

Rec
2/22/13



MTSU Clean Energy Initiative Project Funding Request

There are five (5) sections of the request to complete before submitting. See 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 2-14-2013

2. Project Categories (Select One)	
Select the category that best describes the project.	
<input 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 : Coil Cleaning Energy Efficiency <i>Murphy Center - 1st floor</i>
3b. Project Cost Estimate : \$4554.3 (payback in 1.5 years)
3c. Source of Estimate : Dillingham & Smith
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

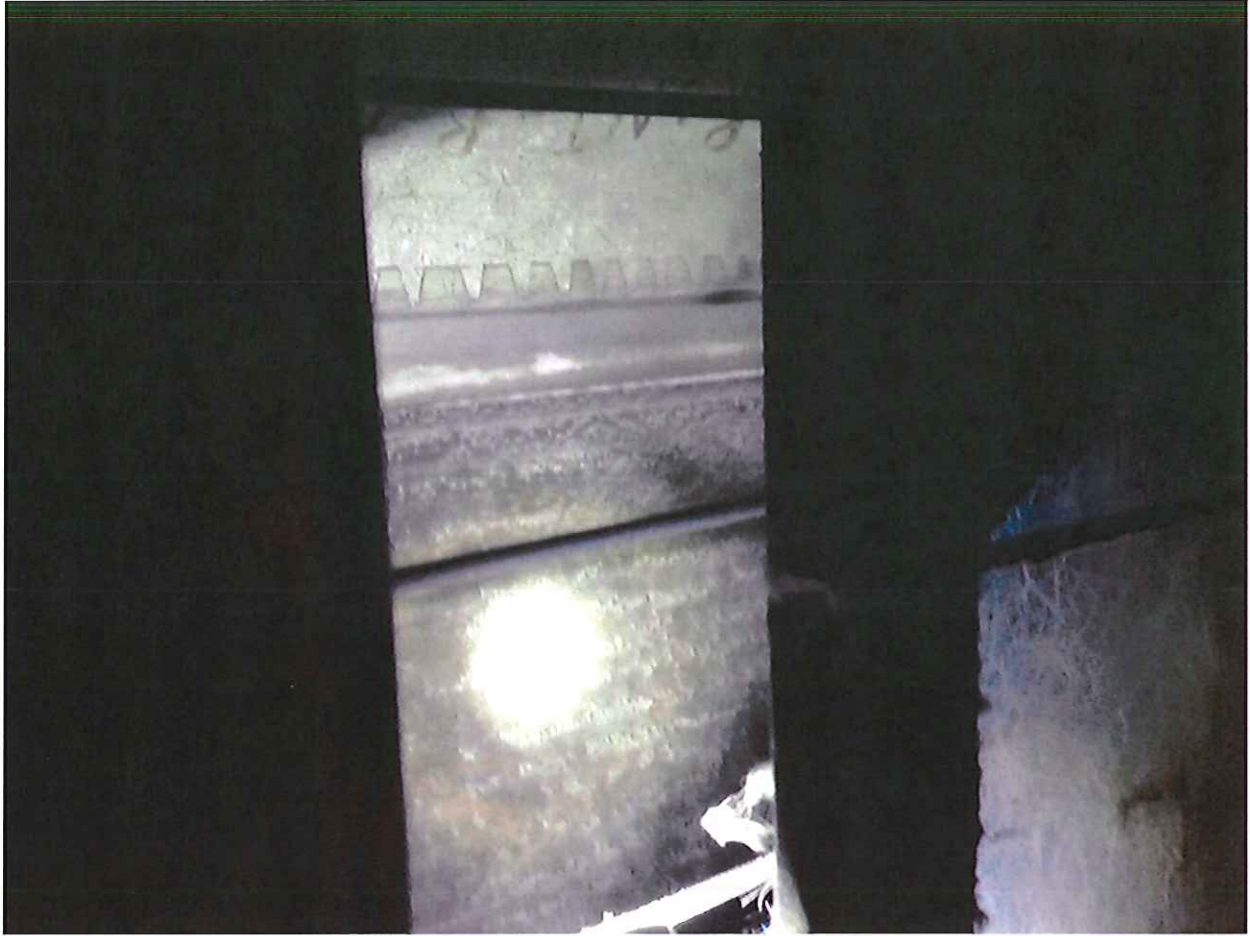
Coils over time lose their effectiveness. This is due to several factors: dirt that escapes through the filters (filters are not 100% efficient) and dirty air escapes around filter banks. Cleaning the coils will improve the efficiency of coils.

4b. Scope: Benefit Statement

Cleaning coils will save energy. A coil that is blocked by dirt reduces air flow in the AHU system. Blocking the surface of coils will cause motor to wear out. If the motor is working harder to push air through the system it will be pulling more amps.

4. Project Description (continued)
4c. Location of Project (Building, etc.) Murphy Center(first floor coils)
4d. Participants and Roles MTSU, Dillingham & Smith
4e. Student participation and/or student benefit None
4f. Future Operating and/or Maintenance Requirements None
4g. Additional Comments or Information Pertinent to the Proposed Project

5. Project Performance Information
<p>Provide information if applicable.</p> <ul style="list-style-type: none"> 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.
<p>5a. Estimated Annual Energy Savings (Estimated in kW, kWh, Btu, etc.) Rough estimate from Carlton of thermodynamic is \$300/year based on 20% blockage. Coils may be 30% or more in some cases, saving even more.</p>
<p>5b. Annual Energy COST Savings (\$) 10 AHU coils X \$300 = \$3,000/year minimum savings is for horsepower alone. Other savings from thermo exchange between the coil and air. Based on 30% blockage</p>
<p>5c. Annual Operating or Other Cost Savings. Specify. (\$) None</p>
<p>5d. Matching or Supplementary Funding (Identify and Explain) N/A</p>



Murphy Center coil- dirty, lots of
build-up