

COMMISSION FOR HIGHER EDUCATION

Friday, May 13, 2011

DECISION ITEM B-1: Qualified Energy Savings Project at Indiana University – Purdue University Indianapolis

Staff Recommendation

That the Commission for Higher Education recommend approval to the State Budget Agency and the State Budget Committee the following project: *Qualified Energy Savings Project at Indiana University – Purdue University Indianapolis*. Staff recommendations are noted in the staff analysis.

Background

By statute, the Commission for Higher Education must review all projects to construct buildings or facilities costing more than \$500,000, regardless of the source of funding. Each repair and rehabilitation project must be reviewed by the Commission for Higher Education and approved by the Governor, on recommendation of the Budget Agency, if the cost of the project exceeds seven hundred fifty thousand dollars (\$750,000) and if any part of the cost of the project is paid by state appropriated funds or by mandatory student fees assessed all students. Such review is required if no part of the project is paid by state appropriated funds or by mandatory student fees and the project cost exceeds one million five hundred thousand dollars (\$1,500,000). A project that has been approved or authorized by the General Assembly is subject to review by the Commission for Higher Education. The Commission for Higher Education shall review a project approved or authorized by the General Assembly for which a state appropriation will be used within ninety (90) days after the project is submitted to the Commission. All other non-state funded projects must be reviewed within ninety (90) days after the project is submitted to the Commission.

The primary objective of the QESP is to reduce energy costs by upgrading and/or replacing every wasteful electrical and mechanical systems in four buildings as part of Phase 1. Secondary objectives include reducing maintenance costs of those systems as well as decreasing water/sewer expenses.

Supporting Document

Qualified Energy Savings Project at Indiana University – Purdue University Indianapolis, May 13, 2011.

QUALIFIED ENERGY SAVINGS PROJECT AT INDIANA UNIVERSITY – PURDUE UNIVERSITY INDIANAPOLIS

Project Description and Staff Analysis

SUMMARY

The primary objective of Phase 1 of the QESP is to reduce energy costs by upgrading and/or replacing energy wasteful electrical and mechanical systems in four buildings – Medical Research and Library Building, Business/School of Public Environmental Affairs, Engineering and Technology Building, and Gatch Hall located on the Indiana University-Purdue University Indianapolis (IUPUI) campus. Secondary objectives include reducing maintenance costs of those systems as well as decreasing water/sewer expenses.

DESCRIPTION OF THE PROJECT

The primary objective for Phase 1 of the QESP is to reduce energy costs by upgrading and/or replacing wasteful electrical and mechanical systems in four buildings - Medical Research and Library Building, Business/School of Public Environmental Affairs, Engineering and Technology Building, and Gatch Hall located on the IUPUI campus. Secondary objectives include reducing maintenance costs of those systems as well as decreasing water/sewer expenses. Energy conservation measures are related to the following systems:

- Lighting
- Variable frequency drives for pump and fan drives
- Electrical supply power factor corrections
- Heating and cooling system improvements
- Temperature control/energy management
- Water use reduction strategies

Reducing energy costs is imperative for the future growth of the university on the IUPUI campus. Phase I of this project initiates the upgrading/replacing of these systems in four of its buildings:

Building	Upgrading/Replacing
Medical Research and Library Building	
	Heating, Ventilating, and Air Conditioning Upgrades
	Lab Controls Replacement
	Air Handling Unit 5 and 6 Coil Replacements
	Water-to-Water Heat Pump
	Plumbing Fixture Retrofit
	Air Handling Unit 5 and 6 Steam Recovery
	Chilled Water Meter
Business/SPEA	
	Heating, Ventilating, and Air Conditioning Upgrades
	Photovoltaic Solar Panels
	Plumbing Fixture Retrofit
	Building Metering
Engineering and Technology Building	
	Heating, Ventilating, and Air Conditioning Upgrades to Variable Air Volume Controllers
	Heating, Ventilating, and Air Conditioning Upgrades for Servers
	Lighting Option #1
	Heating Hot Water Control
	Building Metering
Gatch Hall	
	Building Metering
	Free Cooling/Condensate
	Lighting Option #1

RELATIONSHIP TO MISSION AND LONG-RANGE PLANNING

Reliable and efficient utility systems are essential for the support of teaching, research, and community-service missions of the campus. This project will assist in enhancing and benefiting the academic and community missions of IUPUI.

NEED AND EXPECTED CONTRIBUTION TO EDUCATIONAL SERVICES

As the price of energy, water, and sewer services continues to climb in the coming years, efforts to make systems more efficient become not only necessary, but crucial for the future growth of the university. This project will help reduce energy and maintenance costs for the IUPUI campus.

ALTERNATIVES CONSIDERED

Several vendors submitted proposals for energy-savings projects. The most effective and efficient proposals were selected as components for this project.

RELATIONSHIP TO LONG-RANGE FACILITY PLANS

This project is consistent with the plans of IUPUI to keep the campus utility system operating efficiently, safely, and effectively.

HISTORICAL SIGNIFICANCE

Indiana University does not consider any of the buildings affected by this project to be historically significant.

STAFF ANALYSIS

Indiana University is requesting favorable review of a qualified energy savings project on the IUPUI campus. The project is the first of two phases which will affect 4 buildings on campus at a cost of \$8.7 million. IU plans to issue debt for the cost related to upgrading and replacing energy wasteful electrical and mechanical systems in the four buildings. Indiana Code allows each public postsecondary institution to have no more than \$15 million of debt outstanding for qualified energy savings projects for each campus. IUPUI does not have any outstanding debt for qualified energy savings projects at this time. Phase II of the project will bring IUPUI to the maximum limit of outstanding debt for this project.

The estimated annual debt service for \$8.7 million being issued is \$1.1 million each year for a period of 10 years. IU estimates that savings resulting for Phase I of the project will be approximately \$1.3 million per year, which will be used to pay the annual debt service. IU anticipates a lag in the savings that will accrue due to the implementation of the project and is prepared to fund a portion of the annual debt service from its operating fund until savings exceed the annual debt payment. IU estimates it will take roughly 2 years before the annual savings exceed the annual debt service.

IU has used conservative estimates regarding the annual savings from Phase I of the energy savings projects, but understands that if energy savings are not enough to cover the annual debt service, funds will need to be identified from other areas of the IUPUI operating budget to provide for the annual debt.

Staff recommends the Commission provide a favorable review of the project and recommend moving the project forward for review and approval by the Budget Director and Budget Committee.