

# USF Student Green Energy Fund Council

Friday, May 18, 2018–

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Raymond Mensah, Nainan Desai, Chris Marks (Alternate), Kebreab Ghebremichael (Chair Substitute)

Absent: Barbara Bushnell, George Philippidis, Sujit Chemburkar, Lyncee Romelus, Robin Rives, Gviana Goldberg, Drew Templeton, Aladdin Hiba, Brian Mwaliko (Alternate) and Harold Bower (Chair)

Observer(s) Melody Rainey and Gidi Hendrix (Observers)

## First Order of Business:

The previous meeting minutes for the meeting held April 20, 2018 were noted. All meeting minutes are posted for the public at [http://www.usf.edu/student\\_affairs/greenenergyfund/meetings/minutes.aspx](http://www.usf.edu/student_affairs/greenenergyfund/meetings/minutes.aspx)

## Financial Update:

Cash balance as of 05/15/2018 is \$2,436,531. Active Projects RSA prior year awards (\$1,294,796), Active Projects RSA FY17/18 awards (\$892,253), no projected operational expenses and the total projected expenses of (\$2,187,049) brings the projected available cash to \$249,482. The FY2018 remaining estimated fee collection is \$0. The 10% contingency (\$102,648) and a 5% reserve of (\$51,324) bring the projected available cash to award in FY2018 to \$95,511.

## Foundation Funds balance:

590077 (Student Green Energy Operating fund) \$61

590082 (Carbon Offset Fund) \$409

## Public Comment

None.

\*Due to a lack of quorum, those in attendance decided to proceed with business with the understanding that the proposal presented would be sent via email for email vote.

## Unfinished Business:

x None

New Business:

x BSF Exhaust Hood Retrofits Project Proposal (see attachment)

The fume hoods and the mechanical ventilation systems operate at high constant air flow rates at all times resulting in a very large energy consumption and consequently very large carbon footprint. Per Occupational Safety and Health Administration (OSHA) regulations, the exhaust hoods must exhaust air at a face velocity of 100 feet per minute across the face area of the sash opening. This air must be made up through mechanical ventilation system, where the air is cooled and dehumidified first and then reheated before introducing into the occupied space. In Tampa, 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. Electricity savings 387,162 kWh/year
- II. Natural Gas savings 13,211 Therms/year
- III. Annual CO2 reduction in Metric Tons: 288
- IV. Equivalent number of trees planted: 7,467 seedlings grown for 10 years
- V. Annual savings \$27,114

The fume hoods with these measures will result in about 80% energy savings through reduced energy consumption. The project will comply with OSHA regulations. The initial investment is \$100,000.

#### Activities Updates

##### x Arbor Day

Arbor Day took place April 27<sup>th</sup> at 10:00am at the John and Grace Allen Building. Three trees were planted and students were encouraged to participate. VP Duffy gave the opening comments, followed by a presentation from Robin Rives and Adam Burrell regarding the SGEF Tree Planting project and the Neutralize Bull Gas foundation fund. The ceremony ended with Ashely Denslow and Justin Jimenez demonstrating their Tree Mapping project. Robin wrote an article about Arbor Day for USF News and Justin wrote an article for the Oracle.

#### Announcements

None.

Meeting adjourned at 2:05pm.