



CEDAR HILL INDEPENDENT SCHOOL DISTRICT

ENERGY CONSERVATION GUIDELINES

In keeping with the established philosophy of low cost implementation, we are recommending that we continue/begin the following energy saving procedure applicable to all district personnel. These procedures supersede all previous instructions. The directors of departments and principals shall be responsible for the total energy usage of his/her campus and shall help implement new conservation procedures and guidelines during the time that he/she is present in the classroom and on campus. District employees and outside vendor employees are responsible for applying these guidelines and for reporting equipment problems or concerns of non compliance to principals.

I. Guidelines for operating Heating, Ventilation, and Air Conditioning (HVAC).

A. The following energy conservation procedures for operating air conditioning are to be observed in all buildings:

1. A daytime temperature shall be maintained no lower than 72 degrees when occupied by students, teachers, office personnel, and administrators. Certain areas may vary due to design of building and HVAC system.
2. Air conditioning shall be available to maintain 74 degrees (+/- 2 degrees) at 6:30 A.M. and setup to 80 degrees at 5:00 P.M., Monday through Friday for regularly scheduled campus hours. All air conditioning shall be setup to 85 degrees otherwise. The principal/designated custodian shall be responsible for maintaining the setting of air conditioning systems not controlled by the District's energy management system (EMS).
3. All air conditioning systems at all campuses will be setback during the summer months except in the following areas, and under the following conditions:
 - a. Office, when occupied by office personnel and administration.
 - b. Technology and electronic equipment rooms.

- c. Classrooms or areas being used for summer school.
- d. Office and classrooms two weeks before the school reconvening for the fall semester.

4. Keep classroom and exterior doors closed when air conditioning units are being used.

B. The following energy conservation procedures for operating **heating** equipment are to be observed in all buildings.

1. A daytime temperature shall be maintained no higher than 70 degrees when occupied by students, teachers, office personnel, and administrators. Certain areas may vary due to design of building or HVAC system.
2. Heating shall be setup to maintain 68 degrees (+/- 2 degrees) at 6:30 A.M. and setback to 55 degrees at 5:00 P.M., Monday through Friday for regularly scheduled campus hours. All heating shall be setback to 55 degrees otherwise. The principal/designated custodian shall be responsible for maintaining the setting of air conditioning systems not controlled by the District's energy management system (EMS).
3. On extremely cold nights if the building is not comfortable when the students arrive in the morning, notify the principal so corrective or preventative steps may be taken.
4. To make certain that the buildings are comfortable when the students arrive each morning, the instructor/custodian shall be responsible for maintaining the thermostat controls at the appropriate temperature setup or program when he/she arrives to the building each morning. He/she will also make sure all heating units are coming on at the correct time. Any units that do not come on at the appropriate time should be noted and identified to the principal, who will take appropriate action.

5. Use of personal electric space heaters is prohibited.

6. Keep classroom and exterior doors closed when heating units are being used.

II. Guidelines for operating lights.

A. The following energy conservation guidelines are to be exercised when operating lights in and around district facilities.

1. All interior lights shall be turned off when area is not being occupied, no matter how long you are away from the area.
2. When classrooms are unoccupied by students, teachers are encouraged to use a task lamp or utilize “dual” or “banked” switching that is over the area in which they are specifically working, if lighting configuration provides this capability.
3. Lighting fixtures with “banked switching” or “dual switching” capabilities or any other special capabilities should be utilized to realize potential savings from proper use of special switching. Custodial services will use the lower switch setting when possible.
4. Personal lamps, for decorative use, shall utilize one bulb (12 watt LED maximum) or energy saver fluorescent lamps, and shall **not** be left on after regular hours.
5. For gymnasiums with lighting that must warm up for several minutes before use, schedules for on and off times should be closely maintained. This particular type of lighting should not be switched frequently due to the start-up period.
6. All outside lighting shall be kept off during daylight hours.
7. Skylights and windows with natural lighting capabilities at campuses should be utilized. When applicable, light fixtures mounted in and around skylights should be cut off if not controlled by automatic sensors.
8. Lighting for display purposes (trophy cases, bulletin boards, etc.) should be cut off at night.
9. Evening custodians should turn lights on only in the specific area where and when they are working. Lights in work areas should be kept off during breaks and lunch.
10. Main entrance porch lights, school perimeter lighting and flood lights for security may be left on at night until 12:00 A.M. Exit signs and emergency lights shall be left on inside the school.

11. Decorative outdoor lighting, canopy lighting and skylight illumination shall be cut off during the day, and turned on at night only for special occasions.
12. De-lamp all vending machines.
13. Recommended illumination levels, as adopted by the Texas Education Association and established by the Illumination Engineering Society (IES), shall be maintained throughout the district.

III. Guidelines on energy conservation for after regular hours use of campus and facility.

- A. It shall be the responsibility of the principal or his/her designee to provide adequate heating, air conditioning, and lighting for after school events, and to turn off heaters, air conditioning and lights at the conclusion of that event. Consideration should be given to having "activity days or evenings" and group these events together at general times on selected days.
- B. Administrators/Principals shall continue to utilize the current campus/facility request forms to pre-schedule HVAC and lights.

IV. Guidelines on energy conservation for gym use.

- A. The coaches and physical education instructors will have the primary responsibility for maintaining appropriate climate controls within gymnasiums and athletic facilities during the instructional day. The principal or his/her designee will determine the control settings all other times the facility is in use.
 1. When air conditioning is required, it will be setback to maintain 74 degrees at 6:30 A.M. and setup to 85 degrees at 5:00 P.M., Monday through Friday. All air conditioning will be setup to 85 degrees otherwise. Outside doors to the playgrounds or activity areas shall not be left open during the instructional day.
 2. When heating is required it will be setup to maintain 68 degrees at 6:30 A.M. and setback to 55 degrees at 5:00 P.M., Monday through Friday.
 3. HVAC shall not be provided for unapproved activities/functions or gratuitous use of gyms.

V. General guidelines for energy conservation.

- A. Timers for all equipment and lighting applications will be checked throughout the school year for proper operation.
- B. The EMS or timers will be installed on all electric hot water heaters and applicable gas heaters. The EMS or timers normally will be set to the following schedule:
 - 1. High school/junior high kitchens – 5:30 A.M. to 2:00 P.M.
 - 2. Elementary kitchens – 5:30 A.M. to 2:00 P.M.
 - 3. High school campus – 6:45 A.M. to 11:45 P.M.
 - 4. Middle school campus – 6:45 A.M. to 11:00 P.M.
 - 5. Elementary/intermediate campus – 6:45 A.M. to 11:00 P.M.
- C. Set the temperature of hot water heaters/boilers (complies with health department regulations). Settings are as follows:
 - 1. Water heaters for kitchen utensil and equipment sanitation – 180 degrees (at faucet).
 - 2. Other heaters – 120 degrees.
- D. Use of hot water circulating pumps shall be examined on a unit-by-unit basis and determined if necessary for daily use. If not, pump will be cut off and used only for a period of specific demand.
- E. Due to energy consumption and power quality issues, personal refrigerators, coffee makers and microwave ovens shall not be allowed in classrooms/offices. Campuses shall provide these items in appropriate areas for instructors use.**
- F. The energy manager shall conduct an energy audit each year at every facility.
- G. The energy manager shall make periodic energy conservation visits and surveys to campuses.
- H. District equipment and lighting, either being new, retrofit or replacement shall be rated and designed to provide a high-energy efficiency.

- I. Turn off business machines, such as computers, and/or monitors, copiers, printers and any other applicable office machinery, when circumstances are appropriate. However, if warm-up and start-up procedures are time consuming or complex, in the interest of productivity it will make more sense to keep the machines running at all times so they are immediately available for use.
- J. Any logical or practical opportunities to cut off equipment and lights should be taken. Examine your energy use habits and make adjustments as needed. The energy manager will assess compliance with the guidelines through energy audit reports.
- K. Principals will include energy awareness in staff meetings. The principal will also conduct periodic energy conservation inspections for compliance with guidelines.

VI. Guidelines for summertime shutdown procedures.

- A. Set back HVAC, as noted under section I.A.3.
- B. Turn off all lights. Lights left on may be exit and emergency. All interior, decorative, and canopy lighting shall be extinguished.
- C. Turn off electric water heaters and associated pumps.
- D. Turn off all business machines, except those which are vital to district network communications.
- E. Disconnect all vending machines, except for the one allowed to be left on while school is being cleaned or while the principal is working before or after vacation.
- F. Turn off public address system.
- G. All timers, for parking and security lights, shall maintain minimum "on" time periods.
- H. Turn off outside security, parking, perimeter and flood lamps during the day.
- I. Check and adjust all time clocks for summer operation.
- J. Turn off hot water circulating pumps.
- K. Turn off all gas hot water heaters at each school.
- L. Reach-in freezers and refrigerators, like in home or office, shall be shut down by

manufacturers storage procedures. Industrial reach-in freezers and refrigerators shall be adjusted for minimum operating temperature, if not being used for food storage.

M. Walk-in freezers and refrigerators shall be left on.

N. Shut down boilers.

O. Report any leaking water valves in kitchens, service rooms, locker rooms or restrooms.

P. Replace lamps that have ends that are blackened. Properly align lamp in sockets, for positive contact, by making sure indentation or mark on either end of lamp is at point closest to lens. Report defective fixtures for repair or replacement.

Q. Turn off electronic scoreboards.

R. Turn off exhaust fans.

VII. Guidelines for Winter Break shutdown.

A. Follow guidelines for lighting in section VI.B.

B. Follow guidelines for business machines in section VI.D.

C. Follow guidelines for convenience machines in section VI.E.

D. Turn off public address system.

E. Turn off exhaust fans.

F. Check and adjust all time clocks for winter operation.

G. Shut down or turn off all applicable kitchen equipment.

H. All applicable heating thermostats setback to 55 degrees.

VIII. Guidelines for Fall and Spring Break.

A. Follow guidelines for lighting in section VI.B.

- B. Setback air conditioning.
- C. All applicable heating thermostats setback to 55 degrees.
- D. Turn off all business machines, except those which are vital to district network communications.
- E. Check and adjust all time clocks for proper operation and daylight saving time setup.