SGEF Application Review Portal: Greetings, Zaida Darley!

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Retrofit of Central Utilities Plant Main Lighting ($60,000.00)

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Submitted On	2011-10-18 12:56:46
Status	Open/Funded
Administrator Options	Mark As Open/Under Review I Mark As Open/Not Funded I Mark As Closed/Funded I Mark As Closed/Not Funded
Proposal Cycle	Fall 2011
Principal Investigator	John McCall (jmccall@admin.usf.edu, Phone: 813-974-8269)
Co-Investigator	John Shahbazian (shahbazi@admin.usf.edu, Phone: 813-974-1190)
Organization	USF Physical Plant, Tampa Campus

Project Details

Description **0 words**	
Amount Requested	$60,000.00
Amount Received	$0.00
Budget Justification **122 words**	Due to the current configuration/installation, this project will require the following: 1) Full re-wiring of all existing fixtures (to be contracted out) 2) Purchase of new fixtures 3) Installation of new fixtures Since this is a 24/7 operation the retrofit will be taking place section by section without significantly impacting productivity and function of this facility. The work will include use/rental of high rise man-lifts to work in congested industrial environment. The project will require professional design, code compliance review, and competitive bidding as per USF purchasing guidelines. The costs are projected as follows: Material: 53 Induction lighting fixtures of 200 watts each (Make: MHT Lighting, Models: MHT-HBa,MHT-LBa or equivalent): $26,500.00 Labor: Demolition of existing high bay fixtures, rewiring, and installation of new Induction Lighting fixtures: $33,500.00
Resource Matching **19 words**	The project is expected to receive $2,800 in lighting rebate from TECO utility company for 16 kW in electrical load reduction.
Timeline **59 words**	The project schedule is expected as follows: a. Engineering design to 90% 1 month b. Project review for code compliance and final design to 100% 1 month c. Bidding, evaluation of bids, award of contract 1 month d. Construction and material acquisition 2 months This projection takes into consideration of product availability, permitting if necessary, and any additional electrical work that may come into play.
Evaluation Metrics **54 words**	The evaluation metrics of this project are the simple calculations taking into consideration current consumption and project cost. Please see the spreadsheet to be attached with my proposal. The project is expected to save 139,564 kWh of energy per year and 16 kW of electrical demand. This

	translates to 182,271 lbs of eCO2 emissions reduced per year.
Sustainability Plan 11 words	This lighting will be maintained by the Central Utilities Plant personnel.

Return On Investment Details

Energy	139564 kWh
CO_2 Emissions	246590.04904 pounds CO_2 per kWh
Cost Savings	$15352.04
Return On Investment	25.00%

Reviewer Comments (Add Yours)

On 2011-10-25 20:33:20, **Christian Wells** said:

The energy savings for a project such as this are relatively easy to calculate, so are very likely to be pretty accurate. The ROI is a function of cost, but if the stated ROI is per year, then even a significant underestimation of cost will not result in a long payback period. The process to achieve the stated savings is straightforward and technically reasonable.

On 2011-10-21 22:46:26, **Delcie Durham** said:

Return on investment is estimated at $15k which is a good payback over 4 years on the retrofit. It would have been good to include what, if any, the expected maintenance costs would be - i.e if induction lighting has a life that it is much longer than current lighting, then there is even more savings than the direct electrical use and this would improve the ROI. I highly recommend this project as having a significant impact on energy use and gashouse emissions.

On 2011-10-20 14:00:49, **Margaret Rush** said:

It would be good to clearly define the ROI, that figure seems to be missing along with the requested funding.

On 2011-10-20 13:56:50, **Margaret Rush** said:

Lighting retrofits are very good projects to reduce electrical demand and GHG emissions, especially in a building that runs 24/7. It looks like the project needs close to $60,000 for materials and labor, yet these costs should easily be repaid in energy savings along with the TECO rebate. I strongly recommend this project.

On 2011-10-18 20:00:41, **Stanley Kroh** said:

A well justified retrofit of wiring and lighting fixtures with a substantial decrease in electric demand and CO2 emissions.

Add Comments