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9/30/22

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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 Russell Miller	
Department/Office Facilities Services Facilities Services	Phone # (Office) 615.898.2435
MTSU Box # 032	Phone # (Cell) 615.948.8957
E-mail Russell.miller@mtsu.edu	Submittal Date 10/01/2022

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>
3a. Project Title: Cogen CH-8 CHW Flow & BTU Meter Install
3b. Project Cost Estimate \$12,000.00
3c. Source of Estimate Quote from Supplier, In house labor estimate

#### 4. Project Description

The scope of the work to be accomplished is a detailed description of project activities.

- a. The benefit statement describes the advantages of the project as relates to the selected project category.
- b. 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.
- c. 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.
- d. Provide information for anticipated future operating and/or maintenance requirements occurring as a result of the proposed project.
- e. Provide any additional comments or information that may be pertinent to approval of the project funding request.

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

Install wells in piping to accommodate installation of measuring devices for flow and BTU calculations of chiller

- Purchase material necessary material for hardware and sensor installation
- Install wells in piping to accommodate the sensing devices
- Install the sensors for the BTU meter
- Run wiring from the sensors to the meter and from the meter to the Building Automation System

##### 4b. Scope: Benefit Statement

Energy calculations and plant operation are currently based upon assumed flows in the chillers based on what the pumps for each chiller are rated for. Operation of the plant has proven that these assumed values are inaccurate. Plant staging and equipment troubleshooting would be made far more effective and efficient if we knew what the actual flow and tonnage of each chiller actually was. This would also allow for better coordination between the Cogen and Satellite chiller plants. In addition, this would increase the accuracy of energy calculations such that we can further determine where energy can be saved through more informed use of our equipment.

<b>4. Project Description (continued)</b>
<p>4c. Location of Project (Building, etc.)</p> <p>Cogen Chiller Plant (COGN)</p>
<p>4d. Participants and Roles</p> <p>Facilities Engineer:</p> <p>Facilities Technician: Labor to install sensors</p> <p>Outside Plumbing contractor</p> <p>Outside Controls contractor</p> <p>Supplier: Purchase thermowells and sensors for installation</p>
<p>4e. Future Operating and/or Maintenance Requirements</p> <p>Facilities Technician: Mechanical adjustments to systems to optimize performance.</p>
<p>4f. Additional Comments or Information Pertinent to the Proposed Project</p> <p>N/A</p>

<b>5. Project Performance Information</b>
<p>Provide information if applicable:</p> <ol style="list-style-type: none"> <li>Provide information on estimated annual energy savings stated in units such as kW, kWh, Btu, gallons, etc.</li> <li>Provide information on estimated annual energy cost savings in monetary terms.</li> <li>Provide information on any annual operating or other cost savings in monetary terms. Be specific.</li> <li>Provide information about any matching or supplementary funding opportunities that are available. Identify all sources and explain.</li> </ol>
<p>5a. Estimated Annual Energy Savings (Estimated in kW, kWh, Btu, etc.)</p> <p>TBD</p>
<p>5b. Annual Energy COST Savings (\$)</p> <p>TBD</p>
<p>5c. Annual Operating or Other Cost Savings. Specify. (\$)</p> <p>TBD</p>
<p>5d. Matching or Supplementary Funding (Identify and Explain)</p> <p>N/A</p>