

## STUDENT ORGANIZATION SUSTAINABILITY INITIATIVE FUNDING PROPOSAL

<b>Part I- General Information:</b>		
<b>Name of Student Organization</b>	SGA Transportation	
<b>Contact/Responsible Person</b>	Lyndsay McKeever	
<b>Contact Office Held/Title</b>	Director	
<b>Contact Email Address</b>	mckeevla@vt.edu	
<b>Contact Telephone Number</b>	571-214-8805	
<b>Part II- Project Cost Information</b>		
Estimated Cost of this Proposal	\$22,400	See III.C. below
Estimated Savings -	Reduced annual parking lot and garage maintenance	See III.D. below
<b>Net Cost of this Proposal =</b>	<b>\$22,400</b>	
<b>Part III- Supporting Information</b>		
<p>A. Please describe your sustainability initiative and attach supporting documentation.</p> <p>With a growing student bicycle community, it is essential Virginia Tech meet bike parking demand. Despite recently installed bike infrastructure on campus, there still exists a gap in available bike parking in key areas of campus. Those areas include academic buildings like Surge Hall and Randolph Hall and many Residential areas like West End and Hokie Grill Dining Halls. As of this year, 1047 bicycles were registered by September 26<sup>th</sup> with Parking Services, a 200% increase from the 2839 total bikes registered between 2008 and 2011. The trends for bicycling are evidently increasing and as such, more bike racks will be needed to accommodate the influx of annual student bicyclists.</p> <p>In addition to bike racks, the recently installed bike shelters at Patton Hall and East Ambler Johnson provide protection during unfavorable weather conditions. The shelters also compliment the aesthetics of campus by making bike parking facilities attractive. More bike shelters are needed in key areas to support year-round bike commuting. Bike shelter funding is requested outside Squires Student Center, a high activity student location where extracurricular activities and student organizations hold meetings and events throughout evening and night.</p> <p>In efforts to encourage bike commuting, SGA Transportation in coordination with Transportation and Campus Services requests funding for one bike shelter and ten bike racks in needed areas.</p>		
<p>B. How does this initiative help to achieve the goals of the Virginia Tech Climate Action Commitment Resolution and Sustainability Plan?</p> <p>Added bike infrastructure will encourage students and faculty to commute by bike rather than driving by car to campus. University wide support and encouragement for active transportation will help create a bicycle and pedestrian friendly environment on campus. By prioritizing sustainable transportation options, Virginia Tech may observe increased Commuter Alternative Program sign-ups. The more students who commit to Bus, Bike and Walk as their primary means of mobility, will have the effect of reducing Virginia Tech's carbon footprint associated with its daily car commuters. Through funding this proposal, Virginia Tech will make strides towards goals of the Virginia Tech Climate Action Commitment Resolution and Sustainability Plan, as referenced below:</p> <p>Virginia Tech will improve transportation energy efficiency on campus through parking, fleet, and alternative transportation policies. Alternative transportation use will increase from the current level of 45%, to a goal of 52% in 2015, and 60% in 2020.</p>		

Virginia Tech will establish a target for reduction of campus GHG emissions to 80% below 1990 emission level by 2050, and interim targets from 2006 emissions of 316,000 tons consistent with the Virginia Energy Plan, the Governor's Commission on Climate Change, the Town of Blacksburg, and the federal administration: for 2012, 295,000 tons (on path to 2025 target); for 2025, 255,000 tons (2000 emission level); and for 2050, 38,000 tons (80% below 1990 emission level).

C. What is the cost of your proposal? Please describe in adequate detail the basis for your cost estimate.

The average cost of a 5-loop bike rack is \$500 at \$100 per loop. This includes installation. A cement pad to secure the bike rack costs approximately \$840 for a narrow 84 sq/ft, close to building installation. A wide cement pad of 120 sq/ft costs \$1200. Assuming the needed bike racks will be located close to buildings, we request \$13,400 in funding for ten 5-loop bike racks at \$1,340 per rack with included cement installation costs. Once identified, several bike rack locations may not require concrete, allowing for wider bike rack installations in other areas of campus.

The average cost for a bike shelter with a 7-loop bike rack and 10x8 cement pad at \$10 sq/ft is \$10,600. We are requesting approximately \$9000 in funding for one bike shelter outside Squires Student Center that already has concrete and bike loops. This location would need a retrofit of shelter construction.

D. Will your proposal produce cost savings for the University? If so, how much? Please describe in adequate detail the basis for your savings estimate.

As more students become choice cyclists, less car commutes to campus will be observed. The University will see the benefits in cost savings from reduced need in parking lot and parking garage maintenance. A parking spot in an existing surface lot costs \$3200 to construct and \$50 per year to maintain. A parking spot in a parking garage costs \$1700 to construct and about \$60-\$100 per year to maintain. There are currently about 15,750 parking spaces on campus in all surface lots and the new garage.

E. Is this funding request an Ongoing or One-Time change (**please check one**)?

One-time

Ongoing

If ongoing funding is requested please explain how the initiative and resource needs may change in future years.

Increased bike infrastructure will become a bigger priority for the University as more students choose to commute by bike for its affordability and efficiency. Covered bike shelters will grow in demand to accommodate year-round bike commuters. Bike parking space outside of buildings without compromising campus aesthetics or decreasing green space will need to be addressed in the future.

Debby Freed, the Alternative Transportation Manager, has verbalized Virginia Tech will begin work towards a campus Alternative Transportation Master Plan in 2014. The Master Plan will include a stream-lined budget for needed bike infrastructure. Until the Master Plan is created, on-going funding will be requested through the Green RFP for bike racks.

F. Is funding available for this request from another source? If yes, describe the funding (source, amount, etc.)  
Money generated from the Commuter Alternative Program directly funds alternative transportation infrastructure on campus. The Patton Hall bike shelter is an example of this funding. The shelter cost was \$10,600.

**Part IV- Requestors/Reviewers**

Lyndsay McKeever	Oct 17, 2011
Prepared By (Name of Contact for Student Organization)	(Date)
Dennis C. Cochrane, Sustainability Program Mgr., OES	Nov 9, 2011
Reviewed By (Name of Office of Energy and Sustainability Representative)	(Date)

Supporting Documents:

1. WDBJ7 News; Virginia Tech Becoming more Biker Friendly <http://www.wdbj7.com/videobeta/129016d5-a29c-4d10-9dee-b453de7a6472/News/Virginia-Tech-becoming-more-biker-friendly>
2. New River Valley Current; More Places to Rack the Bikes <http://www.roanoke.com/298978>
3. Wheels in Motion VT Bike Blog; New Bike Racks Coming Soon <http://vtbikes.wordpress.com/2011/09/21/new-bike-racks-coming-soon/#more-306>