MEMORANDUM

To: Board of Regents

From: Board Office

Subject: Annual Report on Energy Conservation

Date: September 9, 2002

Recommended Actions:

1. Receive the Annual Report on Energy Conservation.

2. Encourage the institutions to continue to pursue energy conservation measures and other methods to control energy costs in addition to the measures currently in place for FY 2003.

Executive Summary:

Annually, the Board receives a report on energy conservation efforts at the Regent institutions.

- This report provides a means of assessing the efficiency and effectiveness of the operations of the Regent institutions, consistent with Action Step 4.2.1.2. of the Board's Strategic Plan.

The report:

- Provides information on FY 2002 energy usage and energy costs;

- Addresses the institutions' plans to continue to control energy costs in FY 2003 and future years; and

- Fulfills a statutory requirement requiring a status report on the implementation of energy conservation measures (projects) identified in the 1989 energy audits, while highlighting other completed measures.

FY 2002 Energy Consumption

In FY 2002, the Regent institutions implemented additional energy conservation measures in an effort to reduce energy usage and expenditures in response to budget constraints.

The University of Iowa's "Principles for Energy Conservation" was begun in August 2001 to guide University behavior in the area of energy conservation.

- Partially as a result of the adoption of these principles, the University's total energy consumption in FY 2002 decreased by 6 percent from FY 2001.

In FY 2002, Iowa State University implemented a comprehensive plan to provide general fund energy savings totaling $1.5 million.

- The plan, as well as less severe weather conditions, resulted in a 9.8 percent reduction in total energy consumption from FY 2001.

As a result of these and similar efforts at the other Regent institutions, FY 2002 energy consumption per gross square foot at the Regent institutions decreased an average of 8.9 percent from FY 2001.

The FY 2002 reduction in energy consumption represents the largest average annual decrease in consumption per gross square foot in the past ten-year period at the Regent institutions.

In addition, the FY 2002 energy consumption rates reflect an average reduction of 27.6 percent on a BTU (British Thermal Unit) basis per gross square foot basis since FY 1979, the peak consumption year.

FY 2002 Energy Costs

Total energy expenditures at the Regent institutions decreased by a total of 4.3 percent, or approximately $1.2 million, from FY 2001.

- This reduction resulted from decreased consumption levels as well as a general stabilization in energy costs from FY 2001, particularly for natural gas.

FY 2003 and Future Energy Conservation Efforts

The Regent institutions are continuing their efforts to identify and implement additional energy conservation measures to reduce energy expenditures.

- The institutional efforts are focusing on additional improvements in temperature settings and lighting levels, equipment use, classroom scheduling, and campus communications to ensure cooperation with the energy conservation plans.

The institutions also plan to undertake additional energy conservation projects for existing campus buildings (primarily roof replacements and mechanical improvements), although the number of projects will be limited by current budget constraints.

Energy Conservation Measures

The Board is required, in accordance with Iowa Code §473.12, to report by October 1 of each year to the Department of Natural Resources on the results of energy usage analyses of the Board's facilities and the status of energy conservation measures identified in the comprehensive engineering analyses completed by the institutions in 1989.

1989 Audits

Since 1989, the institutions completed a total of 684 energy conservation measures identified in comprehensive engineering analyses. Approximately $26.7 million have been spent on identified energy conservation measures to date, saving approximately $6.2 million annually for a simple payback of 4.3 years.

Strategic Plan

The Annual Report on Energy Conservation provides a means of assessing the efficiency and effectiveness of the operations of the Regent institutions, consistent with Action Step 4.2.1.2. of the Board's Strategic Plan.

Background and Analysis:

Energy Usage and Costs

Energy Usage

FY 2002 energy consumption per gross square foot at the Regent institutions decreased by an average of 8.9 percent from FY 2001.

- This is a result of the institutions' expanded efforts to reduce total energy consumption and costs in FY 2002.
- In addition, the mild winter weather conditions of the FY 2002 heating season helped to reduce consumption from the levels reported during the extreme winter conditions of the FY 2001 heating season.

The following table summarizes institutional reports of total energy consumption for 1979 (the peak consumption year), and from FY 1999 through FY 2002.

Energy Consumption (BTUs/GSF)

	FY 1979	FY 1999	FY 2000	FY 2001	FY 2002	% Change FY 79 to FY 02	% Change FY 01 to FY 02
SUI	523,030	439,154	410,786	412,901	387,947	(25.8)	(6.0)
ISU	635,606	413,126	419,604	419,736	378,598	(40.4)	(9.8)
UNI	409,364	342,379	340,194	351,932	340,882	(16.7)	(3.1)
ISD	N/A	131,450	155,631	141,354	124,528	N/A	(11.9)
IBSSS	N/A	119,508	110,992	122,879	106,132	N/A	(13.6)
AVERAGE							(8.9)

The FY 2002 reduction in energy consumption per gross square foot represents the largest average annual decrease in the past ten-year period.

- FY 2002 is also the first year in the ten-year period where all of the Regent institutions reported decreases in energy consumption per gross square foot from the previous fiscal year.

The most significant decreases in consumption (an average of 12.8 percent) were reported at the two special schools, where energy usage is more dependent upon weather conditions since a smaller percentage of total campus space has sophisticated heating and cooling equipment.

Energy consumption per gross square foot decreased by 6 percent at the University of Iowa and by 9.8 percent at Iowa State University from FY 2001 to FY 2002.

- These reductions resulted partially from the universities' expanded efforts to reduce FY 2002 energy consumption and expenditures in response to budget concerns.

The FY 2002 energy consumption rates reflect a significant reduction on a BTU (British Thermal Unit) per gross square foot basis since FY 1979, the peak consumption year:

	BTU/GSF Change FY 1979 – FY 2002
University of Iowa	(25.8 percent)
Iowa State University	(40.4 percent)
University of Northern Iowa	(16.7 percent)

The reductions since 1979 are more impressive than the data indicate considering the growth in the installation of energy-consuming research and diagnostic equipment, personal computers and air conditioning equipment.

Information detailing energy consumption by fuel source at the institutions is included in Appendix A.

Energy Costs

The following table summarizes institutional reports of total energy costs from FY 1996 through FY 2002. It does not include water, sewer or personnel costs.

Total Energy Costs

	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	% Change FY 2001-FY 2002
SUI	$13,880,224	$12,712,118	$13,248,367	$13,272,715	$13,798,666	$16,071,459	$15,200,996	(5.4)
ISU	6,923,392	7,056,472	7,195,315	7,516,343	7,562,904	9,338,125	9,310,120	(0.3)
UNI	2,504,404	2,460,272	2,279,672	2,263,235	2,309,343	2,731,833	2,518,216	(7.8)
ISD	154,531	190,727	172,155	166,353	168,151	267,431	194,082	(27.4)
IBSSS	111,797	122,645	98,245	87,080	90,221	136,828	82,746	(39.5)
TOTAL	$23,574,348	$22,542,234	$22,993,754	$23,305,726	$23,929,285	$28,545,676	$27,306,160	(4.3)%

Total FY 2002 energy costs at the Regent institutions decreased by a total of 4.3 percent, or approximately $1.2 million, compared to FY 2001 total energy costs.

- The decrease is a function of reduced consumption levels and generally lower energy unit costs, particularly for natural gas, from the previous fiscal year.

While total costs decreased, they are still $3.4 million (14.1 percent) higher than FY 2000. (Total costs for the Regent institutions were relatively constant between FY 1996 and FY 2000.)

Iowa State University reported the smallest decrease in total energy costs (0.3 percent or $28,000), despite having the largest decrease in total energy consumption (9.8 percent) among the three universities.

- However, the University reports that its decreased consumption levels helped to reduce energy costs by approximately $1.4 million from the amount budgeted for FY 2002.

Consistent with reduced consumption, the most significant decreases in total costs (an average of 33.5 percent) were reported at the two special schools.

Energy costs are also measured per gross square feet as a function of usage (BTUs/GSF), and per unit cost of energy ($/MILLION BTUs).

- There are wide differences among the institutions in the cost of energy; changes in energy costs by institution by year represent fluctuations in the mix of fuels, fluctuations in coal, natural gas and purchased electricity prices and the availability of economy power.

The changes in the institutions' FY 2002 energy costs per gross square foot and per MMBTU are generally consistent with the changes in the institutions' total energy costs, with the most significant decreases at the special schools.

Total Energy Costs ($/GSF)

	FY 2000	FY 2001	FY 2002	% Change FY 2000 – FY 2002	% Change FY 2001 – FY 2002
SUI	$1.01	$1.15	$ 1.06	5.0	(7.8)
ISU	.75	.91	.88	17.3	(3.3)
UNI	.62	.72	.66	6.5	(8.3)
ISD	.55	.86	.63	14.5	(26.7)
IBSSS	.47	.72	.43	(8.5)	(40.3)

Total Energy Costs ($/Million BTUs)

	FY 2000	FY 2001	FY 2002	% Change FY 2000 – FY 2002	% Change FY 2001 – FY 2002
SUI	$2.46	$2.78	2.73	11.0	(1.8)
ISU	1.79	2.17	2.33	30.2	7.4
UNI	1.81	2.05	1.92	6.1	(6.3)
ISD	3.51	6.10	5.03	43.3	(17.5)
IBSSS	4.27	5.85	4.10	(4.0)	(29.9)

Information detailing energy costs by fuel source at the institutions is included in Appendix A.

FY 2003 and Future Energy Conservation Efforts

The institutions are continuing in FY 2003 their efforts to implement the energy conservation plans initiated in FY 2002 in an effort to control energy consumption and costs.

- The three universities are continuing the implementation and communication of the energy conservation plans throughout campus, focusing primarily on reducing building temperatures and equipment and lighting usage.

- The Iowa School for the Deaf will continue its efforts to reduce purchased utilities, and the Iowa Braille and Sight Saving School will work to identify additional energy conservation measures, such as more energy efficient lighting, operating and maintenance procedures, and improved utilization of the energy management system.

The initiation of additional energy conservation measures in existing campus buildings in FY 2003 will be limited by current funding constraints.

University of Iowa

The University of Iowa will continue with the Biological Sciences Renovation/Replacement—Phase 2 and the Medical Laboratories—Cancer Biology and Immunology Renovation projects which include the upgrade of heating, ventilating and air conditioning systems and window replacements.

The University also plans to undertake additional roof replacement projects at University Hospitals.

The University is continuing with the MidAmerican Energy Efficient Commercial New Construction Program, which recommends various energy conservation strategies for new construction and major remodeling projects.

- The University reports that this program will result (when construction is complete) in construction incentives to the University totaling approximately $912,500, and energy savings estimated at $660,000, for seven of 12 major new construction and renovation projects which have been identified for the program.

- The projects include the construction of the Carver Biomedical Research Facility, Hawkeye Athletic/Recreation Facility, Blank Honors Center, and UIHC Center of Excellence in Image-Guided Radiation Therapy, and renovation of the Hydraulics Laboratory (completed) and the Biology Buildings.

Iowa State University

Iowa State University plans to make additional improvements for the Power Plant boilers to ensure more energy efficient operations, replace chilled water coils at the Veterinary Medicine Complex, and install occupancy controls and fume hood systems for the Molecular Biology Building.

University of Northern Iowa

The University of Northern Iowa will continue the implementation of its unoccupied energy cycle programs during evenings, weekends and holidays, building temperature controls, and the distribution of campus communications requesting cooperation in reducing the use of lights, computers and other equipment.

Special Schools

The Iowa School for the Deaf reports that it will continue its efforts to reduce purchased utilities without restricting academic programming.

The Iowa Braille and Sight Saving School reports that it will work to identify additional energy conservation measures. These measures could include the use of more energy efficient lighting, evaluation of operating and maintenance procedures, and improved utilization of the energy management system.

Status Report on Implementation of Energy Conservation Measures

1989 Identified Projects

In accordance with Iowa Code §473.12, the institutions undertook analyses in 1989 to identify energy conservation measures in an effort to reduce energy consumption and control energy costs.

The analyses identified a total of $78.7 million (2002 dollars) in energy conservation measures, which were to be implemented if economically feasible and practical, and if they had a simple payback period of six years or less.

- The simple payback formula (total project cost divided by estimated annual savings) was used in all 1989 analyses to determine the estimated amount of time needed to realize energy savings equal to the project cost.

- The simple payback for the identified projects ranged from less than one month to more than 25 years.

Projects totaling $43.7 million had individual payback periods of six years or less and were identified as the projects most likely to be implemented. It was estimated that these projects would save approximately $10.8 million (2002 dollars) annually for a simple payback of 4.03 years.

Many of the projects identified in the technical assistance studies have not been completed because the payback period is greater than six years, the project was not feasible when further analyzed, or it was determined that installation costs were excessive due to unusual construction circumstances.

To date, approximately $26.7 million have been spent on 684 completed energy conservation measures (72 percent of the identified energy conservation measures with payback periods of six years or less), saving approximately $6.2 million annually for a simple payback of 4.3 years.

The majority of the energy conservation measures implemented at the institutions were completed a number of years ago; the institutions report that they will work to address the remaining measures to the extent that funding is available.

The costs and savings associated with the identified energy conservation projects are measured in 2002 dollars and are summarized by institution in Table 1 of this report (page 19).

Other Energy Conservation Efforts

In addition to the projects identified in the 1989 analyses, the institutions undertake other energy audits and energy conservation projects, and incorporate energy conservation measures into new construction and remodeling projects.

- In FY 2002 this consisted primarily of roof replacement projects and improvements to building mechanical systems and campus utility systems.

- In light of increasing energy costs, the institutions should continue these efforts, as funding allows, including conservation measures in the residence system facilities, if they are cost effective and feasible.

Further institutional details on the institutions' energy conservation measures and plans are included in Appendix B.

Sheila Lodge

Approved: Gregory S. Nichols

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Appendix A

Energy Consumption and Cost Data

Consumption

The following information details institutional changes in the consumption of natural gas, electricity, and coal in FY 2002.

The institutions report decreases in consumption for most fuels in FY 2002, consistent with the institutions' overall decrease in total energy consumption.

Any increases in consumption within the energy categories resulted from the decreased use of other energy sources, as the institutions work to utilize the most cost-effective energy source.

Natural Gas Consumption (Million BTUs)

	FY 1999	FY 2000	FY 2001	FY 2002	% Change FY 00 to FY 02	% Change FY 01 to FY 02
SUI	6,254,314	5,103,942	4,513,081	5,093,725	(0.2)	12.9
ISU	1,126,130	1,364,360	1,460,637	1,266,564	(7.2)	(13.3)
UNI	48,920	42,995	52,661	23,274	(45.9)	(55.8)
ISD	25,310	32,045	26,754	21,537	(32.8)	(19.5)
IBSSS	11,275	9,995	12,730	9,654	(3.4)	(24.2)

Natural Gas

FY 2002 natural gas consumption increased at the University of Iowa, but decreased at the other Regent institutions.

- The University of Iowa increased its natural gas consumption as its coal-fired Boiler #10 was shut down for approximately four months for repairs; this required the University to replace some of its coal use with natural gas.
    - Boiler #10 is one of two coal-fired units at the Power Plant and provides approximately one-half of the University's total steam supply.

Electrical Consumption (Million BTUs)

	FY 1999	FY 2000	FY 2001	FY 2002	% Change FY 00 to FY 02	% Change FY 01 to FY 02
SUI	2,659,040	2,570,657	2,370,970	2,483,762	(3.4)	4.8
ISU	822,196	792,582	863,647	881,912	11.3	2.1
UNI	431,823	429,298	433,885	431,650	0.5	(0.5)
ISD	15,439	16,201	17,066	17,067	5.3	0.0
IBSSS	11,256	11,132	10,659	10,547	(5.3)	(1.1)

Electrical

The institutions' electrical consumption in FY 2002 remained relatively stable compared to FY 2001 consumption levels.

Purchased electricity decisions affect the total BTUs reported by the universities; the universities buy power when economically feasible and cogenerate when that is the most cost-effective option.

Coal Consumption (Tons)

	FY 1999	FY 2000	FY 2001	FY 2002	% Change FY 00 to FY 02	% Change FY 01 to FY 02
SUI	100,906	99,361	120,426	106,383	7.1	(11.7)
ISU	133,059	136,963	142,591	127,360	(7.0)	(10.7)
UNI	26,754	26,912	29,164	29,192	8.5	--

Coal

In FY 2001, coal consumption increased at the three universities due to extreme winter weather conditions, and also because it was a more cost-effective alternative to higher natural gas costs.

In FY 2002, the University of Iowa and Iowa State University decreased their coal consumption in response to a milder winter heating season, and an increase in coal costs and a decrease in natural gas costs from the previous fiscal year.

The University of Northern Iowa maintained its coal consumption at the same level, as its coal costs decreased slightly.

Costs

The following information details institutional changes in the cost of natural gas, electricity, and coal in FY 2002.

The institutions report relatively stable or decreased unit costs for most energy fuels in FY 2002, which contributed to the institutions' overall decrease in total energy costs.

- The exceptions are coal costs at the University of Iowa and electrical costs at Iowa State University, which experienced the greatest increases among the categories.

Natural Gas Costs ($/Million BTUs)

	FY 2000	FY 2001	FY 2002	% Change FY 2000 – FY 2002	% Change FY 2001 – FY 2002
SUI	3.35	7.18	3.71	10.7	(48.3)
ISU	4.04	6.65	5.78	43.1	(13.1)
UNI	3.89	5.67	4.23	8.7	(25.4)
ISD	2.59	6.65	4.70	81.5	(29.3)
IBSSS	3.51	6.70	3.52	0.3	(47.5)

Natural Gas

In FY 2002, natural gas unit costs fell significantly compared to FY 2001 at all of the Regent institutions (an average of 32.7 percent).

This reflects a stabilization of natural gas costs following the sharp increases experienced in FY 2001.

Electrical Costs ($/Kwh)[1]

	FY 2000	FY 2001	FY 2002	% Change FY 2000 – FY 2002	% Change FY 2001 – FY 2002
SUI	0.036	0.040	0.039	8.3	(2.5)
ISU[2]	0.027	0.031	0.037	37.0	19.4
UNI	0.027	0.029	0.030	11.1	3.4
ISD	0.062	0.061	0.063	1.6	3.3
IBSSS	0.058	0.056	0.050	(13.8)	(10.7)

[1]Purchased electricity only

[2]Average of monthly unit costs, not weighted average cost per Kwh

Electrical

Iowa State University experienced the largest increase in purchased electrical costs among the Regent institutions from the previous fiscal year.

- The University's cost increases can be attributed to the limited availability of electricity earlier in the year resulting from the temporary shut-down of one of its power suppliers; this caused the University to purchase power at higher market rates for approximately two months.

The electrical costs at the remaining institutions experienced only slight increases or decreases.

Coal Costs ($/Million BTUs)

	FY 2000	FY 2001	FY 2002	% Change FY 2000 – FY 2002	% Change FY 2001 – FY 2002
SUI	1.60	1.55	2.04	27.5	31.6
ISU	1.60	1.87	2.02	26.3	8.0
UNI	1.54	1.69	1.67	8.4	(1.2)

Coal

The University of Iowa and Iowa State University experienced increases in coal costs in FY 2002, while the University of Northern Iowa experienced a slight decrease.

The difference in coal costs among the three universities is a function of the coal specifications, timing of the purchase, and transportation costs.

- The universities' coal specifications reflect differences in coal sizing and content for use in the boilers.
- The universities each purchase coal at different times of the year, which results in varying market prices.
- Transportation costs differ among the universities due to their varying distances from the Mississippi River where the coal is shipped to the state via barge.

Appendix B

Highlights—Energy Conservation Activities

University of Iowa

1989 Energy Audit Projects

Annual savings are estimated at approximately $5.6 million from 491 projects identified in the 1989 studies and implemented to date.

In FY 2002, the University completed the renovation of the Hydraulics Laboratory which included the installation of more energy efficient lighting systems, and lighting and temperature controls.

The University also completed the final phase of the project to install more energy efficient lighting systems at University Hospitals.

Other Conservation Projects

In addition to the energy conservation measures identified in the 1989 audit, the University initiated and/or completed the following projects with energy conservation components during FY 2002.

- Roof replacements for the Chemistry Building, MacLean Hall, Boyd Law Building and Power Plant.
- Heating, ventilating and air conditioning improvements for Phillips Hall, Medical Laboratories, and Bowen Science Building.
- Campus utility improvements including Power Plant equipment upgrades, the replacement of steam and condensate piping on the Health Sciences Campus, and construction of a central chilled water system for the Arts Campus.

Principles for Energy Conservation

The following are highlights of the University's "Principles for Energy Conservation" (adopted August 2001):

- The University's energy conservation practices will be guided by its 2001-2005 strategic plan to respond to reductions in state appropriations, the availability and cost of energy resources, and the University's responsibility for environmental stewardship.
- The energy conservation initiatives and practices must not impede the University's ability to attract and retain students nor the teaching and research mission of the University.
- Classrooms will be scheduled to make efficient use of energy.

- Energy conservation measures must provide tolerable environmental conditions for faculty, staff and students; where possible, building temperatures will be set to 78 degrees in the summer and 68 degrees in the winter during operating hours, and set back further during off-hours and weekends.

- The University will provide communications to promote and implement energy conservation initiatives and awareness among faculty, staff and students.

Iowa State University

1989 Energy Audit Projects

Annual savings are estimated at $218,511 from 108 projects identified in the 1989 studies and implemented to date; these projects have been complete for a number of years.

For the general university, the energy conservation measures identified in the comprehensive engineering analyses with payback periods of less than six years have been completed, incorporated into renovations, or determined not to be feasible.

Other Conservation Projects

In addition to the energy conservation measures identified in the 1989 audit, the University initiated the following energy conservation measures during FY 2002:

- Installation of occupancy sensors to control lighting systems in the public areas of the main campus buildings.

- Improvements for two of the seven boilers at the Power Plant.

- Lighting replacements at the Iowa State Center.

- Upgrade of piping and asbestos removal for the steam distribution system.

FY 2002 Comprehensive Plan

Also in FY 2002, the University implemented a comprehensive plan to provide general fund energy savings totaling $1.5 million.

- The plan began with audits of each campus building to evaluate potential energy saving strategies and building system performance, install energy control devices, and identify other potential energy conservation measures for future implementation.

- The plan has included the following:
  - Operating most campus buildings at 78 degrees in the cooling months (April through September) and 68 degrees in the heating months (October through March).
  - Continuing the operation of the off-hour activity center program which clusters night classes and meetings into designated night activity areas.
  - Shutting down as many building air handling systems as possible during the evenings and weekends.
  - Communication of energy conservation efforts and results on the University's web site.
  - Continuing to review new building and renovation projects for energy conservation opportunities

University of Northern Iowa

1989 Energy Audit Projects	Annual savings are estimated at $321,592 from 62 projects identified in the 1989 studies and implemented to date; the majority of these projects have been complete for a number of years.
Other Conservation Projects	In addition to the energy conservation measures identified in the 1989 audit, the University initiated the following projects with energy conservation components during FY 2002.

- The Steam Distribution System Replacement—Phase 1 project will address the need for a reliable campus steam distribution system and improve the energy efficiency of the system.
- The Towers Center Improvements project will upgrade the heating, ventilating and air conditioning systems of the dining facility.

Iowa School for the Deaf

1989 Energy Audit Projects	Annual savings are estimated at $11,695 from 11 projects identified in the 1989 studies and implemented to date; these projects have been complete for a number of years and represent all of the energy conservation measures identified for implementation.
Other Conservation Projects	Additional projects undertaken in FY 2002 included the installation of new steam mains and returns with thermal pipe insulation; caulking and sealing exterior door and window replacements; and improved operating and maintenance procedures.

Iowa Braille and Sight Saving School

1989 Energy Audit Projects	Annual savings are estimated at $17,916 from 12 projects identified in the 1989 studies and implemented to date; these projects have been complete for a number of years and represent all of the energy conservation measures identified for implementation. The School has completed all practical energy conservation measures with a payback period of six years or less.
Other Conservation Projects	Additional projects undertaken in FY 2002 included the installation of a geothermal heat pump system to provide heating and central cooling for Rice Hall.

TABLE 1
SUMMARY
ENERGY CONSERVATION MEASURES - IDENTIFIED AND COMPLETED

	Projects Identified in 1989 Engineering Analyses				Identified Projects with Payback Periods of Less than 6 Years				Identified Projects Completed to Date			
	# of Proj.	Identified Capital Costs (2002$)	Projected Annual Energy Savings (2002$)	Est. Pay-back Prd. (Yrs)	# of Proj.	Identified Capital Costs (2002$)	Projected Annual Energy Savings (2002$)	Est. Pay-back Prd. (Yrs)	# of Proj.	Actual Capital Costs (2002$)	Annual Energy Savings (2002$)	Est. Pay-back Prd. (Yrs)
University of Iowa												
General Fund - Main Campus	659	$16,558,724	$3,110,429	5.32	453	$7,697,657	$1,959,172	3.93	400	$10,040,467	$1,941,639	5.17
General Fund - Oakdale	67	429,303	73,932	5.81	45	141,594	35,188	4.02	29	302,816	53,386	5.67
Athletics	14	148,505	29,417	5.05	10	95,166	22,658	4.20	10	106,625	21,605	4.94
Hospital	17	15,518,307	3,235,562	4.80	12	11,580,230	2,872,935	4.03	13	7,786,004	1,888,370	4.12
Hospital School	7	675,735	134,999	5.01	4	547,156	123,885	4.42	4	555,859	118,401	4.69
Iowa Memorial Union	11	294,458	56,956	5.17	8	205,155	45,824	4.48	5	83,565	14,433	5.79
Residence Halls	100	1,290,610	278,132	4.64	62	789,325	214,914	3.67	28	396,202	98,788	4.01
Utility Enterprise	9	20,391,767	4,231,911	4.82	8	19,342,986	4,074,186	4.75	2	6,037,378	1,500,752	4.02
Subtotal	**884**	**$55,307,408**	**$11,151,337**	**4.96**	**602**	**$40,399,268**	**$9,348,762**	**4.32**	**491**	**$25,308,916**	**$5,637,374**	4.49
Iowa State University												
General Fund Buildings	507	$11,530,282	$1,139,265	10.12	180	$990,423	$681,066	1.45	108	$449,007	$218,511	2.05
Subtotal	**507**	**$11,530,282**	**$1,139,265**	**10.12**	**180**	**$990,423**	**$681,066**	**1.45**	**108**	**$449,007**	**$218,511**	**2.05**
University of Northern Iowa												
General Fund Buildings	228	$10,469,974	$1,473,533	7.11	63	$1,352,888	$550,700	2.46	38	$580,050	$286,059	**2.03**
Residence Halls	90	1,106,303	250,688	4.41	80	810,245	234,387	3.46	24	234,245	35,533	**6.59**
Subtotal	**318**	**$11,576,277**	**$1,724,221**	**6.71**	**143**	**$2,163,133**	**$785,086**	**2.76**	**62**	**$814,295**	**$321,592**	**2.53**
Iowa School for the Deaf	**16**	**$148,454**	**$28,319**	**5.24**	**11**	**$58,379**	**$17,745**	**3.29**	**11**	**$65,449**	**$11,695**	**5.60**
Iowa Braille & Sight Saving	**21**	**$111,424**	**$21,897**	**5.09**	**11**	**$59,434**	**$17,178**	**3.46**	**12**	**$69,798**	**$17,916**	**3.90**
TOTAL	**1,746**	**$78,673,844**	**$14,065,040**	**5.59**	**947**	**$43,670,639**	**$10,849,839**	**4.03**	**684**	**$26,707,466**	**$6,207,088**	**4.30**