

**MEMORANDUM**

**To:** Board of Regents

**From:** Board Office

**Subject:** Register of Iowa State University Capital Improvement Business Transactions for Period of March 23, 2001 through April 19, 2001

**Date:** April 9, 2001

**Recommended Action:**

Approve the Register of Capital Improvement Business Transactions for Iowa State University.

**Executive Summary:**

Iowa State University requests approval for two project descriptions and budgets for improvements at the Power Plant:

**Utilities—Power Plant—Upgrade Chiller Controls** project (\$700,000) which would install new control systems for three chillers; and

**Utilities—Power Plant—Generator #4 Overhaul** project (\$350,000) which would provide a major overhaul of Turbine Generator #4.

**Background and Analysis:**

Utilities—Power Plant—Upgrade Chiller Controls

Source of Funds: Utility Repair Funds

Project Summary

	<u>Amount</u>	<u>Date</u>	<u>Board Action</u>
Project Description and Total Budget	\$ 700,000	April 2001	Requested

This project would install new control systems for three large chillers and auxiliary equipment, which provide chilled water service to the campus. The chillers, pumps and other equipment were installed at the Power Plant at different times beginning in 1968. As a result, the control systems for the equipment differ in design and some are now obsolete. The chillers cannot be integrated into the central plant control system because of these controls.

The new systems for the three chillers would be microprocessor-based and

would allow integration of the chiller controls into the central control system. The new systems would be similar for each machine to reduce operating, maintenance and training costs, and to allow plant operators to optimize chiller operations.

The University plans to complete the work as a turn-key project, which would involve the selection of one firm to design, furnish, install and test the new control systems. The University reports that this work is typically provided by the original equipment manufacturer or a designated supplier that specializes in retrofitting modern controls to older equipment. The University proposes to issue Requests for Proposals to qualified vendors to complete the work. The proposals would be evaluated on the basis of the proposed control system to be installed, the vendor's experience on similar projects, and the estimated cost. The University believes this method would provide for the installation of a quality system, at the lowest cost.

Project Budget

Construction Costs	\$ 615,000
Professional Fees	31,000
Contingency	<u>54,000</u>
TOTAL	<u>\$ 700,000</u>

Utilities—Power Plant—Generator #4 Overhaul

Source of Funds: Utility Repair Funds

Project Summary

	<u>Amount</u>	<u>Date</u>	<u>Board Action</u>
Project Description and Total Budget	\$ 350,000	April 2001	Requested

Turbine Generator #4, which was installed in 1960, is due for an overhaul based upon hours of operation and operating cycles; the last major overhaul on the unit was completed in January 1994. Periodic overhauls are necessary to maintain the reliability and efficiency of the generator and to meet the requirements of the University's insurance carrier.

The project would include inspection of the generator and the installation of replacement parts.

Project Budget


Construction Costs	\$ 300,000
Professional Fees	11,000
Contingency	<u>39,000</u>
TOTAL	<u>\$ 350,000</u>

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Included in the University's capital register for Board ratification are eight project budgets under \$250,000, one amendment approved by the University in accordance with Board procedures, two construction contracts awarded by the Executive Director, the acceptance of one completed construction contract, and five final reports. These items are listed in the register prepared by the University and are included in the Regent Exhibit Book.

  
Sheila Lodge

Approved: \_\_\_\_\_

  
Frank J. Stork