Rec 8/23/19

13

MTSU Clean Energy Initiative Project Funding Request

There are five (5) sections of the request to complete before submitting. See http://www.mtsu.edu/~sga/cleanenergy.shtml for funding guidelines. Save completed form and email to cee@mtsu.edu or mail to MTSU Box 57.

1. General Information	
Name of Person Submitting Request Jayme Brunson	
Department/Office Walker Library	Phone # (Office) 615-898-5462
MTSU Box # 13	Phone # (Cell)
E-mail jayme.brunson@mtsu.edu	Submittal Date August 2019

2. Project Categories (Select One)			
Select the category that best describes the project.			
☑	Energy Conservation/Efficiency	☐	Sustainable Design
☐	Alternative Fuels	☐	Other
☐	Renewable Energy		

3. Project Information

a. Please provide a brief descriptive title for the project.
b. The project cost estimate is the expected cost of the project to be considered by the committee for approval, which may differ from the total project cost in the case of matching funding opportunities. **Any funding request is a 'not-to-exceed' amount. Any proposed expenditure above the requested amount will require a resubmission.**
c. List the source of project cost estimates.
d. Provide a brief explanation in response to question regarding previous funding.

3a. Project Title
LED Lighting Replacement - Student Areas - Walker Library

3b. Project Cost Estimate
$4100

3c. Source of Estimate
(17) 16ct packs of GE LED bulbs (Lowe's 1228881)=$1085, 2 workers at 30 minutes of labor per fixture (92 fixtures) @ $32/hour=$2944

3d. If previous funding from this source was awarded, explain how this request differs?
n/a

4. Project Description

(Completed in as much detail as possible.)

a. The scope of the work to be accomplished is a detailed description of project activities.
b. The benefit statement describes the advantages of the project as relates to the selected project category.
c. The location of the project includes the name of the building, department, and/or specific location of where the project will be conducted on campus.
d. List any departments you anticipate to be involved. Were any departments consulted in preparation of this request? Who? A listing may be attached to this form when submitted.
e. Provide specific information on anticipated student involvement or benefit.
f. Provide information for anticipated future operating and/or maintenance requirements occurring as a result of the proposed project.
g. Provide any additional comments or information that may be pertinent to approval of the project funding request.

4a. Scope: Work to be accomplished

Replace 270 T8 fluorescent bulbs with GE Basic 32 Watt EQ 48-in Daylight Linear LED Tube Lights. Existing ballasts can be used. https://www.lowes.com/pd/GE-Basic-32-Watt-EQ-48-in-Daylight-Linear-LED-Tube-Light-Bulb-16-Pack/1001044590

4b. Scope: Benefit Statement

LED bulbs both reduce energy consumption and improve lighting conditions for students in the library.

4. Project Description (continued)

4c. Location of Project (Building, etc.)

Walker Library student areas on each floor. See attached list of locations.

4d. Participants and Roles

Building Services to purchase and install.

4e. Student participation and/or student benefit

Improved lighting in student study areas and less disruption due to maintenance/bulb replacement. In many areas, especially the fourth floor, space is reserved by students for a quiet/private work space. Regular maintenance interruptions defeats this purpose.

4f. Future Operating and/or Maintenance Requirements

Expectation of decreased maintenance requests.

4g. Additional Comments or Information Pertinent to the Proposed Project

5. Project Performance Information

Provide information if applicable.

a. Provide information on estimated annual energy savings stated in units such as kW, kWh, Btu, gallons, etc.
b. Provide information on estimated annual energy cost savings in monetary terms.
c. Provide information on any annual operating or other cost savings in monetary terms. Be specific.
d. Provide information about any matching or supplementary funding opportunities that are available. Identify all sources and explain.

5a. Estimated Annual Energy Savings (Estimated in kW, kWh, Btu, etc.)

T8:32Wx16 hour/day / 1000=.512kWH*270 bulbs=138.24 kWh/day*324days=44,790 kWh/yr
LED: 15Wx16 hour/day / 1000=.24kWh*270 bulbs=64.8 kWh/day*324 days=20,995 kWh/yr
Savings: 23,795kWh/year

5b. Annual Energy COST Savings ($)

T8: 138.24 kWh/day*324 days=44,790kWh/year*$0.1099 = $4922/year
LED: 64.8 kWh/day*324 days=20,995kWh/year*$0.1099 = $2307/year
Savings: $2615/year
(Rates based on https://www.chooseenergy.com/electricity-rates-by-state/)

5c. Annual Operating or Other Cost Savings. Specify. ($)

We will not have to replace these bulbs as often, so our annual labor costs will also go down.

5d.Matching or Supplementary Funding (Identify and Explain)

First Floor:

- Tech Services:
  - 2 fixtures, 1 bulb apiece (2 long bulbs) (by service desk)
  - 19 fixtures, 3 bulbs apiece (57 long bulbs) (throughout the department)

= 59 long lightbulbs

Second Floor:

- 264A: 6 fixtures, 3 bulbs apiece (18)
  - Fixtures are in 4 ft. section
- 272: 4 fixtures, 3 bulbs apiece (12)
  - Fixtures are in 4 ft. section

= 30 long lightbulbs

Third Floor:

- 346A: 2 fixtures, 3 bulbs apiece (6)
- 346B: 2 fixtures, 3 bulbs apiece (6)
- 346C: 1 fixture, 3 bulbs apiece (3)
- 346D: 1 fixture, 3 bulbs apiece (3)
- 384: 2 sections, 3 bulbs apiece (6)

= 24 long lightbulbs

Fourth Floor:

- 401B: 1 fixture, 3 bulbs apiece (3)
- 401D: 3 fixtures, 3 bulbs apiece (9)
- 401E: 2 fixtures, 3 bulbs apiece (6)
- 446A: 2 fixtures, 3 bulbs apiece (6)
- 446B: 2 fixtures, 3 bulbs apiece (6)
- 446D: 2 fixtures, 3 bulbs apiece (6)
- 446E: 2 fixtures, 3 bulbs apiece (6)
- 446I: 1 fixture, 3 bulbs (3)
- 446H: 1 fixture, 3 bulbs (3)
- 446G: 1 fixture, 3 bulbs (3)
- 458: 1 fixture, 1 bulb (1)
- 459: 1 fixture, 3 bulbs apiece (3)
- 462: 5 fixtures, 3 bulbs apiece (15)
- 464 (space outside rooms): 12 fixtures, 3 bulbs apiece (36)
- 464A: 2 fixtures, 3 bulbs apiece (6)
- 464B: 2 fixtures, 3 bulbs apiece (6)

- 464D: 2 fixtures, 3 bulbs apiece (6)
- 477A: 2 fixtures, 3 bulbs apiece (6)
- 477C: 2 fixtures, 3 bulbs apiece (6)
- 477D: 3 fixtures, 3 bulbs apiece (9)
- 477E: 2 fixtures, 3 bulbs apiece (6)
- 477F: 2 fixtures, 3 bulbs apiece (6)

= 157 long lights

Total Number of Bulbs =270 long bulbs
17 packs of bulbs, 2 leftover

Open until 10PM!
Murfreesboro Lowe's

Prices, promotions, styles, and availability may vary. Our local stores do not honor online pricing. Prices and availability of products and services are subject to change without notice. Errors will be corrected where discovered, and Lowe's reserves the right to revoke any stated offer and to correct any errors, inaccuracies or omissions including after an order has been submitted.

Item # 1228881 **Model #** 93105608

GE Basic 32-Watt EQ 48-in Daylight Linear LED Tube Light Bulb (16-Pack)

No Reviews

Have an opinion? Help others decide. **Write a Review**

Community Q&A **View Now**

$63.82

- Rated to last 20,000 hours
- 6500 Kelvin cool, bluish-white light
- Uses only 15-Watts on electronic T8 ballasts, replacing 32-watt T8 fluorescent bulbs

FREE Store Pickup

2 available today at Murfreesboro Lowe's!

Delivery

Ready for delivery: Estimated on 08/21/2019

Product Information

Description

- Rated to last 20,000 hours
- 6500 Kelvin cool, bluish-white light
- Uses only 15-Watts on electronic T8 ballasts, replacing 32-watt T8 fluorescent bulbs
- Contractor case pack with 16 bulbs per package
- 1800 lumens/80 color rendering index
- 48-inch T8 LED tube
- T8 LED tube (1-inch diameter) with medium bi-pin base type (G13)
- Replaces F32T8 fluorescent bulbs
- Perfect for active spaces, light industrial and clean rooms

Specifications

Series Name	Basic	**Package Quantity**	16
Wattage Equivalent	32	**Warranty**	None
Rated Life (Hours)	20000	**ENERGY STAR Certified**	✕
Actual LED Tube Length (Inches)	47.78	**CEC Compliant (CA)**	✓
Common LED Tube Length (Inches)	48	**Glass Type**	Plastic
Color Temperature (Kelvins)	6500	**Indoor/Outdoor**	For indoor or enclosed outdoor use only
Lumens	1600	**Light Color**	Daylight
Bulb Voltage	N/A	**Tube Type**	Linear
Plug-In Type	Medium bi-pin	**Bulk Buy**	✓
Rapid Start Compatible	✓	**Dimmable**	✕
Ballast Type Compatible	Electronic	**Bulb Wattage**	15
Light Bulb Base Type	G13	**Lowe's Exclusive**	✕
Encircled "E" Required on Product or Pkg	✕		