Innovative Fellowships: Bridging Facilities and Academic Programs

July 10, 2019
Program Impact

- 31 Fellows since 2013 across 22 campuses and districts
- Fellows realize or identify savings of an average of 140,000 kWh/site per year
- Nearly $2 million dollars saved across 22 campuses and districts
Recent Verified Savings Completed and Ripple Effect through Fellow Hiring

Isaac Knipfing, Contra Costa Community College District (2016-17)
- Total value of energy savings projects: $95,341.06
- Hired on as Utility & Sustainability Specialist at SMCCCD 2/2018

Samantha Ettinger, UC Santa Cruz (2017-18)
- Data Center and ULT Freezer energy efficiency upgrades for savings of 90,595 kWh and annual savings value $12,229
- Hired as Retail Energy Analyst at Arcadia Power 11/2018

Catherine Patton, Mendocino-Lake CCD (2017-18)
- Boiler upgrade and various prop 39 projects for savings of 1,156 therms per year and value of $36,800 to campus
- Hired as Energy Analyst at UC Berkeley 7/2018
Verified Savings Projects: in Process

Sonoma County Community College District*
- Lighting Retrofit Project kWh savings of 153,594.48
- District-wide utilization study projected 840,000 kWh savings and value of $84,000

City College San Francisco
- Mechanical upgrades at Downtown Center resulting in 485,206 kWh/yr savings and 42,215 therms/yr for a total of $84,991

Cabrillo College*
- 81,030 kWh savings per year through prop 39 lighting retrofits for a value of $11,344 to campus

*Summer extensions and year-2 positions enhance project value significantly
LA Community College District

Natalie St.Clair, Facilities and Energy Fellow
Funded through the Los Angeles Department of Water and Power’s Community Partnership Grant, the Facilities and Energy Fellow position was tasked with promoting energy efficiency and water conservation on LA City College campus and in the surrounding community.
Energy Blitz Challenge
A fun, friendly competition designed to engage students, faculty, and staff at Los Angeles City College around energy conservation and creating a culture of sustainability.

- Developed a website to hold competition
- 11 participating building teams
- Participants earned points through saving energy, attending events, and completing weekly sustainability pledges
LA Community College District

Campus and Community Engagement
• **200 responses** to preliminary Student Sustainability Survey helped guide initiatives
• Over **20 local organizations** engaged in some capacity
• **12 workshops** and events promoting energy efficiency and sustainability on campus and in the community

Energy Blitz Challenge
• Over **300 students directly engaged** through competition, workshops and events
• Over **100,000 kWh and $15,500 saved over 3 months** across participating buildings
• **Hydration station and 50 stainless steel water bottles** awarded to the winning building in high visibility celebration
Institutional Sustainability Support at LACCD

LADWP Rebates and Incentives

Building Energy Analysis

Sustainability Master Planning

Electric Vehicle Charging Infrastructure
Green Infrastructure Expansion

- Co-Developed app for standardizing & streamlining auditing process
- Worked with diverse stakeholders to train on waste management
  - Sat down with custodial staff from each campus to get input of new bin placements
  - Saw an increase of waste diversion from 62% to 71%
- 100+ new compost bins ordered for placements across three campuses
Outreach & Education

- Attended division meetings, new hire orientations, student organizations, and campus events
  - Educated over 200+ stakeholders on waste management and its importance
- Worked with two student interns for zero waste and sustainable office practices (Green Office Program)
Campus as a Living Laboratory (CaaLL)

- Hands-on learning opportunities for students to apply what they’ve learned outside of the classroom
- Waste Audits
  - Cañada College - worked with Middle College (high school) & Environmental Science students to conduct waste audit of dining area
  - Skyline College - collaborated with Earth Science class to conduct waste audit of dining area
- Worked with Capstone Graphic Design class to develop new influential signage to go along with rollout of new bins
  - Acted as a client to students
  - Gamified process by making it a competition
Lessons Learned

- Engage, empower, and enrich others
- Always work from a customer service perspective
  - “How can I help you?” while incorporating sustainability
- Listen to others - they’re going to be the subject-matter experts to help drive change.
Austin Beach, Green Office Program Associate
LED Lighting and Lighting Controls Retrofit

- **Goal:**
  - To replace and retrofit all the lights and lighting controls for 15 buildings that reside in two of the Junior College District’s largest teaching sites.

- **Achievements**
  - Projected to achieve a 65% reduction in demand due to lighting
  - Awarded a custom rebate of over $100,000
  - The project, while still in the planning process, is slated to be completed May 2020.
  - The first six of these building is slated be completed in December 2019.

### District Wide Totals

<table>
<thead>
<tr>
<th># of Buildings</th>
<th># of Fixtures</th>
<th># of Replacements</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>9885</td>
<td>9909</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Existing KW</th>
<th>Proposed KW</th>
<th>Reduction Avg.</th>
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<tbody>
<tr>
<td>621.61</td>
<td>215.69</td>
<td>65%</td>
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</tbody>
</table>

**LED Retrofit Projected Reductions in Lighting Based Demand**
SRJC Petaluma + Public Safety Training Center

• **Goals:**
  • Confirmation that recently installed sub-meters at two of the District’s teaching sites, were recording accurate energy usage over the past year
  • Creation of insightful, and useful energy use reports for both of these sites, that would be presented to the perspective Facility Manager of that site.

• **Achievements:**
  • Petaluma Campus Meters now match the PG&E Account Meter
  • Reports on energy use has been presented before respective Facilities Managers
  • Confirmation that the ACM for Public Safety was reporting the wrong values
Energy Sub-Meter Retro-Commissioning and Energy Use Reports
Sustainable Transportation Fellowship

Sloane Pagal
Santa Rosa Junior College
Scope of Work

Project Description:

• Alleviate parking issues, reduce GHG emissions from mobile sources, and address social equity by reducing barriers to campus access.

Desired Results:

• Create a Draft Sustainable Transportation Plan for the SCJCD
• Establish the role and responsibilities of a sustainable transportation associate to justify its need as a permanent position
Responsibilities

- Marketing & Outreach for free & discounted public transit and other sustainable commutes
- Supporting student intern in implementing carpool parking program
- Advocating for bicycle and pedestrian facilities improvements
- Writing Sustainable Transportation Draft Plan
Accomplishments

- 1,800+ people reached through marketing efforts
- 17 presentations given
- 10 public events
- 2 websites created
- 338 volunteer hours logged
- 2000 reusables distributed
- 20,000+ pounds of CO2 saved during first semester of Carpool Program Pilot
- Completed the STP Draft!
Community Based Social Marketing (CBSM) Training

Process
1. selecting behaviors
2. identifying barriers
3. developing strategies
4. piloting

Key Takeaways
- Behavior change is difficult
- Each campaign requires a nuanced approach
- Incremental asks can add up to big results
- People like to fit in
Lessons learned

STRATEGIES FOR SUCCESS

SUGGESTIONS FOR PROGRAM EXPANSION
QUESTIONS?
Contact Us!

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