



UNITED STATES MARINE CORPS
 MARINE CORPS AIR STATION MIRAMAR
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 29 AUG 2013

From: Commanding Officer, Marine Corps Air Station Miramar
 To: Commanding General, Marine Corps Installation West

Subj: MCAS MIRAMAR ENERGY STRATEGY 2020

- Ref: (a) Energy Policy Act of 2005
 (b) Executive Order 13423
 (c) National Defense Authorization Act (NDAA) of 2012
 (d) Energy Security and Independence Act (ESIA) of 2007
 (e) Executive Order 13514
 (f) USMC Expeditionary Energy Strategy
 (g) Marine Corps Installations Energy Policy Statement
 (h) USMC Installations Energy Strategy
 (i) Marine Corps Installations West Energy Strategy

1. Situation. Comply with References (a) through (i) to establish a strategy for renewable energy, energy conservation, and energy security aboard our installation emphasizing the importance of energy to national defense.

2. Mission.

a. Meet all goals and mandates organized in the table below in accordance with the references:

	EPAct 2005	E.O. 13423 1/24/2007	NDAA 2007	ESIA 2007 12/21/2007	E.O. 13514 10/5/2009	SECNAV Energy Goal
Energy Conservation	Reduce 2%/Yr from 2006 to 2015. (Using 2003 Baseline)	Reduce 3%/Yr or 30% by 2015 (Using 2003 Baseline)		Reduce 30% by 2015 (Codifies E.O. 13423)		Evaluation of energy efficiency mandatory for awarding projects in buildings
Water Conservation		Reduce 2%/Yr from 2008 to 2015 or 16% (Using 2007 Baseline)			Extend E.O. 13423 requirements to 26% by 2020	
Building Energy Audits				Top 75% of energy facilities must be audited		

Renewable Energy (RE)	Generate RE 5% by 2010-2012. 7.5% by 2013 thereafter	At least 50% of EPAct 2005 goals are "new" RE source placed into service after 1/1999	Produce or procure at least 25% RE by FY 2025		Implement new RE generation projects	By 2020, 50% of shore energy is RE
Metering	All facilities must be electrically metered by 2012					

b. Establish an energy strategy to meet these goals and mandates by targeting five main areas of energy management:

(1) Efficiency: Optimizing our assets to build an energy efficient infrastructure.

(2) Renewable Energy: Increasing our usage of renewable resources wherever feasible.

(3) Awareness: Instituting change in our behavior to conserve the energy, water, and other natural resources utilized by MCAS Miramar.

(4) Energy Security: Implementing micro-grid and energy storage technology in order to utilize our onsite generation for energy security.

(5) Ethos: Incorporate energy and water considerations into planning and operations.

3. Execution. Each area of energy management has specific actions to be taken aboard MCAS Miramar:

a. Efficiency: The following actions will be taken in order to ensure MCAS Miramar's infrastructure is being installed and is operating efficiently:

(1) Buildings will be audited to determine opportunities for eliminating energy waste.

(2) Projects will be developed in the Energy Investment Program (EIP) and the Energy Conservation and Investment Program (ECIP) in order to repair or upgrade buildings.

(3) New military construction (MILCON) projects are required to have a Leadership in Energy and Environmental Design (LEED) rating of Silver or above if economically feasible. This rating is to be achieved with no less than 40% of the certifications points in the energy and water conservation categories.

(4) Develop, implement, and enforce an operations and maintenance (O&M) schedule for each energy system to ensure efficient operation.

(5) Utilize the Area Wide Energy Management System (AWEMS) in order to operate our buildings efficiently and remotely.

(6) Explore and implement Energy Savings Performance Contracts (ESPC) and Utility Energy Service Contracts (UESC) to finance projects with energy and water conservation measures.

(7) Manage utility costs and energy consumption through demand-shedding and peak-shaving strategies.

(8) Utilize the "Integrated Upgrade Approach" contained in the ENERGY STAR® "Building Upgrade Manual" to identify cost effective energy efficiency measures. An integrated design approach considers the energy-related impacts and interactions of all building components.

(9) Optimize vehicle fleets by considering alternative fuel vehicles.

b. Renewable Energy: The following actions will be taken in order to ensure all renewable opportunities are considered and used for the purposes of energy security:

(1) Use third party financing options such as Power Purchase Agreements (PPA) to implement large scale renewables.

(2) Seek out new technologies and demonstrate these capabilities while testing their performance.

(3) Conduct financial analysis to determine the feasibility of all unexecuted projects as well as determine the savings of prior executed renewable energy projects. Although some renewable energy projects may not have favorable economic payback, other non-financial benefits such as environmental protection and energy security may give warrant to such projects.

c. Awareness: The following actions will be taken to create energy and water awareness aboard MCAS Miramar:

(1) Buildings aboard MCAS Miramar will be benchmarked and tracked using ENERGY STAR's Portfolio Manager which will score each building and allow tenants to compare their energy and water use to other buildings at MCAS Miramar as well as the rest of the nation.

(2) The use of "Public Utility Monitoring" will be explored in attempt to eliminate energy waste before it happens. The use of display kiosks will show real time energy use in buildings and tenants will be able to recognize energy waste and implement corrective actions and/or strategies.

(3) Unit Energy Managers (UEM) will assist in the encouragement of conservation activities, initiatives, and programs initiated by the energy program.

(4) The energy program will train marines and civilians on how to conserve energy and water whenever feasible.

(5) The energy program will institute a "101 Days of Conservation Awareness" campaign for MCAS Miramar, as well as, a long range awareness campaign.

(6) Commanders will emphasize user controlled reductions in energy and water use noting that energy and water conservation is everyone at MCAS Miramar's responsibility.

(7) Utility usage tracked in the Defense Utility Energy Reporting System (DUERS) will be discussed at quarterly forums such as Utility Conservation Appraisal Board (UCAB) meetings to discuss progress towards energy goals and mandates.

d. Energy Security: The following actions will be taken in order to increase energy security aboard MCAS Miramar:

(1) Pursue the effort to utilize on-site generation to secure power for use during a local grid outage.

(2) Implement micro-grid technology in order to use existing generation assets and future on-site generation assets to operate the installation's critical buildings fully during a local grid failure or outage.

(3) Implement energy storage for the purpose of energy security.

(4) Incorporate as much on-site renewable energy generation as possible when considering energy security efforts.

(5) Develop cyber security measures into all networked energy security solutions.

(6) Explore ideas for water security aboard MCAS Miramar.

e. Ethos: The following actions will be taken in order to incorporate energy considerations into planning and operations aboard MCAS Miramar:

(1) Develop a governance and advisory structure that includes all key stakeholders within our organization and establishes participation by tenant commands. Tenant commands must be active participants in energy management planning and execution. This coordination will be done through the UCAB quarterly meetings.

(2) Develop and implement a comprehensive training program for all facility managers and building occupants to raise awareness and provide education on energy saving ideas, habits, and methods. The establishment of "Ethos" works through publicity and training.

(3) Implement a strategic energy communications program in order to:

- a. Disseminate information on energy and conservation.
- b. Emphasize resource efficiency at all command levels.
- c. Relate conservation to operational readiness.
- d. Publicize program goals, tools, and progress.
- e. Share energy and water conservation best practices.

(4) Encourage key energy management personnel including planners and maintenance staff to improve their knowledge of energy by obtaining a Certified Energy Manager (CEM®) credential through the Association of Energy Engineers (AEE).

(5) Establish or support Unit Energy Manager and Building Energy Monitor programs to promptly report facility deficiencies and to be alert to energy and water conservation opportunities.

(6) Develop energy conservation rewards and incentive programs.

5. Administration and Logistics. This order is issued under Distribution Statement A and is published electronically. It can be accessed online via the MCAS Miramar web page at <https://www.mciwest.usmc.mil/inst/mcasm/Adj/SitePages/Home.aspx>.

6. Command and Signal.

a. Command. This order is applicable to all commands, organizations, units and activities aboard MCAS Miramar.

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


J. P. FARNAM

DISTRIBUTION: A