

# USF Student Green Energy Fund Council

Friday, February 16, 2018 – SVC 1073

Time: 1:00 pm – 2:30 pm

## Meeting Minutes

### In attendance:

#### Council Members

Barbara Bushnell, Raymond Mensah, George Philippidis, Kebreab Ghebremichael, Nainan Desai, Robin Rives,

minutes for the meeting held February 16, 2018 were approved. All meeting minutes are posted for the public at [http://www.usf.edu/student\\_affairs/green\\_energy\\_fund/meetings/minutes.aspx](http://www.usf.edu/student_affairs/green_energy_fund/meetings/minutes.aspx).

### Financial Update:

Cash balance as of 04/17/2018 is \$2,429,654. Active Projects RSA prior year awards (\$1,335,334), Active Projects RSA FY 17/18 awards (\$816,466), projected operational expenses (\$8,894) and the total projected expenses of (\$2,160,693) brings the projected available cash to \$268,960. The FY2018 remaining estimated fee collection is \$0. The 10% contingency (\$102,648) and a 5% reserve of (\$51,324) brings the projected available cash to award in FY2018 to \$114,989.

Foundation

**New Business:**

**BSN LED Conversion Project Summary**

Since USF is a research university, the energy consumption of the campus is very high because the lights are on 24/7 in most research buildings. The main goal to be achieved in this project is to reduce the energy consumption by

### **Campus Food Waste Recovery Project Summary**

(See attached PowerPoint Presentation)

The purpose of this project is to pilot test a scalable program that will provide the USF community a place to support food recovery and zero waste initiatives by using anaerobic biodigesters. In partnership with USF Aramark Dining Services, the project will divert edible food to USF Feed a Bull or local charities and inedible, post consumer food to four pilot biodigester sites on campus that will be overseen by USF Facilities and the project team. Outputs from the biodigesters (liquid organic fertilizer and clean methane (CH<sub>4</sub>) gas) will be used by USF Facilities and Athletics to manage campus grounds. 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, and recycling food waste to generate renewable energy sources.

This project proposes to divert food waste from the landfill wh7landfill

include food waste in this audit. USF Departments and College of Engineering, Public Health, Sociology, Anthropology, and Patel College of Global Sustainability are all committed to providing continued support for this project. Other entities willing to support include USF Prevention Research Center, USF Athletics, and USF Office of Sustainability.

USF Aramark/Dining Services currently contracts with external companies to bring food waste (a portion, not all) to be composted. By creating a closed loop system of food waste recovery right on campus, USF Aramark/Dining Services can then contract with USF Facilities to recover food waste through the campus recycling and energy conservation program. That

this simultaneous heating and cooling of outdoor air and then eventually exhausting it through the exhaust hoods goes on 24x7 and 365 days of the year. The potential to save energy, while complying with the regulatory and user comfort level standards, lies in controlling the air flow based on demand. This project will address 8 exhaust hoods in two BSF labs 357 and 363. It includes installation of one motion sensor for each exhaust hood, automating the sash closure when there is no motion detected, and installation of a variable flow control and monitoring system to vary the exhaust air quantity based on the sash opening and for thermal comfort needs of the space. The system will comply with the regulatory requirements and user comfort level standards. The 8 fume hoods when retrofitted with the variable air flow controllers will result in about 80% energy savings and a payback of 3 years. This project is modeled after a successful demonstration project completed on 2 exhaust hoods in BSF 151 lab. In addition, the project will also include digital screen displays of room condition on the outside of the lab, at the exhaust hood, and a room purge control with push button for a chemical spill inside the room.

- I. Annual eCO<sub>2</sub> reduction in Metric Tons: 288
- II. Equivalent number of trees planted: 7,467 seedlings grown for 10 years
- III. Equivalent number of cars removed from the road: 62 for one year
- IV. Equivalent amount of gasoline saved: 32, 422 gallons
- V. Electricity savings: 387,162 kWh/year
- VI. Natural Gas savings: 13,211 Therms/year

Implementation will require issuance of Space Impact Request, construction design documents by an engineering professional to comply with the codes, review and permit issued by Building Code Official. Facilities Management will provide the project management while providing project management training to the students. Facilities Management Division has agreed to operate and maintain the system in the future. Annual cost savings for 8 hoods: \$ 27,114 Payback years: 3.4 years. ECS quote: \$56,493 Permit: \$500 Work by others: \$7,000 Engineering+TAB: \$10,000 Student Rate: \$6000 (for 1 year) Contingency: \$ 11,997 Total project cost: \$ 91,990 (Request from SGEF)

**Council agreed to let the project summary move forward to proposal**

#### **RECs and Carbon Offsets PH2 Proposal**

(See attached PowerPoint presentation.)

The council asked if the purchase should be made equivalent to the years it will affect the climate action plan. The purchase will give LEED Silver certifications and benefit P3 Residential Dorm, the Hub, and the Fit.

**Council voted and approved the proposal.**

## **Activities Updates**

### **Earth/Arbor Day**

