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MARINE CORPS INSTALLATIONS EAST-MARINE CORPS BASE
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MCIEAST-MCB CAMLEJO 11300.1
G-F/PWD

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MARINE CORPS INSTALLATIONS EAST-MARINE CORPS BASE CAMP LEJEUNE ORDER 11300.1

From: Commanding General
To: Distribution List

Subj: ENERGY RELIABILITY, RESILIENCE, AND EFFICIENCY PROGRAM

Ref: (a) Naval Facilities Engineering Command, "P-602 3 Pillars of Energy Security (Reliability, Resiliency, and Efficiency)," June 2017
(b) DoD Instruction 4170.11 Ch 1, "Installation Energy Management," March 16, 2016
(c) MARADMIN 114/15
(d) Energy, Utilities, and Facilities SharePoint, Energy Information, Defense Utility Reporting System

Encl: (1) Energy Program Framework and Task Matrix

1. Situation

a. Energy is Critical. Energy is integral to sustainment of day-to-day operations, as well as critical missions aboard Marine Corps Base, Camp Lejeune (MCB CAMLEJ) and Marine Corps Air Station, New River (MCAS NR). For example, administrative functions have office buildings that use energy to power computers, illuminate work spaces, and condition/ventilate offices. Critical missions, such as flight simulators and data centers, require significant electricity to power and cool mission critical equipment. Energy disruptions present operational and mission sustainment challenges since most of MCB CAMLEJ and MCAS NR functions require a reliable, resilient, and efficient energy supply.

(1) Energy Reliability Definition. Energy reliability is a measure of the percent of time power/fuel is available to end users. Reliable energy systems minimize utility interruptions and outages, as defined in reference (a).

(2) Energy Resilience Definition. Per reference (a), resilience is the ability to "anticipate, resist, absorb, respond, adapt, and recover from a disturbance such as a weather event, accident, fire, cyber-attack, etc., as defined in reference (a). On a military base, energy resilience is the ability to prepare for and recover from these energy disruptions that impact mission, as discussed in reference (b).

(3) Energy Efficiency Definition. As defined in reference (a), energy efficiency is the use of the minimal energy required to achieve the desired level of service. Aging infrastructure, outdated equipment, poor maintenance, and lack of awareness contribute to inefficiency.

2. Cancellation. BO 11300.1K.

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3. Mission

a. Immediately, MCB CAMLEJ and MCAS NR activity and tenant commands will enhance energy reliability, resilience, and efficiency by actively participating the development, implementation, and sustainment of the Installations' energy program thereby, ensuring the Installations are prepared for, and know how to quickly recover from, energy-related mission impacts.

b. Summary of Revision. This Order reframes the energy program focus from meeting energy mandates to enhancing energy reliability, resilience, and efficiency. This subject of this Order is therefore changed from "FACILITY ENERGY AND WATER CONSERVATION" to "ENERGY RELIABILITY, RESILIENCE, AND EFFICIENCY PROGRAM".

(1) The previous version focused on meeting energy consumption reduction mandates by investing in energy projects and implementing awareness programs that reduced energy consumption and costs.

(2) This Order focuses on actively engaging activity and tenant commands in initiatives that will enhance energy reliability (availability of energy), resilience (ability to recover from an energy disruption), and efficiency (using less energy to meet requirements) at MCB CAMLEJ and MCAS NR per references (a) through (c).

4. Execution

a. Commander's Intent and Concept of Operations

(1) Commander's Intent. The Commander's intent is to steer the Energy Reliability, Resilience, and Efficiency Program by specifying program objectives and defining activity and tenant command responsibilities that position MCB CAMLEJ and MCAS NR to develop and implement a sustainable energy program.

(2) Concept of Operations

(a) Period of Performance. This Order is intended to guide MCB CAMLEJ and MCAS NR in the development and implementation of the Energy Reliability, Resilience, and Efficiency Program. The intended period of performance is three years: Fiscal Year (FY) 2019, FY 2020, and FY 2021.

(b) Objectives. Three program objectives will steer the energy program over the next three years. The three objectives can be remembered by the mnemonic acronym AIM, where AIM stands for:

1. A - Analyze Energy Performance. You can't manage what you can't measure. This adage is true for the energy program. MCB CAMLEJ and MCAS NR will build functional and cyber secure energy/water controls systems that provide key stakeholders with monitoring, analysis, and control capabilities of critical systems including metering, building automation systems via an Energy Management Control System (EMCS), electrical Supervisory Control and Data Acquisition (SCADA), and water/wastewater SCADA systems. This will position the Installations to

make informed operations, maintenance, sustainment decisions that will enhance energy reliability, resilience, and efficiency.

2. I - Improve Energy System Reliability and Resilience. MCB CAMLEJ and MCAS NR have some building, electrical distribution, and water/wastewater systems that have reached or exceeded the intended useful life, thereby compromising the installations' energy reliability, resilience, and efficiency. MCB CAMLEJ and MCAS NR will modernize these systems with proven and standardized equipment, systems, and controls to improve the Installations' energy posture.

3. M - Minimize Energy Consumption. MCB CAMLEJ and MCAS NR will reduce energy consumption by 2.5 percent per year by investing in energy efficiency projects and engaging Marines and civilians in energy ethos activities that drive down energy consumption.

(c) Lines of Effort (LOE). Implement the following six LOE to propel MCB CAMLEJ's and MCAS NR's energy efforts forward. The relationship between the program mission, objectives, and LOE are illustrated in the enclosure. Each LOE is summarized below.

1. LOE 1 - Lead Effective Energy Program. Lead the development, implementation, and sustainment of the Energy Reliability, Resilience, and Efficiency Program. Ensure the tasks defined in this Order are achieved by the end of FY 2021.

2. LOE 2 - Facility-Related Control Systems (FRCS) Build-Out. Build and secure sustainable FRCS, such as the Advanced Metering Infrastructure, EMCS, and the electrical and water/wastewater SCADA systems by end of FY 2021 to improve energy reliability, resilience, and efficiency.

3. LOE 3 - Enhance Energy Reliability and Resilience. Implement reference (b) and use the Naval Facilities Engineering Command (NAVFAC), P-602 3 Pillars of Energy Security guidance to enhance energy reliability and resilience aboard MCB CAMLEJ and MCAS NR.

4. LOE 4 - Increase Energy Efficiency. Comply with reference (b) and use the NAVFAC, P-602 3 Pillars of Energy Security guidance to increase energy efficiency by 2.5 percent per year, by making energy a primary consideration in all new construction, major renovation, repair, and special energy program projects, as well as all maintenance and operation activities.

5. LOE 5 - Expand UEM Program. Expand the Unit Energy Manager (UEM) Program at MCB CAMLEJ and MCAS NR to all tenant commands and organizations (Marine and civilian) in accordance with reference (c), to encourage the development of energy efficient behaviors that reduce energy consumption. Provide monthly mock bills to all UEMs for metered buildings. Attain 80 percent participation by all tenant commands and organizations down to the battalion/squadron level or equivalent, by the end of FY 2021.

6. LOE 6 - Promote Marine Corps Energy Ethos. Marine Corps Energy Ethos is defined as the shared vision that the efficient use of energy resources increases our resilience and enhances our mission effectiveness. The Installation and tenant commands will actively promote an Energy Ethos aboard MCB CAMLEJ and MCAS NR by utilizing Communication Strategy and Operations (COMMSTRAT) office and Marine Corps Community Services (MCCS) marketing and advertising resources, leadership engagement (policy, memos, liberty briefs etc.), publishing and posting provided tip sheets and awareness materials and publishing unit level energy consumption data where available.

(d) End State. Over the next three years, progress on each LOE defined above will ensure MCB CAMLEJ and MCAS NR are on the right path to enhance energy reliability, resilience, and efficiency.

b. Tasks. MCB CAMLEJ and MCAS NR activity and tenant commands shall comply with this Order. A summary of primary roles and responsibilities are outlined below. Every activity and tenant command will review relevant tasks closely and start working on assigned tasks immediately. Additionally, every activity and tenant command will review the Annual Energy Plan to identify specific annual goals and set achievable tasks.

(1) Installation Leadership at MCB CAMLEJ and MCAS NR shall

(a) Provide guidance on installation-specific implementation of UEM Program.

(b) Support the promotion on an Energy Ethos through command messaging and public affairs efforts, including to the Marine Expeditionary Force. Encourage various awareness activities (e.g., training, competitions, power-down weekends, etc.) during the month of October, which has been Federally recognized as Energy Action Month. Coordinate with COMMSTRAT and MCCS for communication efforts.

(c) Implement awards and accountability measures.

(2) G-F, Marine Corps Installations East-MCB CAMLEJ (MCIEAST-MCB CAMLEJ) and Installations and Environment (I&E), MCAS NR Leadership shall:

(a) Provide high level oversight to ensure Order compliance. Review, comment, and approve the Annual Energy Plan (AEP), which will be provided by the G-F, Energy Team no later than 31 July of each year. Approve and distribute the plan to stakeholders no later than 30 September of each FY.

(b) Review, comment, and approve the AEP, which will be provided by the G-F, Energy Team no later than 31 July of each year. Approve the plan no later than 30 September of each FY.

(c) Oversee the development of an Energy Council with an Energy Resilience Working Group with stakeholders and key personnel to ensure progress towards objectives. The Energy Council shall meet semiannually, and the Energy Resilience Working Group shall meet quarterly.

(3) G-F, Public Works Department (PWD) shall

(a) Provide leadership, guidance, and support to G-F, Energy Team with Order implementation.

(b) Review and comment on the AEP, which will be provided by the G-F, Energy Team no later than 31 July of each year.

(4) G-F, Operations shall

(a) G-F, Operations will work with maintenance contractor to establish heating/cooling set points in installations buildings. Temperature will be 70 degrees Fahrenheit in heating mode and 76 degrees Fahrenheit in cooling mode. Shutdown of air conditioning and outside ventilation during unoccupied periods with ample startup time to cool the building by start of working hours. Heating setback of 55 degrees with ample morning runtime to bring buildings back to working temperature by start of working hours. Review seasonally (at least two times per year).

(b) Submit all energy-related project documents to G-F, Energy for review/comment for energy guideline compliance.

(5) G-F, Planning shall. Submit all DD Form 1391s to G-F, Energy and Engineering to review/comment for energy guideline compliance.

(6) G-F, Engineering shall. Submit all design/construction documents to G-F, Energy Team for review/comment for energy guideline compliance.

(7) G-F, Energy Team shall

(a) Continuously oversee all tasks defined in this Order to ensure compliance. Quarterly, use a balanced scorecard to track program progress.

(b) At least once every three years, provide updates to this Order to include updates of all energy related Executive Orders, Public Law, codes, etc.

(c) Annually, write an AEP. The purpose of the AEP is to establish specific short-term goals and tasks to complete during the upcoming FY to ensure that progress is made on the requirements in this Order. Submit to G-F, MCIEAST-MCB CAMLEJ Leadership each year no later than 31 July so that the plan can be reviewed and approved prior to the start of the next FY.

(d) Immediately, establish an Energy Council with the leadership support from MCIEAST-MCB CAMLEJ G-F and MCAS NR I&E leadership. The Energy Council shall have an Energy Resilience Working Group that is responsible for implementing the energy resilience requirements published in references (a) and (b). Organizations including, but not limited to, G-4, G-F, and G-6 shall be members of the working group. The Energy Council will meet at least semi-annually to help develop annual energy

plan and review mid-year and end-of-year progress. The working group shall meet at least quarterly.

(e) By the end of FY 2021, ensure neighborhood and building electric, gas, and water meters are installed and connected to a central metering network. Monitor 80 percent of total reported energy consumption by system.

(f) At least once every four years, ensure that energy audits and/or retro commissioning assessments are conducted on buildings making up at least 75 percent of the installations' energy consumption.

(g) Annually, collaborate with G-F, Engineering to update existing energy design and construction guidelines and publicize new guidelines for new construction, major renovation, and minor repair projects as well as maintenance activities. Review/republish guidelines every year.

(h) Quarterly, complete/submit Defense Utility Energy Reporting System (DUERS) report, per reference (d).

(i) Annually, complete the Secretary of the Navy's Annual Energy and Water Management Report, per reference (b).

(j) Annually, host training for Public Works Branch personnel who are involved in making energy-related decisions, including representatives from planning, engineering, operations, and maintenance teams.

(k) Annually, identify and submit at least five life-cycle cost-effective projects to special energy project programs such as the Energy Investment Program and the Energy Resilience and Conservation Investment Program.

(l) Annually, evaluate the need for third party financed projects such as energy savings performance contracts, utility energy service contracts, power purchase agreements, etc. and pursue them accordingly.

(m) Quarterly, host FRCS working group meeting with G-6 engagement to discuss FRCS training, requirements, lessons learned, etc. Include G-6 as an active participant. Send meeting minutes to G-F, MCIEAST-MCB CAMLEJ leadership after each meeting.

(n) Monthly, host Marine Corps Compliance and Authorization Support Tool (MCCAST) package review meetings with the G-6 to discuss metering, EMCS, and SCADA systems ATO progress. Working group is responsible for defining and updating a Plan of Action and Milestones (PO&AM) at each meeting and submitting to G-F and G-6 leadership. Specifically, no later than the end of FY 2021, the installations shall have an accredited EMCS that provides monitoring and control capability of at least 300 building heating, ventilation, and air conditioning systems,

including boilers, using central EMCS. Similarly, electric and water/wastewater SCADA systems shall be accredited no later than the end of FY 2021.

(o) Quarterly, provide training to new UEMs and track UEM Participation. Host recurring UEM meetings at least once per quarter. Provide additional remedial training to all UEMs as needed.

(p) Monthly, provide units with mock utility bills to allow units to evaluate month-to-month building performance. Mock bills will be provided for at least 80 percent of buildings with meters by the end of FY 2019.

(q) When a new UEM is identified, conduct walk-through energy assessments of unit building(s). The intent is to help units identify energy savings opportunities within their control.

(r) Annually, or more frequently if needed, provide energy ethos training materials to units.

(s) Monthly, distribute energy awareness material from Marine Corps Installations Command to COMMSTRAT. Assist in the development of MCB CAMLEJ and MCAS NR energy awareness material and submit final products to leadership.

(t) Annually, or more frequently if needed, collaborate with installation leadership to establish awards for the Energy Ethos Program.

(8) Activity and Tenant Commands shall

(a) Foster a supportive command environment for energy conservation and UEM duties.

(b) Appoint the unit's respective UEM(s) by letter in accordance with reference (c) at the battalion and squadron level.

(c) Unit leaders should Own, Communicate, and Demonstrate energy saving-actions.

1. Own. Take ownership of energy-conservation efforts by being an advocate for the Marine Corps Energy Ethos in all aspects of your duties.

2. Communicate. Promote an Energy Ethos in Marine Corps operations and unit functions, i.e. unit formations, training and operational evolutions, memos and policy.

3. Demonstrate. Consistently perform energy-saving actions such as turning off unnecessary lights, closing doors and shutting windows.

(d) Provide acknowledgement to UEMs as necessary for achievements in training Marines, energy consumption reductions, and facility related improvements.

(e) Encourage all members of the command to report energy related concerns to the UEM or facilities section and submit work tickets as needed or directed by the UEM. Facility related energy concerns can also be sent to camlej uem@usmc.mil.

(f) Participation in energy conservation related activities as coordinated by the installation or UEM.

(g) Post the provided Energy Ethos printed materials within buildings and share on digital media where available.

(h) Incorporate energy conservation measures to existing inspection checklists, i.e., officer-of-the-day, duty-noncommissioned-officer field day inspections and barracks move-out inspections.

(i) Address the Annual Energy Plan produced by G-F, Energy Team within your unit.

(9) G-3/5 shall. Provide a representative for the Energy Council and/or Energy Resilience Working Group. Participate in semi-annual and/or quarterly meetings, as required.

(10) G-4 shall. Provide a representative for the Energy Council and/or Energy Resilience Working Group. Participate in semi-annual and/or quarterly meetings, as required.

(11) G-6 shall

(a) Provide a representative for the Energy Council and/or Energy Resilience Working Group. Participate in semi-annual and/or quarterly meetings, as required.

(b) Participate in the FRCS Working Group which will be established by the G-F, Energy Team and will meet quarterly. The FRCS Working Group will be responsible for establishing training requirements and hosting training sessions aboard MCB CAMLEJ and MCAS NR. Specifically, G-6 will be responsible for helping train PWD staff on: MCCAST packages to understand the concept of the application and roles of personnel, creation of server backups, Host Based Security System and Big Fix to allow PWD staff to download patches and secure servers, vulnerability reporting, etc.

(c) Quarterly, or as frequently as monthly, attend meetings hosted by the G-F, Energy Team, to discuss FRCS MCCAST packages in progress (e.g., metering, EMCS, and SCADA system packages). Actively advise G-F personnel on next steps and engage in supporting MCCAST package completion, as needed.

(12) UEM shall

(a) Orientation and Training. Notify the IEM of your assignment. Attend UEM training, which takes place once per quarter.

(b) Quarterly Duties

1. Attend UEM quarterly meetings.

2. Monitor the operation of buildings through facility walkthroughs using the UEM checklist provided by the MCB CAMLEJ G-F, Energy Team.

(c) Monthly Tasks

1. Communicate installation energy goals, issues and objectives to unit Marines in regular meetings, to be coordinated with senior leadership.

2. Provide update to unit leadership regarding the unit's energy and water consumption.

(d) Routine Tasks

1. Monitor the operation of the building through periodic energy walkthroughs.

2. Identify potential energy and water efficiency projects for the buildings.

3. Act as the point of contact for energy and water issues, questions, or problems within the unit.

4. Communicate with the IEM about gathering facility-specific data, potential projects, energy-related issues, or other questions that arise while conducting their work.

5. Promote energy and water awareness on the usage and cost of energy.

6. Remind Marines to undertake energy-saving measures.

(e) As-needed Tasks

1. Generate work orders or recommend work orders to IEM's for low-cost energy and water maintenance projects. Reconcile work tickets twice monthly and contact your unit's Public Works Liaison if additional information or assistance is needed. Work order follow-ups are the responsibility of the originating unit.

2. Identify potential energy projects to IEM and other energy staff.

3. Provide unit-level data or information to IEM as requested.

4. Distribute guidance and information provided by IEMs as requested.

(13) COMMSTRAT shall:

(a) Provide final approval of all Energy Ethos communications materials produced by the region and disseminate.

(b) Assist in promoting Energy Ethos outreach efforts using available resources to publish materials provide by MCICOM and generated locally in collaboration with G-F, Energy Team.

(c) Contribute to Energy Action Month (October) outreach efforts by providing coverage and distributing awareness materials.

(14) MCCS shall. Assist in promoting Energy Ethos outreach efforts using available resources (e.g., social media, digital signage, theater advertising, etc.).

5. Administration and Logistics

a. Directives issued by this Order are published and distributed electronically. The electric version of this pdf directive is located at: http://www.mcieast.marines.mil/Staff-Offices/Adjutant/Orders/11000.

b. Questions and comments regarding this Order should be addressed to the MCIEAST-MCB CAMLEJ IEM at (910)451-5024.

6. Command and Signal

a. Command. This Order is applicable to all activities and tenant commands aboard MCB CAMLEJ and MCAS NR.

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

S. A. BALDWIN
Deputy Commander

DISTRIBUTION: A/C (MCAS NR, H&S Bn, and WTBn)

ENERGY PROGRAM FRAMEWORK AND TASK MATRIX

Figure 2-1 provides the MCB CAMLEJ and MCAS NR energy program framework. The framework shows the relationship between the energy program mission, objectives, and lines of effort (LOE).

Table 2-1 is a LOE matrix that identifies activity and tenant command involvement. In addition to the requirements established in the tasks section of this Order, the G-F, Energy Team will publish an Annual Energy Plan (AEP) that defines specific goals and actions required for the upcoming FY. The AEP will ensure that MCB CAMLEJ and MCAS NR build, implement, and sustain an effective energy reliability, resilience, and efficiency program.

FIGURE 2-1: ENERGY PROGRAM FRAMEWORK

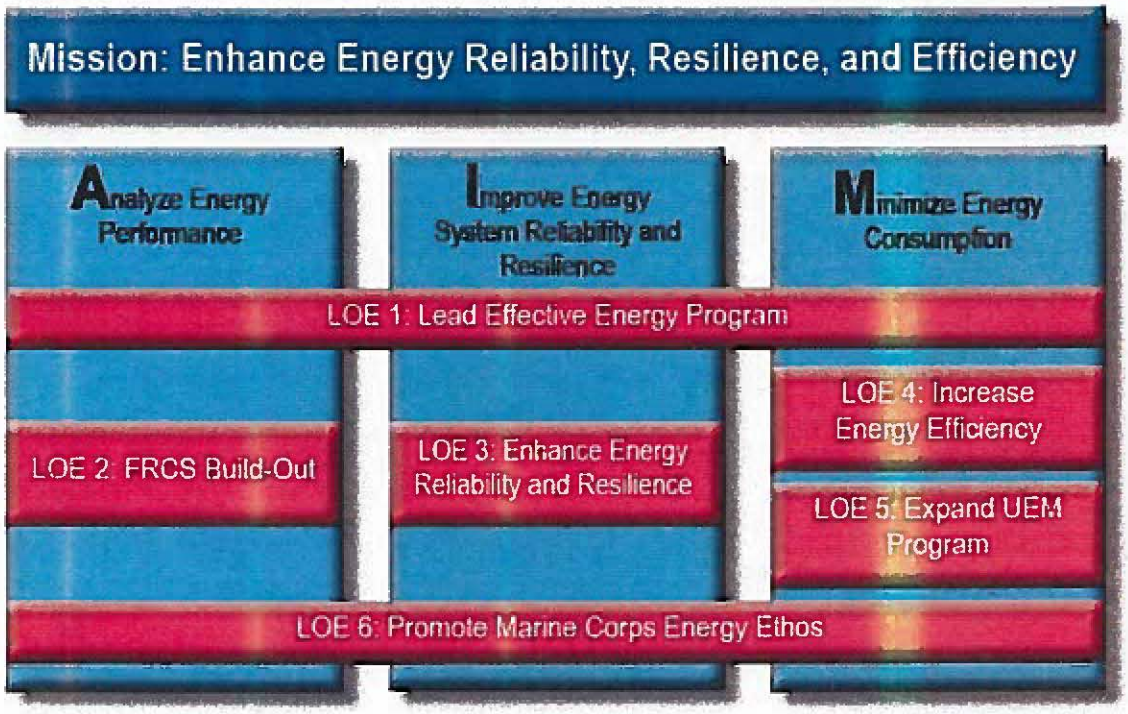

TABLE 2-1: LINES OF EFFORT MATRIX

LOE	G3/5	G4	GF	G6	COMMSTRAT	ACTIVITY AND TENANT COMMANDS	UEM
1 - Lead Effective Energy Program			X			X	X
2 - FRCS Build-Out			X	X			
3 - Enhance Energy Reliability and Resilience	X	X	X				X
4 - Increase Energy Efficiency			X			X	X
5 - Expand UEM Program			X		X	X	X
6 - Promote Marine Corps Energy Ethos			X		X	X	X