



Carson City School District Energy Guidelines

Carson City School District is committed to becoming a leader in environmental sustainability by creating healthy and optimal learning environments through the efficient operations and occupancy of our facilities.

INTRODUCTION

Carson City School District is taking the initiative to make efficient use of our economic and natural resources, all the while exercising sound judgment in reaching our primary goal: to provide healthy learning environments for all students and staff.

As part of our commitment to excellence, the District is working with McKinstry to implement a strategic energy awareness and operational efficiencies program called powerED. This program and supporting procedures are intended to improve energy efficiency, to reduce utility costs, to optimize capital investment for energy efficiency, to reduce environmental and greenhouse gas emissions, to conserve natural resources, and to educate students about resource efficiency.

These procedures call for a people-oriented approach to resource management, and its success is based upon cooperation at all levels. The fulfillment of these procedures are the joint responsibility of the Governing Board, administrators, teachers, support personnel and students, and have been implemented throughout the school District.

The District is committed to evaluating all energy saving procedures that do not negatively impact the educational environment. Part of this process shall be to ensure that all new and replacement equipment purchased incorporates technology that maximizes energy efficiency, yet provides a suitable return on investment.

The powerED Steering Committee of Carson City School District recommended the District establish the following procedures to ensure the conservation of natural resources by personnel at all levels of the school system.

If you have any ideas for improvement or questions about these procedures, please contact the Director of Operations at 775-283-2175 .

GENERAL RESPONSIBILITIES

The classroom leader/teacher is responsible for adhering to the energy usage guidelines explained in this document while they are present in the classroom/facility and it is the districts hope that they are modeling solid energy saving behaviors.

The maintenance and custodial team is responsible for energy usage in common areas such as hallways, conference rooms, cafeterias, storage rooms, etc.

The building principal or their designee, is responsible for communicating the total energy usage of their building and changes over time to all facility users.

The Operations and site Green Teams are responsible for supporting sustainability and conservation efforts with leadership and education.

LIGHTING

All lighting should be turned off when not in use or when there is adequate daylight present for the task.

Personnel or students should not tamper with or block lighting occupancy sensors.

Hallway lighting should be turned on and off correspondingly when students arrive and depart the building. During all other times, only emergency lighting should be used.

Replacement lamps and ballasts shall be equal to, or more energy efficient than, the failed product.

Lighting levels should be adjusted based on room occupancy or room usage. If only a portion of an area is used, only illuminate the area that is occupied. If a room has multiple lighting levels, use only the light that is adequate for the task.

Electronic marquee and school name signs should be operated from 5:30 a.m. to 10:30 p.m.

Outdoor building lights should be turned off during daylight hours.

Cleaning staff will use lights for the specific period required to clean each area and shall turn lights off when departing a cleaned area.

Strategies shall be implemented to reduce lighting levels when spaces are over lit (via de-lamping or re-lamping). Bi-level lighting should be used when available. Lighting levels should fall within the following IES (Illuminating Engineering Society of North America) standards:

Task Area	Foot Candle Ranges
Corridors/Stairways/Restrooms	5-10
Storage Rooms	10-30
Conference Rooms	30
General offices	30
Classrooms – General	30-50
Cafeterias – Dining	10-50
Gymnasiums	35-100
Parking Areas (uncovered)	1-2

SCHEDULING

Group activities should be scheduled in appropriate areas based on the group size and space accommodations.

All summer school classes should be consolidated into a single school building or another central location whenever possible. Consideration for ability to schedule and operate a building efficiently and summer/extended break capital projects, will be a criterion for the selection of summer schools.

Summer school classes scheduled in any one building should be concentrated to a specific area or zone.

The Weekly Hours of Operation and Occupancy Schedule of all District Facilities are given in the table below:

Facility	Hours of Operation	Equipment Occupancy Schedule
Administration	8:00 a.m. – 5:00 p.m., M-F	5:00 a.m. – 4:55 p.m., M-F
Al Seeliger ES	8:00 a.m. – 3:15 p.m., M-F	5:30 a.m. – 4:00 p.m., M-F
Bordewich Bray ES	8:00 a.m. – 3:15 p.m., M-F	5:30 a.m. – 4:00 p.m., M-F
Carson High School	7:30 a.m. – 2:05 p.m., M-F	5:30 a.m. – 4:00 p.m., M-F
Carson Middle School	7:45 a.m. – 2:30 p.m., M-F	5:30 a.m. – 4:00 p.m., M-F
Eagle Valley Middle School	7:45 a.m. – 2:30 p.m., M-F	5:30 a.m. – 4:00 p.m., M-F
Empire Elementary School	8:00 a.m. – 3:15 p.m., M-F	5:30 a.m. – 4:00 p.m., M-F
Fremont Elementary School	8:00 a.m. – 3:15 p.m., M-F	5:30 a.m. – 4:00 p.m., M-F
Fritsch Elementary School	8:00 a.m. – 3:15 p.m., M-F	5:30 a.m. – 4:00 p.m., M-F
Maintenance Center A	6:00 a.m. – 3:00 p.m., M-F	Not Scheduled
Maintenance Center B	6:00 a.m. – 3:00 p.m., M-F	Not Scheduled
Mark Twain ES	8:00 a.m. – 3:15 p.m., M-F	5:30 a.m. – 4:00 p.m., M-F
Martha Gleason School	8:00 a.m. – 5:00 p.m., M-F	6:00 a.m. – 4:55 p.m., M-F
Operations Service Center	7:00 a.m. – 5:00 p.m., M-F	Not Scheduled
Pioneer High School	7:30 a.m. – 3:15 p.m., M-F	5:30 a.m. – 4:00 p.m., M-F
Student Support Services	8:00 a.m. – 5:00 p.m., M-F	5:30 a.m. – 4:45 p.m., M-F
Transportation Center	6:00 a.m. – 5:00 p.m., M-F	Not Scheduled

Additionally, Special Event exceptions may occur on weekends or after hours during school days, especially at High Schools and Middle Schools. Occupancy for such Special Events is to be scheduled via the Automated Logic BAS Schedules Tool and facility use requests.

Holidays and Extended Breaks are also scheduled via the Automated Logic BAS Schedules Tool. Summer Break, Winter Break, Spring Break and Federal Holidays are defined in the BAS "Holiday Schedule" which ensures that equipment is in Unoccupied Mode during these times.

Occupied and Unoccupied schedule variances may be reviewed annually to ensure alignment with current occupancy hours and changes in usage.

Any requests for Special Event exception schedules for programs, activities, sporting events, etc. should be approved by the site administrator and sent to the Director of Operations, via a Facility use requests form.

HEATING AND COOLING

Staff and students are encouraged to wear appropriate clothing during the heating and cooling season.

Personnel or students should not tamper with or block HVAC occupancy sensors as it could cause damage to HVAC units.

All windows and doors must be kept closed at all times.

At the end of each school day, all windows and window blinds/drapes (if present) should be closed.

Portable air conditioning units and personal space heaters, should not be used unless supplied by Facilities/Energy Management staff.

Heating Season Set Points: An Occupied Heating Mode temperature set point of 68°F will be maintained in all classroom and office zones during the occupied hours specified in the Scheduling section table above. An Unoccupied Heating Mode temperature set point of 55°F will be maintained in all classroom and office zones during the unoccupied hours specified in the Scheduling section table above. Heating season is defined as the coldest months of the year – months where average daily outside air temperatures fall below 65°F, creating demand for indoor space heating.

Cooling Season Set Points: An Occupied Cooling Mode temperature set point of 74°F will be maintained in all classroom and office zones during the occupied hours specified in the Scheduling section table above. An Unoccupied Cooling Mode temperature set point of 85°F will be maintained in all classroom and office zones during the unoccupied hours specified in the Scheduling section table above. Cooling season is defined as the warmest months of the year – months where average daily outside air temperatures rise above 65°F, creating demand for indoor space cooling.

Zone Operating Mode	Zone Temperature Set Point
Occupied Heating	68°F
Unoccupied Heating	55°F
Occupied Cooling	74°F
Unoccupied Cooling	85°F

Staff shall not obstruct ventilation ducts or return grilles with books, charts, furniture, plants or other objects.

All doors should be closed in unoccupied or unconditioned areas.

Vestibule entrances and doors shall not be blocked open.

All domestic hot water systems will be set at 120°F unless specific building requirements dictate higher temperatures.

APPLIANCES/ELECTRONICS/PLUG LOADS

Personal appliances not for educational use are strongly discouraged in the classrooms and office areas. This includes refrigerators, coffee makers, space heaters, microwaves, etc. Please contact the Maintenance/Energy Manager for requests.

Personal heaters, air conditioners, and opening doors and windows adversely change the environment in spaces and works against the district's central HVAC system. It causes an inequity to students, teachers and staff.

Electronic entertainment items not for educational use are not permitted in the classrooms unless relevant to classroom content and approved by administration. This includes fish tanks, lava lamps, plants with heat lamps, electronic games, candle warmers, air fresheners, etc.

All task lighting, radios, and computers must be turned off when not in use.

Refrigerators should be emptied and unplugged over extended and summer breaks unless used for summer school or to maintain science or healthcare materials.

All other electronics breakroom appliances (except computers) should be unplugged during all school breaks.

Approved UL power strips should be used and plugged directly into a wall socket. All power strips should be turned off and unplugged over school breaks and the summer break.

COMPUTERS AND TECHNOLOGY

All computers and monitors, including all computer lab technology, should be powered off nightly, unless otherwise directed by the Department of Innovation and Technology or your site administrator.

Centralized printing stations should be used wherever available. Classroom or personal printers are not permitted unless privacy concerns are apparent and/or approved by site administrator and IT Director.

Digital Displays, Audio Enhancement amplifiers and document cameras should be powered off over extended breaks

KITCHENS

HVAC equipment operating times will be as close as possible to the actual kitchen appliance use.

Ovens and other kitchen appliances will be shut off when not in use.

Exhaust hood fans shall only operate when cooking is actively occurring.

Refrigerator and freezer doors will remain closed when not in use and unplugged over the extended summer, winter, and spring breaks.

Consolidation of school walk-in refrigerators and freezers will occur during the summer months where feasible.

Kitchen doors and windows shall remain closed when the space is being mechanically heated or cooled.

Domestic hot water temperature set point will be adjusted to 120°F at the faucet for proper washing, rinsing, and sanitizing. Local Health Codes may require 140°F domestic hot water in kitchen areas.

Steam tables will be unplugged at the end of each day.

WATER CONSERVATION

Water-saving toilets, urinals, faucets, and water fountains should be utilized whenever possible.

Toilets, urinals, faucets and water fountains which run, leak or drip need to be reported to maintenance staff immediately.

Locker room showers will be fitted with low-flow heads and operated as needed.

Landscaped areas shall only be watered after 4:00 p.m. and before 9:00 a.m. Any sprinkler head spraying on sidewalks, parking areas and streets should be reported to the maintenance department.

Domestically irrigated areas that experience irrigation system failure shall be replaced.

RECYCLING

Recycle bins will be used wherever possible.

Use paper sparingly (copy paper, printer paper, paper towels, etc.). Only print required pages. Use electronic communications and data storage whenever possible instead of paper.

Staff is encouraged to utilize double-sided printing where applicable for classroom material and communication documents. Electronic communication is strongly encouraged for most day-to-day communication between staff, students and the community.

Use recycled paper when possible.

PURCHASING

When purchasing equipment that uses energy (computers, printers, monitors, appliances, etc.), it should be an ENERGY STAR qualified product unless the product is not yet ENERGY STAR certifiable.

During the procurement process, efforts should be made to utilize EPA's Comprehensive Procurement Guide (CPG) in purchasing goods that promote the use of recovered materials from solid waste. Purchasing recycled content products insures that material collected in recycling programs is used again in the manufacture of new products.

Requests for exception to any of the above guidelines must be addressed by the Energy/Maintenance Manager and/or the Director of Operations to determine what action, if any, will be taken.