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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 Darren E. Levin	
Department/Office Theatre and Dance	Phone # (Office) 615-898-7857
MTSU Box # Campus Box 43	Phone # (Cell)
E-mail Darren.Levin@mtsu.edu	Submittal Date

2. Project Categories (Select One)	
Select the category that best describes the project.	
<input checked="" type="checkbox"/> Energy Conservation/Efficiency	<input type="checkbox"/> Sustainable Design
<input type="checkbox"/> Alternative Fuels	<input type="checkbox"/> Other
<input type="checkbox"/> Renewable Energy	

3. Project Information
<p>a. Please provide a brief descriptive title for the project.</p> <p>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.</p> <p>c. List the source of project cost estimates.</p>

d. Provide a brief explanation in response to question regarding previous funding.

3a. Project Title

Anderson Studio Theatre LED ERS Lighting Package

3b. Project Cost Estimate

\$18,750.00 -- 15 ETC Color Source Spot Jr (MSRP \$1250.00/fixture)

\$1000.00 – Cable allowance for updated power cable

\$1000.00 – Shipping Allowance

\$20,750.00 Grand Total

3c. Source of Estimate

Electronic Theatre Controls MSRP via the ETC Field Project Coordinator for the Southeast Region.

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

Not Applicable.

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

The Department of Theatre and Dance seeks to purchase 15 ColorSource Spot Junior Zoom LED lighting fixtures for the Anderson Studio Theater. The use of these fixtures will save on energy costs and provide needed sustainable educational tools within the space.

4b. Scope: Benefit Statement

Purchase of LED fixtures for the Anderson Studio Theater will increase the sustainability of campus through the estimates provided in section 5b.

Additional extensive benefits to the education and hands on training of Students in the Theatre Major, Entertainment Arts Design Minor, and Entertainment Technology minor who chose to focus their studies in Lighting Design and Technology as outlined in section 4e.

4. Project Description (continued)

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

Anderson Studio Theatre in the Boutwell Dramatic Arts Building.

4d. Participants and Roles

Participants in the project include:

Darren E. Levin and Bob Cardana: Lighting Design and Lighting Technology faculty in the Department of the Theatre and Dance. These individuals will be responsible for overseeing the use of fixtures and implementation in the Anderson Studio Theatre.

Lighting Design and Technology Students: Implementation of fixtures and utilize fixtures during design and technology assignments within the Department of Theatre and Dance production season.

John N. Underwood: Director of Technical Operations in the Department of Theatre and Dance providing acquisition assistance (bid and purchasing process).

4e. Student participation and/or student benefit

The addition of LED fixtures is much needed new technology to augment our aging conventional inventory and will aid the department in aligning our Anderson Studio Theatre with the fixtures that are rising in popularity within the lighting and entertainment industries. To remain competitive as an educational institution, it is essential for LED technology to become a part of our fixture inventory, educational opportunities in the classroom, and for use in student production assignments (design and production staff assignments).

LED technology is become common place in the production of theatre, concerts and special events. This necessitates that our students are able to work with LED equipment and understand how to design and adapt their abilities in a multitude of situations and constraints. However, the department is significantly lacking LED fixture technology in the Anderson Studio Theatre. Therefore, it is essential that we address this gap in the education of our lighting

students while also furthering the sustainability efforts of Middle Tennessee State University.

4f. Future Operating and/or Maintenance Requirements

The proposed equipment seamlessly integrates with the control systems that are already in place within the Anderson Studio Theater. All fixtures will be installed by Department of Theatre and Dance Lighting faculty members with the support from students studying lighting design and technology as their career focus.

Standard maintenance of the fixtures is completed as a part of the Department of Theater and Dance lighting inventory maintenance cycle. Repair of more in depth problems with fixtures is available via ETC Authorized service vendors available in the Nashville area.

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

The proposed equipment seamlessly integrates with the control systems that are already in place within the Anderson Studio Theater. All fixtures will be installed by Department of Theatre and Dance Lighting faculty members with the support from students studying lighting design and technology as their career focus.

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.)**Current Energy Use:**

- The space currently utilizes 15 Source 4 Junior Zoom fixtures each lamped at 575w. Total energy draw for these fixtures is 8625w.
- These fixtures are typically used 10 hours per day during the academic year resulting in an energy consumption of 86.25 kWh/day.

Potential Energy Use:

- The proposed 15 ColorSource LED Junior Zoom fixtures each draw 166w. Total energy draw for these fixtures is 2490w.
- These fixtures are typically used 10 hours per day during the academic year resulting in an energy consumption of 24.9 kWh/day.

5b. Annual Energy COST Savings (\$)

Costs noted in this section are based on the energy consumption noted in section 5a. Cost of energy is figured at \$0.10 per kWh

Current Estimated Annual Energy Cost:

- \$3148.12

Potential Estimated Annual Energy Cost:

- \$908.85

Potential Annual Energy Cost Savings:

- \$2239.27

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

LED fixtures do not require the purchase of lamps which average \$15 each per burnout. A lamp utilized in a theatrical lighting fixture will typically last approximately 200 operational hours.

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

None at this time.