

School Energy Conservation Ideas

- Always keep the "3 S's" in mind: Do not sacrifice "Students, Security and Safety".
- Recheck all Energy Management Systems "points" to verify that they are still functioning correctly.
- Awards to employees having best conservation ideas.
- Stagger major equipment (HVAC units, etc.) start times.
- Better monitoring of service doors at each school (keeping them closed!)
- Examine Preventative Maintenance relating to filter changing, cleaning coils, etc.
- Place data on light switches indicating dollars wasted by leaving lights, etc., on.
- Vacant space check list.
- Zoning of parking lot lights for better control.
- Review the feasibility of automatic doors in the vestibules.
- Investigate variable speed drives for fans and pumps.
- Consider the use of solar film.
- Use of lap top computers for controlling the Energy Management System.
- Monitoring food service HVAC to verify that CFM being exhausted is at least 85% of CFM delivered to space.
- Use diesel fuel for steam cleaning machines.
- Turn trash compactor power off at night.
- Custodians to shut off power to electric vending machines at night.
- Master metering instead of multiple.
- Water conservation through the use of toilet dams.
- Caulking when necessary and sealing cracks.
- Better after hours space utilization by having HVAC personnel review plans and specs to avoid unnecessary running of central plant for just 1 or 2 classrooms.
- Possible use of ceiling fans.
- Reduce parking lot lighting to 25% after closing.
- Compare utility bills to Energy Management System data.
- Turn personal computers off when not in use, especially overnight.
- Include energy items when setting up employee evaluation forms.
- Program into the Energy Management System holiday hours and special school events.
- Turn off "evening" lights during the day that are at/or near sky lights. This is called "daylighting".
- Control each building's demand using the Energy Management System.
- Use portable lights for evening cleaning instead of having on all lights.
- School self-audits, by setting up a form for custodians to do self-utility checks.
- Have custodians survey each other in order to lend an "independent eye" and perhaps make constructive suggestions.
- Bill remodeling contractors for utilities used during construction of spaces.

- Properly maintain fountains - less water usage.
- Recycle materials from building spaces during demolition.
- Use of timers on bus block heater circuits.
- Dating of lamps so that short life can be documented leading to possible rebates from lamp suppliers.
- Proper sizing of HVAC units for spaces to match load requirements.
- Check classroom thermostats; make sure they are calibrated and installed level.
- Turn marquee/outdoor signs off during night (i.e. midnight - dawn).
- Control of power factor to lower cost.
- Bill for energy used during commercially sponsored events.
- Turn off coffee machines after lunch.
- Put the theme of Energy conservation in school newsletter.
- Turn school display cases off at night.
- Turn emergency lights off during the day. (Still must come on during a power outage.)
- Suggest that teachers use only 1/2 of their lights during planning time.
- Recheck Energy Management Systems start and stop times.
- Consider a ducted air return system.
- Turn the chiller off in water drinking fountains during certain times of year.
- Have a main office resource library to be shared with schools having a certain need.
- Provide locking time clock thermostats in classrooms.
- Use time delay light switches installed in remote areas (janitor closets, etc.).
- Tighter control of lawn automatic sprinkler systems during inclement weather and winter season. In addition, possibility of having water and sewer company not charge sewer charges for water used for irrigation and cooling tower use.
- Water audits to check for leaking and running toilets, etc.
- Verification that decorative lights have definite on/off schedules.
- Review feasibility of installing photoelectric cells on parking lot lights.
- Review Preventative Maintenance Program to improve HVAC efficiencies.
- Re-examine tree light operating hours.
- Update management training for efficiency in energy control.
- Include in the design of new schools or remodels separate circuits for common areas and offices for better energy control.
- Check economizer set points.
- "Lock out" heat after Winter is over to prevent unwanted heating costs during the summer air conditioning season.
- Keep skylights clean in winter.
- Low E glass on skylights or "smart" glass.
- Shift usage to off-peak rates - cleaning, cooling.
- Check water meters at night to see how much is used -track it down.
- Check electrical meters at night to see how much is used - track it down.
- Occupant sensors - staff areas, conference rooms, and bathrooms.

- Sub-cool buildings during off-peak hours using outside air only. (No A/C).
- Timers on hot water heaters - turn off at night.
- An electronic thermostat for cooling towers (more accurate).
- Separate decorative lights from general lights.
- Turn off decorative lighting at closing.
- Post "KEEP DOORS CLOSED" signs in service corridors, gyms, pools, kitchens.
- Turn off exhaust fans in unoccupied spaces.
- Look at using propane or natural gas for vehicles.
- Do an Energy Audit walk-through at night.
- Install night setback thermostats on supplemental HVAC units.
- Calibrate temperature sensors annually.
- Use emergency generator to get a rebate on demand charges.
- Start exhaust systems to match opening times.
- Use lower wattage halogen or compact fluorescent lamps to replace incandescent.
- "Tweak and Tune" HVAC controls.
- Create an energy logo to encourage participation.
- Install time switches in Administration Office.
- Use lower water usage fixtures.
- Add rain sensors to irrigation systems.
- Properly aim nozzles in irrigation systems.
- Use low water usage plants where appropriate.
- Use mulch to reduce water quantities.
- Provide shade type landscaping for west side of buildings.
- Investigate an Energy Management System if none installed.
- Contact your mechanical, electrical and lighting contractors to solicit energy ideas.

Send comments to Jim Bellamy at [Peninsula School District](#).

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