

SUBJECT: Resource Conservation

NUMBER: 107- 011- 010

DIVISION: Facilities Division

EFFECTIVE DATE: 9/1/07

APPROVED:

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POLICY/ PURPOSE: To identify resource conservation and cost saving measures and establish guidelines to promote the practice of resource conservation including energy, water, recycling and waste prevention.

AUTHORITY: ORS 276.900, ORS 459A.010, and Executive Order 06-02

APPLICABILITY: All Department of Administrative Services (DAS) employees.
All Department of Administrative Services (DAS) owned facilities.
~~All Employees of Tenants occupying Department of Administrative Services (DAS) owned facilities.~~
All office facilities leased by DAS, to the extent owners allow it.

ATTACHMENTS: Resource Use Tracking Form
Waste Audit Form
Request for Exclusion To Policy

DEFINITIONS:
Agency: Any state agency, board, commission, department, division, including the Oregon University System.
Agency Coordinator: An employee, appointed by the Agency Director, who acts as the primary contact and/or the individual responsible for facilitating and coordinating the resource conservation efforts within an agency.
Communal Appliance: Any food and beverage device such as a refrigerator, microwave or coffee maker that is not state-owned or leased by an informal employee group for use in break rooms or similarly suitable locations.
Energy Conservation Program Committee (ECPC): Employees of DAS, Facilities Division who review energy practices and promote energy efficiencies in state-owned buildings. ECPC members work collaboratively to discover why conservation measures are failing to meet minimum requirements in certain buildings. Membership includes representatives from the Statewide Property Management and Operations and Maintenance Sections.
Facility Manager: Person responsible for managing the operation and maintenance of a State-owned building.
HVAC: Heating, ventilating and air conditioning.
Personal Appliance: Any privately-owned food and beverage device, requiring energy and/or producing heat, and designed for residential use, brought into the work place for one's individual use.
Project Authorization Committee: Employees of DAS, Facilities Division who meet regularly to approve tenant improvements to DAS buildings.
Site Coordinator: An employee located at each branch or other agency location who works with the Agency Coordinator on resource conservation efforts at their site.

GUIDELINES:

I. A. Energy Conservation

- Turn off equipment, exhaust fans, and lights when not in use.
- Vendors operating cafés in state buildings shall submit documentation to the Project Authorization Committee to request and receive approval prior to the installation, replacement or reconfiguration of equipment due to plug load capacity requirements.

B. Communal Appliances (appliances in Kitchenette Areas and Break Rooms)

- Kitchenette areas and break rooms are designed for specific equipment capacities and plug loads. Prior to the purchase and installation of any additional or replacement appliances, employee groups shall contact their building Facility Manager and together with DAS Facilities and O&M discuss equipment changes and load options.
- Communal appliances, i.e. refrigerators, dishwashers, coffee makers, toasters, and microwaves in break rooms, kitchenettes, or similarly suitable locations, owned or leased by informal employee groups are allowed, but only if they meet the following requirements:
 - 1) Owner-users keep appliances in good condition, with clean cooling coils or vents, ample air space and no combustibles stored above or around the appliance.
 - 2) Communal refrigerators temperature set point is no less than 40°F.
 - 3) Under-used or ill-maintained refrigerators shall be ordered out of service.
 - 4) Communal appliances shall be ordered out of service if a power emergency is declared. They may be ordered out of service if state energy saving goals are not achieved at the site.
 - 5) Appliances must conform to the technical guidelines recommended by the State Fire Marshal.
 - 6) Appliances shall only be used in the manner and capacity for which they were designed for by the manufacturer.
 - 7) Appliances must be Underwriters Laboratories Inc. (UL) approved.
 - 8) Appliances shall be located in central break rooms or kitchenette areas only. Smaller appliances shall be placed on laminated or metal counters.
 - 9) Appliances shall be plugged directly into wall outlets; the use of extension cords is prohibited.
 - 10) When purchasing and/or replacing large communal appliances, i.e., refrigerators, dishwashers, water coolers; Energy Star rated appliances are required. Within five years of this policy's effective date, all communal appliances shall be Energy Star models.
 - 11) Communal appliances are not permitted in general work-station areas, offices or cubicle locations. (See Personal Appliances).
- Plug-in timers for communal water coolers and under-counter water heaters shall be installed to assure that they are turned off after hours. The timer must be a commercial quality, grounded outlet type, and approved by appropriate authority.
- State-owned appliances shall be managed for energy conservation.

C. Computers and Office Equipment

- All printers and copiers that are equipped with an automatic "power down" or "energy saver" feature shall be enabled for after work hours.
- Eliminate personal printers in favor of shared printers.
- Utilize the sending of links or hyperlinks instead of the entire attachment to your email

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distribution lists to save on energy and paper printing.

- Utilize the appropriate screen/monitor resolution to view documents on screen rather than printing them out, as well as print preview to specify page limits and only print what is needed.
- Utilize the duplex (2-sided) feature on printers and copiers, where possible.
- Develop a shared folder/file management strategy through the network for work units so documents can be viewed and shared electronically, rather than having multiple copies in many folders and distributing draft hard copy versions.

Computer User Action when not in use for 1 hour or more:

- 1) Log off machine.
- 2) Do not shut down machine or turn it off.
- 3) Turn power off on monitors, specialty or dedicated individual printers, PC speakers and label makers to conserve energy.
- 4) Turn off all of the above peripheral equipment when leaving at night. When notified by IT section of network system updates, such as virus protection upgrades, ensure machine is left on that night.

D. Custodial & Other Small After-hours Crews

When practical, custodial services will be performed during daylight hours. If it is necessary to temporarily work small crews after-hours, use minimum necessary lighting, do not operate large building HVAC.

E. Heating and Cooling (HVAC)

- It is recommended that the temperature at state operated facilities be kept at 72°F during office hour periods, normally 7a.m. to 5 p.m., throughout the year.
- While temperature comfort levels may vary by building, each building must demonstrate that energy savings of 20 percent from comparable 2000 consumption levels are being realized at all times.
- Where a building is not achieving the 20 percent target, the indoor temperature set points shall be lowered to (70°F in winter) or raised to (74°F in summer) until the target is met. The following measures should be considered to assist in reaching the agency objectives:
 - 1) Heat and cool only during full occupancy. Use optimum controls to minimize off-hours energy consumption.
 - 2) Actively manage window blinds throughout the day to retard heating and cooling loss. Close blinds at night to retard heat loss.
 - 3) Close exterior, stairway, and fire doors unless equipped with approved emergency closure devices. Security doors must always be closed.
 - 4) In small buildings, where occupants have official control of air and heating/cooling, identify a person or team who is authorized to control operable windows and HVAC settings.
 - 5) Any building with floor area 10,000 square feet or less shall have HVAC controls that include, as a minimum, programmable thermostat with night setback and seven-day programming capability.
 - 6) Any building with floor area greater than 10,000 square feet shall be controlled by a building automation system.
 - 7) HVAC operators shall maintain and operate the systems under their control in the most efficient manner.
- When considering energy efficiency improvement projects, all available incentives shall be taken advantage of, such as local utility programs, BPA's (Bonneville Power

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Administration) programs, Energy Trust of Oregon (ETO) programs, and state BETC (Business Energy Tax Credit) programs.

F. Laboratories

Laboratory managers must develop energy conservation plans and standards, suitable to their labs.

G. Lighting - Generally

- The illumination levels shall be set to minimize energy consumption. Task lighting at desktop should be between 30 and 35 foot candles.
- All lights shall be turned off in unoccupied rooms at all times. 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 compact fluorescent lights where practical.
- Take advantage of natural lighting where possible.
- Use signs, team-checks, and reminders to assure that unneeded lights are turned off.
- Floor lighting shall be turned off at the end of a normal work day. Staff shall use task lights when working early or late and turn off when leaving for the day.
- Motion detectors may be installed to control lighting in frequently unoccupied areas.
- Security and safety lighting shall be held to the lowest acceptable levels.

Holiday Lights

Holiday lights are allowed, with the following restrictions:

- Use only in common areas, i.e. reception, lobby areas or break rooms.
- Lights shall only be operated from 8 a.m. to 5 p.m.
- Lights may be installed after December 1, but shall be taken down on, or before, December 24.
- Only UL listed miniature lights shall be used.
- Heavy duty extension cords shall be approved commercially manufactured UL listed assemblies (14-gauge minimum, 15-amp minimum). Only grounded extension cords shall be used.
- Electrical lights and extensions cords that are physically damaged or altered shall not be used.

H. Office Equipment (Copiers, Fax Machines, Printers)

- Office equipment should only be turned on when needed. All office equipment within work stations shall be turned off after work hours.
- Copiers, printers, computer monitors and speakers shall be shut down (power switch off) after work hours.
- All copiers, Fax machines and printers that are equipped with an automatic "power down" or "energy saver" feature shall be enabled for after work hours.

I. Personal Appliances

Personal appliances such as refrigerators, hotplates, warming plates, hotpots, crock-pots, coffee makers, coffee warmers, toasters, microwaves, or any food or beverage device designed for individual use in the home are not permitted in work-stations or cubicle locations. In addition, fish tanks, water fountains and candles are not permitted.

a. Fans

Personal desk fans of 15 or fewer watts are permitted. Accommodations for desk fans greater than 15 watts, but not to exceed 60 watts, may be permitted, if

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authorized by department management, on an exception basis.

b. **Foot-warmers**

Personal foot warmers of 150 or fewer watts may be permitted, if authorized by department management, for use only in those areas with abnormal chill and only after exhausting all reasonable energy-free options.

c. **Space Heaters**

Space Heaters are prohibited for safety as well as energy conservation reasons.

J. Vending Machines and Food or Beverage Vendors

- Commercial vending machines on state premises shall be equipped with Vending Misers to conserve electricity where feasible.
- Vending machines shall be de-lamped.

K. Water Heaters

Hot water shall be stored at a temperature of 120°F as is recommended in ASHRAE 12-2000, Section 4.1.6 Recommended Treatment; where not needed for cafeterias, laundries, or bathing.

II. Recycling and Waste Prevention

A. Waste Prevention and Recycling

- Building-specific waste prevention and recycling plans and goals shall be developed and implemented in each building.
- Procedures, mechanisms and collection systems shall be established within each building for the proper separation and disposal of recycled resources generated in each building.
- Employee training shall be provided for waste prevention and recycling and proper separation and disposal techniques.

B. Office Recycled Materials Collection

Office recycled materials collection, as defined in statute, shall continue and recycling opportunities expanded wherever possible. Collection shall include, but is not limited to: corrugated cardboard, newsprint, mixed paper, beverage containers, glass containers, plastics, waste oil, clay-coated materials, batteries, copier toner and printer cartridges.

C. Employee Training Program

- Employee waste prevention and recycling awareness training programs which define agency expectations for waste reduction and recycling shall be available.
- Employees shall be educated on proper separation and collection systems for recycled materials.
- Waste prevention and recycling information shall be provided in new employee orientations.
- Employees shall be provided with lists of recyclable or reusable materials at their work place.

III. Water Conservation

Water and energy are critical statewide interests that are inextricably joined. The following guidelines apply to all state facilities and leased sites:

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- 1) Fully conform to local water system requests for water conservation by water system users.
- 2) Report water leaks to proper authority immediately.
- 3) Avoid running water excessively in restrooms or break rooms.
- 4) If responsible for irrigation of public grounds, consider installing an automated irrigation system that tracks precipitation or water on a timer.
- 5) 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.
- 6) If responsible for operations and maintenance of buildings, consider installing water-saving devices, where applicable.

IV. Information Requests

The Agency Coordinator shall act as an in-house resource to answer questions. If more information is required, the request shall be submitted to the Statewide Resource Coordinator for further research.

PROCEDURES:

<u>Step</u>	<u>Responsible Party</u>	<u>Action</u>
1.	Agency Coordinator	<ol style="list-style-type: none">a) DAS-owned facilities with 100 or more employees, whether in owned or leased facilities, shall assign at least one Agency Coordinator to assure conservation measures are practiced.b) Educates staff on proper resource conservation, waste prevention and recycling techniques in coordination with Site Coordinators, Facility Managers.c) Assembles and distributes information and resource plans to all branch office Site Coordinators.d) Monitors and records resource consumption and expenditures and prepares to report on energy use and costs as requested.e) Evaluates resource consumption against agency established baselines and state goals.f) Conducts Annual Waste Stream Composition Audits and surveys, if necessary due to decreased recycling levels.
2.	Cafeteria Operators	<ol style="list-style-type: none">a) Turn off equipment, exhaust fans, and lights when not in use.b) Monitor plug load capacity.c) Do not add equipment that space was not designed for.d) Prior to installation of any additional or replacement appliances, consult with building Facility Manager.e) Submit documentation to the Project Authorization Committee to request and receive approval prior to the installation or reconfiguration of equipment
3.	Custodial & other small after-hours crews	<ol style="list-style-type: none">a) Perform custodial services by day where practical.b) Use minimum necessary lighting for small temporary work crews after hours.c) Do not operate large building HVAC systems after hours.
4.	Employees	<ol style="list-style-type: none">a) Dress appropriately for comfort.b) Turn lights on in work areas only when needed. Turn off at the end of each day. When working early or late, do not turn on or

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- leave on any unnecessary floor lighting. Use task lights and turn them off when leaving for the day.
- c) Turn on office equipment such as PC monitors, PC speakers and label makers within work station only when needed. Turn off at the end of each day.
 - d) Actively manage window blinds to retard heating and cooling loss if work station is located near a window.
 - e) Avoid any unnecessary energy consuming devices within work station.
 - f) Do not print copies of e-mails or drafts unnecessarily.
 - g) Use shared printers in favor of personal printers.
 - h) Comply with policy regarding resource conservation, including waste prevention, recycling and water conservation within work place.
 - i) Avoid running water excessively in restrooms or break rooms and report any leaks to building Facility Manager immediately..
- 5. Energy Conservation Program Committee (ECPC)**
- a) Assists in the development of Resource Conservation Policies, Plans and Standards.
 - b) Reviews all requests concerning energy conservation measure exemptions and works collaboratively with Agency and Site Coordinators and Facility Managers to resolve issues prior to consenting to any exclusion. Possible exemptions may include health services, security and other essential government services.
- 6. Facility Managers**
- a) Encourage and assist employees to help conserve and prevent the waste of resources.
 - b) Work collaboratively with Agency Coordinators and Site Coordinators to resolve building or equipment maintenance issues including outdoor sprinkler systems.
- 7. Food or Beverage Vending Machine Operators**
- a) Equip vending machines with Vending Misers
 - b) De-lamp vending machines.
- 8. Laboratory Manager**
- a) Develops energy conservation plans and standards, suitable to their labs.
- 9. Project Authority Committee**
- a) Receives requests from Facility Managers and Cafeteria Operators for equipment purchases and tenant improvements.
 - b) Reviews requests and approves or denies based on established criteria.
- 10. Site Coordinator**
- a) Educates staff at a particular work site on proper resource conservation, waste prevention and recycling techniques.
 - b) Works collaboratively with Agency Coordinator to ensure that conservation measures are practiced to reach and maintain goals, identifies resource conservation efficiencies and conducts annual waste audits.
- 11. Statewide Program Resource Coordinator**
- a) Serves as DAS expert on resource conservation and sustainability issues.
 - b) Facilitates and coordinates meetings of the Energy Conservation Program Committee (ECPC).
 - c) Assists Agency and Site Coordinators, and Facility Managers to develop resource conservation plans and standards.
 - d) Drafts resource conservation policy for review by subject matter expert(s) or other staff who have a direct interest in the policy.
 - e) Facilitates ECPC review of requests for exemption to all or any

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portion of this policy. Records and files all requests for exemption to this policy.

- f) Works collaboratively with staff and other agencies to resolve resource conservation issues.
- g) Educates Coordinators on proper resource conservation.
- h) Compiles, maintains and distributes to state and legislative agencies statistical records and reports on resource conservation.