

Green Fund Project Final Report

This report may be published on the SIU Sustainability website.

Name of person(s) completing report: Jonathan Newlin
Identify if the person completing report is a student, faculty, and/or staff: Staff
Department: Student Center Audio-Visual
Contact Phone and email address: 217-620-5142, Jonathan.newlin@siu.edu
Faculty Advisor (if applicable):
Project Title: Student Center LED Spotlight Conversion
Project ID #: 24SP113
Award Date: 4/18/2024
Completion Date: Ongoing
Total Funds Used: \$8,548.57

1. Provide a summary of your project/project experience.
 - a. This project involved the purchase and installation of 5 moving-head LED spotlights to be integrated into our current Ballroom lighting system, replacing several of the old-style, inefficient halogen spotlights that had been used for many years. The installation of the lights was successful and we are happy with the results, but we found that the addition of 3 more spotlights would really help to make our lighting setup function much better, and further reduce the student center's overall energy consumption. As such, the spotlights have not been permanently mounted onto the ceiling yet, but are set up for temporary use until we finalize the system.
2. Provide a summary of your results (environmental, social, and/or economic) including quantifiable data as appropriate (ex. # of individuals reached, lbs. diverted from landfill, energy saved, etc.).
 - a. With the installation of these new spotlights, we were able to disable 16 existing halogen spotlights that operated at 750 watts each and replace them with 5 LEDs at 200 watts, resulting in an energy savings of 11,000 watts. While we do not yet have the hard data to show the direct energy impact these lights have had, these lights allow us to light the ballrooms much more efficiently and rely less on the inefficient, old halogen spotlights.
3. Summarize how your project promoted the Green Fee/Sustainability on campus including, but not limited to, flyers created, screenshots of website, signage, etc. Please include website links, if applicable. (Reminder: you are required to promote your project using at least 2 items from the awardee website promotion list.)
 - a. When the project is finalized, the lights are permanently mounted, and the Student Center's website is no longer under construction, we will post an update to the website and print signage that highlights the Green Fund's role in supporting our eco-friendly lights.
4. Provide evidence of how you used the Green Fund Marker in your project.
 - a. Stickers will be printed and applied to each spotlight purchased with the Green Fund grant.
5. Is there anything you would do differently if you were to do a similar project in the future? If so, please describe.
 - a. For a similar project in the future with as many moving parts as this one, I would ideally be more prepared from a technical side to integrate the lights into our current system. While it took some time, I was able to get it working well despite a learning curve when trying to integrate the new lights with our older system.

6. Provide as an attachment to the email (see email address below) a minimum of 5 digital images. A minimum of one of the five images should include a person. Images should be of high a quality as possible and be attached in jpg format, if available. Images will be used to promote interest in sustainability projects on campus and may be used on our website and in other promotional material. These can be photos of the progress of the project or the completed project. Provide captions for photos here.
 - a. Photos include – 1. Spotlights arrived and inventoried, 2. Spotlight configuration, 3. First successful use of the spotlights to test event lighting, 4. Refining the beams, 5. Finally, lighting a human subject
7. In 2-5 sentences, describe what you learned from completing the Green Fund grant process. Include a detailed response (Do not simply respond “yes” or “no.”) to at least one of the following questions to help us understand how this project has impacted your overall university experience.
 - Do you have a different understanding of sustainability now than you did at the beginning of the process?
 - i. Yes – this project allowed me to gain a new perspective on difference in the energy-efficiency of LED lighting versus traditional halogen. The LEDs are very efficient for the amount of light they produce, and it was fascinating to see in practice how one modern LED spotlight could produce roughly the same amount of light as 3 halogen spotlights while using about 9% of the electricity. It also made me realize how much of that energy was being dispersed through heat from the older spotlights. The new ones get somewhat warm after continuous use, but the heat from the halogen lights would be enough to cause burns after less than an hour of use. Overall, it was a very interesting project that allowed me to directly see the vast difference in energy efficiency between the old and new spotlights.
 - Did you apply knowledge or skills learned from courses at SIU?
 - i. Yes – I applied knowledge of basic lighting principles and color temperatures that I was taught from my SIU Cinema courses years ago. While there was a learning curve to the more granular elements involved with integrating these lights, my educational background ensured that I had a strong foundation to build on.
 - Did the completion of the Green Fund grant process help to prepare you for your future career opportunities?
 - i. Yes – this was my first time applying for a grant of any kind to improve the facilities that I’m responsible for. For a successful grant that allowed us to significantly upgrade the facilities, it gave me confidence in my ability to put together a compelling grant request and see the project through from start to finish.
8. List suggestions for the SIU Sustainability Council to improve the Green Fund Award Process here:

Final Report forms should be sent electronically, in editable Microsoft Word format, to greenfund@siu.edu. This should be completed before requesting final reimbursement. A Sustainability Council designate will review final reports before releasing funds.