Proposal Details

G Hendrix

| Section 1. Summary million mation | |
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| * Project Title: | USF Campus Food Recovery Project |
| * Duration (months): | 12 |
| * Total Budget (\$): | \$25,600.00 |
| * Requested SGEF Funds (\$): | \$25,600.00 |
| * Matching Funds (\$): | \$0.00 |
| * Proposed Starting Date: | 10/1/2018 |
| PI Graduation Date (if applicable): | 5/1/2021 |
| Section 2: Applicant Information | |
| | Unit/Department |

Student Green Energy Fund Proposal

We have USF Aramark's support in working with dining sites to provide food waste, which the project team (OPS students) will coordinate pick-up and drop off to the biodigesters. USF Facilities has already completed a space impact form to build the double IBC tank biodigesters (request approved), and we have met with Suchi Daniels and Nainan Desai to discuss the logistics of implementation of the biodigesters. We have discussed the four pilot sites with USF Facilities: OPM100 area (2), USF Botanical Gardens (already built), and USF Athletics area near tennis courts. Design of the biodigesters is provided by USF professor Dr. Thomas Culhane and in partnership with anaerobic digestion experts in the College of Engineering. We will also collect data from one compost site (already existing at OPM100 and managed by USF Facilities) to compare the feasibility of both options. Activities will include food waste pick up from dining sites/drop off to digesters daily by students, monitor biodigester productivity (measure biogas production, monitor pH/temperature, etc.), and develop food waste prevention/recovery campaign. If this project is approved, this project also intends to engage campus students by raising awareness and providing education about this topic through each of these phases to understand food recovery and the aspect of our campus sustainable food system; this might include outreach at campus events or other avenues to discuss campus sustainability initiatives.

* Project results (Max 500 words)

There are three phases of this project: implementation, evaluation, and student impact assessment. The goal of the implementation phase is to coordinate the day to day logistics of food waste recovery from the dining sites to the biodigester sites. The deliverables of the implementation phase include: standard operating procedures for picking up/dropping off food waste to the digester in coordination with Aramark and Facilities staff, materials and cost list for campus food recovery implementation, and transition plan to incorporate food waste recovery into USF Campus Recycling Program and Energy Conservation bins. The goal of the evaluation phase is to test the safety, efficacy, and productivity of the biodigesters with guidance from faculty advisors and the committee. Deliverables of this phase include safety and efficacy report for biodigesters, capacity and productivity report for biodigesters, results of campus food waste audit, and standard operating procedures/protocol for conducting a campus food waste assessment and transition plan to capture food waste into the USF Grounds annual waste report. The goal of the Student Impact Assessment phase is to develop and evaluate a social marketing campaign to reduce campus food waste. Deliverables include a USF baseline assessment survey of student awareness, knowledge, and interest in food insecurity, food waste recovery, nutrition, and recycling; a Social Marketing plan for a Zero Waste Campus initiative; and an evaluation of the social marketing plan.

* Outcomes of the project (Max 250 words)

The goals of this project include reducing food waste at the source to minimize methane gas emission, recovering food waste to support food insecure students and community members, recycling food waste to generate renewable energy sources, and increasing campus awareness and education of food waste reduction/recovery practices. Thus, the outcomes of this project are food waste reduction among dining sites on campus, increased food waste recovery and renewable energy generated on campus, and an overall increased awareness and interest in these issue across campus students, faculty and staff. These will be measured and shown across all three phases and presented/reported to the advisory meetings every quarter.

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* Project Sustainability (Max 200 words)

This pilot test relies heavily on a project team of students to do the literature review. preparation, data collection, pretesting, and implementation of a potentially campus-wide, scalable project. This pilot test is meant to work out the kinks before it will formally be implemented campus-wide. The project will serve as a foundation for faculty and staff to take over the project and incorporate into existing programs, e.g., campus recycling and energy conservation program, Aramark's Green Thread Environmental Sustainability program, etc. USF Aramark/Dining Services is willing to partner with other USF entities to recover pre-consumer and post-consumer food waste to be donated to charities or the campus biodigesters, and USF Facilities is willing to maintain and operate a larger scale food recovery program. Since USF Facilities already does an annual waste audit (which does not account for food), this pilot test also will provide pilot test measures to include food waste in this audit. USF Departments and College of Engineering, Public Health, Sociology, Anthropology, Religious Studies and Patel College of Global Sustainability are all committed to providing continued support for this project. Other entities willing to support include USF Social Marketing Group, USF Athletics, and USF Office of Sustainability.

Section 4: Workplan and Budget Details

* Detailed work plan/schedule of activities (Max 250 words)

Project implementation will be guided by the PI (unpaid, doctoral student); consulted with USF staff from Facilities, Dining Services, and Athletics; and advised by the advisory committee at quarterly meetings. The PI and student team (3 OPS) will meet weekly with USF Facilities and carry out each of the project phases as proposed in the project and advised by each of the USF Departments and Entities. Each week will consist of food waste pick up, biodigester feedings (and cleanings), and other tasks to monitor biodigester productivity and develop the food waste prevention social marketing campaign.

* Budget breakdown