

Department of the Army
Headquarters, United States Army
Maneuver Support Center of Excellence
Fort Leonard Wood, Missouri 65473-5000

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**Facilities Management
ENERGY CONSERVATION**

FOR THE COMMANDER:

OFFICIAL:

HEATH C. ROSCOE
COL, GS
Chief of Staff



JESSE FRENCH
Director, Human Resources

History. This publication is a new Fort Leonard Wood regulation.

Summary. This regulation will define and direct energy-related conservation measures with an intent to further alter and shape the current culture of the installation's population, lower utility consumption, save utility costs, and meet energy goals.

Applicability. This regulation applies to all Fort Leonard Wood brigades, battalions, companies, detachments, tenant activities, directorates, organizations, personnel staff offices and contractors.

Proponent and execution authority. The proponent agency of this regulation is the Directorate of Public Works (DPW). The DPW's Energy Management Branch will serve as primary point of contact for all referenced actions called out within this regulation which require coordination with the proponent.

Supplementation. Supplementation of this regulation is prohibited without prior approval by Headquarters, United States Army Maneuver Support Center of Excellence (MSCoE).

Suggested Improvements. Users are invited to send comments and suggested improvements on DA Form 2028 (Recommended Changes to Publications and Blank Forms) to Director, DPW (IMLD-PW), Fort Leonard Wood, MO 65473-5000.

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Chapter 1 INTRODUCTION

1-1. Purpose

This regulation establishes command emphasis on the installation's commitment to energy and cost conservation practices. The directives included in this regulation assures that the necessary consumption of energy is done with efficient and cost-effective measures in mind and without diminishing safety, health, and quality of life standards. Effective implementation will lessen energy waste, reduce energy costs, increase installation sustainability, and aid progress toward sustainability goals of the Command Net Zero Plan.

1-2. References and forms

Required and related references and prescribed forms are listed in appendix A.

1-3. Explanation of acronyms, abbreviations, and special terms

The acronyms, abbreviations, and special terms used in this regulation are explained in the glossary.

1-4. General

a. Efficient use of energy and water is and will remain a command priority. The immediate and direct effect of implementing this regulation is that it leads to lower utility costs. Many other direct benefits will ensue and are expected, such as meeting energy and water reduction goals set out in the referenced documents, increasing the sustainability of the installation, and striving to meet the Command Net Zero Plan.

b. Leaders are expected to get personally involved. They shall strive to be an example of exemplary behavior and set goals and objectives within their organization to reduce energy and water consumption, monitor changed behaviors and facility improvements, and expect results. Be accountable.

c. Chapter 2, Action Items, directs a number of initiatives that will directly influence energy and water reduction and serves as the installation's standard practices.

d. Implementation of this regulation not only leads to a reduction of energy and water consumption but it supplements Fort Leonard Wood's ability to provide a safe, secure, and reliable place to work, live, and recreate- now and into the future. Quality of life will not suffer, nor will health or safety concerns be compromised.

Chapter 2 ACTION ITEMS

2-1. Building and space management

a. Energy conservation coordinators (ECCs).

(1) Brigade commanders, directors, and equivalent senior leaders shall appoint an ECC for their organization.

(2) ECCs shall be in a position of significance within the organization so as he/she has authority to direct compliance and avoid influence.

(3) The ECC's name, e-mail address, and office phone number shall be submitted to the proponent. Names and contact information of ECCs shall be confirmed no less than annually.

(4) Responsibilities of ECCs.

(a) Serve as the organization's liaison with the proponent.

(b) Attend energy-specific training sessions, meetings, and participate on councils with the proponent, as required or requested.

(c) Appoint a building energy monitor (BEM) for each facility assigned to the organization.

(d) Coordinate the efforts of the BEMs, see paragraph 2-1b.

(e) Serve as the BEM if the organization has been assigned only one facility or occupies only sole-use space within a single facility.

(f) Perform other actions as specifically called out for ECCs throughout the remainder of this regulation.

b. BEMs.

(1) BEMs may be assigned to multiple facilities, however this does not relax the BEM's responsibility for adherence to the requirements of this regulation.

(2) The BEM's name, e-mail address, and office phone number shall be submitted to the proponent. Names and contact information of BEMs shall be confirmed no less than annually.

(3) Responsibilities of BEMs.

(a) Serve as a building point of contact for energy-specific matters.

(b) Apply the actions and criteria contained within this regulation.

(c) Conduct a physical inspection of their assigned facility at least one time during the heating season and at least one time during the cooling season using FLW Form 2093 (Building Energy Monitor Checklist) see paragraphs 2-2a and 2-2b. FLW Form 2093 will be retained for a minimum of 2 years for reference.

(d) Implement procedures for the close of each business/duty day to enhance energy conservation.

(e) Investigate, recommend, and/implement energy saving initiatives. Perform self-help or initiate work requests as appropriate for items of repair that result in energy efficiency or water conservation.

(f) Collect and report facility data and/conduct energy-related surveys, as requested.

c. Consolidate space. Commanders and leaders are to consolidate organizational functions to optimize the use of facilities and utilities. Avoid expending resources in under-utilized and unoccupied facilities; consider turning them in or sharing space. These issues are to be coordinated with the DPW Real Property Office.

d. Holiday block leave (HBL).

(1) ECCs shall gather and report to the proponent a list of facilities affected by the HBL schedule.

(2) BEMs shall conduct daily inspections of the vacated facilities.

(a) Heating, ventilation, and air conditioning (HVAC) systems shall be setback or set forward, as appropriate, to an unoccupied mode.

(b) Lights in/around these facilities shall be turned off.

(c) Doors and windows shall be tightly closed.

(d) Water fixtures shall be turned off and display no evidence of leaking.

(e) Electrical cords shall be unplugged. Exceptions allowed for refrigerators and computer equipment necessary for allowing security patches.

2-2. Building temperature control

a. Heating season; typically from mid-October through mid-May.

(1) Occupied space temperature settings shall be 70°F.

(2) Unoccupied and night/weekend setbacks temperatures shall be 55°F.

b. Cooling season; typically from mid-May through mid-October.

(1) Occupied space temperature settings shall be 76°F.

(2) Unoccupied and night/weekend set-forward temperatures shall be 85°F.

c. HVAC controls; systems and individual controls to include automated and programmable thermostats.

(1) No attempt shall be made to circumvent or tamper with these controls.

(2) BEMs shall enact procedures for daily manual adjustment of thermostats to comply with paragraphs 2-2a and 2-2b, if automated controls or programmable thermostats are not installed.

d. Warehousing, maintenance facilities, gymnasiums, medical and dental facilities, child/youth facilities and other special-use facilities are governed by separate regulation and have varying temperature criteria. Contact the proponent or consult AR 420-1 for additional information.

e. Individual space heaters. These units are prohibited where the intent is to circumvent the heating and cooling policies outlined above. Additionally these units increase fire-safety concerns. Exceptions will be approved for medical exemptions, when cost effective energy reductions can be achieved by reducing usage of the facility's primary HVAC system, or when the facility's HVAC system cannot meet the temperature settings defined above. Requesting an exemption:

(1) Immediate supervisors or BEMs shall initiate the request.

(2) Requests shall be routed through the proponent, the DPW Energy Management Office, currently located in Building 2200B. A check of the HVAC system functionality and the available capacity to support the electrical requirement will be conducted.

(3) The Fire Department shall also conduct their own inspection and authorize the final approval based on the specifications of the equipment and shall subsequently add this item to their building inspection checklist.

2-3. Building envelope

a. Because air infiltration contributes to energy waste and discomfort, BEMs shall inspect windows, doors, wall outlets and other wall penetrations for air leakage and for damaged or missing weather stripping and initiate repairs as necessary.

b. Windows and exterior doors shall be closed when HVAC systems are operating normally.

c. The practice of opening windows to meet fresh air requirements is no longer necessary in newly renovated and newly constructed barracks and shall cease.

d. Use of window tinting, mini blinds, drapes, and curtains is encouraged.

2-4. Electrical usage

a. Electrical peaks. Personnel are to minimize electrical usage during projected peaks. The proponent projects that electrical peaks will occur between 1400 – 1700 hours, from mid-June through August on days when temperatures are at or above 92°F.

b. Personal appliances such as coffee makers, fans, radios, chargers, digital picture frames shall be turned off at the end of each day. The preference is to have such items unplugged to eliminate the consumption of stand-by power.

c. Lighting.

(1) Incandescent lights shall be replaced with compact fluorescents (CFL), or other energy efficient lighting. Self-help carries CFLs in varying sizes and wattages.

(2) Unnecessary and impractical lights shall be turned off.

(a) Exterior lights shall be turned off during daylight hours.

(b) Only minimal security/safety lighting is necessary during the evening hours.

c. Procurement.

(1) Only Energy Star® office equipment and appliances shall be authorized and purchased. Other noncompliant equipment and appliances shall be eliminated or replaced as practical.

(2) Refrigerators are authorized in the workplace and shall be in compliance with AR 420-1. No personal refrigerators shall be authorized other than those exceptions allowed by the regulation.

(3) Personal appliances such as coffee makers, fans, radios, chargers, and digital picture frames shall be turned off at the end of each day. The preference is to have such items unplugged to eliminate the consumption of stand-by power.

d. Computers and associated equipment.

(1) Computers (processing unit only) shall be left on, but logged off, at the end of each day as directed by the Network Enterprise Center (NEC).

(2) Peripheral devices, such as monitors, speakers, scanners, and external drives, shall be turned off when not in use.

(3) Copiers, printing devices, fax machines, multifunctional devices, such as combination printer-copier-scanner, and similar general purpose office equipment shall be turned off at the end of each day.

e. Classrooms and conference rooms.

(1) Monitors, smart boards, Televisions, projectors, and other equipment that are prevalent in classroom and conference room settings shall be turned off,- not allowed to hibernate,-when not in use.

(2) Computers in classroom and conference room settings shall comply with paragraph 2-4, d above.

2-5. Mobility fuel consumption

a. Unattended vehicles shall not be left idling.

b. Drive smaller, lighter vehicles when possible.

c. Remove excess items/weight from the vehicle.

d. Assure good running order and maintenance of the vehicles is conducted.

2-6. Water consumption

a. BEMs shall inspect water fixtures, such as faucets, showerheads, toilets, urinals, fountains, outside fixtures... for leakage and initiate repairs as necessary.

b. Aerators and flushometers shall be installed so as to meet the following targeted (new & replacement applications) flow rates. Maximum flow rates shown below are the current standard. If flows are greater than the maximum allowed, a repair and or replacement request shall be initiated. See Table 2-1.

Table 2-1. Current standard maximum flow rates

	Target	Maximum
Kitchen faucets	2.0	2.2 gal/min
Restroom faucets	0.5	2.0 gal/min
Showerheads	2.0	2.5 gal/min
Toilets	1.28	1.60 gal/flush
Urinals	0.50	1.00 gal/flush

c. Irrigation shall be kept at a minimum and never done between the hours of 0900 -1800. Excessive saturation and wasteful runoff shall be avoided at all times.

**Appendix A
REFERENCES AND FORMS**

Section I. Required reference.

Army Regulation (AR) 420-1, Army Facilities Management, 12 Feb 08, with Rapid Action Revision Issue Date: 24 Aug 12. Cited in paragraphs 2-2d and 2-4c.

Section II. Related references.

Energy Policy Act of 2005 (EPAc-05), Public Law 109-58, 8 Aug 05.

Energy Independence and Security Act of 2007 (EISA 07), Public Law 110-140, 19 Dec 07.

Executive Order 13693, Planning for Federal Sustainability in the Next Decade, 19 Mar 15.

Federal Acquisition Regulation 52.223-15.

DoD Instruction Letter 4170.11 (Installation Energy Management), 11 Dec 09.

DoD Instruction Letter 4180.01 (DoD Energy Policy), 16 Apr 14.

Section III. Prescribed forms.

FLW Form 2093, Building Energy Monitor Checklist. Prescribed in paragraph 2-1b(3)(c).

Section IV, Referenced forms.

DA Form 2028, Recommended Changes to Publications and Blank Forms.

Glossary

AR
Army regulation

BEM
building energy monitor

CFL
compact fluorescent light

DA
Department of Army

DOD
Department of Defense

DPW
Directorate of Public Works

ECC
energy conservation coordinator

EISA
Energy Independence and Security Act of 2007

EPACT
Energy Policy Act of 2005

FEMP
Federal Energy Management Program

FLW
Fort Leonard Wood

gal
gallon

HBL
holiday block leave

HVAC
heating, ventilation and air conditioning

min
minute

MSCoE
Maneuver Support Center of Excellence

NEC
Network Enterprise Center, formerly Directorate of Information Management