



American Astronomical Society
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TO: AAS Staff

FROM: Kevin B. Marvel, Executive Officer

RE: Greening of AAS Executive Office

DATE: 15 October 2007

Global warming. Water quality. Air pollution. Landfills. Not a typical to-do list for another day at the office, but every workday each of us makes hundreds of decisions that affect all of these issues. Many of these choices are tiny—whether to toss an outdated report in the trash or in the recycling. Others are more substantial—whether to install a high-efficiency cooling unit for the building, for instance. In every case, though, the decisions make a difference for better or for worse.

The AAS, as a 501(c) 3 organization, has an obligation to serve the greater good. This memo outlines a number of policies that allow the AAS to serve the greater good through conservation efforts. These small changes to office practice will not only serve greater good but will also help the AAS save valuable membership dollars, so more of them can be used in supporting our programs. Every dollar we can save in carrying out the duties of the Executive Office is another dollar that can benefit astronomy.

The specific policies are broken down into sections based on classes of resources that can be saved, repurposed or recycled. This memo is based in large part on a document produced by the Portland Development Council, “Green Office Guide: A Guide to Greening Your Bottom Line Through a Resource-Efficient Office Environment”

- A) Lighting – Lighting represents approximately 29% of the energy use in a typical office (DOE report 1995). Ensuring efficient lighting use can produce significant savings.
 - a. AAS will ensure it is using the most efficient lighting possible, within the constraints of our lease and any cost for fixture enhancements. As of 2007, T-8 fluorescent lights are to be preferred (20% more efficient than normal fluorescent lights). In the near future, T-5 lights will become

available (15% more efficient than T-8 lights). Compact fluorescent bulbs should be used in place of incandescent lights. Soon, LED devices will become available at a reasonable cost. AAS should explore adopting new lighting technologies when they become cost neutral to the Society.

- b. Exit signs – Exit signs should use Compact fluorescent or LED devices. There aren't many of them, but they are on 24/7/365.
- c. Occupancy sensors and automatic timing systems – Where possible, occupancy sensors should be utilized to turn off lights when nobody is in a particular area. Timing systems should be used to turn off lights outside of normal working hours.

B) Office Equipment – Office Equipment accounts for roughly 16% of office energy use. Properly chosen equipment, turned off when not needed, can significantly save energy. In all cases, the AAS will opt to purchase Energy Star compliant devices when all other features are equal.

- a. Printers – Besides selecting Energy Star compliant laser printers, AAS will try and purchase faster printers, which typically use less energy as they are on for less time while printing.
- b. Copiers – AAS copiers will be turned off when not in use. Copiers will be selected with an automatic off option. Duplex copiers will be selected in all cases and set to print duplex by default. Duplex printing saves both paper and energy.
- c. Fax Machines – Fax machines must be selected that have a sleep mode. Sleep modes reduce energy use by fax machines by as much as 50%. The AAS has experimented with digital faxes, but current software solutions are not adequate for our needs. This option will be explored again as new technology solutions become available.
- d. Computers – When possible, computers and monitors will be turned off at the end of each workday. Power strips will be provided to make this simple for all employees. Some computer equipment cannot be turned off at night, either for access reasons or because it is needed during off hours. These items should be selected to be optimally efficient.
- e. Monitors – The AAS will no longer purchase CRT type monitors, which use significant electricity. Low-power use LCD monitors, standard with most computer systems, will be preferentially purchased in future. As new technologies become available, AAS will take advantage of items that provide energy savings without a significant difference in price.
- f. Other equipment – Other office equipment, like refrigerators, water coolers, ice machines, etc. should be selected to be energy star compliant and optimally energy efficient.
- g. Paper usage – The AAS will strive to minimize the use of paper in its business operations. Efforts to save on paper use will include use of electronic documents wherever possible, duplex printing when possible/feasible, use of reusable folders and envelopes for in-office use, re-use of file folders and envelopes when possible, use of fax cover page

- “post-its” instead of full cover sheets and use of recycled paper when possible.
- h. Post-consumer recycled materials – the AAS will recycle where possible, including paper, toner cartridges and other office resources.
 - i. Other conservation efforts – AAS will buy in bulk when possible (to reduce packaging waste), use unbleached and uncolored paper when possible or when colored paper is not required and use recycled products when feasible.
- C) Heating & Cooling – Although heating and cooling conservation is primarily in the hands of the building management, AAS will take efforts to efficiently use heating and cooling resources.
- a. Proper use and maintenance – AAS will work with building management to ensure the proper use and maintenance of HVAC resources.
 - b. Thermostats will be set at comfortable settings for staff, without wasting HVAC resources. HVAC management during off hours will be handled in a way to minimize HVAC usage.
 - c. AAS will ensure proper insulation and weather proofing for its offices in consultation with building management.
- D) Water – AAS will strive to use water efficiently, not wasting hot water resources.
- E) Cars and Parking – Reducing the number of employees driving to work can represent a significant resource savings.
- a. AAS will offer employees public transport reimbursement. Currently, the IRS sets a maximum amount allowed as compensation for employees and the AAS adjusts its reimbursement to meet this maximum on a regular basis.
 - b. Carpooling – the AAS will encourage carpooling and, when requested, consider establishing incentives for carpooling employees.
 - c. Biking/Walking – Employees who can bike to work will be provided a secure location to lock their bicycle. Employees who walk to work on a regular basis, may request reimbursement for the purchase of an umbrella or raincoat once per year.
 - d. Telecommuting – For eligible positions, employees may opt to telecommute. A telecommuting agreement must be signed in advance of beginning telecommuting and reviewed annually by the Executive Officer.
 - e. Flextime – The AAS operates during normal business hours, but believes that employees should be able to adjust their work life to their personal life. Flexible working hours, agreed to by the Executive Officer and the employee’s supervisor, may be established. Flextime can mean less commuting and more productive staff.

Action Items for AAS

- 1) Install occupancy sensor for conference room lights.

- 2) Set copier (main printer) to print duplex by default.
- 3) Review timecard procedure to eliminate need to print paper.
- 4) Check Fax Machines for energy savings features.
- 5) Check with building management about their paper-recycling program. Is their paper recycled? Be sure bins are located in central locations and be sure people use them properly.
- 6) Buy recycled office products, particularly paper.
- 7) Buy kitchen utensils, plates, cups that are biodegradable.
- 8) Review telecommuting policies and agreements.
- 9) Brief employees on Green Office policies.

Thanks for making a difference!