

February 16, 2011

Dear AASHE STARS Reviewers,

WKU's Energy Savings Performance Contract, featuring energy-reducing and facility improvements across campus, includes a solar energy project. The solar thermal array will use the sun's radiant energy to pre-heat the swimming pool in the Preston Activities Center. Eighty-eight solar thermal collectors have recently been installed on the Preston Activities Center roof. Each collector contains 3.7 gallons of fluid that will transfer heat from the sun to the pool water via heat exchanger, keeping the pool a consistent 80-83 degrees Fahrenheit. The collectors are expected to perform 10 months per year, as measured by Solar British Thermal Unit (BTU) output. BTU output calculations are estimates based on low wind conditions and historical averages of daytime air temperatures and solar insulation levels for our region. Not only does this reduce our carbon footprint, WKU is guaranteed to save at least \$10,963 annually by reducing the amount of natural gas required for heating as a result of this installation. With an initial project investment of \$96,410, these annual savings result in a project payback of 8.8 years.

Please don't hesitate to contact me if you have further questions.

Ben Johnson, PE, LEED AP  
Assistant Director  
Planning, Design, and Construction  
Western Kentucky University