



Energy Conservation Guidelines

Energy Guidelines

The energy guidelines outlined in this document are a standard. This document is not intended to be “all inclusive” for every situation but is designed to set a standard for most.

Energy Conservation and Building Management Guidelines

School facilities will be available for non-school usage by facilities permit only. Facilities use permits are coordinated through our online tool, Facilitron.

At the school sites, please plan room use to support maximum efficiency. If a choice can be made for a standalone regular classroom versus a relocatable/modular classroom, the regular classroom is usually preferred. Relocatable/modular classrooms are generally the least energy efficient. However, where buildings run on chiller or boiler systems, using only one room in a multi-room building is probably the least efficient.

No extracurricular meetings, programs, or student events outside of regular school hours will be held at any school site without an approved facility use permit.

- Any events other than Visalia Unified events will have to pay the appropriate cost for facility use.
- Any events that charge a fee for attendance or enrollment will pay the Class III rental rate facility use cost.

RESPONSIBILITIES

1. Every person is expected to become an “energy saver” as well as an “energy consumer.”
2. Each staff member is responsible for implementing the guidelines during the time that he/she is present in the instruction room or office.
3. The site custodian is responsible for control of common areas, i.e. halls, cafeteria, etc.
4. Since the custodial teams are typically the last to leave a facility in the evening, they are responsible for verification of the nighttime shutdown.
5. The Principal is responsible for the total energy usage of his/her facility.
6. The Energy Specialist provides regular (at least semi-annual) program update reports to the Board.

7. The Energy Specialist performs routine audits of all facilities and communicates the audit results to the appropriate personnel.
8. The Energy Specialist is responsible for either directly or indirectly making adjustments to the District's Energy Management System (EMS), including temperature settings and run times for Heating, Ventilation and Air Conditioning (HVAC) and other controlled equipment.
9. Administration will regularly communicate the importance and impact of the energy conservation program to its internal and external constituents.
10. The Energy Specialist provides monthly energy savings reports to facility administrators detailing performance results.
11. The District is committed to and responsible for a safe and healthy learning environment.
12. To complement the organization's behavioral-based energy conservation program, the organization shall develop and implement a preventive maintenance and monitoring plan for its facilities and systems, including HVAC, building envelope, and moisture management.

GENERAL

1. Instruction room doors shall remain closed when HVAC is operating. Ensure doors between conditioned space and non-conditioned space remain closed at all times (i.e. between hallways and gym or pool area).
2. For summer or night programs, consolidate classroom usage to a central area or building that is individually cooled/heated.
3. Proper and thorough utilization of data loggers will be initiated and maintained to monitor relative humidity, temperature, and light levels throughout the organization's facilities to ensure compliance with organization guidelines.
4. All exhaust fans should be turned off daily.
5. Laminating machines shall be switched off each night and during unoccupied times. Printers, copiers and Fax machines should remain on.
6. All computers should be turned off each night. This includes the monitor, local printer, and speakers. Network equipment is excluded.
7. All capable PC's should be programmed for the "energy saver" mode using the power management feature. If network constraints restrict this for the PC, ensure the monitor "sleeps" after 10-minutes of inactivity.

8. Personal small appliances such as refrigerators, coffee pots, space heaters, microwaves, hot plates, etc. should be removed from classrooms, offices, MPRs etc. and shall only be present in staff rooms or centralized break areas. Exceptions may be made in cases of curricular needs (eg. Science), individual medical needs, or other extenuating circumstances upon prior approval from an Area Administrator or the Assistant Superintendent.
9. All appliances shall be emptied and unplugged over extended vacation periods (spring break, winter break, and summer vacation).

Cooling Season Occupied Set Points¹: 74°F - 78°F

Unoccupied Set Point: ≥85°F

Heating Season Occupied Set Points¹: 68°F - 72°F

Unoccupied Set Point: ≤55°F

¹ Set points are in accordance with ASHRAE 55 "Thermal Conditions for Human Occupancy"

AIR CONDITIONING EQUIPMENT

1. Occupied temperature settings shall NOT be set below 74°F.
2. During unoccupied times, the air conditioning equipment shall be off. The unoccupied period begins when the students leave the area at the end of day. It is anticipated that the temperature of the instruction room will be maintained long enough to afford comfort for the period the staff remains in the instruction room after the students have left.
3. Air conditioning start times may be adjusted (depending on weather) to ensure instruction room comfort when instruction begins.
4. Ensure outside air dampers are closed during unoccupied times.
5. Ceiling fans should be operated in all areas that have them.
6. Relative humidity levels shall not exceed 60% for any 24 hour period.
7. Air conditioning should not be utilized in facilities during the summer months unless the facilities are being used for summer school or year-round school. Air conditioning may be used by exception only or in those facilities that are involved in team-cleaning.

8. In all areas which have evaporative coolers such as shops, kitchens and gymnasiums, the doors leading to halls which have air conditioned instruction rooms or dining areas should be kept closed as much as possible.
9. Where cross-ventilation is available during periods of mild weather, shut down HVAC equipment and adjust temperature with windows and doors. Cross-ventilation is defined as having windows and/or doors to the outside on each side of a room.
10. Ensure dry food storage areas are maintained within code requirements. Typically, this is 55F-75F temperature and 35%-60% Relative Humidity. Utilize loggers to verify.

HEATING EQUIPMENT

1. Occupied temperature settings shall NOT be above 72°F.
2. The unoccupied temperature setting shall be 55°F (i.e. setback). This may be adjusted to a 60°F setting during extreme weather.
3. The unoccupied time shall begin when the students leave an area.
4. During the spring and fall when there is no threat of freezing, all steam and forced air heating systems should be switched off during unoccupied times. Hot water heating systems should be switched off using the appropriate loop pumps.
5. Ensure all domestic hot water systems are set no higher than 120°F or 140°F for cafeteria service (with dishwasher booster).
6. Ensure all domestic hot water re-circulating pumps are switched off during unoccupied times.
7. For heat pumps, ensure a 6 °F dead-band between heating and cooling modes.

LIGHTING

1. All unnecessary lighting in unoccupied areas will be turned off. Staff should make certain that lights are turned off when leaving the instruction room or office when empty. Utilize natural lighting where appropriate.
2. All outside lighting shall be off during daylight hours.
3. Gym lights should not be left on unless the gym is being utilized.

4. All lights will be turned off when students and staff leave for the day. Custodians will turn on lights only in the areas in which they are working.
5. Refrain from turning lights on unless definitely needed. 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.

EXTERIOR LIGHTING

Where possible the time and hours that exterior lighting, such as parking lot lighting and corridor lighting, will be standardized throughout the District as follows:

1. All outside lighting shall be **off** during daylight hours.
2. During daylight savings time from the second Sunday in March to the first Sunday in November, exterior lights will run from approximately 8:00 p.m. till midnight Monday through Friday only.
3. The amount of lighting used for athletic events or practice should be appropriate for the activity and used only when necessary. Use appropriate partial lighting for after-hours activities (i.e.. partial banks of lights for practice or group events)
4. The remaining time of the year the exterior lights will run from approximately 6:00 p.m. to midnight Monday through Friday only.
5. Where possible, reduce the number of parking lot lights used and reduce the number of corridor lighting used.

WATER

1. Ensure all plumbing and/or intrusion (i.e. roof) leaks are reported and repaired immediately.
2. Grounds watering should only be done between 4am-10am. Do not water during the heat of the day, typically between 10am – 8pm.
3. When spray irrigating, ensure the water does not directly hit the facility.
4. Consider installing water sub-meters on irrigation and cooling tower supply lines to eliminate sewer charges.
5. (After official approval by administration a copy should be disseminated to all organization personnel. Copies should be posted on bulletin boards, staff lounges, organization newsletters, etc.)

6. Disclaimer: The organization shall adopt, observe and implement these guidelines as provided. However, these guidelines are not intended to be all-inclusive, and they may be modified for local conditions. These guidelines supersede all previous instructions related to energy conservation or facility management.

