

rec  
9/30/2020

21

## 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.htm> for funding guidelines.

1. General Information	
Name of Person Submitting Request : Leslie Mayberry	
Department/Office : Energy Services	Phone # (Office) 615-904-8356
MTSU Box # 32	Phone # (Cell) 615-238-7391
E-mail : Les.Mayberry@mtsu.edu	Submittal Date 9-30-2020

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. <b>Any funding request is a 'not-to-exceed' amount. Any proposed expenditure above the requested amount will require a resubmission.</b></p> <p>c. List the source of project cost estimates.</p> <p>d. Provide a brief explanation in response to question regarding previous funding.</p>
3a. Project Title :Install Variable Frequency Drives-Murphy Center and Business Aerospace Building
3b. Project Cost Estimate :\$9,117
3c. Source of Estimate : Mechanical Resource Group and MTSU
3d. If previous funding from this source was awarded, explain how this request differs? VFD's are paid for on another project this project just pays for the installation of VFD's.

--

#### **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**

Installing VFD's in Murphy Center and Business Aerospace Building will reduce the fan speeds. Reducing the fan speed will reduce the fan horse power by the cubic root. MTSU will reduce its kwh

##### **4b. Scope: Benefit Statement**

A variable- frequency drive(VFD's) is a type of adjustable speed drive used in electro-mechanical drive system to control AC motor and torque by varying motor input frequency and voltage.

<b>4. Project Description (continued)</b>
4c. Location of Project (Building, etc.) Murphy Center and Business Aerospace Building
4d. Participants and Roles  Les Mayberry – Project Coordinator
4e. Student participation and/or student benefit  n/a
4f. Future Operating and/or Maintenance Requirements  n/a
4g. Additional Comments or Information Pertinent to the Proposed Project n/a

## 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.) Estimated energy saved is 47,250 kWh/year from other est. for VFD.

5b. Annual Energy COST Savings (\$) 5,670 per year. Return on investment in 4 years. Saving will continue for at least 15 years saving MTSU another \$85,050.

5c. Annual Operating or Other Cost Savings. Specify. (\$) none

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