

	DEPARTMENT OF ADMINISTRATIVE SERVICES POLICY MANUAL ISSUING DIVISION: FACILITIES DIVISION	NUMBER 125-6-378
	APPROVAL: C. David White, Administrator	EFFECTIVE DATE October 16, 2001
SUBJECT: State Government Energy & Water Conservation		PAGE 1 OF 5

General Policy:

ORS 276.900: *It is the policy of the State of Oregon that facilities to be constructed or purchased by authorized state agencies be designed, constructed, renovated and operated so as to minimize the use of nonrenewable energy resources and to serve as models of energy efficiency.* Where possible, this policy shall also apply to privately owned facilities that are leased to the state. (This policy is a recommendation as it is applied to space that a state agency rents to others.)

1. Goals:

State government is asked by the governor to be the state's conservation model. The statewide goal is to reduce existing state government electrical consumption by at least 10 percent from comparable 2000 consumption levels. The goal for new construction and major renovation is to design it to use at least 20 percent less energy than is required by the present codes, in accord with the *State Energy Efficiency Design Rules*, OAR 330-130. The goal for new maintenance projects is to exploit all feasible energy conservation opportunities.

2. Basic Conservation:

- a. Avoid all waste or unnecessary use of electricity.
- b. Apply free and low-cost conservation measures before investing in costly changes.
- c. Work through normal channels and do not exceed your authority, especially in commercial leased facilities.
- d. To avoid extremes, assume that any conservation measure will be permanent.

3. Coordination and management of conservation:

- a. DAS Facilities Division shall coordinate statewide energy conservation in state owned and leased facilities. Uniform rent shall take into account exceptional energy use.
- b. Each state agency with 100 or more employees shall maintain one or more conservation committees to assure conservation at owned and leased state facilities.
- c. Agencies that pay \$1 million or more per year for electricity and natural or compressed gas, combined, shall employ an energy manager to control energy consumption.
- d. State managers shall encourage and assist employees to help conserve and prevent the waste of energy.
- e. All agencies shall track their energy consumption and evaluate it against state and agency plans and goals and their own histories.

4. Turn off office equipment when not in use and don't turn equipment on until it is needed. Turn off computers or computer monitors when not in use for an hour or more.

5. Set water heaters to 120 degrees where not needed for cafeterias, laundries, or bathing.

- 6. Lighting:** Disable or remove all lighting that is not necessary for normal business or safety.
- Reduce overhead lighting, using fluorescent task lights where needed.
 - Replace incandescent light bulbs with fluorescent where practical.
 - Keep adequate lighting at building entrances.
 - Use signs, team-checks, and reminders to assure that unneeded lights are turned off.
 - When working early or late, do not turn on or leave on any lighting you do not need.

Lighting in DAS-Operated Facilities:

- Occupants (not custodians) shall turn all lights on and off in work areas to assure they are only on when needed.
 - DAS will set exterior and parking lighting to roughly half of year 2000 levels.
- 7. Heating:** Adjust heating to maintain no more than 70 degrees during the workday. Employees should dress appropriately for comfort.
- Where practical, provide heating only when a building is fully occupied. In an office, that is likely to be 8AM to 5PM (7:30 AM to 4:30 PM may be more comfortable). Turn heat off early where practical to let the building coast on stored heat.
 - Close blinds at night to retard heat loss.
 - In small buildings, where occupants have official control of heating, name a person or team authorized to control settings.
 - Do not allow space heaters in buildings' heated areas. Space heaters are safety hazards to a whole building and occupants. They disrupt building controls causing reduced heating for other occupants. Therefore, a space heater should not constitute a reasonable accommodation to a personal request in summer or in winter.
 - Foot-warmers of 150 or fewer watts may be permitted if an agency chooses, but only in the few areas with abnormal chill and after pursuing reasonable energy-free options.
- 8. Cooling:** Where unable to achieve the ten percent target by other means, conditioned space shall be cooled, if at all, to no fewer than 75 degrees and the following cooling standards and recommendations shall then apply.
- As practical, provide cooling only when a building is fully occupied. In an office, that is likely to be 8AM to 5PM.
 - Actively manage blinds throughout the day to assure that all sunward blinds are closed. Pre-close blinds to block rising and setting sun and for weekends.
 - In small buildings, where occupants have official control of air and cooling, name a person or team authorized to control windows and cooling settings.
 - Exterior, stairway, and fire doors must be closed unless equipped with approved emergency closure devices. Security doors must always be closed.
 - Agencies must share information and make all staff aware of how to deal with energy and comfort issues.

Note 8: The foregoing measures and the 75 degree cooling limit will be employed in all DAS operated buildings. Temperatures may vary throughout a day and building. To the extent owners' allow it, this cooling limit shall also be applied in all office facilities leased by the state.

- 9. Large Building HVAC Operators:** In buildings greater than 10,000 square feet with HVAC systems, facility operators and managers must maintain building logs containing appropriate information for energy efficient analyses and decisions, e.g. key system features, key settings, and seasonal results.

10. Comfort and Convenience Appliances:

Agencies must regulate food, beverage, and comfort appliances to conserve energy.

- a. Do not allow *privately owned, individual* food and beverage appliances in cubicles, offices, and most other workplaces. Do not provide power for personal refrigerators, hotplates, warming plates, hotpots, crock pots, coffee makers, toasters, microwave cookers, or any food or beverage device designed for individual use. (Food or beverage devices that produce heat and are designed for residential use are prohibited by the Fire Marshal.)
- b. Agencies must regulate *privately owned, communal* food and beverage appliances, owned or leased by informal employee groups. Agencies may allow communal appliances in breakrooms or similarly suitable locations if they meet these requirements:
 - 1) Owner-users must keep appliances in good condition, with clean cooling coils or vents, ample air space and no combustibles stored above or around the appliance.
 - 2) Appliances must conform to the requirements of the State Fire Marshal, Fire And Life Safety Services Standard Operating Guideline No. P-13, April 5, 1999. Portable food and beverage heating or cooking devices are banned from state facilities. The ban precludes toasters, electric grills or skillets or griddles, hotplates, warming plates, deep fat fryers, crock pots, or convection ovens.
 - 3) Owner-users shall install in-line, plug-in timers for communal water coolers to assure that they are turned off after-hours. The timer must be a commercial quality, grounded outlet type, and approved by appropriate authority.
 - 4) Communal refrigerators shall be operated at no cooler than 40 degrees. Under-used or ill-maintained refrigerators must be ordered out of service by agencies.
 - 5) Communal appliances shall be ordered out of service if a power emergency is declared. They may be ordered out of service if state power saving goals are not achieved at the site.
- c. Agencies are advised to not buy fans except where they are the official method of cooling. Fans can consume enough energy to offset savings gained by reduced cooling. Agencies may permit the following, limited uses of personal fans:
 - 1) Fans should be no larger than 12 inches diameter, preferably rated at 0.5 amps or less.
 - 2) Centrally cooled buildings should have as few fans as practical, no more than one per 150 square feet of occupied building space.
 - 3) To the extent practical, fans should not be operated between 8 AM and Noon. They should not be run while the ventilated space is unoccupied.
 - 4) Fan limits do not apply to unconditioned space.
- d. Agencies shall manage state-owned appliances for energy conservation:
 - 1) Agencies are advised not to buy food and beverage appliances.
 - 2) Building operators are advised to consider timers for state-owned food and beverage coolers and under-counter water heaters to turn them off after-hours.

11. Vending Machines and Food or Beverage Venders

- a. Agencies that own buildings must regulate commercial vending machines and food or beverage venders to conserve energy.
- b. The Commission for the Blind and the Department of Administrative Services shall develop a plan to manage and reduce energy use by dispensing machines authorized by the commission or contracted through or subject to its authority.

12. Personal Computers

Agencies must regulate personal computer use to conserve energy. Staff should:

- a. Wait until needed to turn PCs on.
- b. Leave PC's fully off (monitor *and* CPU) after-hours. Agencies that centrally download and upload after-hours must develop a plan to minimize PC-on times and require that monitors be off after-hours.
- c. Turn a PC fully off if it will be inactive for more than an hour. Monitors should be turned off during shorter idle periods.
- d. Do not turn on specialty or dedicated-individual printers or label makers until ready to print. Do not leave PC speakers on when they are not in use.
- e. Do not print copies of e-mail or drafts unnecessarily. Eliminate personal printers in favor of shared printers.

Note 12: This policy applies to PC's, not servers. It was adopted in coordination with the DAS Information Resource Management Division after review of computer policies across the nation.

13. Laboratories

Laboratory managers must develop energy conservation plans and standards, suitable to their labs. Laboratories are intensive energy-consuming spaces. Recommended actions:

- a. Turn off all equipment not in use (everything, from lab hot plates to computers).
- b. Lower a fume hood cabinet sash (the glass window) when a fume hood is not in use to stop the unneeded exhaust of heated or cooled air.
- c. Turn off bio-safety cabinets (fume hoods that use recycling-air vents) when not needed.
- d. Keep hallway doors shut for safety and to help balance the air system.
- e. When a cooling or condenser system is not in use, turn off the system and its tap water or re-circulating cooling pump.
- f. Wait for a full load to use automatic glassware washers.

NOTE: These recommendations were taken from University of Michigan standards.

14. Custodial & Other Small After-hours Crews:

Where practical, perform custodial services by day. If necessary to temporarily work small crews after-hours, use minimum necessary lighting do not operate large-building HVAC. For continuous, small, night-shifts, agencies should provide localized HVAC rather than run a large building for a small number of people.

15. Long-term Conservation Investments:

The foregoing are low-cost and no-cost measures that should be taken immediately and permanently wherever practical. Agencies must also plan to make long-term investments that will pay for themselves through energy savings. Agencies that own facilities shall:

- a. Provide energy conservation management through new or existing position authority or by contracting for the services.
- b. Evaluate all construction and maintenance projects for opportunities to save energy through a more thorough evaluation, design, or the addition of energy conserving elements.

16. Waivers:

State government is asked by the governor to be the conservation model in this effort. However, any required measure may be waived by the agency head or his or her designee at any place where the measure would prevent necessary work or endanger staff, clients, or the public. Where possible, agencies should try to put alternative measures in place to offset any measure that they must waive.

See: http://www.facilities.das.state.or.us/Energy_Conserv.html

Contact for Information: fac.info@state.or.us

Water Conservation:

- a. Water and energy are critical statewide interests that are inextricably joined.
- b. All local state facilities and leased sites shall fully conform to local water system requests for water conservation by water system users.
- c. Where a local water system declares a drought or other water emergency, local state facilities and leased sites shall seek ways to act as models of water conservation. Where a state facility is a large user, it shall contact the local water authority and plan for coordinated efforts that may exceed the minimum requested of all water users.

Check local water system websites. For one example, in Salem:

<http://www.open.org/~spubwork/water/conserv.htm>