

Policies and Procedures --- Draft Only

<i>SECTION:</i> Administration	<i>NO.:</i> 2/3/2		
<i>CHAPTER:</i> Facilities Management	<i>ISSUED:</i> 5/8/81	<i>REV. A</i>	<i>REV. B</i>
<i>POLICY:</i> Energy Conservation	<i>PAGE 1 OF 6</i>		

PURPOSE

An Energy Conservation Program is established to recognize and understand energy saving policies and techniques used by the University on a day-to-day basis in keeping with Creighton's role as a signatory of the American College and Presidents Climate Commitment. Individual accountability is necessary to fully realize the objectives of a successful Energy Conservation Program. The objectives of this Energy Conservation Program are to:

- Establish guidelines for the proper management of our energy resources Domestic water steam, chilled water and electricity (See Attachment A: Guidelines)
- Control the waste of natural resources.
- Maintain the most comfortable and safe environmental conditions in University buildings at the lowest cost.
- Provide an outline to be used for the educating of faculty, staff, and students of the University in the day-to-day practice of energy conservation (See Attachment B: Expectations).

POLICY

It is Creighton University's goal to reduce energy consumption on campus whenever possible through the support and everyday efforts of faculty, staff, students and university visitors ("the campus community"). This shall be accomplished through the following energy conservation measures:

- **Individual actions:** Close doors and windows; turn off lights, computers, printers and faxes when not in use.
- **Technical strategies:** Pursue energy savings in equipment operations and maintenance, as well as in building renovation and new construction.
- **Education and outreach:** Encourage energy conservation and environmental stewardship on campus and beyond.
- **Creighton Facilities:** Will be operated in the most energy efficient manner without endangering public health and safety and without diminishing the quality of education regardless of the source of funding for their operations.
- **Future construction and, renovation:** Will be designed for optimum energy utilization, lowest life-cycle operating costs, and in compliance with all applicable energy codes and regulations. In instances where a project's current funding does not include energy features consistent with lowest life cycle costing, augmentations will be sought, when warranted. Incorporation of energy efficient design features in the project plans and specifications will receive a high priority next only to meeting health, life-safety code elements and the academic program needs of the project within the available project budget.
- **Monitor the effects of energy conservation efforts on instructional programs and environment, the campus energy/utilities managers shall solicit and evaluate feedback from faculty, staff, and students. Training on new energy management concepts and programs will be provided as necessary.**

- Creighton will designate an Energy/Utilities Manager with the responsibility and the authority for carrying out Energy Conservation and Utilities Management Programs. The Vice President of Administration or its designee will have the responsibility to coordinate the individual campus programs into a system-wide program.

SCOPE

Applies to all faculty, staff, students, and university visitors.

1. Facilities Management shall make every reasonable effort to ensure that indoor air temperature settings achieve energy savings while protecting university assets and providing adequate working and learning conditions for building occupants.
2. All energy conservation measures, whether undertaken by Facilities Management or by individual members of the campus community, shall be consistent with the university's mission and goals for instruction, research and public service.
3. Creighton will maintain its energy plant and utilities infrastructure improvements in good working order and will undertake preventive maintenance schedules to maintain highest possible system efficiencies and, hence, lowest operating costs.

EXEMPTIONS

Exemptions from this policy shall be granted only under extenuating circumstances when necessary to accommodate medical, instructional, research or other special requirements. Exemption requests shall be evaluated on a case-by-case basis.

To apply for an exemption, an Environmental Exemption Request Form must be completed. This form may be downloaded online at <http://www2.creighton.edu/adminfinance/facilities/energymanagement/index.php> (not there currently) or requested by phone at 402-280-2780.

ADMINISTRATION AND INTERPRETATIONS

Specific Operating Guidelines that support this policy are maintained in Facilities Management. Questions regarding this policy should be directed to Facilities Management at 280-2780.

AMENDMENTS OR TERMINATION OF THIS POLICY

Creighton reserves the right to modify, amend or terminate this policy at any time.

OTHER

Faculty and staff are encouraged to report building conditions that are inconsistent with the guidelines outlined in this policy by submitting a work order to Facilities Management online at <https://cuaimapp.assetworks.com/fmax> or by phone at 402-280-2780.

Occupancy sensors may be requested from Facilities Management. These devices automatically turn off lights when the space is not occupied. "Out of Office" door hangers and "Flip It Off" light switch plates are also available. The campus community is encouraged to make suggestions for other means of energy conservation.

ATTACHMENT A: GUIDELINES

The following guidelines for energy conservation shall be followed in all buildings managed by Facilities Management:

Indoor Air Temperatures

1. Building occupants should not tamper with thermostat settings and are expected to dress appropriately for the season to minimize the need for heating and cooling.
2. During normal occupied hours the target indoor air temperature are:

Heating Season –

The heating season is generally from mid-October to mid-April (depending upon prevailing weather conditions).

During normally occupied hours, heat will be provided to maintain indoor temperatures as close to 67° F as

practical (usually +2`F). During off hours, temperatures may be allowed to drop as low as 55`F. This is consistent with ASHRAE standards (Thermal Environmental Conditions for Human Occupancy) to be comfortable for most people who are dressed appropriately for the season.

Cooling Season –

The cooling season is generally from mid-April to mid-October (depending upon prevailing weather conditions). **During normally occupied hours, cooling is provided to maintain indoor temperatures as close to 78`F as practical (usually +2`F).** During off hours, temperatures may be allowed to either rise above this temperature, or in the case of the hottest periods, drop below this level in order to lower our cooling demand during peak use periods. The target temperature is a balance based on ASHRAE standards (Thermal Environmental Conditions for Human Occupancy) to be comfortable for most people who are dressed appropriately for the season and the desire to be as energy wise and resource efficient as possible.

Exceptions:

A substantial portion of Creighton’s monthly electricity cost is determined by the highest 15 minute peak use period of the previous year. In an effort to keep our utility costs as reasonable as possible, it may be necessary to sub cool buildings during late night hours when our demand is low, and to allow temperatures to rise above the ideal band during the times of greatest demand.

When advanced notice allows, notifications will be made via campus communications ahead of periods when this is anticipated. Exceptions will also be made for technology closets and other equipment requiring cooling.

	SUMMER	WINTER
Office Space:	78 degrees	67 degrees
Classrooms:	78 degrees	67 degrees
Living Quarters	78 degrees	67 degrees
Laboratories	78 degrees	66 degrees

3. During off hours, heating, ventilation and air conditioning systems shall be adjusted so that indoor air temperature settings achieve the greatest energy savings possible while protecting university assets.
4. Temperature exemptions will be granted only under extenuating circumstances (see **Exemptions**).
5. While buildings are being heated or cooled, doors and windows shall remain closed and as secure as possible to prevent loss of conditioned air. Do not prop doors leading to the outdoors of buildings.
6. Chemical fume hood sashes shall be closed when not needed to prevent loss of conditioned air. Whenever possible, exhaust fans shall be turned off when hoods are not in use.
7. All windows in buildings and/or facilities that are air-conditioned will be kept closed and as secure as possible to prevent loss of conditioned air.

Purchasing

8. ENERGY STAR qualified equipment, systems and appliances (see <http://www.energystar.gov>) shall be purchased whenever such products are available and the following two conditions are satisfied:
 - a) The quality and function of the ENERGY STAR qualified product is equal or superior to that of non-ENERGY STAR qualified products; and,
 - b) The additional upfront cost of the ENERGY STAR qualified product is less than its resulting lifecycle energy savings.

If it is not possible to satisfy both of these conditions, then the most energy efficient-equipment, systems and appliances possible shall be purchased.

9. Energy-efficient flat panel computer monitors shall be purchased unless medical, instructional, research or other special requirements necessitate the use of less efficient CRT monitors.

Computers and Other Electronics

10. Faculty and staff shall adjust power settings on computers and other electronic office equipment to maximize energy savings, unless research or instructional requirements require full power. The following power settings shall be used for computers:
 - c) CPUs – set to enter system standby or hibernate mode after 30-60 minutes of inactivity.
 - d) Monitors and hard disks – set to enter sleep mode after 5-20 minutes of inactivity.For detailed instructions on how to activate power settings on your computer, consult the [ENERGY STAR](#) website.
11. Computers and other electronic office equipment, as well as window air conditioning units (where applicable), shall be turned off when not in use and at the end of the day.
12. Portable space heaters consume large amounts of energy and are not authorized for campus use without prior written approval (see **Exemptions**).
13. Electric blankets and heat lamps consume large amounts of energy and are not authorized for campus use unless for the purpose of instruction or research.
14. Refrigerators, microwaves and coffee makers consume large amounts of energy and are not authorized for use in individual spaces on campus.

Lighting

15. Lights shall be turned off when not in use, when leaving a room unoccupied and at the end of the day.
16. Energy-saving fixtures, lamps, ballasts and lighting control systems will be used to the fullest extent possible in routine maintenance and repair jobs, as well as in major renovation and new construction.
17. Artificial lighting is to be used only when daylight is insufficient to perform the task at hand, or where campus safety would be comprised without artificial lighting.
18. Lighting levels recommended by the most recent edition of the Illuminating Engineering Society (IES) Lighting Handbook shall be used as guidelines.
19. Energy-saving occupancy sensors and day lighting control systems shall be installed whenever possible.
20. Day lighting shall be used to the fullest extent possible in major renovation projects and new construction projects.
21. Indoor lighting will be reduced in number and/or wattage, wherever possible, to provide for the minimum but adequate lighting levels consistent with the needs of instructional programs and State mandated standards for the efficient and effective use of the spaces. Existing incandescent lamps for general-purpose lighting will be phased out and future incandescent lamps will not be allowed unless exempted for very limited and specialized tasks by the Campus energy/utilities managers. New lighting systems will be in the form of the latest energy saving technology.
22. Outside lighting on building exteriors and campus grounds will be maintained at levels necessary to provide security and safety to promote confidence within the campus community. Good energy management practices shall be observed within this guideline.

Water

23. Water is to be used sparingly. Showers and faucets shall be turned off after each use.
24. Cold water shall be used whenever possible, unless sanitary or other special requirements necessitate the use of hot water.
25. Low flow toilets, showers, and faucets shall be installed whenever possible.
26. Domestic hot water temperatures shall be controlled to 120 degrees Fahrenheit unless medical, instructional, research or other special requirements necessitate the use of other temperatures.
27. Creighton will take every necessary step to conserve water resources, including such steps as installing controls to optimize irrigation water, reducing water usage in restrooms and showers and promoting the use of reclaimed water. The use of decorative fountains should be minimized. In the event of a declaration of drought, Creighton will cooperate with the State, city and county governments to the greatest extent possible to effect additional water conservation.

Miscellaneous

Except for the physically challenged and person transporting heavy equipment or materials:

28. Minimize the use of elevators. Take the stairs whenever possible.
29. Open doors manually rather than with the assistance of ADA door openers.

ATTACHMENT B: EXPECTATIONS

30. The campus community shall acknowledge the importance of energy conservation on campus by following the guidelines outlined in this policy.
31. The Creighton University Facilities Management Department shall implement this policy and shall ensure that university buildings are operated, maintained, renovated and constructed in compliance with the policy.
32. Portable electric heaters and fans are not to be used in Creighton facilities unless specifically required by occupants because of medical conditions, failure of the building heating, ventilating or air conditioning systems, or when building heating, ventilating or air conditioning systems cannot be adjusted to achieve minimum comfort levels. The Creighton energy/utilities manager will grant such exemptions on a case-by-case basis. Use of refrigerators for non-instructional purposes should be consistent with good energy management practices.
33. All lighting, except what is required for security purposes, will be turned off when buildings and facilities are unoccupied, such as at the end of the workday. Custodial personnel will turn lights back on only for the time actually required for custodial work.
34. All natural gas fired boilers on the campus will be tuned at least twice annually and brought up to maximum efficiency unless automated combustion controls are installed. In the case of automatic controls, verification of combustion efficiency shall be conducted routinely or at least quarterly for decentralized boilers. A permanent record of these readings will be maintained.
35. When replacing energy consuming and/or utilities infrastructure equipment, the most cost-effective models will be selected. Life cycle costing procedures, instead of first capital cost only, will be utilized as the basis for all future equipment selection. All possible efforts will be made to secure additional funding if required to effect lowest life-cycle procurement.
36. Creighton will participate in demand reduction programs, where practical, during periods of OPPD Stage Alerts. Reductions in non-critical loads will be made in an effort to aid the electrical grid integrity.
37. Creighton shall operate and maintain a computerized energy management system as part of the building management system. The computerized system will provide centralized reporting and control of the campus energy related activities.
38. Creighton will encourage continuing energy conservation and lowest utilities operating costs on its campus by instituting appropriate fiscally responsible incentive plans designed to recognize and reward meritorious achievements by campus staff, faculty, and students beyond normal expectation. These incentive plans will be designed in such a fashion that they are adaptable to changing budget constraints from year to year.
39. Facilities Management shall make every reasonable effort to ensure that indoor air temperature settings achieve energy savings while protecting university assets and providing adequate working and learning conditions for building occupants.
40. All energy conservation measures, whether undertaken by Facilities Management or by individual members of the campus community, shall be consistent with the university's mission and goals for instruction, research and public service.
41. Creighton will maintain its energy plant and utilities infrastructure improvements in good working order and will undertake preventive maintenance schedules to maintain highest possible system efficiencies and, hence, lowest operating costs.

Environmental Exemption Request Form

Instructions: This form must be completed to apply for an exemption from the Energy Conservation Policy.

Applicant: Please complete Section A and B of this form (do not attach personal medical documentation) and then give the completed form to your Dean or Department Head for their review.

Dean or Department Head: If you recommend that the Applicant's request be considered, please sign the form where indicated and send it via campus mail to Facilities Management.

Section A: Applicant Information

Name: _____	Phone: _____
Department: _____	e-mail: _____
Building: _____	Room #: _____
Temperature Range Desired: From _____ ° F To _____ ° F	
Operating Hours Desired: From _____ AM / PM (circle one) To _____ AM / PM (circle one)	

Section B: Request Information

Basis for exemption request (please check one)	
<input type="checkbox"/> Medical (you will be contacted for verification; do not attaché personal medical documentation)	
<input type="checkbox"/> Sensitive Equipment (specify): _____	
Ending date if applicable (mm/yyyy): _____	
<input type="checkbox"/> Other (specify): _____	
Ending date if applicable (mm/yyyy): _____	
Applicant Signature _____	Date (mm/dd/yyyy) _____

Section C: Office Use Only

Comments: _____	
Dean or Department Head Signature _____	Date (mm/dd/yyyy) _____

Please check one:	Comments
<input type="checkbox"/> Recommend approval	_____
<input type="checkbox"/> Deny request	_____
<input type="checkbox"/> Not applicable (non-medical request)	_____
	Director, EH & S signature _____ Date (mm/dd/yyyy) _____

Please check one:	Comments
<input type="checkbox"/> Recommend approval	_____
<input type="checkbox"/> Deny request	_____
<input type="checkbox"/> Not applicable (non-medical request)	_____
	Director, Building Operations signature _____ Date (mm/dd/yyyy) _____

Please check one:	Comments
<input type="checkbox"/> Recommend approval	_____
<input type="checkbox"/> Deny request	_____
<input type="checkbox"/> Not applicable (non-medical request)	_____
	Assoc. VP for Administration signature _____ Date (mm/dd/yyyy) _____