

UNIVERSITY OF ILLINOIS  
AT URBANA-CHAMPAIGN

The Illini Union  
1401 West Green Street  
Urbana, IL 61801



November 24, 2009

Dear Committee members:

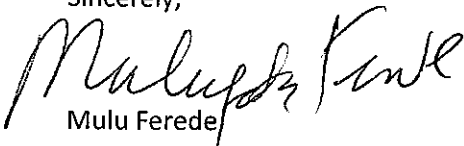
The Illini Union is pleased to submit this letter of inquiry to the Student Sustainability Committee to be considered for funding. This is one of three projects The Illini Union is submitting and it is our understanding that the cost for completing these projects will be shared at a 60/40 ratio and the Committee potentially will be responsible for 60% of the project cost. Your communication also indicates there is an additional funding option of an interest-free loan that we may be able to access. The Illini Union expresses an interest in this funding mechanism to finance our portion of the partially funded project.

We believe the project we are submitting for your consideration is aligned with the broader mission of your committee to "secure a better cleaner, safer, lasting and sustainable environment to the University of Illinois."

The Illini Union offers a unique opportunity for the University of Illinois to educate and showcase sustainability initiatives while truly achieving important improvements in reduction, reuse and recycling. Due, largely to its centralized location and campus-wide function, the Union offers high visibility to the University's effort to project its efforts in the area of sustainability and we strongly believe this project accomplishes that.

If additional information or clarification is required from the committee or an individual member, please feel free to contact me.

Sincerely,

  
Mulu Ferede  
Associate Director

Enclosure

cc: Ed Slazinik, Director

LETTER OF INQUIRY  
STUDENT SUSTAINABILITY COMMITTEE  
CALL FOR PROPOSALS DUE NOV 27, 2009

ILLINI UNION PROPOSAL FOR HEAT LOSS/ENERGY USAGE REDUCTION

The Illini Union offers a unique opportunity for the University of Illinois to educate and showcase sustainability initiatives while truly achieving important improvements in reduction, reuse and recycling. Due largely to its centralized location and campus-wide function, the Union averages approximately 15,000 visitors per day. And since it is an older facility – the original construction began in 1939 – much of the Union’s infrastructure is outdated and energy-inefficient.

The historical architectural style of the Illini Union incorporates a lot of windows. Even in modern buildings, overall window/fenestration area typically represents the single-greatest opportunity for heat-loss and heat-gain. And, in this case, not only are there a lot of windows but they’re also a very old design consisting of single-pane glass. The Illini Union has already partially addressed this issue by replacing the large bay windows of the South Lounge facing the Quad. The original single-pane glass was replaced with low-e, double-pane, sealed units. Still, there remain approximately 388 of the original single-pane windows throughout the building.

This project would replace 113 of the remaining original windows with the high-efficiency design (totaling 226 sashes). The potential energy use reduction for increasing the R-Value of windows is significant. For instance, a single-pane glazed window has an approximate R-value of 0.85, while a double pane glazed window has a value of 1.5 - 2.0, and a low-e double pane glazed window has a 2.4 - 3.0 rating. Accordingly, the heat-gain or heat-loss through the extensive fenestration of the building could be reduced by as much as 50 – 75% during both the cooling and heating seasons. The estimated cost of this project is as follows:

1) Construct 226 sashes with low-e double pane glazing	\$192,100.00
2) Paint and install 226 sashes in North Face windows	<u>\$ 32,544.00</u>
Total	\$224,644.00

The total impact of this project is widespread as it will reduce energy consumption from three different utilities (steam, chilled water and electricity). As a result, the project is estimated to yield an overall reduction of 6.3% in utilities usage (primarily steam and chilled water). The annual savings would thus total approximately \$63,528.00 in utilities costs.

Using the 60/40 grant offered by the SSC from the Sustainability Fee fund, if approved, the Illini Union would provide funding in the amount of \$89,858.00 while the SSC would funding would total \$134,786.00. The project can be completed within 4-6 months and can commence at any time following the arrangement of funding. The new windows would have a life expectancy of more than 40 years.

The Illini Union Marketing Department will also provide information on the project and the Sustainability Committee on the '*Under GREENstruction*' signs in areas where the new windows are being installed. We will also provide information regarding the Sustainability Committee on our website.