UNITED STATES MARINE CORPS
MARINE CORPS AIR STATION
BEAUFORT, SOUTH CAROLINA 29904-5001

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PW
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AIR STATION ORDER 11000.4

From: Commanding Officer, Marine Corps Air Station Beaufort
To: Distribution List

Subj: MARINE CORPS AIR STATION BEAUFORT UNIT ENERGY MANAGER PROGRAM

Ref: (a) MARADMIN 114/15
(b) MCIEAST Energy and Water Strategy dtd December 2014
(c) DADC I&L (LF) Utilities Demand Reduction letter 11000/LF dtd 27 May 2014
(d) United States Marine Corps Expeditionary Energy Strategy and Implementation Plan dtd February 2011
(e) Unit Energy Manager Program, Handbook for Unit Energy Managers

Encl: (1) UEM Assignment Letter Form
(2) Unit Energy Manager: Energy Management Checklist

1. Situation

a. Marine Corps experience on the battlefield has proven that the prudent use of energy improves combat effectiveness by making our forces lighter and faster. Energy is equally important aboard Marine Corps installations. References (a) and (b) provide a framework for Marine Corps Installations East (MCIEAST) to become more energy efficient in order to ensure reliable energy supply to support the operating forces, achieve Congressional Mandates and Executive Orders, and reduce the lifecycle operating costs of facilities.

b. The reality of future fiscal constraints requires further energy reductions to minimize the impact of the purchase of utilities on constrained base operation support budgets. Per reference (c), Installation Commanders are to make every practical effort to reduce utility execution cost 10% by 2020. Achievement of this goal will require moving beyond solely technical solutions.

c. Energy Ethos is the shared vision that the efficient use of energy resources is a critical component of mission readiness. Per reference (d), the Commandant directed the Marine Corps to be aware of and value our limited energy and water resources, whether operating aboard installations or on deployment. This "Bases to Battlefield" approach promotes the establishment of an Energy Ethos that equates efficient use of vital resources to enhanced mission readiness on installations and operational effectiveness in combat. An Energy Ethos Campaign directed at the energy end-user will affect new energy-saving methods and habits (behavior), leading to sustained commitment (culture) and the efficient use of energy.

d. In our fiscally constrained environment, "must pay" bills such as energy and water compete with other critical mission priorities such as

personnel, flight hours, ordnance, weapons systems, and equipment critical to our mission. Smart use of these resources, 'using only what we need', therefore, becomes a combat enabler and not a constraint. Per references (a) and (b), all MCIEAST Installations will develop a Unit Energy Manager (UEM) program focused on energy and water intensity reduction.

2. Mission. Implement a proactive UEM program which encourages the right command practices, planning, and end user behaviors to ensure a continuing cost effective, reliable source of energy.

3. Execution

a. Commander's Intent. In order to ensure a secure and reliable energy supply to our Marines, Sailors, family members, and civilian workforce while achieving established mandates for energy and water stewardship, commands and specified sections aboard Marine Corps Air Station (MCAS) Beaufort will identify and appoint qualified personnel to serve as UEMs who will work closely with the Installation Energy Manager (IEM) to affect the following principles:

(1) Provide tenant and supported commands with greater visibility of energy resources. Knowledge of facility energy levels and assets, and an understanding of where energy is consumed are critical for effective energy management. Direct communication with tenant units is the most meaningful way to educate and institute a culture of prudent energy resource usage.

(2) Emphasize end-user controlled reductions. Every Marine, Sailor, civilian, and visitor bears responsibility for being a good steward of energy. This begins with education and communication resulting in lasting behavioral changes. Commands will increase awareness and publicize program goals, tools, and progress at different organizational levels through media such as: web sites, conferences, e-mails, displays, reports, newsletters, handbooks, etc.

(3) Sustain commitment to the efficient use of energy and water resources. Energy efficient operation of assets will be consistent with mission requirements. Prudent energy management will be part of operational procedures, planning criteria, and scheduling. Energy efficiency and sound energy management will be the standard for all installation and operational units.

b. Concept of Operations

(1) UEM Program. Per references (a), (b), and (e), tenants and supported commands shall identify a UEM to coordinate involvement and actions as part of the installation's overall Energy Program. The UEM program will allow Marines and Sailors to serve as the energy point-of-contact, disseminating energy information and best practices to their unit or section to help foster an Energy Ethos and create a touch-point with the Installation Energy Manager (IEM) regarding energy use. It is recommended UEMs be E-4 or above or civilian equivalent with sufficient authority to implement requirements of the Commandant's Energy Ethos plan. With proper training, individuals with initiative and dedication will make successful UEMs. The following list portrays desired characteristics of an ideal UEM:

(a) Knowledge of unit facilities' layouts, equipment, and operation.

(b) Good working relationship with operations and maintenance personnel.

(c) Understanding of basic energy and water conservation tactics.

(d) Desire to contribute to Marine Corps Energy efforts.

(e) Initiative to develop corrective action plans and follow through on those plans.

(f) The rank (E4 or above) and authority to effectively influence behavior in their unit.

(2) Energy communications engagement. An effective Energy Ethos program will target specific audiences with simple, specific, and relevant messaging. Emphasis will be on the importance of energy conservation and management that will affect behavior and culture. Partnerships with the Public Affairs Office (PAO) will leverage media expertise, relationships, and communications channels to include placement of key messages on installation websites, newspapers and newsletters, public bulletin boards, and television screens.

(3) Tenant units. For the purpose of the UEM Program, "Tenant Units" will refer to commands, units, or departments with assigned facilities. Units aboard MCAS Beaufort that are required to appoint a UEM are:

(a) Marine Aircraft Group 31
(b) Marine Aviation Logistics Squadron 31
(c) Marine Fighter Attack Squadron 115
(d) Marine Fighter Attack Squadron 122
(e) Marine Fighter Attack Training Squadron 251
(f) Marine Fighter Attack Training Squadron 312
(g) Marine All Weather Fighter Attack Squadron 224
(h) Marine All Weather Fighter Attack Squadron 533
(i) Marine Fighter Attack Training Squadron 501
(j) Marine Wing Support Detachment 273
(k) Headquarters and Headquarters Squadron
(l) Marine Air Control Squadron 2
(m) Combat Logistics Company 23
(n) Marine Corps Community Services
(o) Station Safety
(p) Station S-3
(q) Station S-4
(r) Station S-6
(s) Medical and Dental Facilities
(t) Naval Surface Warfare Center

c. Tasks

(1) Supported unit commanders. Reference (a) directs tenant commanders to appoint a UEM in writing. For the purposes of the UEM program, tenant commands are considered to be those units and Air Station division, listed above. An example appointment letter is provided in enclosure (1).

(2) Logistics Officer MCAS Beaufort.

(a) Provide direction, guidance, and oversight to ensure the UEM program is implemented and sustained aboard MCAS Beaufort.

(b) Provide initial and sustainment training to all assigned UEMs.

(3) PAO. Provide communication and media assistance with information flow via newspaper, bulletin boards, websites, etc.

(4) IEM.

(a) Provide technical oversight and training for the designated UEMs.

(b) Provide energy baseline information and required updates.

(c) Provide energy reduction status to Commanding Officer MCAS Beaufort on a quarterly basis.

(5) Unit Energy Manager. UEMs are the energy and water efficiency communicators and, ultimately, leaders and motivators of fellow Marines within their unit. The primary responsibility of a UEM is to assist the installation's efforts in achieving the objectives of the USMC Installations Energy Strategy - primarily aligned to Energy Ethos, Energy Efficiency, and Energy Information. Specific UEM responsibilities are:

(a) Promote and increase awareness on energy usage, cost, goals, and objectives, as well as specific energy-saving techniques to Marines within their unit

(b) Educate fellow marines on energy and water efficient behaviors.

(c) Serve as the point of contact to IEMs and operational leadership on energy matters for their unit and assist IEM, as needed, to gather facility specific data.

(d) Regularly identify potential energy-saving opportunities and generate work orders for facility energy efficiency projects.

(e) Perform regular facility energy walkthroughs.

d. Coordinating Instructions

(1) This Order applies to all commands, tenant units, and departments aboard MCAS Beaufort assigned responsibility for a designated facility/facilities.

(2) IEM and assigned UEMs will meet regularly for data collecting, sharing, and training.

(3) UEMs, working with IEM and PAO, will produce and publish unit energy goals, status, information, and educational material to improve energy awareness and strengthen Energy Ethos throughout all units aboard MCAS Beaufort.

(4) IEM, with assistance of UEMs, will report quarterly energy status to Commanding Officer MCAS Beaufort.

4. Administration and Logistics. This Order will be reviewed on an annual basis. Recommendations for improvement/changes to this Order will be forwarded to the IEM.

5. Command and Signal

a. Command. This Order is applicable to all MCAS Beaufort commands and tenant commands, military personnel, civilian employees, and contractors.

b. Signal. This Order is effective the date signed.

P. D. BUCK

UNITED STATES MARINE CORPS
Headquarters, (Unit)

(Unit Address, Line 1)
(Unit Address, Line 2, Zip)

11000
XX
XX XXX XX

From: <Commanding Officer or Approving Official>
To: (New UEM)

Subj: ASSIGNMENT AS UNIT ENERGY MANAGER (UEM)

Ref: (a) USMC Energy Ethos Campaign, 24 Sep 14

Encl: (1) Energy Management Checklist

1. Purpose

a. Energy and water savings are a top priority for United States Marine Corps leadership. Installations are the first line of defense in reducing utility costs. All activities and tenant commands at Marine Corps bases are directed to assign one or more Unit Energy Managers (UEM) to monitor energy and water consumption at the facility/facilities that it occupies.

b. UEMs shall assist the Installation Energy Manager (IEM), located in the Public Works Division (Building 616), in coordinating the Base Energy and Water Management Program within the UEM's organization.

2. Assignment. In accordance with reference (a), you are hereby assigned as the UEM for _____(unit name), Building Number(s) _____. As the UEM, you are responsible for reducing energy waste (i.e., electricity, water, steam, and gas) at the above assigned buildings.

3. Duties. Responsibilities of the UEM include:

a. Point of Contact and Communications

(1) Upon assignment, call the IEM, Mr. Neil Tisdale, (phone 228-6317) to schedule an overview of building systems and USMCmax Work Requests at assigned building(s).

(2) Serve as the primary point of contact for all energy-related matters that involve assigned building(s), including:

(3) Introductions to building occupants within the building(s) assigned.

(4) Providing UEM work contact information to building occupants, including posting contact information at the entrance and exit points of assigned building(s).

(5) Establishing a process in which all building occupants send energy and water discrepancies to the UEM for compilation. At a minimum, UEM shall provide a weekly summary of discrepancies to the IEM via email.

b. Energy Ethos. UEMs shall take personal responsibility for raising awareness and supporting actions to help the Marine Corps meet its energy and water reduction objectives.

(1) Disseminate information on energy matters and conservation techniques to building occupants.

(2) Emphasize resource efficiency at all command levels.

c. Energy Inspections and Conservation Actions

(1) Complete the attached Energy Management Checklist, monthly, and identify discrepancies to the IEM. Vigilance is required in touring UEM assigned areas and buildings and reporting and/or correcting energy and water related problems.

(2) UEMs shall review energy profile data provided by the IEM for assigned buildings. Work shall include monitoring the data, investigating, and reporting unusual changes to building energy usage.

(3) Establish and monitor conservation measures, such as turning off lights, office equipment and personal computers during unoccupied hours, for implementation by building occupants.

(4) Identify and generate work orders for utility conservation measures and track work to completion. Notify the IEM quarterly of all work orders generated and whether the work was performed.

d. Training

(1) UEMs shall attend energy training and instruction coordinated by the IEM.

(2) Read and maintain an e-folder of energy-related material provided by the installation and Headquarters Marine Corps (HQMC) on energy trends and best practices.

(3) Attend meetings with other UEMs and the IEM to discuss existing and proposed projects, challenges and successes.

(4) Provide training to personnel in assigned buildings to ensure all occupants receive at least annual training on energy and resource conservation. Training shall include disseminating the installation energy goals and objectives. UEM shall provide documentation to the IEM on the date, location, and attendees names for all training performed within 15 days of training.

(5) Post energy awareness material and information throughout the facility to increase energy and water conservation awareness amongst building occupants.

Comments:

_____
_____
_____
_____
_____
_____

_____
Unit (UEM)

_____
Name, Rank, Position (UEM)

_____
Signature (UEM)

_____
Date

(signed)
<Unit Commander or Approving Official>

Unit Energy Manager: Energy Management Checklist

Building Number: _____ UEM: _____
Code/Shop: _____ Telephone: _____
Responsible for whole or part of the building (list section if part): _____

Building Envelope Systems

Lighting	Yes	No	Corrective Action/Assistance Needed
Are exterior lights on during day?			
Windows/Doors/Structure	**Yes**	**No**	**Corrective Action/Assistance Needed**
Are entry ways between conditioned and unconditioned areas closed?			
Are all windows/doors free from cracks or holes and aligned properly? Do doors and windows fully close?			
Is there loose/missing caulking and/or weather stripping around windows, doors, and exterior joints (including window A/C units)? Can you see daylight when the doors are closed?			
Are awnings that shade windows and doors in good repair?			
Is tinted film on windows and door glass in good condition?			

Heating & Cooling Systems

Heating and Cooling	Yes	No	Corrective Action/Assistance Needed
Are entry ways between conditioned and unconditioned areas closed?			
Are all windows and exterior doors closed when building is cooled or heated?			
Are exhaust fans off when not required?			
Are thermostat temperature settings properly adjusted depending on season, occupancy, and function? Contact the Installation Energy Manager (IEM) for guidance.			
Are exterior air vents clear of obstructions (e.g., vegetation, building materials, parked vehicles)?			
Are thermostats and interior vents clear of obstructions (e.g., furniture, curtains, signage)?			

Are there any personal space heaters in building?
Is there any damaged wall or ceiling insulation? Are there any holes or removed ceiling tiles?
Are there any persistently hot or cold room conditions?
Is public works regularly changing HVAC filters?
Is there air leakage in and around light switches or electrical outlets? Can you feel a draft or temperature difference around them?
Are there any HVAC units over 10 years old?
Are all window A/C units that do not also provide heat covered or removed during heating season?
Are ceiling fans set for proper operation (to blow air down in summer and pull air up in winter)?
Are blinds or curtains maintained for keeping spaces cool or warm?
Is the building HVAC connected to an Energy Management System, Direct Digital Control (DDC) or Building Automated System (BAS)? Contact your IEM.
Does HVAC system have automatic setback during unoccupied hours?
Are there any dirty building heating radiators?
Are any steam or heating system pipes leaking steam or liquid?
Is there any missing or damaged pipe or duct insulation?
Is any HVAC related mechanical equipment (pumps, fans, etc.) making excessively loud noise (knocking, whining, etc.)?

Interior & Exterior Electrical Systems

Interior & Exterior Lighting	Yes	No	Corrective Action/Assistance Needed
Are interior lights in unoccupied areas off when daylight is sufficient?			
Are exterior lights off during the daytime?			
Are interior and exterior lights using energy efficient lighting?			
Are there any incandescent lights in your building?			
Is task lighting being used when available rather than area lighting?			

Are restroom lights and fans off when unoccupied and at the end of normal operating hours?			
Are lighting occupancy sensors operating properly?			
Are windows and skylights clean so as to not obstruct natural daylight? • Arrange for cleaning, as required. • For multi-story buildings, acquire a service contract or impact purchase for cleaning windows, funded by using organization.			
Electrical Equipment (Computers, Printers, Copiers, Coffee Maker, Etc.)	**Yes**	**No**	**Corrective Action/Assistance Needed**
Have you reminded users to shut off or use power management features for all electrical equipment when not in use and at end of normal operating hours?			
Are power strips being used to facilitate shutting off electrical equipment?			
Are vending machines Energy Star rated?			
Are there old appliances that should be replaced with Energy Star appliances?			
Are all personal, small refrigerators removed from the building? Can you reduce the number of common refrigerators (even if this means buying a new, larger model)?			
Electric Motors	**Yes**	**No**	**Corrective Action/Assistance Needed**
Are motors turned off when not in use?			
Have all compressed air leaks been reported?			
Are compressed air systems turned off when not in use?			

Interior & Exterior Water Systems

Interior Water Systems	**Yes**	**No**	**Corrective Action/Assistance Needed**
Are there any major water leaks or new water spots on the ceiling tile?			
Have you checked for and reported any leaks or constantly flowing urinals/toilets, pipes, valves, shower heads, and fixtures? Do any toilets or urinals flush for more than ~10 seconds?			