

Rec 2/18/16

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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.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 : LMayberr@mtsu.edu | Submittal Date 2-12-2016 |

| 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> <p>d. Provide a brief explanation in response to question regarding previous funding.</p> | |
| 3a. Project Title : Replace older motors with energy efficient motors(Tennessee Livestock Center Phase 1 of 2) | |
| 3b. Project Cost Estimate : \$10,784 | |
| 3c. Source of Estimate : Robinson Electric and MTSU | |
| 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

Purchase and install an energy efficient motors in the Tennessee Livestock Center for the HVAC system. We will replace three 20 hp motors

4b. Scope: Benefit Statement

Over half of all electrical energy consumed in the United States is used by electric motors. Improving the efficiency of electric motors and the equipment they drive can save energy, reduce operating costs, and improve our nation's productivity.

| 4. Project Description (continued) |
|---|
| 4c. Location of Project (Building, etc.) Tennessee Livestock Center |
| 4d. Participants and Roles Robinson Electrical and MTSU |
| 4e. Student participation and/or student benefit n/a |
| 4f. Future Operating and/or Maintenance Requirements. This change will save on maintenance and make our equipment more reliable |
| 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.) see 5b

5b. Annual Energy COST Savings (\$) projected savings per year is \$1,800. Payback for this project will be in 6 years. Motor is expected to last for at least another 20 years giving MTSU an additional \$36,000 in savings. Calculations are based upon a 93% (new motor) energy efficient motor verses an 87% existing motor.

5c. Annual Operating or Other Cost Savings. Specify. (\$) n/a It can improve equipment reliability, reduce downtime and repair cost, and result in lower releases of carbon dioxide to the atmosphere.

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