

July 9, 2014

MEMORANDUM

TO: State Board of Regents

FROM: David L. Buhler

SUBJECT: University of Utah – Energy Efficiency Project Approval

Issue

The University of Utah is requesting approval of a \$7,865,000 energy efficiency project for three energy-intensive major research buildings. This project will be funded from internal sources that will be repaid from projected energy savings.

Background

This project was developed based on the University's positive experience with multiple previous Energy Conservation Measures projects, including Energy Performance Contract projects with outside contractors, and other paid-from-savings energy projects completed by the University's Facilities Management Department. The project has been endorsed by the State Division of Facilities & Construction Management (DFCM).

The three facilities selected for the project are the Henry Eyring Chemistry, Skaggs Biology, and Biology Buildings. The project will include mechanical system improvements, ongoing retro-commissioning, and a behavioral program (working with building occupants to identify and implement conservation and awareness) in order to achieve and sustain reductions in energy consumption.

The anticipated energy savings resulting from the project are estimated to be \$677,000 in year one, escalating as future utility rates increase. These energy savings are projected to be at least 20% for the entire southwest quadrant of the campus. Funding for the \$7,865,000 estimated cost of the project will be provided by a loan from University non-state funded working capital reserves and is to be repaid from the resulting energy cost savings.

The attached letter from the University provides additional information about the proposed project. University officials will be present at the meeting to provide additional information and respond to questions from the Regents.

Commissioner's Recommendation

The Commissioner recommends Board authorization of this energy efficiency project with the understanding that it will be submitted to the Utah State Building Board for construction authorization without legislative approval.

David L. Buhler
Commissioner of Higher Education

DLB/GLS/WRH
Attachment

July 18, 2014

David Buhler
Commissioner
Board of Regents Building, The Gateway
60 South 400 West
Salt Lake City, Utah 84101-1284

**RE: University of Utah
Henry Eyring Chemistry, Skaggs Biology and Biology Buildings
Heating, Ventilation and Air Conditioning Systems Upgrades**

Dear Commissioner Buhler,

Resulting from escalating utility rates the University of Utah's energy costs have increased, a trend that is forecasted to continue into the foreseeable future. A way to mitigate these costs is through increased energy efficiency as this will also have a direct and positive impact on emissions, helping the University advance toward meeting its goal of reducing the impact on air quality.

Understanding that research buildings are the biggest energy consumers on campus, the Energy Management Office within Facilities Management has identified three (3) primary research buildings that are being bundled into one large energy project involving focused mechanical improvements, ongoing retro-commissioning and a behavioral program (working with building occupants to identify and implement conservation and awareness) to achieve and sustain reductions to energy consumption.

Analysis of an initial list of 14 buildings was conducted by engineers that resulted in the selection of 3 buildings for this project: Henry Eyring Chemistry (0085), Skaggs Biology (0082), and the Biology (0084) buildings.

The scope of work includes mechanical system upgrades and retrofits designed to reduce airflow rates (within safe and allowable limits) in these three energy intensive lab buildings. Lower airflow is synonymous with lower fan and pump speeds which in turn means greatly reduced energy consumption. Engineering analysis shows that this will yield at least a 20% energy savings for the entire southwest quadrant of campus.

The anticipated energy cost savings from this project is currently estimated at \$677,000 in year one and will escalate as energy rates increase. The estimated project cost of \$7,865,000 will be funded by internal University sources that will be paid back by the energy savings.

The project will be funded by better leveraging the university's non-state funded working capital reserves. The University is highly confident in the ability of these projects to generate the required amount of savings to repay the loans. This project has been discussed with and received endorsement by DFCM.

The strategy was developed based upon the University's experience with multiple phases of Energy Performance Contract (ESCO) projects and with many paid-from-savings energy improvement projects completed by Facilities Management. There will be no increase to annual O&M.

The University of Utah respectfully seeks your support of this request and the opportunity to present this project, seeking approval, to the Finance and Facilities Committee at the July 18, 2014 Board of Regents meeting.

Thank you for your consideration and support.

Sincerely,

A handwritten signature in dark ink, appearing to read 'J. Nixon', with a stylized flourish at the end.

John Nixon
Chief Business Officer

Cc: Dr. David W. Pershing
Dr. Gregory L. Stauffer
Ralph Hardy
Brian Shuppy
Michael G. Perez
David Browdy

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