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9/30/19

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## MTSU Clean Energy Initiative Project Funding Request

There are five (5) sections of the request to complete before submitting.

1. General Information	
Name of Person Submitting Request Jeff McConnell/Ray Wiley	
Department/Office Facilities Services	Phone # (Office)898.5883/898.5701
MTSU Box # 0032	Phone # (Cell)
E-mail jeff.mcconnell@mtsu.edu	Submittal Date 09/30/2019

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	
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.	
3a. Project Title: AHU 8 energy upgrade	
3b. Project Cost Estimate \$35000	
3c. Source of Estimate	
Suppliers	



#### 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 information for anticipated future operating and/or maintenance requirements occurring as a result of the proposed project.
- f. Provide any additional comments or information that may be pertinent to approval of the project funding request.

#### 4a. Scope: Work to be accomplished

##### **AHU 8 energy upgrade**

Install AFMS (Air Flow Measuring Station) in new OA (Outside Air) damper for air handler #8. Include sheet metal work for OA damper. Include actuator and required wiring.

Install AFMS in supply line for AHU8

Connect to Building Automation System. Run instrument wiring in conduit.

Purchase and install 1 20 hp VFD compatible motor and 1 20 hp VFD per air handler. Complete installation as turnkey job, to include electrical hookup and initial startup.

#### 4b. Scope: Benefit Statement

- This air flow measuring station for REC is to improve indoor air quality. This will give us a means to better control the output of the building air handler and an opportunity to improve the air quality for the inhabitants.
- Helps to measure building HVAC system performance
  - o Compare performance to design
  - o Find issues before they turn in to problems
- VFD and new motor will add better control for the fan energy consumption.

**4. Project Description (continued)**

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

REC

AHU 8

4d. Participants and Roles

Facilities Engineer: data analysis and recommendations

Facilities Technician: install probes and route to REC.

Suppliers: AFMS, motor and VFD's, electrical

4e. Future Operating and/or Maintenance Requirements

Facilities Technician: Mechanical adjustments to systems to optimize performance.

4f. 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.)

5b. Annual Energy COST Savings (\$)

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

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

n/a