

Contact: Andrea Anania

### UNIVERSITY OF IOWA EQUIPMENT PURCHASE

**Action Requested:** Consider approval for the University of Iowa to purchase two trailer-mounted natural gas boilers for a total of \$1,155,000.

**Executive Summary:** The University of Iowa requests approval to proceed with the purchase of two trailer-mounted natural gas boilers. These two boilers were leased in July of 2006 in an effort to preserve firm steam capacity and are currently installed at the Main Power Plant. The University reports that these units are needed longer than the originally envisioned lease period.

#### Description of the Equipment

Natural gas boilers provide steam capacity. Total capacity is currently 720,000 lbs per hour, including four permanently installed boilers (580,000 lbs per hour) and two leased boilers (140,000 lbs per hour.)

Firm capacity is the amount of steam capacity available with the largest unit out of service; the University's largest unit provides 170,000 lbs per hour.

Firm capacity must always be greater than the peak load or utility system reliability is severely compromised. (720,000 – 170,000 = 550,000.) Peak load approaches 500,000 lbs per hour in the winter.

#### Justification of the Need for the Equipment

The University reports that:

- ◆ It is facing a shortfall in firm steam capacity. In the last ten years, 260,000 lbs per hour of steam capacity has been taken out of service due to three other units reaching the end of their useful service life;
- ◆ The two leased boiler units are needed for an additional five to seven years; and
- ◆ For reliability reasons, any decrease in existing steam capacity should be avoided until new steam capacity is available.

#### Any Known Alternatives to the Equipment Proposed

The University reports that when the temporary boilers were first leased in July 2006, requests for proposals were solicited and multiple vendor proposals were evaluated. Rasmussen Mechanical Services submitted the proposal for temporary leased steam capacity which best served the needs and interests of the University of Iowa.

Significant additional cost would be required to replace the units with another vendor's product. Mechanical and electrical support systems, equipment, and modifications were installed to support the temporary boilers. In order to remove and replace the existing leased units, a project to dismantle and reassemble the temporary steam capacity as well as a new air construction permit for replacement boilers would be required. Both requirements increase cost and interrupt service from the temporary steam capacity.

The units will be procured based on a sole source justification.

Estimated Cost and Source of Funding

The cost to purchase the two trailer-mounted natural gas boilers is \$1,155,000. It is more cost effective to purchase, rather than to lease:

	<u>5-Year Lease</u>	<u>7-Year Lease</u>
Continue Leasing	\$2,585,220	\$3,619,308
Purchase	<u>-1,155,000</u>	<u>-1,155,000</u>
Savings if Purchased	\$1,430,220	\$2,464,308

The source of funding is the University of Iowa Utilities Enterprise Renewal and Improvement fund.

**Board Policy:** Chapter 7.06B(12) of the Regent Policy Manual requires that:

- ◆ Equipment costing more than \$1,000,000 must be submitted to the Board for approval; and
- ◆ Requests submitted to the Board Office for approval must include the following information:
  - ◆ Description of the equipment;
  - ◆ Justification of the need for the equipment;
  - ◆ Any known alternatives to the equipment proposed; and
  - ◆ Estimated cost and source of funding.