RCC 9/27/2020

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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 Josh Stone	
Department/Office Campus Recreation	Phone # (Office) 904-8484
MTSU Box # 556	Phone # (Cell) 615-498-7831
E-mail josh.stone@mtsu.edu	Submittal Date 9/28/2020

2. Project Categories (Select One)			
Select the category that best describes the project.			
☑	Energy Conservation/Efficiency	☐	Sustainable Design
☐	Alternative Fuels	☑	Other Multi-modal transporation
☐	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. d. Provide a brief explanation in response to question regarding previous funding.
3a. Project Title Bike Friendly University Continuation
3b. Project Cost Estimate $5800
3c. Source of Estimate MOAB Bike Shop
3d. If previous funding from this source was awarded, explain how this request differs? This is a continuation of a large scale project that intends to meet the demand of students on campus

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

This grant application is for the purchase of 10 new commuter bikes for rental for student checkout through the MTSU Bike Shop. We first purchased commuter bikes for checkout in the Fall of 2012. During that time we purchased 15 commuter bikes for checkout. Since then we have increased our fleet of commuter bikes to 40 bikes, but due to consistent use, some of our original bikes have had to be retired. In effort to keep bikes available for our students, we need to purchase 10 more bikes to replace the ones that have been retired. For the past 8 years we have been at capacity on rentals every semester and anticipate it to continue to grow. In addition to 10 new bikes, we will need to purchase 10 new locks for the bikes to ensure that they don't get stolen and are locked up properly when on campus.

4b. Scope: Benefit Statement

According to the League of American Bicyclists, bike commuting has increased 43% nationwide in the past decade and is still on a positive trajectory. One reason stated for the increase in commuting is the availability of infrastructure for commuting, including available bikes and available bike parking. By providing more bikes, we will have more people riding bikes instead of driving cars.

When it comes to the impact of commuting, the average commuting distance round trip by a cyclist is 4.3 miles. With just one bicycle being used for commuting 5 days a week for 8 years (lifespan of our first purchased bikes), over 8,000 miles would be saved from vehicular transportation annually. With the addition of 10 bikes, over 80,000 miles would be saved from vehicluar transportation. To expand, having a continuous fleet of 40 bikes would save over 320,000 miles of vehicular transportation in an 8 year span. The national average of miles per gallon per U.S. car and light truck is 23.6 mpg. Using this data, the addition of 10 commuter bikes would save an estimated 3,400 gallons of gas in an 8 year period.

4. Project Description (continued)

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

The commuter bikes would be housed in the Campus Recreation Bike Shop and would be checked out and maintained by the employees of the Campus Recreation Bike Shop

4d. Participants and Roles

Campus Recreation plays a major role as they invest their budget into employing shop mechanics to maintain the bikes, space for the bikes to be rented out of (bike shop), marketing and advertising for rentals, and all inventory and asset management. In addition, Campus Planning plays a vital role as they continue to help in the planning of more bike friendly infrastructure on Campus.

4e. Student participation and/or student benefit

By providing access to bikes and a safe built environment for riding bikes, students are more inclined to utilize bikes and other forms of low /no impact transportation. Since its inception, the commuter bike fleet that has been purchased through the Clean Energy Grant has been rented to capacity. By continuing to add to this fleet and replacing damaged bikes, we will continue to improve student access to bicycle transportation. Student participation in this eliminates the student need to drive to and from campus through providing a healthy alternative while reducing our environmental impact.

4f. Future Operating and/or Maintenance Requirements

All bikes require upkeep and maintenance for the sake of longevity. Campus Recreation will be responsible for this through the management of these bikes in their Bike Shop. All bikes will be maintained by competent mechanics. If parts break, Campus Recreation will either fix those parts or replace them. All check in/out procedures as well as inventory and asset management will be the responsibility of Campus Recreation bike shop.

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

This project is in support of a continual project that started in 2013, and that was to increase bicycle transportation for students while reducing vehicular transportation. This has been done through creating infrastructure for safer cycling and also by providing access to commuter bikes for students. This project has exceeded expectations, and now the demand has outpaced our supply of bicycles. This proposal hopes to mitigate this by providing more bikes for student rental, which in turn, will further reduce vehicle transportation to, on, and from 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.)

1 gallon of gas, when burned through combustion, produces 18.95 lbs of CO2. The addition of 10 bikes, with an estimated longevity of at least 8 years, saves an average of 3400 gallons of gas (as shown in answer 4b) through providing alternative transportation. This would eliminate over 64,000 lbs of CO2 from being produced from vehicle transportation.

5b. Annual Energy COST Savings ($)

As outlined above, over 3,400 gallons of gas in an 8 year period will be saved by the addition of 10 commuter bikes. The current national average price per gallon for gas is $2.19. Given the current rate, this would save $7446 over an 8 year period. An indirect saving would also be less road impact from vehicle transportation, as well as the potential for less areas dedicated to parking due to a shifting culture of multi-modal transportation.

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

Ultimately, through the continuation of this long range master plan, the university will save money by not having to create as many parking spaces as well as by reducing vehicular impact on roads and automobile infrastructure. As the master plan intends to move parking on the perimeter of campus, it will be important to make bicycle transportation available to students. Cost savings is handed on down to students who utilize the bikes provided by this grant by not having to pay for gas for their vehicles.

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

Supplementary funding will be provided annually by Campus Recreation. This includes but is not limited to: Human Resource costs for bike shop employees to work on the bikes and manage the rentals, parts and inventory costs for repairs needed, and infrastructure costs (storefront and associated costs). A fraction of these costs will be recovered via rental fees.

Costs For Clean Energy Grant Application Fall 2020

Quantity	***Item***	***Individual Cost***	***TOTAL***
10	Trek Fx1 Disc	$540.00	$5,400.00
10	Kryptonite Krypto Lock U Lock	$40.00	$400.00
TOTAL			**$5,800.00**