



Innovation: Zero Waste 2019

2019 CHESC Call for Presentations (California Higher Education Sustainability Conference)

California Higher Education Sustainability Conference (CHESC)



Status: Review Pending

This proposal was submitted for review Mon Apr 1 2019, 6:35pm EDT.
If you need to make changes to it, please contact Ms. Katie Maynard at .

[Dashboard](#) > Proposal Details

Instructions

Proposal Content

Proposal Title

Innovative Staffing: Turning Waste into Abundance

Presentation Content

Primary Presentation Topic Area

Institutionalizing Sustainability

Second Presentation Topic Area

Waste Reduction and Recycling

Student Convergence

- I am not a student
- Yes, I would like to present at the student convergence
- No, I would prefer not to present at the student convergence
- If I am not accepted to present during the main conference, I would be open to presenting at the convergence

Best Practice Award Category

- I don't want to be submitted for an award
- Sustainable Food Service
- Student Sustainability Leadership
- Academics: Interdisciplinary
- Sustainable Transportation
- Waste Reduction
- Water Efficiency & Site Water Quality
- Partnerships, Communications, and Planning (PCP)
- Social Equity and Justice
- Energy Demand
- Energy Supply
- Overall Sustainable Design (New Construction & Major Renovations)
- Sustainability Innovations

Brief Synopsis

Cal Poly SLO is Turning Waste into Abundance. Learn about an innovative approach to create new permanent staffing capacity through not-yet realized utility savings potential.

Overview/Abstract

When faced with insufficient staff resources to successfully achieve University system and campus zero waste goals, Cal Poly staff utilized an innovative approach to fund new permanent staff positions through savings from optimization of existing utilities, in this case, a Zero Waste Coordinator position. The vision for this initiative was that after permanent savings had been realized, there would be new long-term "self-funded" staff capacity to further advance goals and programs without any net increase in cost.

Alternative methods were suggested which involved hiring a consultant to perform waste optimization only or just to conduct the optimization and savings analysis to prove the business case before hiring. However, in either case, institutional knowledge gained by the consultant would be lost at the end of the project, and a one-time optimization consulting scope would have missed the real opportunity for sustained staff capacity to advance programmatic and institutional goals.

Success was only possible by gaining buy-in from key stakeholders (other auxiliaries and executive leadership), who had to become confident that the promised savings would be realized and that the permanent additional staff capacity would create long term value for their organization. In order to make this happen, staff needed to understand the potential for savings through data-driven analysis and develop a clear plan to deliver on promised savings. The problem, analysis, and action plan were organized into a 2-page proposal and socialized throughout the stakeholder group to gain buy-in. An important part of the hiring process was to communicate the savings goal as a clear expectation to the new hire.

Costs are recharged to each partner as a percent of annual waste spend. Success of the initiative was defined as achieving a minimum of budget neutrality between the fully burdened cost of the new position and the utility savings.

Methodology

A strong business case and an action plan was clearly needed to gain traction for this initiative.

The first step was to have a student intern (or Americorps member) spend a quarter or two studying the current system, collecting and analyzing data, and tracking baseline metrics to identify and quantify potential high impact areas for savings. A potential variation on this would be to look at opportunities across multiple utilities.

Development of a 2-page proposal was the next step. After finding that sufficient opportunities existed for savings based on conservative analysis of actual data, a proposal was created describing the problem, communicating conclusions from the savings analysis, proposing a potential implementation strategy, and requesting the new position.

Next, we gained buy-in and approval. The proposal was presented to auxiliary stakeholders through the Zero Waste Collaborative. A key consideration in the project design was allocation of the position costs via standard utility recharge on some agreed-upon prorated basis (by current year percent entity spend of total waste spend). Questions and concerns were addressed. Once stakeholder support was achieved, we presented proposal with business case and action plan to the executive decision-maker and after several strategic nudges, the position was approved.

Education and Outreach

Making key stakeholders aware of the problem and a potentially budget-neutral solution was critical to building traction for this initiative. At Cal Poly, this meant convening our Zero Waste Collaborative, a campus-wide group of operations level staff who have a stake in a more efficient and effective waste management program. Presenting the problem-a significant gap between CSU and campus goals and insufficient staff capacity, and the business case and action plan to the collaborative allowed us to address issues and questions early and to empower the stakeholders to begin planting seeds for this idea within their organization.

We were able to give stakeholders confidence that the proposed position would be at minimum budget neutral through the data-driven analysis that was then communicated through a compelling proposal and presentation. A key message was that that the risk of doing nothing would cost more than the risk of creating the position.

Collaborative Design and Implementation

This project was a highly collaborative effort that included all major campus auxiliaries. Success required their understanding, commitment, and confidence. Project collaboration began during data-gathering, when waste audits performed by student clubs and housing residents helped provide additional data to make the business case. Once the concept showed positive feasibility, members of the Zero Waste Collaborative, representing all auxiliaries, helped to flesh out the concept through early feedback. These auxiliary representatives later became champions for the project to their respective leadership.

There were other important structures that were developed in collaboration with the Zero Waste Collaborative that made this proposal successful. The position would be billed seamlessly through the standard monthly recharge process and paid out of their existing utility budget meaning that the stakeholders didn't have to request funding. Additionally, each partner expected open access and ongoing programmatic support from the specialist position in their respective organizations to help monitor billing, optimize service, and advance their organization's specific programs.

Current Status of the Project

The Zero Waste Coordinator (ZWC) position was approved Fall 2017, and hired in February 2018. The ZWC has been active for just over a year, and has to date to been overwhelmingly successful exceeding the budget neutrality requirement. In the first year, significant progress was made on system clean-up and optimization. In this second year, optimization in transitioning to system maintenance and focus is shifting towards development of programs that will move the campus towards our Zero Waste Goals.

Qualitative Impacts

When not staffed as a stand-alone position, waste & recycling are often delegated to someone in the organization who may have little or no experience in the field or are responsible to manage multiple unrelated areas. At Cal Poly, Zero Waste was delegated to the Energy Analyst, taking time away from other high-value energy and water-saving initiatives. The new ZWC position freed staff capacity to focus on their respective specialties, reducing stress, increasing job satisfaction, and allowing for more project capacity.

After initial optimization, the ZWC position transitioned to maintenance of the system, leaving significant capacity to advance programs and system goals, support academic infusion through student engagement, and create new program development in housing, dining and events.

The new ZWC has also identified savings and recycling opportunities the campus did not previously have the capacity to pursue, such as collecting recyclable construction & demolition waste from regular campus operations, outsourcing chipping of greenwaste rather than investing in a new grinder for compost operations, finding more revenue from scrap metal collection, and putting roll-off services out to bid.

Quantitative Impacts

The ZWC Position was required to save \$100,000 per year from the baseline in order to meet the commitment of a self-funded budget-neutral staff position. Actual savings for the

first year were \$134,000. In addition to cost savings, consumer diversion from landfill year over year has increased 3% after remaining static for years. This diversion is expected to accelerate now that the major work on waste optimization is complete. The ZWC also achieved other important metrics, such as reaching 500 faculty, staff, and students in train the trainer and custodial trainings, as well as supporting at least a dozen student projects and several classes reaching over 100 students. The ZWC is now working to develop campus-wide signage to increase diversion and reduce contamination and confusion. This project will have a positive impact on all campus community members.

Relevance as a Best Practice

All campuses have waste and utilities. Many campuses aren't yet optimized and have the potential to achieve savings. This initiative demonstrates a model that can be used by almost any campus to add additional staff capacity without increasing overall costs. The model is also transferrable to other utility types, in particular energy. This gives campuses flexibility in how to achieve abundance (new staffing) from existing waste in spending.

The project also is a good example of leveraging data-driven communications and cultivating relationships (Zero Waste Collaborative) that strengthen a campus's overall effectiveness by breaking down silos.

Describe how this topic may influence future policy decisions for your campus or system.

Now that the concept has been proven and 1st year results have exceeded expectations, we will be evaluating other opportunities to develop similar initiatives. The success of this initiative creates momentum that will accelerate acceptance of the next innovative collaboration. We are already considering developing a business case using this approach to create a full-time in-house Commissioning Agent to do Cx of all new construction and major renovations. When not busy on construction, they could work on retrocommissioning of existing buildings supported by our Energy Information System. This would be a shared position between Energy, Utilities & Sustainability (EU&S) and Facilities Planning & Capital Projects (FPCP)

What is the intended learning outcome of your presentation?

The intended learning outcome of this presentation is that other campuses can create new staff capacity within their own organizations by following this approach. When staff are underresourced and believe there is an opportunity to achieve significant utility savings and advance programmatic goals, a bit of effort on the front end can create long term capacity and value. The risk is worth the reward!

What are the actions that you hope your audience will implement post-conference?

Post conference, attendees should evaluate areas where additional staff are needed or where a person is doing two or more jobs where they are only trained or proficient at one of them. Then examine particular areas that have unoptimized systems and potential for significant waste reduction and savings. Targeting utilities with budgets greater than \$600k can potentially yield the required \$100k savings.

Jargon Level

General Audience: Limited or no jargon. Great fit for those new to sustainability to more experienced attendees.

Low-Hanging Fruit vs. Deep Green

Low Hanging Fruit: Quick return on investment and relatively easy to implement.

Presentation Style and Equipment/Space Needs

Please describe any media needs you anticipate having

- PC Laptop
- MAC laptop (we request that you use the PC laptop available unless you really need a MAC)
- Need to use your own laptop (we prefer that you use ours, but can accommodate this if need be)
- Projector and Screen
- Sound from the laptop
- Ability to play videos on the laptop
- Other needs for high speed internet (not just going to a webpage)
- Quiet people speaking (might need microphones where those aren't always needed)
- Flipcharts and markers
- Index cards and Pens
- Paper and Pens
- Ability for audience members to be seated at tables facing each other
- Ability for audience members to move their chairs, but tables are not needed
- Other
- None

Other Space/Media Needs

no answer

Presentation Style

- Project Presentation
- Partnership Presentation highlighting two distinct campuses/projects
- Partnership Presentation highlighting three distinct campuses/projects
- Interactive Presentation
- Performance Art

- Visual Art
- Poster Presentation

Interactive Activities (required if you choose Interactive or Performance Art as your presentation style; optional for other applicants)

no answer

Permissions and Confirmations - Please Read Carefully

Please read the following section carefully as it includes critical information and relevant CHESC policies that you will be expected to adhere to.

Speaker Changes

All changes to the proposed speakers listed in your original abstract must be reviewed and approved by CHESC. CHESC reserves the right to cancel a talk based on a change to the speaker list (though we will usually work with the submitters to identify alternate speakers first). A loss of one of the speakers within the session may also result in the canceling of a talk, even if one of the selected speakers can still attend. If you significantly change your topic, scope, or speakers you must seek approval from CHESC.

Closing and Submission

Please let us know if you have any other comments or concerns before submitting your abstract. Please note that you must hit "submit" for the proposal to move onto the review committee. If you need to make changes after you hit submit, please contact CHESC Staff, Julia Feldman juliafeldman1997@gmail.com and we can release the proposal back to you. This can be done until the submittal deadline. Please also make sure that you have linked all the speaker(s) for your session to this proposal.

Additional Comments

no answer

Speakers

Your proposal must include at least 1 but not more than 6 speakers.



Eric Veium

Name

Eric Veium

Organization

Cal Poly, San Luis Obispo

Which campus system are you from (if any)?

California State University

Department, Division, or Organization within your Campus/Institution/Company

FM&D Energy, Utilities, & Sustainability Department

Title Line

Energy & Sustainability Analyst

Which best describes you?

Staff/administration of a campus

Post-nominal titles

CEM, CEP

Office Phone

805.756.5163

Cell Phone (Only to be used if there are problems onsite)

805.835.3669

Email

eveium@calpoly.edu

Biography

Eric has been working for more than a decade to create a clean energy economy in his community, the Central Coast, and beyond. Professionally, Eric manages Energy, Utilities, and Sustainability at Cal Poly State University, San Luis Obispo. Previously, Eric was founding partner and Senior Engineer for Stockman's Water & Energy, a San Luis Obispo based company helping to optimize water & energy use on Central Coast Farms and Vineyards. Eric also served as co-author and local team lead on the California Energy Commission funded RESCO project examining the potential to develop renewable energy sources in San Luis Obispo County. Eric is founding member and current Task Force Chair for the SLO Climate Coalition, an organization leveraging community expertise, creativity, and resources in order to multiply San Luis Obispo's efforts to become carbon free.

Project Role

Eric was the staff member responsible for development and stewardship of this initiative. With leadership support from his Director, Dennis Elliot and analytical support from an amazing Student Intern, Shane Bennett, Eric developed the Zero Waste Program Coordinator business case and action plan. This proposal was used to gain buy-in from campus stakeholders that eventually lead to hiring of Cal Poly's Zero Waste Program Coordinator.

Confirmation of Proposed Speakers

Confirmed to speak

Disclaimer of Commercial Interests

No Commercial Interests

Confirmation of Speaker Registration Fees. Please Read Carefully.

Yes, I understand that award winners presenting will be expected to pay a registration fee.

Permission for Photography

Yes

Speaker Content Guidelines

Speakers may neither promote nor denigrate a specific product or proprietary service during a presentation. Logos from campuses, non-profits, and companies may only be used on the first slide of the presentation regardless of whether the speaker represents that group. Institutions can be mentioned as affiliations of the author, but promotional information about those institutions cannot be included. Advertisements cannot be used anywhere in a presentation or in hand-out materials for a talk. Photos used in presentations should not include proprietary services or products. If you need assistance editing out a logo from a photograph, please contact us; we are happy to assist you. We do not accept sales pitches or marketing presentations. All presenters must be directly involved in the project/research being discussed. It is not appropriate for someone from the same program, campus, or department who did not directly work on the project/research to present. All presenters must discuss their work on the project. Representatives of private companies and non-profit organizations may only present if they are co-speaking with a campus. The campus presenter must talk about their work on the project and may not act simply as an endorsement for the company presenter. Government (non-campus) representatives may speak without a campus co-presenter if they are discussing legislation or codes that affect campuses; or resources directed towards campuses such as grants or technical assistance programs. Government representatives must co-speak with a campus on all other presentations. Presenters should not infer that the conference, UC Santa Barbara, CCC, CSU, UC, or the IOUs approve or endorse any product, software, service, or system for any reason. The logos and names of UCSB, CCC, CSU, UC, and the IOUs may not be used without prior and explicit permission from the owner of that logo. The speaker is responsible for confirming that they have the right to use/acquiring the licenses needed for any copyrighted material used in the presentation. We ask speakers to be especially careful of the use of photographs.

Additional Comments/Clarifications

no answer



Anastasia Nicole

Name

Anastasia Nicole

Organization

Cal Poly, San Luis Obispo

Which campus system are you from (if any)?

California State University

Department, Division, or Organization within your Campus/Institution/Company

FM&D Energy, Utilities, & Sustainability Department

Title Line

Zero Waste Coordinator

Which best describes you?

Staff/administration of a campus

Post-nominal titles

TRUE Advisor

Office Phone

805-756-1029

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415-716-9992

Email

anicole@calpoly.edu

Biography

Before becoming Cal Poly's Zero Waste Coordinator in 2018, Anastasia Nicole worked as a Sustainability Consultant focused on Zero Waste in the San Francisco Bay Area. She is TRUE Zero Waste certified. Former clients include UC Berkeley, San Jose State University, Mills College, Peralta Community College District, the Oakland International Airport, and Children's Hospital, Oakland. Anastasia is also a certified Master Composter, and teaches classes on compost, vermicompost, Bay-friendly gardening, and Permaculture. She is passionate about closing the loop on foodwaste through compost and soil-building and cultivating community to mitigate climate change. Anastasia resides in San Luis Obispo, CA.

Project Role

Anastasia was hired to fill the new Zero Waste Coordinator position described in the presentation. Her first priority in her new role was to justify the cost of her position in savings achieved on waste hauling. Once Anastasia had implemented changes in the hauling system through waste optimization, recycling, other diversion strategies that achieved over \$100,000 in annual savings, she could focus on the primary mission of her position: helping the campus move toward its zero waste goals. Anastasia takes a lead role in the campus Zero Waste Collaborative which coordinates the efforts of all campus departments and auxiliaries to reduce waste, emphasize reuse, recycle and compost.

Confirmation of Proposed Speakers

Yes

Disclaimer of Commercial Interests

No commercial interests

Confirmation of Speaker Registration Fees. Please Read Carefully.

no answer

Permission for Photography

no answer

Speaker Content Guidelines

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Additional Comments/Clarifications

no answer

Administrative Supports To A Speaker

Your proposal may include any number of administrative supports to a speaker.

No administrative supports to a speaker were added to this proposal.