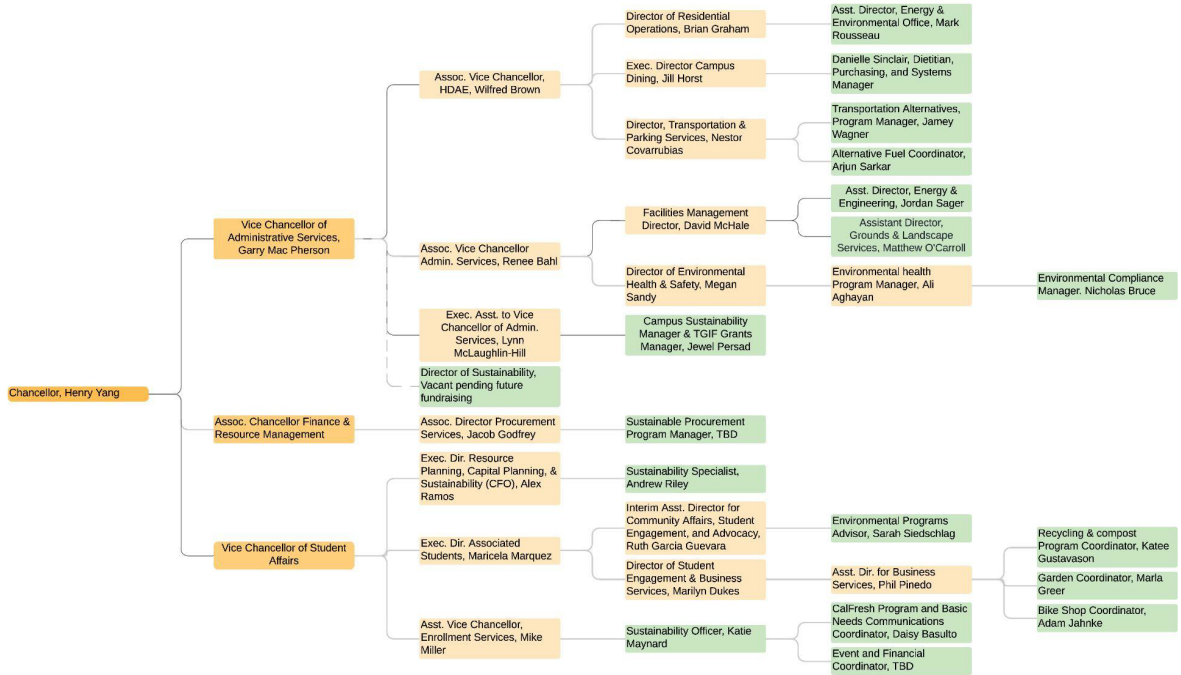
- Krista Fritzen, Manager at the Coral Tree Cafe is the newest CSC member

Updates (10:10 - 10:30):

- Sustainability Structure - Garry

About two years ago we began having conversations with the Chair of Geography regarding space allocation issues. We weren't successful at finding space and it also became more clear that there are too many students participating to move sustainability off campus. We decided to move Sustainability to Student Affairs.

Sustainability Structure



Sustainability will now sit under Mike Miller and Katie Maynard, Daisy Bas, and a Financial Coordinator will move over. All other staff will remain in their current locations.

a. ESU Governing Board Meeting Outcomes (Offsets)

Jewel & Jordan have prepared Garry for these meetings. OTC, - convened to tackle some hotly debated issues around offsets.

The ESU board met on April 27th to review the recommendations.

- UCSB projected offset needs - 14k in offsets come 2025, we do not need any offsets for the 1990 goal.
- UC identified 5 projects - one was UCSB's Unite to Light project. All campuses agreed to contribute to the pool and average the cost, and distribute it equally.
- Prioritization - UC Initiated, vetted project types, RFP for remaining needs
- We are fairly confident at the continued upward trajectory in offset costs and recommended to the governing board that by the end of

the calendar year, we procure all offsets needed for 2021 - 2025.

- OP will centrally bank offsets and recharge campuses as they buy them for year needed
- All campuses opted into the procurement strategy.
- 18M a year starting in 2025.

Did you get a sense whether members think it is worthwhile to invest in offsets?

Really critical - all prefer to actually see reductions in emissions, and the big reductions will need to come from Gas use since our electricity is coming from clean electricity.

b. Sustainability Steering Comm Mtg Outcome/Readout

Successful meeting, presented on many of these policies before the meeting. The following policy updates were passed:

- The UC Healthy Vending Guidelines passed with the first implementation deadline in 2025. This policy has been worked on since 2015!
- Each campus and health location will procure 25% plant-based food by 2030 and strive to procure 30% by 2030.
- LEED Gold adopted UC wide (catching up with UCSB!)
- Parksmart Silver certification required for any proposed new parking structures
- UC campuses will achieve carbon neutrality from scope 3 sources by 2045.
- Each location will incorporate the “University of California’s Framework for Incorporating Environmental & Climate Justice into Climate Action” and its evaluation questions into climate action planning.

B. Approve Meeting Min. from April (10:30 - 10:31): - approved

C. Presentation and Discussion (10:31 - 11:10):

a. [Gas use on Campus](#) - Jordan Sager

- \$1.5M spent on gas in 2021 compared to \$5.8M for grid electricity and \$1.07M for Solar electricity.
- The biggest reductions in resource uses during covid was water, followed by electricity, then natural gas.
- Only 16% of utility expenditures were on natural gas.
- Next year potable water will be our number 2 expenditure.
- In 2020 total natural gas expenditures increased despite a reduction in use. We are seeing an upward cost trend.
- Each year we release an Annual Utility report; this is required by our SUN agreement and the Coastal Commission.
- UC policy - reduce annual energy use intensity 2% per year. UCSB has stayed under the policy requirement since it was introduced.
- Heating and hot water make up almost all of the natural gas use. Top 20 natural gas using buildings on campus.
- Top 20 buildings account for 67% of campus natural gas consumption. Top 10 account for 49%. These are the locations that should be prioritized.

Top 20 Natural Gas Use/Bldg: 1 Year

PHYSICAL SCIENCES BUILDING NORTH	224,609 THERM
BIOLOGY II	209,655 THERM
ENGINEERING II	158,488 THERM
BIOENGINEERING	134,401 THERM
RECREATION CENTER	128,068 THERM
ELINGS HALL	117,569 THERM
DE LA GUERRA DINING COMMONS	105,056 THERM
CARRILLO DINING COMMONS	103,877 THERM
SAN CLEMENTE - ARROWHEAD	102,914 THERM
ENGINEERING SCIENCE BUILDING	65,365 THERM
MARINE SCIENCE RESEARCH BUILDING	57,417 THERM
DAVIDSON LIBRARY	45,328 THERM
OLD GYM	44,970 THERM
CENTRAL STORES	40,027 THERM
SOCIAL SCIENCE AND MEDIA STUDIES	39,823 THERM
PSYCHOLOGY	39,634 THERM
STUDENT RESOURCE BUILDING	38,707 THERM
HAROLD FRANK HALL	38,272 THERM
ARTS	32,915 THERM
NOBLE HALL	32,567 THERM

- Many buildings heat and cool at the same time by design. Bringing in outside air, cooling the air to remove humidity, and then heating it back up. Either centrally at the air handler or by zones.
- Electric boilers are not really an option for UCSB. Building's weren't designed for the massive amounts of power needed and operating this way would be extremely costly. Most campuses that have electrified their heating systems have done so by using heat recovery chillers. This can be very efficient but requires simultaneous heating and cooling loads, thermal energy storage, or both. Also requires substantial investment in upgrading individual building systems.
- Our hot water loop on campus only connects three buildings (Engineering II, Brioda, and PSB South), we would need to expand this across campus. We would need trenching and building modifications, this is an expensive process but can be phased in. That is the approach we are taking as funding opportunities come up. High upfront cost per ton, but only one

time payment, and we will see utility cost savings from capturing waste heat.

➤ Next Step - add cost projections

b. R2 vs E-Steward Comparison

- All recyclers of the University’s electronic equipment must be e-Steward certified by the Basel Action Network (BAN).” UC Sustainable Practices Policy, however some UC Campuses have received an exemption to use R2
- There have been concerns that R2 Standard does not adequately address prison labor, international exports, landfilling and incineration, health and environmental justice, and worker protections, the campus is still using e-steward
- TGIF awarded a grant for a research project to compare e-Stewards vs R2
- Results of the comparison can be found in the table below:

Table 1. Comparison of R2 and e-Stewards

Standard Provision	R2	e-Stewards
Prison Labor	<ol style="list-style-type: none"> 1. Yes, voluntary, minimal compensation, and skills training 	<ol style="list-style-type: none"> 1. Yes, voluntary, minimal compensation, and skills training 2. Operation does not receive any form of government subsidy 3. Restrictions on customer data management 4. Health protections for prisoners employed 5. Certification is only available to Prison Operations meeting the criteria found in 8.4.5. (<i>e-Stewards 24</i>)
International Exports	<ol style="list-style-type: none"> 1. Prior to any international shipping, R2 facilities have to show proof of legality for every shipment that they export to other countries 2. All shipping related documentation should include 	<ol style="list-style-type: none"> 1. Ensure the equipment is only exported in conformity with this standard (<i>e-Stewards 26</i>) 2. When exporting any electronic equipment for repair/refurbishment, the organization have to ensure that

	<p>required declarations consistent with regulatory requirements for the materials being transported</p> <ol style="list-style-type: none"> 3. Other information or documentation is required if the waste is hazardous 	<p>each shipment is accompanied by a completed label and meets the requirements in section 8.5.2.1 (<i>e-Stewards</i> 27)</p> <ol style="list-style-type: none"> 3. Must follow the national laws of exporting, importing or transits of other countries before moving e-waste there
Audit	<ol style="list-style-type: none"> 1. Contracts with independent third party for audits 2. Facilities are mostly in charge of making sure they are meeting R2 standards (De vries) 	<ol style="list-style-type: none"> 1. Contracts with independent third party for audit 2. Does unannounced inspections 3. Randomly puts GPS trackers into the stream of recyclers and caught many cheaters (<i>e-Stewards</i> 2, 49) 4. Has a category called critical nonconformity where a company could be removed if they violate the Basel Convention
Landfilling Incineration in developing countries	<ol style="list-style-type: none"> 1. Requires compliance with local laws and regulations (<i>R2 14</i>) 	<ol style="list-style-type: none"> 1. Requires compliance with local laws and regulations (<i>e-Stewards</i> 2)
Social (Health and Environmental Justice)	<ol style="list-style-type: none"> 1. Accepts either RIOS or ISO for Environmental, Health & Safety (EH&S), and Quality Certifications 2. R2 has not signed onto the the basel convention 	<ol style="list-style-type: none"> 1. Accept either ISO 14001 or RIOS for EH&S (was adopted because e-Stewards reviewed that RIOS is good or even better than ISO) (Smith) 2. Signed onto the basel convention
Data Security	<ol style="list-style-type: none"> 1. NIST (National Institute of Standards and Technology) & NSA (National Security Agency) for data security 	<ol style="list-style-type: none"> 1. NAID AAA certification for data security
Worker Protection	<ol style="list-style-type: none"> 1. Offers liability protection for on the job injuries 2. R2 provides a designated qualified employee for a two-way communication between the employee and the workers for potential hazards and how 	<ol style="list-style-type: none"> 1. In addition to providing liability protection for on the job injuries, e-Stewards workers have a designated health provider that helps workers with their health issues and injuries, and with the communication of Industrial

	<p>to best address them, but does not have much worker protection for testing hazards and testing workers regularly</p> <ol style="list-style-type: none"> 3. RIOS standard is used for worker's health and safety 4. For health and safety of the workers, the R2 facility shall maintain a process to periodically evaluate the risk of exposure to hazardous substances (<i>R2 13</i>) 	<p>Hygiene and medical monitoring results with each worker, workers from e-Stewards benefit from this worker protection for their safety (<i>e-Stewards 20</i>)</p> <ol style="list-style-type: none"> 2. Every three calendar years, the organization have to conduct documented risk assessments of hazardous e-waste (<i>e-Stewards 14</i>) 3. Specifies the hazards which must be tested for while using certain recycling technologies (<i>e-Stewards 35-42</i>)
Insurance Requirements	<ol style="list-style-type: none"> 1. Insurance cover the treatment of work-related injury and illnesses of workers 2. The R2 maintains pollution liability insurance 	<ol style="list-style-type: none"> 1. Makes sure that workers receive insurance coverage 2. Insurance covers a broad spectrum : data privacy breaches, contractual liability, site pollution, property damage, environmental pollution, legal liabilities, occupational health and safety impacts, and other emergencies and liabilities; 3. If the actual insurance coverage is significantly different from the professional advice and quote(s), the organization shall provide written justification for the discrepancy.

Results indicate that E-Steward is the better standard and we should continue to use it.

D. Celebration of Mo Lovegreen (11:10 - 11:30):