



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

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

From: Commanding General
To: Distribution List

Subj: INSTALLATION ENERGY SECURITY PROGRAM

Ref: (a) NAVFAC P-602, Three Pillars of Energy Security, 13 Jul 2017
(b) MCICOM Policy Letter 9-19, Installation Energy Security,
15 Oct 2019
(c) DoD Instruction 4170.11 Ch 2, "Installation Energy
Management," December 11, 2009
(d) 2007 Energy Independence and Security Act (EISA)
(e) Unified Facilities Criteria (UFC) 4-010-06 Cybersecurity of
Facility-Related Control Systems

1. Situation

a. Energy is Critical. Energy is integral to sustainment of critical operations aboard Marine Corps Base Camp Lejeune (MCB CAMLEJ) and Marine Corps Air Station New River (MCAS NR). The ability to generate, distribute, and effectively manage reliable, resilient, and efficient energy directly impacts mission readiness. While procedures and infrastructure are in place to respond to short-term disruptions from commercial outages, MCB CAMLEJ and MCAS NR must also identify and mitigate mitigating critical energy security gaps to provide energy during prolonged utility outages.

(1) Energy Security Definition. Energy security is the assured access to reliable supply of energy, and the ability to protect and deliver sufficient energy to meet mission essential requirements. The three pillars of energy security are reliability, resiliency, and efficiency.

(2) 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).

(3) 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.

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(4) 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 Aging infrastructure, outdated equipment, poor maintenance, and lack of awareness contribute to inefficiency.

b. References

(1) Reference (a) provides energy performance benchmarks and best practices for Department of the Navy installations.

(2) Reference (b) directs installations MCB CAMLEJ and MCAS NR to assess, prioritize, develop, and sustain the necessary capabilities to deliver adequate and reliable energy to meet operational mission requirements, critical installation services (CIS), and essential functions in order to enhance installation energy resilience.

(3) Reference (c) requires alignment of energy requirements to critical mission operations on military installations. Department of Defense (DoD) Components shall plan and have the capability to ensure available, reliable, and quality power to continuously accomplish DoD missions from military installations and facilities.

(4) Reference (d) provides guidance on increase energy security, and developing renewable energy production.

(5) Reference (e) sets minimum standards for incorporating cybersecurity into the design of all new Facility-Related Control Systems (FRCS) installed on DoD installations.

2. Cancellation. MCIEAST-MCB CAMLEJO 11300.1.

3. Mission.

a. This Order directs MCB CAMLEJ and MCAS NR to assess, prioritize, develop and sustain the necessary capabilities to deliver adequate and reliable energy to meet operational mission requirements, CIS and essential functions during commercial outages and to enhance energy reliability, resilience, and efficiency through the development, implementation, and sustainment of a robust installation energy program.

b. Summary of Revision. This Order defines the requirements for determining and sustaining operational mission requirements, CIS and essential functions. The subject of this Order is therefore changed from "ENERGY RELIABILITY, RESILIENCE, AND EFFICIENCY PROGRAM" to "INSTALLATION ENERGY SECURITY PROGRAM".

(1) The previous version focused on enhancing energy reliability, resilience, and efficiency through analysis of energy performance, improving energy systems, and minimizing energy consumption.

(2) This Order focuses on identifying critical energy requirements and mitigating unacceptable risks to Marine Corps installations using integrated planning, coordination, and targeted infrastructure investments.

4. Execution

a. Commander's Intent. The Commander's intent is to specify program objectives and define activity and tenant command responsibilities that position MCB CAMLEJ and MCAS NR to identify critical energy requirements and mitigate unacceptable risks to Marine Corps installation's energy.

b. Concept of Operations. Implement the following Lines of Effort (LOE) to propel MCB CAMLEJ's and MCAS NR's energy efforts forward. Each LOE is summarized below.

(1) LOE 1 - Enhance Energy Reliability. The key metrics to determine reliability of a utility system include duration and frequency of unplanned outages, quality of the delivered service, and overall availability of the delivered service. Per reference (a), target System Average Interruption Duration Index of 60 minutes per year, and a System Average Interruption Frequency Index of one, resulting in an availability standard of 99.9886%, through improved route diversity and power quality initiatives.

(2) LOE 2 - Enhance Energy Resilience. MCB CAMLEJ and MCAS NR will conduct and utilize energy resilience and reliability exercises (ERRE) and will use mission assurance assessments, mitigation action plans, continuity of operations (COOP) plans, mutual aid agreements, unified facilities criteria (UFC), and the installation energy security (IESP) plan to determine critical energy requirements. MCB CAMLEJ and MCAS NR will identify gaps in meeting critical energy loads, prioritize solutions to meet critical energy requirements, implement solutions, and provide ongoing maintenance. Subtasks are identified below.

(a) Determine Critical Energy Requirements. Energy security requirements for MCB CAMLEJ and MCAS NR are defined in terms of five categories: Mission Essential Functions, CIS, facilities identified under the COOP plan, facilities required by mutual aid agreements, redundancy and resilience requirements listed in DoD UFC not already covered above, and other installation facilities not belonging to any other categories. Energy security planning must

balance both risk and resource management in order to ensure sustainability of essential functions and CIS during emergencies.

(b) Installation Energy Security Plans (IESP). An Installation Energy Security Plan will be developed in accordance with reference (b). The IESP evaluate the ability to meet total and critical utility requirements under normal conditions and for a planning benchmark of a 14-day disruption in commercial energy supplies. The IESP will enable MCB CAMLEJ and MCAS NR to define the following energy security requirements:

1. Forecast demand. Energy security forecast demand is defined in terms of three categories: Mission changes, population growth, and utilities system loading. Projections may be captured by reviewing the most recent master plan. If installation master plan is outdated, meet with community planners to determine anticipated population and land use changes.

2. Assess needs. Mission owners and program managers will work with energy manager to review most recent utility studies, master plans, mission assurance assessment reports, energy security assessment reports, condition assessments, etc... that serve as the basis of the IESP in order to accurately assess installation needs. Information required includes average and peak loads for each facility identified for critical function, maximum downtime the function can sustain, and energy requirements for alternate facilities or sites than can support critical functions.

3. Prioritize gaps. Gaps identified to meet the needs of Mission Essential Functions, CIS, and the COOP shall be listed as high priority gaps. Gaps needed to fulfill community support/mutual aid agreements shall be listed as medium priority and all remaining, UFC- or other policy-generated gaps shall be listed as low priority. The prioritization process should be repeated annually after the installation has completed its annual assessment. Discuss current installation processes for assigning priorities to known infrastructure deficiencies (e.g., Long Range Maintenance Plan and Maintenance Execution Plan), and how those processes will utilize the priority categories outlined in reference (b).

4. Identify solutions. In effort to close energy security gaps, mission owners and program managers will work with the energy manager to identify short-term solutions (zero to five years), mid-term plans (five to 10), and long-range strategies (10 to 20 years).

5. Operate and maintain. Describe the standard operating procedures (SOP) management system (including oversight of contracted services) and provide a list of current SOPs, including date last reviewed or updated, as well as the preventative maintenance

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and testing program as it relates to energy security. Include staffing limitations, training program, maintenance management systems (USMCmax, etc.), roles and responsibilities, etc. Summarize installation policies to ensure readiness, COOP plans, Emergency Management Plan, Severe Weather Response Plan, etc. This is also to include the Fuel Resupply Plan for fuel required to provide backup power. Where alternate fuels are incorporated into the response plans, a written implementation program detailing the mechanical system alterations and changes in operations and maintenance required to use each alternate fuel should be maintained.

6. Measure performance. MCB CAMLEJ submits inputs annually for the United States Marine Corps Installations Annual Energy and Water Report (AEWMR). Describe any regional or local procedures for measuring performance of energy security elements not included in the AEWMR metrics.

(3) LOE 3 - Increase Energy Efficiency. Comply with reference (c) to establish energy conservation goal by reducing energy use intensity 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. Target utility metering for 85 percent of all utility consumption, with a goal of all utility intensive (electricity, water, natural gas, propane) facilities metered. Per reference (d), target completing a comprehensive energy and water evaluation for all covered facilities at least once every four years.

(4) LOE 4 - Facility-Related Control Systems Build-Out. Build and secure sustainable FRCS, such as the Advanced Metering Infrastructure, Energy Management and Control System, and the electrical and water/wastewater Supervisory Control and Data Acquisition systems to improve energy reliability, resilience, and efficiency. Maintain cybersecurity compliance on all systems. Per reference (e), address FRCS cybersecurity requirements during planning, design, and construction phases to include cybersecurity commissioning.

(5) LOE 5 Utilities Asset Management. To manage utility systems and provide long term planning, invest in utility studies and conduct condition assessments that will document current inventory of utilities systems, identify deficiencies, establish a standardized preventive maintenance program and inform future investment decisions.

(6) LOE 5 - 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

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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.

(7) End State. Over the next four years, progress on each LOE defined above will ensure MCB CAMLEJ and MCAS NR are on the right path to having the ability to avoid, prepare for, minimize, adapt to, and recover from anticipated and unanticipated energy disruptions in order to sustain CIS and mission essential functions.

c. 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 begin implementing assigned tasks immediately.

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

(a) Determine roles and responsibilities among installation staff to implement the requirements in this policy.

(b) Support the promotion of an Energy Ethos through command messaging and COMMSTRAT 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 (MCIEAST)-MCB CAMLEJ and Installations and Environment, MCAS NR Leadership shall provide high-level oversight to ensure order compliance. Review, comment, and approve the IESP, which will be provided by the G-F, Energy Team, no later than 31 July, every five years. Approve and distribute the plan to stakeholders no later than 30 September.

(3) Public Works Division (PWD) shall:

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

(b) Assist G-F, Energy Team and operations to provide a resilient and energy efficient schedule of operations for all facilities without one, and to review and modify any schedule already in place to increase energy efficiency and resiliency.

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

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(d) Support PWD Utilities in providing reliable, resilient and efficient power to satisfy installation and mission requirements.

(4) PWD, Operations Branch shall:

(a) Maintain and operate installation buildings in accordance with the established schedules of operations for the installed equipment.

(b) In absence of building schedule of operations, G-F, Operations will work with maintenance to best adhere to energy compliance guidelines and requirements.

(c) Work with maintenance contractor and PWD to repair/replace any and all equipment that impedes the energy efficient and resilient operation of the installations' buildings and other facilities.

(d) Maintain communication with G-6 to discuss monitoring and control capabilities of Public Works Industrial Controls Systems (ICS).

(e) Ensure cyber commissioning is included in planning, design, and construction phases of minor construction and repair.

(5) PWD, Asset Management Branch shall:

(a) Review and submit all DD Form 1391s to G-F, Engineering to review/comment for energy guideline compliance.

(b) Ensure cyber commissioning is included in planning, design, and construction phases of minor construction and repair.

(c) Ensure critical energy requirements are incorporated in the installation master plan.

(6) PWD, Design Branch shall:

(a) Review all design/construction documents for energy guideline compliance.

(b) Ensure critical energy requirements are incorporated into facilities project packages.

(7) PWD, Energy Branch shall:

(a) Continuously oversee all tasks defined in this Order to ensure compliance.

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

(c) Provide thorough energy compliance requirements and guidelines on building renovations and new infrastructures during annual training, more often if necessary. Update energy compliance requirements as needed.

(d) Provide assistance in collaboration with Mission Assurance during installation-level self-assessments referred to as an ERRE. These assessments are to be conducted, at minimum, once a year to ensure timely re-evaluation of hazards, threats, and vulnerabilities to the installation's critical infrastructure. Facility energy requirements for critical assets and supporting infrastructure shall be incorporated into the energy security planning process.

(e) Every five years, provide comprehensive rewrite of IESP. Annually, provide updates to IESP. The purpose of the IESP is to establish specific short-term goals and tasks to complete during the upcoming fiscal year (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.

(f) Implement neighborhood and building electric, gas, and water meters and connect to a central metering network. Monitor 85 percent of total reported consumption by system and 100 percent of all critical load/energy intensive load.

(g) At least once every four years, ensure that energy audits and/or retro commissioning assessments are conducted on 100 percent of covered facilities.

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

(i) Quarterly, complete/submit Defense Utility Energy Reporting System report.

(j) Annually, complete the Secretary of the Navy's AEWMR.

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

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(l) 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.

(m) 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.

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

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

(8) Activity and Tenant Commands:

(a) Foster a supportive command environment for energy security.

(b) Unit leaders should own, communicate, and demonstrate energy security and efficiency actions.

1. Own. Take ownership of energy security and efficiency efforts by being an advocate for the Marines 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 policies.

3. Demonstrate. Consistently perform energy security and efficiency actions, such as turning off unnecessary lights, closing doors and shutting windows, testing backup generators, reporting energy-related facility issues etc.

(c) Encourage all members of the command to report energy related concerns to the facilities section and submit work tickets as needed or directed by facilities manager. Facility related energy concerns can also be set to the Installation Energy Manager (IEM).

(d) Participate in energy efficiency related activities as coordinated by the installation or command.

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

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

(g) Address the IESP produces by G-F, Energy Team within you unit.

(9) G-3/5 shall:

(a) Provide a representative to support annual energy reliability ERRE tabletop and live exercises.

(b) Incorporate energy security into mission assurance assessment.

(c) Provide unclassified critical energy information to IEM's and planners for incorporation into IESP and the facilities engineering planning processes.

(d) Ensure critical energy requirements are incorporated into emergency management, COOP and facilities master plans.

(10) G-4 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) Establish refueling plans for critical energy requirements, conduct energy resilience exercises, and document lessons learned from actual events to improve installation resilience.

(11) G-6 shall:

(a) Provide support and expertise on telecommunications, information technology, information services/systems as needed for the implementation and ongoing maintenance of G-F ICS.

(b) Provide support and expertise on telecommunications, information technology, information services/systems, and cybersecurity risks that impact the planning and execution of MCIEAST's energy security order.

(12) COMMSTRAT shall:

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

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(b) Assist in promoting Energy Ethos outreach efforts using available resources to publish materials provided 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.

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

4. Administration and Logistics

a. Directives issued by this Order are published and distributed electronically. The electric version of this pdf directive is located at: <https://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) 915-5534.

5. 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.


M. JERNIGAN
Chief of Staff

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