

Guidelines - how you can help save energy

Energy Conservation and Building Management

Responsibilities:

- Every person is expected to be, an "energy saver" as well as an "energy consumer."
- The College is committed to and responsible for a safe and healthy learning environment.
- The faculty/staff member is responsible for implementing the guidelines during the time that he/she is present in the instruction room/office.
- The custodial staff is responsible for control of common areas, i.e. hallways, dining areas, etc.
- Security personnel are responsible for verification of the nighttime shut down.
- The Operations Manager, Energy Education provides regular (at least semi-annual) program updates to the college administration.
- The Operations Manager, Energy Education performs routine audits of all facilities and communicates the audit results to the appropriate personnel.
- The Operations Manager, Energy Education is responsible for either directly or indirectly making adjustments to the Organization's Energy Management System (EMS), including temperature settings and run times for Heating, Ventilation and Air Conditioning (HVAC) and other controlled equipment.
- The Operations Manager, Energy Education provides monthly energy savings reports to facilities management detailing performance results.
- The administration will regularly communicate the importance and impact of the energy conservation program to its internal and external constituents.
- To complement the organization's behavioral-based energy conservation program, the college shall develop and implement a preventative maintenance and monitoring plan for its facilities and systems, including HVAC, building envelope, and moisture control.

General:

1. Instruction room doors and windows shall remain closed when HVAC is operating. Ensure doors between conditioned space and non-conditioned space remain closed at all times.
2. Proper and thorough utilization of data loggers will be initiated and maintained to monitor relative humidity, temperature, and light levels throughout campus buildings to ensure compliance with guidelines.
3. All exhaust fans should be turned off daily.
4. All office machines (copy machines, laminating equipment, etc.) shall be switched off each night and during unoccupied times. Fax machines and networked printers may remain on.
5. All computers should be turned off each night. This includes the monitor, local printer, and speakers. Network (i.e. LAN) equipment is excluded.
6. 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.

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

Unoccupied Set Point: 85°F

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

Unoccupied Set Point: 55°F

Set points are in accordance with ASHRAE 55 "Thermal Conditions for Human Occupancy" (74-78 and 68-72 are room temperatures)

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. It is anticipated that the temperature of the instruction room will be maintained long enough to afford comfort for the period the faculty 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 level shall not exceed 60% for any 24 hour period.
7. Where cross-ventilation is available during periods of mild weather, shut down HVAC equipment and adjust the temperature with windows and doors. Cross-ventilation is defined as having Windows and/or doors to the outside on each side of the room.

Heating Equipment

1. Occupied temperature settings shall NOT be above 70°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. 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. Faculty 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. Gymnasium lights should not be left on unless the gymnasium is being utilized.
4. All lights will be turned off when students and staff leave for the day. Custodial staff 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.

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 4 AM - 10 AM. Do not water during the heat of the day, typically between 10 AM - 8 PM.
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.

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. These guidelines were approved by the Operations Council in September of 2011.

VALENCIA