

Rec 2/17/16

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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.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	
Mostafa Hassan	
Department/Office	Phone # (Office)
Center for Energy Efficiency	615-904-8096
MTSU Box #	Phone # (Cell)
Box 57, MTSU	901-283-8529
E-mail	Submittal Date
Mah7t@mtmail.mtsu.edu	02/15/2016

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 checked="" 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:
Propane Powered Mower
3b. Project Cost Estimate:
\$12,000

3c. Source of Estimate:

TriGreen Equipment

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

An additional propane mower will replace another gas mower. Further reducing CO2 emissions and on the cost of gas.

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

Replacing another gas mower with a John Deere Z930M propane powered zero-turn mower. The MTSU grounds crew work to maintain all MTSU property. The university currently has one propane powered mower, four gas powered mowers, and a crew of 14 under Jason Young. The propane mower required less maintenance due the clean burning fuel. Another propane mower will reduce CO2 emissions, maintenance, and cost. Keeping MTSU looking its best.

4b. Scope: Benefit Statement

The primary benefit of this project is the reduced annual cost of operating. Additional benefits include lower fuel and maintenance costs, increased efficiency, and promoting alternative fuel.

4. Project Description (continued)

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

General campus, MTonestop, Student Union, MTSU Blvd parking garage, Rec Center, Honors College area, and other large areas where landscaping is necessary. The propane mowers will primarily be used where the students will be able to see the results.

4d. Participants and Roles

Ground services will receive the mower. Jason Young, head of grounds services, will be in charge of operating and maintaining the new mower.

4e. Student participation and/or student benefit

The propane mower would promote green energy on MTSU's campus and encourage students to use alternative fuels. Also, propane engines produce less sound. Making it less disturbing for students/teachers across campus.

4f. Future Operating and/or Maintenance Requirements

Low maintenance requirement (less oil changes)

Propane is more efficient therefore less fill-ups. The spare tanks could be filled, stored, and reused.

Propane tanks from previous mower can be used.

Propane mowers can cut fuel and maintenance cost by 30-40%

Propane mowers are easier to store during the winter (doesn't corrode engine like the gas mower)

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

Energy efficiency is a growing at MTSU and across the U.S. the purchase of the propane mower will provide students with an education on energy efficiency on and off campus.

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.)

A propane mower is 30% more efficient and cost less per hours of operation

5b. Annual Energy COST Savings (\$)

Fuel savings were calculated to be 2291.25 annually.

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

Lower annual maintenance requirements reduce operation costs (fewer oil changes). Fuel price of propane compared to gasoline average 40% LOWER. Propane powered engines last longer than gas. Zero-emissions means reduce environmental impact as well.

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

N/A

