

Student Green Energy Fund

Sustainability Department
Facilities Management,



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USF's Climate Commitment

ACUPCC signed April 12, 2008



The Commitment

- 12% GHG reduction by 2017
- 50% GHG reduction by 2040
- 80% GHG reduction by 2050
- 100% GHG reduction by 2070

USF by numbers

- 3 campuses – Tampa, St. Petersburg, Sarasota-Manatee
- 800 acre Tampa main campus
- 43,000 student FTE, 12,000 Staff & Faculty
- 10 million GSF on Main campus
- 12 Major research buildings, including medical and nursing school
- Top 20 research university in USA

Sustainability at USF

Facilities Management, USF Tampa

- Office of Sustainability was established under.
- Sustainability Task Force was established.
- Sustainability Department was established in the Facilities Management.
- Student Green Energy Fund was established.
- Several student Living & Learning Communities (LLC's)



<http://www.usf.edu/student-affairs/green-energy-fund/>

Student Green Fee Fund (SGEF)

Main Features



- ***Setting Up & Continuation***

- Student Government (SG) created and approved the Charter
- Board of Trustees of USF Tampa, and Board of Governors of Florida State University System approved the Charter
- Every three years a referendum is held by SG where students vote to continue. We have just started the 3rd three year cycle.
- Students contribute \$1 per credit hour along with tuition – generating over \$1 million/yr.

- ***Charter of SGEF***

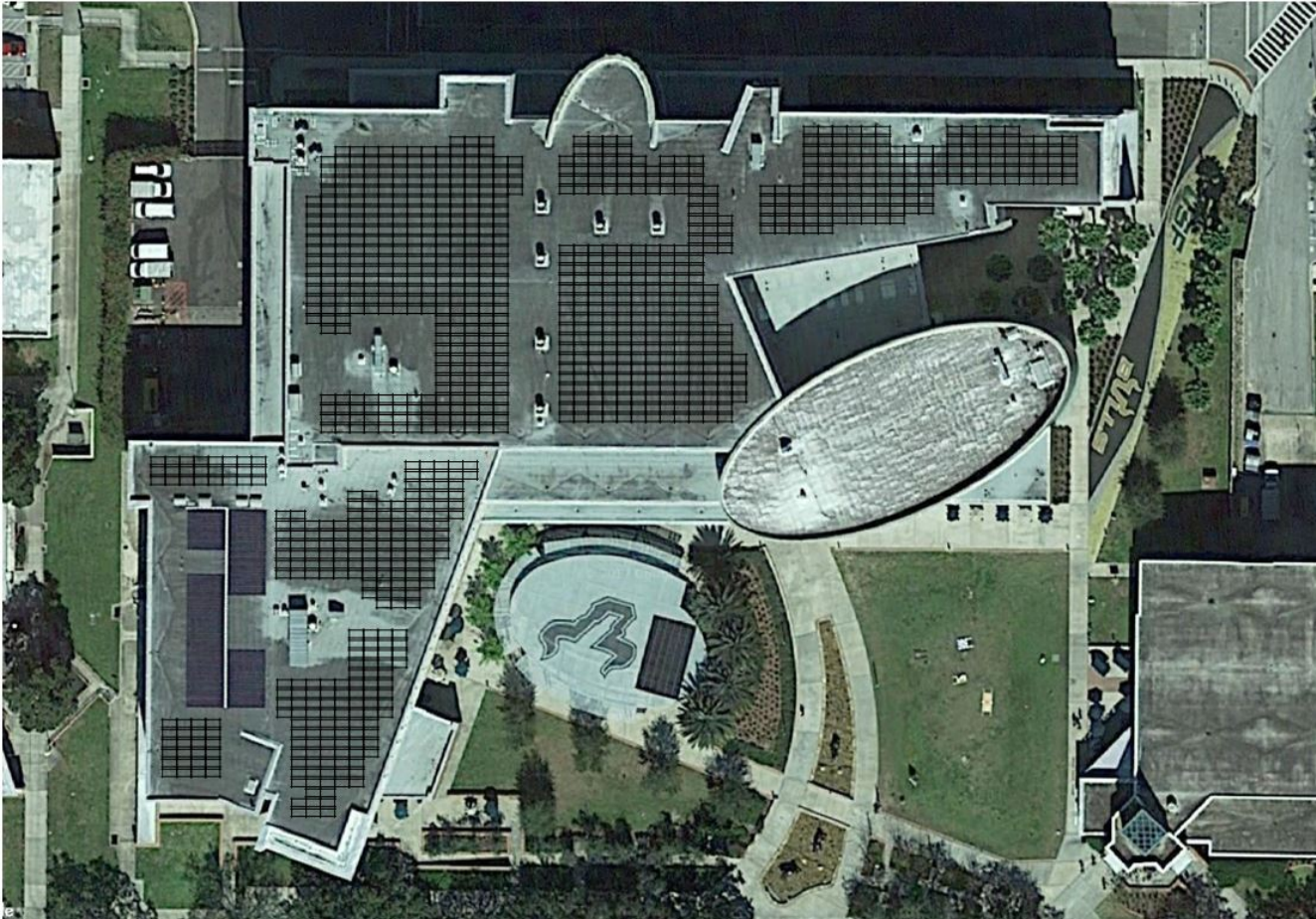
- Projects to be funded must show energy and carbon footprint reduction.
- No research projects - only tried and tested measures are allowed.
- Faculty and staff cannot be paid from the fund for their work.
- Projects must be on the USF Tampa campus.
- Strong student educational component required. Students can be paid for work on projects.

- ***Operational Aspect***

- Fund is managed by Student Affairs.
- SGEF Council comprised of 6 staff & faculty, 6 students appointed by SG, with Chair as tie-breaker for voting.

365 kW Marshall Student Center Solar

Funded by Student Green Energy Fund



By the numbers

- All of \$1.2 million from SGEF
- 365 kW using about 1,000+ panels
- Expected to produce 525,000 kWh/yr
- 100% of electricity will be used in MSC
- Equivalent 39 homes energy, 78 vehicles driven, or 41,000 gal of oil saved for a year
- 370 eCO₂ MT reduced annually
- Construction from April - June
- Students wanted to show an example, put USF on the solar map.
- To create educational and sustainability awareness opportunity in the campus community.

Examples of SGEF Projects at USF Tampa



Funded Projects

- 365 kW Marshall Student Center roof solar PV
- **One Electric Bus for campus transportation**
- **Condensing boiler for pool water heating**
- **Tennis and basketball court conversion to LED.**
- **Convert BSF 60,000 GSF building to LED**
- 100+ trees for shade and cooling effect.
- Share-A-Bull GPS bikes
- **942 Roadway and Parking Lot light LED conversion**
- **Electric Vehicle charging stations**
- Biodiesel production for Bull Runner buses
- 50+ hydration stations to refill water bottles
- Solar umbrellas with electronics charging stations
- Solar thermal tank for electric power generation

- **Purchase Renewable Energy Credits and Carbon Offsets**
- Reducing CO2 footprint with algae
- 3 Exercise equipment that produce electricity
- HVAC upgrades and controls in Juniper Poplar halls
- Computer shutdown software at night
- Induction lighting for pedestrian walkways, and Central Plant

Projects Under Consideration/To be proposed

- Exhaust hood retrofits to automate the sashes
- HVAC controls upgrades to DDC from pneumatic
- More parking garage LED conversions
- More electric vehicle charging stations
- More trees planting

Benefits & Challenges of SGEF



Benefits for Student Success

- Excellent first hand experience for students in bringing ideas to fruition.
- Writing proposals, cost/benefit evaluations, project management, work with A/E professionals, purchasing guidelines, specifying, bidding, inspections, material management, punch list preparation, approving invoices, etc.
- “Earn while they learn” program. It’s a great resume builder!
- Students on the SGEF Council learn how to allocate limited resources for best return on investment.
- Leveraging SGEF resources to motivate departments to share resources for sustainability.

Challenges

- Students have great passion, but the staff has to invest time to educate them about facility systems, analysis, university’s processes, writing reports, etc.

What Do Our Students Say? Student Success

- **Alex Kirk:** *“I have never been exposed to such information and experience that will prove to be highly useful when moving into the working world. In addition to the insights into practical applications of engineering in projects, the professional development and networking will be paramount to my future success.”*

A big problem encountered by ‘professional students’ is they finish their schooling and are over-qualified and under-experienced. Working with the Student Green Energy Fund gives me the opportunity to gain this experience and not develop this issue.”



What Do Our Students Say? Student Success

- **Lauren Reilly:** *“Thank you so much for this unique experience to work in the Facilities Management and Planning, Campus Sustainability Department. In class we learn a lot about what could or should be done to achieve sustainability, but at my job I genuinely get to make that happen.... This job has given me the background I need to confidently enter the workforce and assist entities with their energy and carbon reduction goals.”*



What Do Our Students Say? Student Success

- **Jeff Lowe:** *“Working with the SGEF and USF Facilities Management has been a great learning experience in the fields of project research and management. The entire process has allowed students like myself to help conceptualize, investigate, and execute efficient and economical solutions to known issues with regards to energy consumption and greenhouse gas emissions on campus.”*

