



Energy Policy

Implementation Date: Jan. 1, 2013

1. Background

In keeping with Northwest Missouri State University's strong tradition of leadership in energy and environmental stewardship, the University is implementing several measures to reduce energy consumption and abate rising utility costs. Many of these measures are "behind the scenes" with little to no impact on individuals; other efforts require some level of engagement from the students, faculty and staff who use Northwest facilities.

The goal of this program is to reduce energy consumption while maintaining comfort and safety for those who use campus facilities. While these objectives may seem at odds with each other, these measures have been successfully implemented at university campuses across the country resulting in significant reductions in environmental impact and operating costs.

2. What will the policy do?

This policy will:

- A. Establish **building space temperature standards** to improve comfort and consistency across campus.
- B. Establish **building schedules** to reduce energy consumption during unoccupied periods.
- C. Outline implementation of the **energy curtailment program** to further reduce energy consumption and costs during extended campus breaks.
- D. **Provide guidance** for students, faculty and staff for aiding in reducing energy waste.

This policy will be reviewed and updated periodically as management techniques, technologies, space uses and schedules change. The latest version of the policy can be found on the Northwest website at: Resources → Facility Services → [Energy Management](#).

3. Policies

A. Heating, Ventilation and Air Conditioning

- 1) Temperature Standards: Standardized temperature control reduces energy consumption by allowing optimization of HVAC equipment for a narrower range of set points. During *occupied* times, zone temperatures will be maintained according to the table below.

	Summer	Winter
Classrooms	72-75*	68-71*
Offices	72-75*	68-71*
Auditoriums	74	70
Gymnasiums	74	70
Shower Rooms	76	74
Laboratories	70-73*	70-73*
Res Halls	72-75*	68-71*
Common Areas	73	71
Halls & Stairs	76	67

*User Adjustable where available

- 2) Schedule: Schedules for temperature and airflow as well as some lighting and ancillary systems will be implemented in many areas. During normal *unoccupied* times, some zone temperatures may be as high as 80°F or as low as 60°F, depending on the season.
 - a. General building operating schedules can be found on the Building Information webpage at: www.nwmissouri.edu/services/facility/buildings/index.htm. General building schedules apply to hallways, study areas, shared spaces and offices. This information will be added as each building is added to the system.
 - b. General building schedules do not apply to classrooms, meeting spaces and event rooms. **Astra must be used for scheduling these spaces.** If you have a concern about a building's schedule after consulting the [Building Information](#) webpage, please consult with the Facility Services Customer Service Center.
 - c. **IMPORTANT:** With this policy in place, it is critical that rooms scheduled through Astra be requested in advance. Setback schedules will be pulled from Astra weekly on Monday mornings, and room schedules for the week will be set accordingly. The Astra schedule will be checked every weekday morning for any changes, but changes made during the day may not make it into the building management system. Some zones (The Station, Student Union meeting rooms and the ballroom) do have thermostats with temporary override buttons that will set a room to occupied set points for two hours.
- 3) Exceptions: Exceptions to this this policy will be granted for areas that have special requirements. Requests for these exceptions should be directed to the Facility Services Customer Service Center.

- 4) Occupant Responsibilities: Occupants should not expect temperatures to be adjusted unless they fall outside the acceptable ranges established in the aforementioned table. Rooms must be scheduled through Astra at least 48 hours in advance to ensure the space can be set for occupancy in the building management system.

B. Lighting Types

With a few exceptions for specialty applications, high-efficiency lighting options exist for all fixture types. Some areas may require temporary continued purchase of existing supplies until a suitable alternative can be installed. The table below lists acceptable and unacceptable types of lighting.

Acceptable indoor lighting types	Unacceptable indoor lighting types
T5 & T8 Linear fluorescent driven by an electronic ballast	T12 fluorescent & High Output
Compact fluorescent	HID - (Sodium, Metal Halide, Halogen, Quartz)
Induction lighting	Any fluorescent driven by a magnetic ballast
LED	Incandescent

Except in specialty applications, 5,000-Kelvin color temperature lamps with 80+ CRI shall be used in linear fluorescent applications.

Contact the Facility Services Customer Service Center if you have questions about specific applications.

C. Curtailment

During extended campus breaks (Thanksgiving, Christmas, Spring Break, etc.) additional measures will be taken to reduce energy consumption in some areas. Such measures will be taken on a case-by-case basis depending on weather conditions and anticipated building use. Practices include, but are not limited to:

- 1) Adjusting heating and cooling set points outside the normal unoccupied range
- 2) Shutting off air handling equipment and exhaust fans that serve hallways, lecture halls, auditoriums, gymnasiums and common areas
- 3) Shutting off hot water heating and/or circulation systems
- 4) Turning off water fountain chillers
- 5) Building sweeps to shut off non-essential lighting and office equipment
 - a. Computers will not be shut off, but you are strongly encouraged to shut this type of equipment off over the break
 - b. Essential lighting includes emergency egress and minimal outdoor lighting

Measures other than those referred to as “building sweeps” will be set back to original conditions before the end of the break. The best way to avoid comfort challenges in areas that will be used over the break is to schedule them in Astra.

Stand-alone thermostats (those not on the central building management system) may be set up or back and require adjustment when you return to the space.

Information about the planned curtailment for each building will be reviewed with the identified building contact prior to any curtailment measures, and information about specific measures will be posted on the [Building Information](#) webpage. If, after reviewing the information, you have concerns about a specific measure, please inform the Facility Services Customer Service Center.

Additional, specific information will precede individual curtailment periods.

D. Student, Faculty and Staff Responsibilities

- 1) Lighting/switching: The last person leaving a room should shut off lighting when a return is not anticipated for at least 10 minutes. This applies to spaces with manual switches and those with accessible motion control devices (occupancy and vacancy sensors).
- 2) Scheduling: Rooms must be scheduled through Astra at least 48 hours in advance to allow time for scheduling in the building management system.
- 3) HVAC
 - a. Occupants should ensure airflow around radiators and registers is not blocked.
 - b. Windows should be kept closed and latched when the HVAC system is active.
 - c. Temperature setpoints should be kept within the ranges listed in table 1.A.1.
- 4) Office equipment:
 - a. Computers and monitors should be turned off when not in use.
 - b. Printers and copiers and other office equipment should be turned off when not in use for extended periods (evenings, weekends, breaks). Even in sleep mode, these devices can consume a considerable amount of energy.
- 5) Areas with programmable thermostats: Programmable thermostats should run according to the building’s occupancy schedule and should not be left in “hold.” To have schedules changed, contact the Facility Services Customer Service Center.
- 6) Curtailment periods: Space temperatures may be lower or higher than normal operations during the curtailment periods. Those who use campus spaces will be responsible for ensuring items left behind during these times can accept the temperature swings.

If items that cannot accept these temperatures cannot be moved, please alert your identified building contact so accommodations can be made when planning the curtailment.

- 7) Areas with manual thermostats: In areas with manually adjustable thermostats, you can help the campus save energy by setting temperatures up or down during extended periods of vacancy. The correct procedure will differ from zone to zone based on how your area is used and how quickly the system can recover from the setback points. If you have a manually adjusted electronic (not pneumatic) thermostat, you may request a programmable thermostat be installed by contacting the Facility Services Customer Service Center.

Some things to keep in mind:

- a. The wives' tale about it taking more energy to bring an HVAC system back from set points than it would take to just run it constantly is *false*.
- b. To save energy:
 - I. During the summer, set the temperature set point **up** a few degrees when you leave. For example:
 - i. Occupied set point: 73°
 - ii. Nighttime and weekend set point: 76°
 - iii. Spring break set point: 82°
 - II. During the winter, set the temperature set point **down** a few degrees when you leave. For example:
 - i. Occupied set point: 70°
 - ii. Nighttime and weekend set point: 67°
 - iii. Thanksgiving break set point: 61°
 - III. Communicate any changes to others who use the space.
 - IV. Make small changes at first and observe the effects. If you discover that the system can recover quickly, you might be able to increase the setup or setback by a few more degrees. You may also consider setting the temperatures up or down a few extra degrees during longer periods of occupancy.

4. Contact information

Customer Service Center
(temperature control issues and work orders)
Amber Newham
660.562.1183
ANEWHAM@nwmissouri.edu

Energy Management
(energy policy and scheduling)
Dan Boyt
417.592.0042
energy@nwmissouri.edu