

Rec'd 10/1/14

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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
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E-mail : LMayberr@mtsu.edu	Submittal Date 9-26-2014

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
<ul style="list-style-type: none"> 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 : Replace older pump with an energy efficient pump with a stand-alone system controller (Keathley University Center)
3b. Project Cost Estimate : \$5,424
3c. Source of Estimate :Boiler Supply, Dillingham & Smith 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.

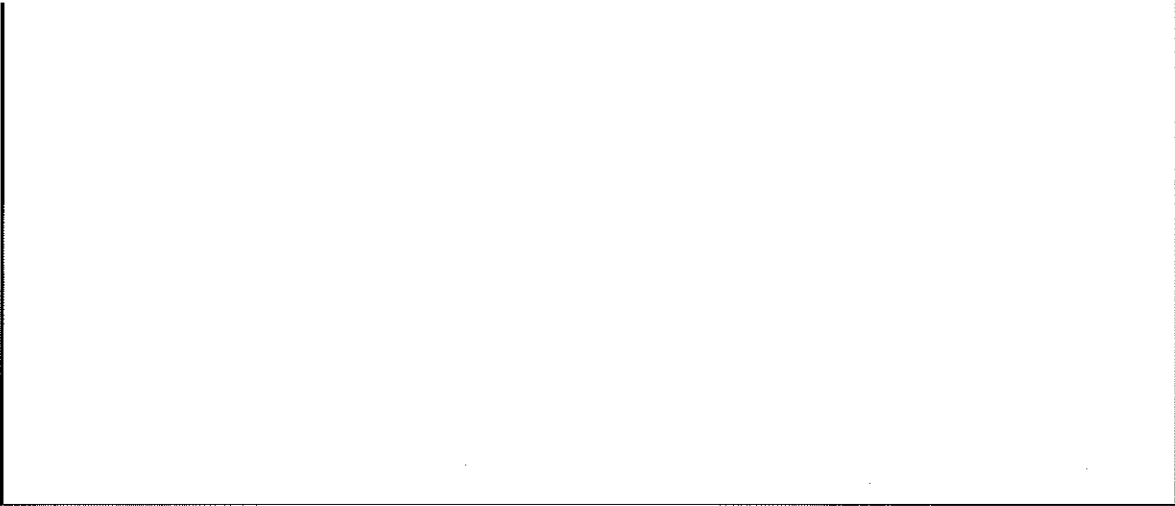
4a. Scope: Work to be accomplished

Purchase and install an energy efficient pump in the Keathley University Center.

4b. Scope: Benefit Statement

The stand-alone controller on the pump reads the hot water temperatures if more hot water is needed the controller will tell the pump to speed up. when less hot water is needed the controller will tell the pump to slow down saving energy. This system used on the domestic hot water system.

This efficient, functional and flexible pump for heating, cooling, and air conditioning reduces annual power consumption by up to 80% standing. Standing for electronically commutated motor, ECM essentially comprises a synchronous motor with a magnet rotor. The unique rotor-stator construction helps eliminate electrical losses. The pump self-adjusts to the actual operating conditions to provide the most efficient operation the system can have.



4. Project Description (continued)
4c. Location of Project (Building, etc.) Keathley University Center
4d. Participants and Roles Boiler Supply, Dillingham & Smith and MTSU
4e. Student participation and/or student benefit n/a
4f. Future Operating and/or Maintenance Requirements. none
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 \$964. Payback for this project will be in 7.6 years. Motor is expected to last for at least another 15 years giving MTSU an additional \$14,460 in savings.

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