

ENERGY CONSERVATION POLICY

I. Policy Section

11.0 Business Functions

II. Policy Subsection

11.9 Energy Conservation

III. Policy Statement

Grand Rapids Community College maintains an energy management program to monitor and control energy consumption for campus utilities. Campus utilities include all sources of electrical power, natural gas, water and petroleum products. All persons using campus facilities are expected to adhere to the employee guidelines in their use of energy resources.

IV. Reason for Policy

The Board of Trustees recognizes the need to adopt a formal energy management program as a means to promote conservation initiatives and be good stewards of our natural resources.

Campus utilities are one of the most costly expenses the College incurs. They are unstable and difficult to accurately predict and forecast due to the ever-changing economy.

V. Entities Affected by This Policy

All organizations and personnel who utilize campus facilities.

VI. Who Should Read This Policy

All College employees and students. Outside groups utilizing GRCC facilities.

VII. Related Documents

Energy Conservation Procedures
12.11 Appliance Policy

VIII. Contacts

Policy Owner: Executive Director of Facilities
Energy Project Manager

I. Definitions

- A. Utilities - Any natural or man-made source of power or commodity, such as, natural gas, steam, water and electricity used in lighting, heating, cooling, sanitation, and environmental functions.
- B. Energy Conservation - The act of reducing use of energy or not using or operating an energy-consuming device.
- C. Energy Efficiency - Infrastructure changes in equipment and appliances to reduce the use of energy.
- D. Facilities Energy Project Manager - The person responsible for communicating the guidelines for implementing this policy.

II. Procedures

- A. The Executive Director of Facilities reviews and approves Energy Conservation Procedures used to communicate the various aspects of the energy conservation program. Exceptions to the Energy Conservation Procedures must be approved by the Executive Director of Facilities.
- B. The Facilities Energy Project Manager will administer the Energy Conservation Policy and Procedures with proper authority.
 - 1. The Facilities Energy Project Manager will perform routine audits of campus facilities and will communicate audit results to appropriate personnel.
 - 2. The Facilities Department will monitor environmental conditions related to temperature, relative humidity, and light levels throughout the campus's buildings to ensure compliance with guidelines and industry standards.
 - 3. The Facilities Energy Project Manager will provide detailed consumption/cost/savings reports to appropriate personnel to help communicate overall performance.
- C. The Executive Director of Facilities coordinates the primary environmental controls and is the final authority on exceptions or addendums to these procedures.
 - 1. All energy sources will be controlled and/or monitored at their point of entry to college facilities.
- D. The Facilities Department will monitor all utility meters on campus.

1. Meters will be inspected periodically to ensure accurate readings are being recorded.
2. All unused campus meters will be removed as expeditiously as possible.

E. The Facilities Building Managers are responsible for the common and transition areas as well as the verification of the nighttime shutdown.

III. Forms

N/A

IV. Effective Date

October 19, 2004

V. Policy History

Created October 19, 2004

Revised January 20, 2005

Revised August 6, 2008

Revised June 25, 2013: Changed Energy Manager to Facilities Energy Project Manager, and removed VP of Financial Services for change approval.

Revised October 2015

October 2019

VI. Next Review/Revision Date

October, 2023

ENERGY CONSERVATION PROCEDURES

1. GENERAL

- 1.1. Classroom doors should remain closed when the HVAC is operating.
 - 1.1.1. HVAC systems are designed to function optimally as isolated spaces, which include closed doors.
 - 1.1.2. Ensure doors between conditioned space and non-conditioned space remain closed at all times (i.e. between hallways and gym or pool area). This greatly improves the environment.
- 1.2. Non-critical or non-essential exhaust fans should be turned off every day and during unoccupied hours.
- 1.3. All networked office machines (computers, copy machines, network printers, etc.) should be in the “energy saver” mode to reduce consumption during unoccupied times.
- 1.4. All computers should be turned off each night or when use is not anticipated for extended periods.
 - 1.4.1. This includes the monitor, local printer, and speakers.
 - 1.4.2. Network servers, switches, etc. are exempt and will remain on
 - 1.4.3. The monitor “sleeps” after 10-minutes of inactivity. Screen savers keep the monitor in “active” mode and should not be confused with power management.

2. APPLIANCES

- 2.1. Departmental appliances such as microwaves, refrigerators, and coffee pots require approval through the Executive Director of Facilities in writing, and should be restricted to common areas only. See 12.11 Appliance Policy listed on Policies page.
- 2.2. Personal radios or other personal music players will be permitted for use within college facilities by individuals at their respective workstation. All other personally owned appliances such as heaters, foot warmers, etc. are not permitted for use on campus. Exceptions may exist depending on location and usage and a written exception must be requested from the Facilities Department and approved by the Executive Director of Facilities. The Executive Director of Facilities or designee will notify the individual to remove non-permitted appliances.

3. LIGHTING

- 3.1. Campus lighting will be maintained by the Facilities Department.

- 3.1.1. Lighting will meet acceptable standards for all facilities as it relates to classrooms, conference rooms, offices, laboratories, etc.
- 3.1.2. All ballast and lamp replacements will be energy efficient models when changed-out and/or upgraded.
- 3.2. All unnecessary lighting in unoccupied areas should be turned off.
 - 3.2.1. Faculty and students should make certain that lights are turned off when leaving an empty classroom.
 - 3.2.2. Utilize natural lighting where appropriate. *“Lights off in unoccupied areas”* is the theme to spread around campus.
 - 3.2.3. All lights should be turned off when students and employees leave the area. Custodians will turn on lights only in the areas in which they are working.
- 3.3. All outside lighting should be off during daylight hours unless required for a sponsored event and/or security reasons.
- 3.4. Refrain from turning lights on unless definitely needed.
 - 3.4.1. Remember that lights not only consume electricity, but also give off heat that places an additional load on the air conditioning equipment and thereby increases the use of electricity necessary to cool the room.

4. TEMPERATURE GUIDELINES

- 4.1. Heating Season **Occupied** **67°F-71°F**
 Unoccupied 55°F
- 4.2. Cooling Season **Occupied** **72°F-76°F**
 Unoccupied 85°F
- 4.3. The temperature guidelines are in accordance with ASHRAE 55 – *“Thermal Environmental Conditions for Human Occupancy”*
- 4.4. The unoccupied time should begin when the students and employees leave an area.
- 4.5. Most campus buildings utilize an EMS (energy management system) that switches between occupied and unoccupied times.
 - 4.5.1. The Facilities energy project manager will make every effort to verify occupancy patterns and reduce the TOD (time of day) schedules to eliminate wasted energy in unoccupied spaces.

5. HEATING EQUIPMENT

- 5.1. Occupied temperature settings should be 67°F-71°F unless it is a critically controlled environment.

- 5.2. The unoccupied temperature setting should be 55°F (i.e. setback). This may be adjusted to a 60°F setting during extreme weather.
 - 5.2.1. Exceptions will be made for areas that require specific temperature control. (Some laboratory areas, animal science, medical, etc.) Approval is required from the Executive Director of Facilities.
- 5.3. During the spring and fall when there is no threat of freezing, all heating systems should be switched off during unoccupied times unless required to maintain a sensitive environment.
- 5.4. Campus domestic (potable) hot water will be maintained at a temperature of 110F-120F to maximize efficiency and to comply with American Disability Act requirements.
 - 5.4.1. Lesser temperatures may be maintained depending on usage, location and the facility.
 - 5.4.2. All domestic hot water re-circulating pumps are switched off during unoccupied times.

6. AIR CONDITIONING EQUIPMENT

- 6.1. Occupied temperature settings should not be set below 72°F unless that area is identified as a critical environment that requires cooling below 72°F.
- 6.2. During unoccupied times, the air conditioning equipment should be off.
- 6.3. Air conditioning start times may be adjusted (depending on weather) to ensure student and faculty comfort.
- 6.4. Non-centralized facilities should be maintained as close as possible to designated temperatures identified for the appropriate season.
 - 6.4.1. When feasible, heating, and cooling will be adjusted as necessary depending on the season.
- 6.5. Outside air dampers should be closed during unoccupied times.
- 6.6. Ceiling fans should be operated in all areas that have them.
- 6.7. Relative humidity levels should not exceed 60% for any 24-hour period. Notify the Facilities Energy Project Manager or Facilities Office if you suspect high humidity levels indoors.
- 6.8. Dry food storage areas should be maintained within code requirements. Typically, this is 55°F-75°F temperature and 35%-60% Relative Humidity.

7. WATER

- 7.1. Ensure all plumbing and/or intrusion (i.e. roof) leaks are reported and repaired immediately. If possible, grounds watering should only be done between 4am-10am.