



Supply

★ AIR FORCE ENERGY MANAGEMENT

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OPR: 81 CES/CEOE (Lt Jason Lyons) Certified by: 81 SPTG/CC (Col Warren J. Brookhart)
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This instruction implements AFPD 23-3, *Energy Management*. It reflects energy conservation concepts and policy and assigns responsibilities and outlines procedures for managing, monitoring, and reducing energy use. Attachment 1 is a glossary of references and supporting information. Maintain and dispose of records created as a result of prescribed processes in accordance with AFMAN 37-139, *Records Disposition Schedule* (will become AFMAN 33-322 Vol. 4). It applies to all personnel (military, civilian, and dependents) at the 81st Training Wing, including all military organizations, tenant units, and contractors.

SUMMARY OF REVISIONS

This document is substantially revised and must be completely reviewed. Disposition instructions included. Energy reduction goals changed. New Attachment 1 added. Paragraphs and attachments renumbered.

1. General.

1.1 Policy.

1.1.1. The Keesler Energy Conservation (ECON) Program is designed to support the Air Force Energy Conservation Program. Our goal is to achieve maximum reduction in energy consumption without serious effects on mission, force readiness, safety, health, welfare, and morale of military and civilian employees.

1.1.2. Energy conservation not only deals with the reduction and/or saving of energy but considers the management of energy commodities so as to foster their economic and efficient use. It also includes the promotion of a base-wide awareness of the need to save energy.

1.2. Energy Conservation Management Concept. The baseline is the basic tool for determining the effectiveness of an energy conservation program. Its primary purpose is to

provide a reference point from which to evaluate current energy use. The energy conservation baseline was established using FY 85 consumption data. Goals used by AETC/CEOE are established by HQ USAF. HQ AETC/CEOE provides the Wing goals for the different commodities at the beginning of the fiscal year.

1.3. Air Force Energy Goals. The Air Force has set specific goals, which also comply with various Presidential and DOD directives. The major goals include:

1.3.1. For installation operations, average annual energy use per gross square foot of floor area is to be reduced 35 percent in facilities by the end of Fiscal Year 2010, as measured from FY 85 levels.

2. Program Management.

2.1. Configuration. Overall management of the ECON Program is carried out through the establishment of the Energy Management Steering Group and associated working groups. Membership is as shown in Attachment 2. The charters for these management units follow.

2.2. Energy Management Steering Group (EMSG). The EMSG is chaired by the Vice Commander and comprised of key command and staff personnel. The Support Group Commander will serve as alternate chairperson. The group will meet quarterly to discuss the basewide ECON Program, to review monthly energy conservation results, to assess the ECON Program overall effectiveness, and to initiate changes and make recommendations to the Wing Commander as needed. The EMSG will operate under the guidelines provided in pertinent directives to define and establish criteria for use by working groups in the establishment of goals, the reporting of consumption data, and consumption control procedures. It will task working groups, as needed, to carry out special or one-time ECON studies or projects. 81 CES/CEOE will provide minutes of meetings to the Wing or Vice Commander, AETC/CEOE, to each member of the Steering Group, and to major organizational commanders who are not members of the steering group.

2.3. Utilities Working Group (UWG). The UWG is comprised of representatives from all major organizations and chaired by 81 CES/CEOE. The group will meet at the call of the chairperson. It will deal with matters pertaining to management and conservation of electricity and natural gas. Based on energy policy from higher headquarters, base policy, and guidance from the Energy Management Steering Group, the group conducts special ECON studies on utilities; is responsible for planning, developing, coordinating, and disseminating ECON policy on the use of electricity and natural gas; and makes recommendations to the EMSG. Members of the UWG will function as the ECON coordinator (utilities) in their organization and work directly with the building/area ECON monitors assigned to their organization. In large organizations, ECON coordinators may appoint alternate ECON coordinators to assist them in their duties.

2.4. Energy Monitoring Office (81 CES/CEOE). This office serves as OPR for the Energy Program and is the focal point for coordination and dissemination of interrelated energy

conservation matters among the Steering Group and UWG. It maintains consumption data on utilities for graphical display, as required; periodically reviews effectiveness of the ECON Program and offers recommendations to the Steering Group for needed changes. Develops and prepares the agenda for EMSG and serves as recorder for EMSG meetings; briefs the Wing and Vice Commander and staff as required on status of the ECON Program; chairs the UWG; prepares and distributes a listing of ECON coordinators and building monitors assigned; conducts annual ECON training/information session for ECON coordinators/monitors and maintains a list of coordinators and building, monitors who attend; coordinates on projects involving changes in heating, ventilation, or air conditioning systems; prepares reports and publicity on ECON accomplishments for local and higher headquarters use; coordinates the annual AF Awareness Month Awards Program, and provides annual updates of the Metering Plan, Water Conservation Plan and Base Energy Plan.

3. Individual Responsibilities.

3.1. Commanders/Supervisors/Managers.

3.1.1. Responsible, at all levels, for promoting the ECON Program, enforcing its measures, monitoring energy consumption, and otherwise managing the program, within their sphere of influence, to achieve maximum effectiveness.

3.1.2. Appoint representatives to the UWG as required (see Attachment 2). Persons selected should be highly qualified, able to commit resources of their organization, and be in a position to influence energy matters in their organization where they will be known as Energy Conservation Coordinators.

3.1.3. Appoint Building/Area Energy Conservation Monitors to monitor the use of electricity, natural gas, and water in assigned facilities.

3.1.4. Approval/Disapproval authority for air conditioning and heat waivers is limited to the 81 TRW/CV, upon recommendation from the Base Energy Manager.

3.1.4.1. Submit annual waivers in writing to 81 CES/CEOE by 1 March every year, and waivers must be signed by the appropriate approval authority as outlined above. Blanket letters for multiple buildings under control of the major organization are encouraged. Requests must include the building number, room numbers if applicable, location of window units/space heaters if applicable, justification for the request, and the name/phone number of a point of contact for further coordination between CE and the requesting unit, if required. Once waivers are received, 81 CES/CEOE will review request and submit a recommendation to 81 TRW/CV. If waiver is for special equipment requirements, a cost comparison will be accomplished to see if installing a stand-alone system is more economical than running the main building air conditioning system.

3.1.4.2. Waivers OTHER THAN ANNUAL can be sent in by FAX to 81 CES/CEOE. Only signed requests made by the major organizational commander/deputy, and Base Energy Manager, will be honored. Requester must identify the building, time air conditioning/heat is required, and the reason for the request.

3.1.5. Organizations having unique ECON requirements will develop their own ECON checklists, review and update annually. The Base Energy Manager will assist in organizational checklist development, upon request.

3.2. Building/Area Energy Conservation Monitor.

3.2.1. Purpose. Monitors will serve as the organization's first level of energy conservation surveillance and management. They are responsible for monitoring the use of policies (see Attachment 3), electricity, natural gas, and water in assigned facilities.

3.2.2. Selection Criteria:

3.2.2.1. The senior supervisor/manager for each area or building, whichever is appropriate, will appoint monitors. The building manager will double as the energy monitor where deemed more expedient, but they do not have to be one and the same.

3.2.2.2. There is at least one monitor for each building unless it is exceptionally small. A monitor is allowed to serve several small buildings or unoccupied buildings (such as warehouses). Conversely, large buildings that are jointly occupied (such as academic buildings and hangars) should have more than one monitor on the basis of assigned areas.

3.2.3. The monitor will identify operating hours of all areas in writing to 81 CES/CEOE each year (NLT 1 May) to ensure HVAC operating hours coincide with actual needs. Report will include the following:

3.2.3.1. Hours of operation for each room, hallway, etc., include building/room numbers.

3.2.3.2. For those buildings not on the EMCS system, in addition to identifying hours of operation for each room, include name, rank, office symbol, and phone number(s) of individual responsible for starting and stopping their heating and/or air conditioning system daily.

3.2.3.3. Routine duties are outlined on a listing which is available in the Base Energy Office, 81 CES/CEOE.

JULIA B. MURRAY, Colonel, USAF
Vice Commander
81st Training Wing

3 Attachments:

1. Glossary of References and Supporting Information
2. Energy Groups Membership Listing
3. Heating, Cooling, and Hot Water Temperature

Attachment 1

GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

References

Air Force Policy Directive 23-3, *Energy Management*

AFMAN 37-139, *Records Disposition Schedule* (will become AFMAN 33-322 Vol. 4)

Acronyms

ECON – Energy Conservation

EMCS – Energy Management Control System

EMSG – Energy Management Steering Group

HVAC – Heating, Ventilation, and Air Conditioning

UWG – Utilities Working Group

Attachment 2**ENERGY GROUPS****ENERGY MANAGEMENT STEERING GROUP**

81 TRW/CV (Chairperson)

81 SPTG/CC

81 TRW/IG

81 TRW/SE

81 LG/CC

403 LG/CC

81 CPTS/CC

81 CES/CD

81 TRG/CC

81 MSS/DPCE

81 TRW/PA

81 MDG/CC

81 TRW/XPR

***UTILITIES WORKING GROUP**81 CES/CEOE
(Chairperson)

403 LG/CV

81 CES/CEO

81 TRSS/TTRF

81 CPTS/FMA

81 MDG/SGSLF

81 CES/CERR

81 CES/CERF

* Members assigned to the Utilities Working Group will function in their organizations as Energy Conservation Coordinators.

Attachment 3

HEATING, COOLING, AND HOT WATER TEMPERATURE POLICIES

A3.1. The following are base policies on heating and cooling.

A3.1.1. Maximum heating temperatures are:

68°F - Offices; classrooms; laboratories; showers; recreational facilities; dining facilities; gymnasiums; and areas in hangars, warehouses, or shops where people work seated or in a standing position but get little exercise.

70°F - BOQS, VOQS, dormitories, elementary schools, nursery schools, day care centers, and military family housing.

72°F - Non critical areas of hospitals such as examination rooms, radiology, pharmacy, clinics, physical therapy, and wards.

55°F - Hangars, shops, warehouses, and buildings where many employees work in a standing position, but who are sorting, stacking, collecting, packing, or crating, etc.

40°F - Where heat is required only to protect material and installed equipment from freezing.
NOTE: No heat is permitted where placing and withdrawing of stored goods is the only operation.

A3.1.2. Minimum cooling temperature is 78°F unless waived.

A3.1.3. Maintain temperatures for critical areas in hospitals in accordance with medical policies. Maintain noncritical areas of hospital such as examination rooms, radiology, pharmacy, clinics, physical therapy, and wards at 78°F minimum for cooling and 72°F maximum for heating. Administrative areas in medical facilities will comply with the building temperature standards (68°F heating and 78°F cooling) where applicable.

A3.1.4. Temperature standards when a building is unoccupied - HVAC systems must be turned off when building is to be unoccupied for 8 hours or more unless damage would occur to the building or its contents or unless the minimum anticipated temperature (dry-bulb) during the unoccupied period is expected to be lower than 40°F, in which case, set the thermostat at a level not higher than 55°F or at their lowest set-point. Heat will be left on in WWII buildings if temperature is expected to be lower than 55°F during unoccupied period. (Weather conditions can be obtained by calling the Base Weather Station at extension 7-4175.)

A3.1.5. Buildings or portions of buildings, satisfying one or more of the following criteria may be exempt from space temperature standards:

A3.1.5.1. Where a manufacturer's warranty, service manual, or equipment service contract requires specific temperature limits to prevent damage to special equipment.

A3.1.5.2. Where a maintenance of certain temperature and humidity levels is critical to materials and equipment used in manufacturing, industrial, or commercial processes.

A3.1.5.3. Where maintenance of certain temperature and humidity levels is required for proper storage or handling of food or other agricultural commodities, raw materials, goods in process, and finished goods.

A3.1.5.4. Any other circumstances where special environmental conditions are required to protect plant or animal life or other special supplies.

A3.1.5.5. Any circumstances where the Base Civil Engineer certifies that, due to unique mechanical features, compliance would result in increased energy consumption.

A3.1.6. Freestanding fans are authorized to assist in cooling,

A3.1.7. Thermostat controls will be adjusted, removed, or repaired only by qualified Civil Engineer personnel.

A3.1.8. Use of portable electric heaters or heat lamps is prohibited in buildings except: (1) when room dry-bulb temperature is below 65°F or (2) to provide spot heating when the building is unoccupied. (Exemption required.)

A3.1.9. Turn off heating units in hangars and nose docks when aircraft are being moved in or out.

A2.1.10. Turn off cooking equipment in food service areas when not in use.

A2.1.11. The use of cooling to achieve prescribed heating levels is expressly prohibited except to meet technical requirements. Conversely, the use of heating to achieve prescribed cooling levels is also prohibited.

A3.1.12. Turn off air conditioning during non-working hours except to protect property and equipment.

A3.1.13. The use of air conditioners not classified as real property is prohibited unless a waiver is obtained.

A3.2. The following is base policy for hot water temperatures:

A3.2.1. Area Water Temp.

A3.2.1.1. Final rinse in food handling facilities Min 180° Max 185°.

A3.2.1.2. Military family housing with dishwashers Max 140°. Military family housing without dishwashers or with self-heating dishwashers Max 120°.

A3.2.1.3. Medical Center (except where Medical Regulations state higher) Max 105°.

A3.2.1.4. Facilities with showers or tubs (delivered) Max 105°.

A3.2.1.5. All other uses (delivered) Max 105°.