



ADMINISTRATIVE DIRECTIVE

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| SUBJECT Energy Conservation: Town Facilities & Equipment | NUMBER 35 | PAGE 1 of 5 |
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I. PURPOSE

On November 18, 2009, 2011, the Town Council approved expenditure of \$4.2 million for a comprehensive energy conservation and solar power project. As a result, the Town projects utility cost savings of approximately \$164,000 per year. The purpose of this administrative directive is to ensure that projected utility cost savings are realized and to demonstrate the Town's commitment to sustainable business practices and fiscal responsibility.

II. POLICY

Town energy consumption shall be minimized to ensure projected budget savings without adversely impacting workplace safety, staff productivity, or ability to fulfill job functions. Energy consumption and long-term energy cost avoidance shall be considered during the procurement, operation, maintenance, and improvement of Town facilities and equipment.

Budgetary savings, as a result of energy conservation measures, may be used to support the general fund and specific department objectives. Town departments are responsible for their own utility costs and have a financial incentive to support and implement this administrative directive.

The following procedures are mandatory for all existing and future Town facilities, equipment, and operations. Discretion is delegated to department directors as specifically provided herein.

III. PROCEDURE

A. Town Facilities

1. General

- a. Energy consumption of all Town facilities will be monitored on a regular basis. Data will be used to troubleshoot mechanical issues, verify accuracy of billing, and seek additional financial savings.
- b. Educational programs will be developed to encourage energy conservation by all departments.
- c. All new and replacement Heating, Ventilation and Air Conditioning (HVAC) units, pumps, and motors (collectively referred to hereinafter as Systems) shall be lowest size/power rating capable of efficiently completing the job. Larger sizes/power ratings may be used only if there is expectation of increased demand within a given fiscal year.
- d. Newly installed Systems shall be classified as high efficiency or premium efficiency rated. Systems listed as standard efficiency shall not be purchased or installed by the Town*. An energy star rating or equivalent is acceptable.
* An exception is made for equipment provided by the state for use by municipal courts.
- e. Older, inefficient Systems shall be systematically replaced on a failure replacement basis. Operational Systems shall not be replaced before the full life-cycle has been reached unless a cost/benefit analysis substantiates a need.
- f. To maintain the energy savings guaranteed by the Town's performance contractor, proposals to add electric loads in excess of 1 kW must be reviewed by the Conservation & Sustainability Administrator and appropriate department director. Examples of items exceeding the 1 kW threshold include: 3 Energy Star Computers, adding cooling (roof top unit or a room AC) to a building, or adding additional lighting to rooms.
- g. The cost/benefit analysis of adding significant energy consumption must factor in the planned debt service of the Town's Solar and Energy Efficiency Project.

2. HVAC Controls and Maintenance

- a. Thermostats shall be automatically set to 68 degrees F for heating and 75 degrees F for cooling (+/- 2 degrees) during hours of occupancy. Hours of occupancy shall be defined as 30 minutes prior to and 60 minutes after public hours of operation.
- b. Thermostats shall be programmed to automatically adjust after hours of occupancy. Each will be set-back to 55 degrees when heating and set-up to 85 degrees when cooling.
- c. Temperature set points shall be maintained by DIS and OVPD facilities maintenance staff. This does not prohibit general staff from adjusting thermostats within the programmed range.
- d. Janitorial staff shall clean facilities as close to hours of occupancy as possible, and heating, cooling, and ventilation systems shall be enabled only as needed.

- e. An exception to items a. – d. above is made for facilities that operate 24 hours a day or require cooling for essential equipment as determined by the IT Director.
- f. In circumstances where higher/lower cooling or heating set points are warranted due to poor airflow, building design issues, or special needs, facilities maintenance staff must offset changes to an individual room by establishing an average temperature in a particular building area that falls within the prescribed range. This can generally be achieved by reviewing occupancy needs over a 24-hour period.
- g. All HVAC systems shall be maintained through a preventative maintenance regimen administered by DIS facilities maintenance staff.

3. Ventilation

- a. Code-required minimum ventilation rates shall be maintained during hours of occupancy.
- b. Restroom exhaust fans shall only run when the facility is in use and for 15 minutes after cleaning to remove any chemical odors.

4. Lighting

- a. New construction and remodeling of interior spaces shall include high efficiency T-8 lamps and compact florescent recessed fixtures. Ultra high efficiency systems such as LED technology shall be evaluated on a project by project basis.
- b. New or replacement street lights and traffic signals shall meet or exceed the existing level of efficiency. Ultra high efficiency systems such as LED technology shall be evaluated on a project by project basis.
- c. Light levels should be maintained at or above Illumination Engineering Society recommended levels.
- d. Interior lighting systems shall be controlled via occupancy-based units where appropriate.
- e. Interior spaces shall not be illuminated except during hours of occupancy and cleaning, with the exception of emergency egress lighting.
- f. Exterior lighting shall be controlled via photocell sensors and/or time clock systems. Set points will be determined by public safety and building specific needs.
- g. All remaining standard efficiency lighting systems such as cubicle task lights etc. shall be systematically replaced with high efficiency units on a failure replacement basis.

5. Plumbing Fixtures and Irrigation

- a. Existing standard plumbing fixtures shall be systematically replaced with low flow or zero usage units on a failure replacement basis.
- b. Operational systems shall not be replaced before the full life-cycle has been reached unless a cost/benefit analysis substantiates need.
- c. New construction and remodeling shall include low flow or zero usage units.
- d. Outdoor landscaping shall be replaced with regionally appropriate xeriscape as identified in the Oro Valley Zoning Code Revised.

- e. Landscaped grounds and fields shall be evaluated on a project by project basis for the application of waterless field or water harvesting technologies.

B. Work Related Equipment

1. Computers and Peripheral Equipment

- a. Computers, printers, and other work-related equipment shall be turned off or placed in energy saving mode when not in use.
- b. Equipment shall be turned off at the end of each day, and before a weekend or holiday, with the following exceptions:
 - IT equipment as determined by the IT Director
 - Devices used to maintain 24/7 remote access
 - Equipment for essential services such as police dispatch
 - Court records systems as determined by the Town Magistrate
- c. At the discretion of each department director, purchase and use of printers within individual offices is discouraged when a network printer is readily available.

2. Personal Electronic Equipment

- a. Personal electronic equipment (employee-owned) that results in substantial cost to the Town shall not be permitted unless specifically approved by a department director.
- b. Substantial costs are incurred when personal electronic equipment results in an estimated annual cost of \$14.00 or more per unit. Below is a list of typical personal electronic equipment and associated annual costs:
 - Radio \$1.87
 - Coffee pot \$5.20
 - Lamp, cfl \$6.93
 - I-pad or I-pod \$13.87
 - Fan \$27.73
 - Mini refrigerator \$35.00
 - Space heater \$39.87
 - Refrigerator \$74.88
- c. Individual use of space heaters, fans or cooling systems, and refrigerators shall not be permitted without prior approval of the department director. Requests for exceptions are subject to the following considerations:
 - The HVAC system cannot be adjusted to achieve comfort within the heating and cooling temperature ranges specified herein.
 - An unusual circumstance in building design prevents a consistent level of heating and cooling within the temperature ranges specified herein.
 - A documented medical condition or other disability must be accommodated.
- d. The following specifically pertain to purchase and use of space heaters:
 - Compare wattage of similar models and purchase units using less energy.

- Only UL listed units with an automatic shut off (in case the unit tips over) are permitted.
- Only thermostat controlled heaters with timer settings are permitted. Heaters shall be controlled to no greater than 70 degrees Fahrenheit.
- Space heaters are to be located away from all computer equipment (3 foot minimum) and combustibile materials.

AUTHORIZED:



Greg Caton
Interim Town Manager