Rec 9/28/22

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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 Ray Wiley	
Department/Office Campus Recreation	Phone # (Office) 615-898-5701
MTSU Box # 556	Phone # (Cell) 615-785-7805
E-mail ray.wiley@mtsu.edu	Submittal Date 9/28/22

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 High energy efficiency Ceiling Fans - Rec Cntr
3b. Project Cost Estimate $28, 550.00
3c. Source of Estimate TBC Supply Atlanta , GA
3d. If previous funding from this source was awarded, explain how this request differs?

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

This project would require the installation of 20 foot ceiling fans over two of our gym courts at Campus Recreation . The project would be a turn key operation including all the needed equipment including a wired controller , mounting, and installation for two fans in the center of two of our six basketball courts.

4b. Scope: Benefit Statement

This project will have multiple benefits including the use of silent running, HVLS- high volume, low speed fans that use minimal energy (3/4 to 2 hp) and can result in a reduction of up to 30% in heating bills throughout the winter months and during the summer, can create a cooling effect of up to 10 degrees Fahrenheit resulting in significantly lower air conditioning bills. During operation in winter, HVLS fans effectively redistribute warm air trapped at the ceiling down to floor level. These fans gently push heated air down from the ceiling without an unpleasant draft, so that a uniform temperature prevails throughout. Because of their large size, HVLS fans are effective and efficient. Using ¾- to 2-hp motors, they consume power at a fraction of the cost of multiple small ceiling fans. This is accomplished by using energy-efficient motors with variable frequency drives and patented airfoil designs inspired by airplane wings to move large volumes of air quietly and efficiently.

Another benefit with this product installation is the reduction of humidity in our gym space. These fans could assist us by offering a layer of protection for our approximate 48,000 sq. ft. hardwood courts from the effects of too much moisture begin present. The increased air circulation effectively removes hot, humid air and replaces it with drier air.

4. Project Description (continued)

4c. Location of Project (Building, etc.)
Campus Recreation Gym courts.

4d. Participants and Roles
Ray Wiley- Associate Director Campus Recreation- Project lead
Micah Reiss -Recreation Technician - Assistant Project Lead
Alan Parker - Executive Director of Engineering & EHS-Consultant
Tom Carper - TBC Supply Regional Sales Manager

4e. Student participation and/or student benefit

This project will provide our students a more comfortable physical environment while playing all sports/activities both formally through our intramural programs as well as informally during pick up games and other activities and events that we host in our gym throughout the year.

4f. Future Operating and/or Maintenance Requirements

There will be an annual inspection to ensure everything is working properly and that the area remains clean for proper operations. However, with the product strong track record and the 7 years warranty, this should be minimum.

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

Since our indoor track is suspended above our gym courts, this project would also serve as a great benefit to all our participants who use this area to get in their steps and improve their overall physical health. The improved air temperatures and circulation will make this area more comfortable for everyone.

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.)

The annual energy savings would be approximatly 30% annually in the gym area. (see below)

5b. Annual Energy COST Savings ($)

Based on 0.10/s.f. per year of the area served by the fans. The overall area of the gym is approximately 45,850 s.f., so the approximate savings annually would be $4,585.

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

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

If we are awarded this proposal of two fans this year, Campus Recreation would supply the funding for one additional fan so we could have these installed in our front three courts of our facility. * We would like to request funding for an additional two fans for next year, then, Campus Recreation would purchase an additional fan next year too so we could install these fans on all three back courts over the next two years to keep the cost more manageable. This way, we could have fans installed on all three courts!