

In the development of the District's energy management program, the superintendent or designee shall analyze and review the lighting; heating, ventilation, and air conditioning systems (HVAC); water heaters; electrical equipment and appliances; water use and irrigation; and solid waste and recycling systems. The following District operations shall be incorporated in to the District's resource management program:

1. Educational programs
2. Classroom and building management and maintenance
3. Food services and equipment maintenance
(*cf. 3551 – Food Service Operations/Cafeteria Fund*)
4. Landscaping
5. New construction
(*cf. 7110 – Facilities Master Plan*)
6. Administrative operations
7. Use of facilities by outside groups
(*cf. 1330 – Use of School Facilities*)
(*cf. 3512 – Equipment*)
(*cf. 7111 – Evaluating Existing Buildings*)

The superintendent or designee may solicit input from staff, students, and parents/guardians about the District's program. The superintendent or designee shall provide staff and students with training and guidance on best practices to achieve the District's goals, such as a reward program to recognize outstanding accomplishments. The District is committed to and responsible for a safe and healthy learning environment. Every person is expected to become an "energy saver" as well as an informed "energy consumer."

Energy Manager Responsibilities

1. Make adjustments to the District's Energy Management System (EMS), directly or indirectly, including temperature settings and run times for heating, ventilation, and air conditioning (HVAC), and other controlled equipment.
2. Perform routine audits of all facilities.
3. Provide an annual program update report to the Board.
4. Provide monthly energy savings reports to site administrators detailing performance results.
5. Implementation of Equipment/Facility Guidelines and coordination with the Facilities Department for new construction and modernization projects.
6. Coordination of repair activities with the Maintenance and Operations Department.

Site Administrator Responsibilities

1. Implement the General Guidelines as described below to reduce total energy usage.
2. Communicate the importance and impact of the energy conservation program to its internal and external constituents with information provided by energy manager.

Plant Manager/Custodian Responsibilities

1. Energy conservation in common areas, i.e., halls, cafeteria, etc.
2. Follow night time lighting procedures.

Food Services Responsibilities

1. Keep the doors on walk-in refrigerator and freezers, ice machine, and milk coolers closed after use to save energy.
2. If possible, turn food service equipment off when not in use.
3. If the kitchen is not in use during long breaks, turn off all equipment including exhaust hoods.
4. Schedule regular preventative maintenance of refrigeration equipment.

Information Technology Responsibilities

1. The District will implement a power management software program to remotely set applicable computers to a power save mode at designated times and days as determined by the chief technology officer or designee. Local users will have manual override capabilities to continue using their computer.
2. All capable personal computers should be programmed for the “energy saver” mode using the power management feature.

General Staff Responsibilities

1. All staff members are responsible to follow the General Guidelines during the time that he/she is present in the instruction room or office.

General Guidelines

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. All office machines (copy machines, laminating equipment, etc.) shall be switched off each night and during unoccupied times. Fax machines should remain on.
3. All computers should be turned off each night. This includes the monitor, local printer, and speakers. Network equipment is excluded.
4. Personal appliances in classrooms, such as personal refrigerators, microwaves, coffee makers, space heaters, etc. shall be discouraged. If personal appliances are deemed necessary or appropriate by the site administrator, appliances shall meet Energy Star Regulations if applicable.
5. All appliances will be cleaned, emptied, and unplugged over extended vacation periods (spring break, winter break, and summer vacation).

6. Ensure all plumbing and/or intrusion (i.e., roof) leaks are reported to the Maintenance and Operations Department by work order, and repaired immediately.
7. Lighting in unoccupied areas will be turned **off**. Staff should make certain that lights are turned off when leaving the room or office, when empty. Utilize natural lighting where appropriate.
8. All outside lighting shall be **off** during daylight hours. Report any discrepancies to energy manager.
9. Gym lights should not be left on unless the gym is being utilized.
10. Custodians will turn on lights only in the areas in which they are working.
11. Refrain from turning lights on unless needed.
12. Night custodians are to adhere to night time lighting procedures. Lights shall be shut off in all unoccupied areas, unless for safety reasons. Rooms in the immediate area of working custodians can have lights on.

Night Time Lighting Procedure (Custodians)

1. Ensure at end of shift that all interior lights are shut **off** at wall switch.
2. Ensure at end of shift all exterior lights are working properly and according to outside lighting schedule.
3. Ensure that all HVAC equipment, including exhaust fans, are **off** during unoccupied hours.
4. Report any lighting or HVAC equipment issues to energy manager.

Equipment Guidelines/Facility Guidelines

Air Conditioning Equipment

Cooling Season Occupied Set Points¹: 72°F – 74°F

Unoccupied Set Point: 90°F

Heating Season Occupied Set Points¹: 67°F – 70°F

Unoccupied Set Point: 50°F

¹ASHRAE 55 “Thermal Conditions for Human Occupancy)

1. Cooling occupied temperature settings shall **NOT be set below 72°F**.
2. During unoccupied times, the air conditioning equipment shall be **off**.
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.

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.

Heating and Ventilation Equipment

1. Occupied temperature settings shall **NOT be above 70°F**.
2. Heating start times may be adjusted (depending on weather) to ensure instruction room comfort when instruction begins.
3. The unoccupied temperature setting shall be 55°F (i.e., setback). This may be adjusted to a 60°F setting during extreme weather.
4. The unoccupied time shall begin when the students leave an area as well as when school is not in session.
5. 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 on an as needed basis.
6. All exhaust fans should be turned off daily.
7. 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.
8. Ensure all domestic hot water systems are set no higher than 120°F or 140°F for cafeteria service (with dishwasher booster).
9. Ensure all domestic hot water recirculating pumps are switched off during unoccupied times.
10. For heat pumps, ensure a 6°F dead-band between heating and cooling modes.

Lighting

1. Interior and exterior lighting retrofits and new installations shall be energy efficient, such as LED.
2. Lighting controls, such as occupancy sensors, daylight harvesting, programmable dimmers, etc., shall be used when applicable or required by Title 24, and when funding becomes available.

Water – Swimming Pools

1. In order to maintain an environment that is conducive to the educational process, swimming pool temperatures shall be maintained within the range of 78° to 82°².
2. Pool covers must be on pools during hours of non-operation where applicable.

² Pool water temperatures are in accordance with American Red Cross Competitive Swimming Pool recommendations.

Water – Plumbing

1. Convert, as funds permit, existing fixtures to water saving fixtures, i.e., manual metered faucets for lavatories, low volume flush valves for water closets and urinals, drinking fountains to be push button and low volume and waterless urinals.
2. For New Construction – only low volume, water saving fixtures are to be specified and installed, i.e., manual metered faucets for lavatories, low volume flush valves for water closets and urinals, push button and low volume devices for drinking fountains.
3. Only hoses with shut-off nozzles will be used. (Local Water District directive)

Water – Irrigation

1. Outdoor irrigation schedules must comply with all local mandates, including any required targeted water use reduction efforts.
2. Grounds watering shall occur between the hours of 8:00 pm and 8:00 am.
3. The District shall manage automatic irrigation with a centrally controlled, weather/web-based system, using seasonal evapotranspiration rates to maximize water conservation, incorporate flow sensors and master valves to compliment the central control system, disable the system when unscheduled or excessive flow occurs, and send an alarm and report to the energy manager or designee of shut down.
4. The District shall implement and follow a 24-hour response program to all broken, leaking, or damaged fixtures and irrigation system components excluding sprinkler heads. Site staff is expected to report all equipment failures to Maintenance and Operations via work order immediately.
5. When spray irrigating, ensure the water does not directly hit buildings or spray onto the adjacent hardscape areas. Large turf (athletic field) areas, front lawns, and planter beds infiltration rate is to be determined/measured and irrigation shall be programmed to ensure water runoff is minimized by programming more frequent but shorter runtimes, if deemed necessary.
6. Relieve compaction in turf areas by aerating bi-annually to improve water infiltration, encouraging deep root growth and ultimately reducing water consumption by the turf.
7. Install a minimum of 3” of mulch in planter beds to provide various benefits: reduction of water loss through evapotranspiration through the soil; reduction of unwanted vegetation, minimizing the need for chemical or mechanical weed abatement; encouraging a symbiotic relationship between the top layer of soil and the bottom layer of mulch, as it breaks down, providing nutrients to the plants.
8. Existing landscape (spray head) irrigation shall be converted to low volume (drip or point source) irrigation, when renovation funding is available. New landscape irrigation shall be specified and installed per AB 1881 and local water district requirements.

9. A separate water meter for irrigation shall be installed where applicable when funding becomes available to separate irrigation from domestic water meters.
10. Harvest gray water, storm water, and rain water as forms of conserving water diverting potential runoff into the Santa Ana River by recycling and reusing in the landscape.
11. Watering of all sports fields is the sole responsibility of the energy manager. Site staff will be prohibited from accessing irrigation controls and hand watering, unless approved by the District's energy manager on a case by case basis.
12. Maintenance and Operations will provide athletic facilities workers access to irrigation controls for testing sprinkler heads only. Scheduling of irrigation systems shall be the sole responsibility of the energy manager.

Landscaping

1. Landscaping is to be energy efficient for the purpose of conserving energy and water.
2. Drought tolerant plants, native plants, xeriscape, water-wise gardens, and plants that can withstand our seasons with minimal irrigation shall be used.
3. Other energy-efficient landscaping techniques to consider are using local materials, on-site composting and chipping to reduce green waste hauling for onsite use, hand tools instead of gasoline-powered, and also may involve using drought-resistant plantings in arid areas, buying stock from local growers to avoid energy in transportation, and similar techniques.

Water – Car Washes on Campus or District Grounds

1. Use of District facilities for car wash fundraisers is prohibited.

Solid Waste Reduction & Recycling

1. Diverting solid waste from the local landfill will result in reducing dumpsters on each site, including less frequent daily visits by the trash hauling contractor.
2. The District shall follow all waste and trash disposal goals for zero waste by the year 2040.
3. A system of three (3) waste cans will be implemented which will allow the staff and students to presort waste into (1) Paper, (2) Bottles and cans, and (3) Waste.
4. Food service and custodial staff are important participants to ensure separation of various materials not being placed in the trash dumpsters, including paper, cardboard, plastic, aluminum, and food waste. Organic food waste shall be recycled per AB1826: Solid waste, organic waste.

Board of Trustees

Board Approved: March 6, 2018

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