



## **515 POLICY – 20% x 2020 Oklahoma Facilities Energy Program**

### **515.1 Statement of Policy**

The mission of Oklahoma Facilities Energy Conservation Program, 20% x 2020, is to reduce the energy consumed in facilities owned or operated by the State of Oklahoma while maintaining a comfortable productive building environment. Senate Bill 1096 set a target goal of cumulative energy reduction in state buildings of not less than 20% from the 2012 fiscal year baseline by year 2020.

### **515.2 Compliance**

Redlands Community College recognizes its responsibility and implements an energy conservation program to achieve cumulative energy savings of at least 20 percent by the year 2020 when compared to fiscal year 2012 utility expenditures. We strive to capitalize on opportunities for organizational behavior-based or performance-based energy conservation efforts and existing equipment and building optimization while maintaining or improving the operational environment during times when facilities are occupied.

Adopted February 2015



## 515 PROCEDURE – 20% x 2020 Oklahoma Facilities Energy Program

### **515.2:1 Responsibilities**

- A. Every staff member is responsible for implementing the guidelines when they are in their work area and common areas.
- B. Energy Managers are responsible for performing routine walkthroughs and communicating walkthrough results to the relevant stakeholders.
- C. Operations and maintenance employees are responsible for establishing a schedule for their procedures to meet these guidelines, and health and safety requirements, and for verifying compliance with those procedures.
- D. Custodial or other staffs working in the facility after normal operating hours are responsible for ensuring all lighting and relevant equipment is off when they leave.

### **515.2:2 General**

- A. Doors between areas that are conditioned and those that are not conditioned shall remain closed at all times, such as between hallways and gym or pool areas.
- B. Blinds and shutters shall be closed during the summer and open during the daytime in winter. Blinds shall also be closed when leaving for the day.
- C. Custodial shifts shall be scheduled during or immediately after regular operating hours to minimize the length of time building systems equipment operates and consumes energy.
- D. Elevators shall only be used when ascending or descending three or more stories. Exceptions are allowed for individuals with physical handicaps and instances when performing job duties requires the use of an elevator.
- E. Where the space is subject to codes or standards on air changes, lighting, or other characteristics, every attempt should be made to meet those standards (and maintain safety, comfort, and productivity) without exceeding the standards more than necessary to avoid wasting energy.



### **515.2:3 Electronics**

- A. All office machines and other equipment shall be switched off during unoccupied times. Machines that can be feasibly turned off between uses shall be, and where that is not possible equipment shall be set to go into power saving mode. Exceptions include fax machines and any mission critical equipment that must remain on.
- B. All capable computers shall utilize the power management feature's energy saving mode.
- C. All peripheral devices plugged into the CPU, including the monitor, shall be set to go into sleep mode after 10 minutes of inactivity.
- D. Where allowed by the IT management (or ISD), all computers should be turned off outside of business hours. Exceptions include critical network servers, computers required for remote access, or other sensitive equipment.
- E. All chargers for phones, laptops, tablets, and any other electronic device shall be unplugged when not in use or once the device is fully charged. Where available, power strips shall be used in order to make cutting power to multiple devices easier. Apps are available for download to alert a user when their device is fully charged.
- F. Personal electronic devices that are not critical to performing job duties should be used as little as possible.

### **515.2:4 Temperature and Air Systems**

- A. Occupied temperature settings shall not be set above or below the stated set points unless the area is deemed a critically controlled environment. These set points have been based on ASHRAE 55 and take into consideration that occupant comfort is paramount while maximizing equipment performance. However, the individual building's properties and any issues of humidity or CO<sub>2</sub> levels must be taken into consideration.
  - 1. Temperature settings:
    - Cooling Season Occupied Set Points: 71°F - 78°F
    - Minimally Occupied Set Point: 85°F
  
    - Heating Season Occupied Set Points: 68°F - 74°F
    - Minimally Occupied Set Point: 55°F



- B. Occupied set points shall be used during normal business hours. Minimally occupied (or unoccupied) set points shall be used outside of normal business hours.
- C. A schedule for periods of anomalous activity, such as holidays and large events after hours, shall be established.
- D. During unoccupied times, the HVAC equipment shall be set back or turned off, though humidity and other building or environmental constraints should be taken into consideration.
- E. Exhaust fans shall only run when needed for thermal control or adequate ventilation. Exhaust fans should be off during unoccupied times.
- F. In areas that experience intermittent use, such as gyms or conference rooms, HVAC equipment shall be kept in unoccupied mode or off until occupied when possible. The number of people and type of activities should be considered to ensure comfort and humidity management. Pre-conditioning for up to 30 minutes prior to space being occupied is one possible strategy.
- G. If on a control device, outside air dampers should be managed to meet space requirements. Consider closing outside air dampers during periods when the building is unoccupied, or open the dampers on cool nights to utilize free cooling if humidity is not a concern.

#### **515.2:5 Cooling Season Equipment**

- A. Ceiling fans shall be utilized in all occupied areas where available. Ceiling fans shall be off when the space is unoccupied.
- B. Doors between air-conditioned spaces and areas that have evaporative coolers (such as shops or kitchens) shall be kept closed whenever possible to prevent moisture from reentering the conditioned environment.

#### **515.2:6 Heating Season Equipment**

- A. The unoccupied temperature setting shall be 55°F (i.e. setback). This may be adjusted to a temperature of 60°F during bouts of extreme weather.
- B. The overall system must be balanced to minimize risks of freezing pipes or any other adverse effects.
- C. During the spring and fall, when the threat of freezing is low, all steam and forced

air heating systems shall be switched off during unoccupied times unless required to maintain a sensitive environment. Hot water heating systems should be switched off using the appropriate loop pumps.

- D. A six-degree Fahrenheit dead-band between heating and cooling should be used in areas that have heat pumps.
- E. Propane levels should be routinely measured and recorded, where applicable.
- F. Personal space heaters shall not be used unless a specific accommodation has been approved.

### **515.2:7 Lighting**

- A. With the exception of required safety lighting, all lighting in unoccupied areas shall be turned off.
- B. Natural lighting should be used whenever possible.
- C. Full lighting should be used only when necessary. Do not turn on all of the lights if only using one portion of the space or only entering the space briefly.
- D. Areas that experience intermittent use, such as common areas, shall have lights off until the space is occupied.
- E. Custodial staff shall use lighting only in active working areas and use additional lighting for safe passage only. They will also be responsible for shutting off the lighting in their work areas when they leave.
- F. All exterior lighting shall be off during daylight hours.
- G. Outside of daylight hours, exterior lighting should be optimized to allow for safety and security while minimizing decorative use.

### **515.2:8 Water**

- A. Domestic hot water systems shall be set no higher than 120°F (or 140°F for cafeteria service with dishwasher booster).
- B. During unoccupied times, all domestic hot water recirculating pumps should be switched off. Considerations should be made for longer unoccupied periods to avoid the water going stagnant.



- C. All plumbing and/or intrusion (i.e. roof, window, door, faucets, water fountain) leaks shall be reported and repaired immediately.
- D. Grounds watering shall be scheduled only between 4am-10am or from 8pm-11pm. Avoid watering during the heat of the day, such as between 10am – 8pm.
- E. Ensure the water does not directly hit the building, sidewalks and parking area when spray irrigating.
- F. Coordinate irrigation plans to eliminate grounds watering during or immediately after rain.
- G. Consider sweeping parking lots and other outside areas instead of cleaning with a hose regularly.
- H. When washing laundry, only run full loads.
- I. Where allowable by health and safety codes, wash with the cold or warm setting instead of hot.

Adopted February 2015