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## CLOVIS UNIFIED SCHOOL DISTRICT

### BUSINESS AND NONINSTRUCTIONAL OPERATIONS

Operations, Conservation, and Maintenance

### ENERGY AND WATER MANAGEMENT/CONSERVATION PROGRAM

#### A. New Buildings and Modernization Projects

The District's program to build new schools and renovate existing ones provides a unique opportunity to move beyond standard designs. Schools designed to meet the CHPS criteria incorporate environmental features that provide a context for learning, therefore, the Governing Board directs staff to expand this effort to ensure that every new school, new building and modernization project, from the beginning of the design process, incorporate CHPS criteria and best practices to the extent feasible; that all construction projects minimally meet the CHPS qualifying criteria and preferably achieve at least points; and that the focus be on criteria in the following priority areas:

1. Student performance and staff health through measures such as daylighting, the use of non toxic-emitting materials, and sound insulation or isolation to maintain comfortable temperature, minimize noise, and enhance classroom acoustical quality.
2. Reducing operational cost through increased efficiency and lower energy costs.
3. Minimizing the negative impact of District operations on the environment.
4. Taking advantage of financial incentive programs.

Staff shall report to the Board annually on the progress of this program regarding the number of new schools and modernization projects designed and the percentage which have incorporated CHPS design criteria and other statistics useful in assessing the progress of this effort.

#### B. Existing School Facilities

The Assistant Superintendent of Facilities or designee will implement and monitor the District's energy and water management program. This program is the joint responsibility of the Board, administrators, teachers, students, support personnel, and the community and its success are based on cooperation at all levels.

In keeping with the Board's goal to help conserve energy and water and to save money to support other District needs, the Assistant Superintendent of Facilities or designee will work with the school site administrators and department supervisors to develop strategies to:

1. Reduce energy use during high peak hours.
2. Shut down lights and equipment when facilities are not in use.

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3. Maintain a preventative maintenance schedule for emergency lighting, generators, exit lighting, and other safety related equipment at each site.
4. Reduce the amount of water consumed by engaging in more efficient practices and using more efficient equipment.

The principal/department supervisor of each campus/department shall be responsible for implementing energy and water conservation measures in facilities under their jurisdiction in accordance with District guidelines. Site administrators shall encourage teachers to instruct by precept and practice the importance of energy and water conservation.

The following guidelines should be followed in order to enlist the support which is essential to achieving the District's conservation of energy and water:

1. Employee Responsibilities
  - a. Every person is expected to be an "energy saver" as well as an "energy consumer."
  - b. The teacher is responsible for implementing the guidelines during the time that he/she is present in the classroom.
  - c. The custodian is responsible for control of common areas, i.e., halls, multi-purpose room, library.
  - d. Since the custodian is typically the last person to leave a building in the evening, he/she is responsible for verification of the nighttime shutdown.
  - e. The principal/department supervisor is responsible for the total energy usage of his/her campus or department.
  - f. The Energy Management System Manager performs routine audits of all facilities and communicates the audit results to the appropriate personnel.
  - g. The Energy Management System Manager is responsible for either directly or indirectly adjusting the District's energy management system (EMS), including temperature settings and run times for heating, ventilation and air conditioning (HVAC) and other controlled equipment.
  - h. The Energy Management System Manager provides regular reports to the school principals and departments indicating performance with regards to energy savings.
  - i. The District is committed to and responsible for maintenance of the learning environment.

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- j. To complement the District’s energy management program, the District shall develop and implement a preventive maintenance and monitoring plan for its facilities and systems, including HVAC, building envelope, and moisture management.
2. General Guidelines
- a. Classroom doors shall remain closed when HVAC is operating. Ensure doors between conditioned space and on-conditioned space remain closed at all times (i.e., between hallways and gym or pool area).
  - b. Proper and thorough utilization of data loggers will be initiated and maintained to monitor relative humidity, temperature, and light levels throughout the District’s buildings to ensure compliance with District guidelines.
  - c. All exhaust fans should be turned off every day and during unoccupied hours.
  - d. All office machines (copy machines, laminating equipment, etc.) shall be switched off each night and during unoccupied times. Fax machines should remain on.
  - e. All computers should be turned off each night. This includes the monitor, local printer, and speakers. Network equipment is excluded.
  - f. 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.
3. Air Conditioning Equipment Guidelines

Cooling Season Occupied Set Points <sup>1</sup> :	74°F - 78°F
Cooling Season Unoccupied Set Point:	85°F
<i>1 - Set points are in accordance with ASHRAE 55 “Thermal Conditions for Human Occupancy”</i>	

- a. Occupied temperature settings shall NOT be set below 74°F.
- b. During unoccupied times, the air conditioning equipment shall be turned off. The unoccupied period begins when the students leave the area at the end of the school day. It is anticipated that the temperature of the classroom will be maintained long enough to afford comfort for the period the teacher remains in the classroom after the students have left.
- c. Air conditioning start times may be adjusted (depending on weather) to ensure classroom comfort when school begins.

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- d. Ensure outside air dampers are closed during unoccupied times.
  - e. Ceiling fans should be operated in all areas where located.
  - f. Relative humidity levels shall not exceed 60% for any 24-hour period.
  - g. Air conditioning should not be utilized in classrooms during the summer months unless the classrooms are being used for summer school or year-round school. Air conditioning may be used by exception only or in those buildings that are involved in team-cleaning.
  - h. In all areas which have evaporative coolers such as shops, kitchens, and gymnasiums, the doors leading to halls which have air conditioned classrooms or dining areas should be kept closed as much as possible.
  - i. 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.
  - j. Ensure dry food storage areas are maintained within code requirements. Typically, this is 55°F - 85 °F temperature and 35% - 60% Relative Humidity. Utilize loggers to verify.
4. Heating Equipment Guidelines

Heating Season Occupied Set Points <sup>1</sup> :	68°F - 72°F
Heating Season Unoccupied Set Point:	55°F

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

- a. Occupied temperature settings shall NOT be above 72°F.
- b. The unoccupied temperature setting shall be 55°F (i.e. setback). This may be adjusted to a 60 °F setting during extreme weather.
- c. The unoccupied time shall begin when the students/employees leave an area.
- d. 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.
- e. Ensure all domestic hot water systems are set no higher than 120°F or 140°F for cafeteria service (with dishwasher booster).

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- f. Ensure all domestic hot water re-circulating pumps are switched off during unoccupied times.
  - g. For heat pumps, ensure a 6°F dead-band between heating and cooling modes.
  - h. Heating oil and propane (if applicable) levels should be physically measured and recorded by “sticking the tanks” at least on the following intervals: (1) recurring scheduled monthly date, (2) immediately before new delivery, and (3) immediately after delivery.
5. Lighting
- a. All unnecessary lighting in unoccupied areas will be turned off. Teachers/employees should make certain that lights are turned off when leaving the classroom/office when empty. Utilize natural lighting where appropriate.
  - b. All outside lighting shall be off during daylight hours.
  - c. Gym lights should not be left on unless the gym is being utilized.
  - d. All lights will be turned off when students and teachers leave school and employees leave the office. Custodians will turn on lights only in the areas in which they are working.
  - e. 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.
6. Water
- a. Ensure all plumbing and/or intrusion (i.e. roof) leaks are reported and repaired immediately.
  - b. Grounds watering should only be done between 4:00 a.m. – 10:00 a.m. Do not water during the heat of the day, typically between 10 a.m. – 8:00 p.m.
  - c. When spray irrigating, ensure the water does not directly hit the building.
  - d. Ensure water sub-meters are installed on irrigation and cooling tower supply lines to eliminate sewer charges.

## **CLOVIS UNIFIED SCHOOL DISTRICT**

Adopted: 11/12/1980

Amended: 05/06/1992, 12/1992, 07/19/2006, 09/26/2007, 03/22/2021 (AR 5201 renumbered as AR 3511)

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