

VA ENERGY AND WATER MANAGEMENT PROGRAM

1. **REASON FOR ISSUE.** This directive prescribes the goals, policies, roles and responsibilities, and major requirements for Administration and staff office energy and water program management and reporting within the Department of Veterans Affairs (VA).
2. **SUMMARY OF CONTENTS.** This directive outlines the principles, policies, and other key elements necessary to facilitate the continual improvement of VA's energy and water program management.
3. **RESPONSIBLE OFFICE.** The Office of Asset Enterprise Management (OAEM), Office of the Assistant Secretary for Management.
4. **RELATED DIRECTIVE.**
 - a. VA Directive 0011, Strategic Capital Investment Planning Process
 - b. VA draft Directive, Energy and Water Investments
 - c. VA Directive 0056, Sustainable Buildings Program
5. **RELATED HANDBOOK.**
 - a. VA Handbook 0011, Strategic Capital Investment Planning Process
 - b. VA Handbook 0056, Sustainable Buildings Program
6. **RECISSION.**
 - a. VA Directive 0055, VA Energy and Water Management Program, dated January 15, 2010.
 - b. VA Handbook 0055, VA Energy Conservation Program Procedures, dated July 28, 2003.

CERTIFIED BY:

**BY DIRECTION OF THE SECRETARY
OF VETERANS AFFAIRS:**

/s/

/s/

Stephen W. Warren
Executive in Charge and
Chief Information Officer

Helen Tierney
Assistant Secretary for Management

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VA ENERGY AND WATER MANAGEMENT PROGRAM

1. PURPOSE AND SCOPE

a. The mission of the Department of Veterans Affairs (VA) is to fulfill President Lincoln's promise—"To care for him who shall have borne the battle and for his widow and his orphan"—by serving and honoring the men and women who are our Nation's Veterans. The goal of the Green Management Program Service (GMP) within VA's Office of Asset Enterprise Management (OAEM) is to lead the Department in improving the sustainability of all VA operations. This directive supports the Department's mission by promoting energy and water efficiency and use of renewable energy to maximize resources available for Veterans' care.

b. This directive updates VA energy and water management policies to comply with Federal mandates and to achieve VA's energy and water management goals.

c. This directive updates Department-wide energy and water management program policy for efficient use of those resources at VA facilities and operations.

d. This directive applies to all activities in all VA facilities and operations.

2. POLICY

a. **General.** It is VA policy to fulfill its mission to serve our Nation's Veterans in a sustainable manner. VA will conduct business in a way that protects human health and the environment, is technically, economically and fiscally sound, and ensures continual improvement. Energy and water efficiency and use of renewable energy are fundamental and integral components of policies, planning, operations, and management processes across all VA missions, activities, and functions.

b. **Goals.** VA energy and water management goals shall continue to adhere to the annual energy and water management requirements specified in the Energy Policy Act of 2005 (EPAAct 2005), the Energy Independence and Security Act of 2007 (EISA), Executive Order (EO) 13423, EO 13514, the Presidential Memorandum of December 5, 2013, Federal Leadership on Energy Management, and other applicable Federal mandates and VA strategies, until or unless superseded by a Federal mandate or increased by VA guidance.

c. **Data, Reporting, and Tracking.** Data reporting and tracking requirements for VA Administrations and staff offices include, but are not limited to, the following.

(1) Monthly energy and water consumption data following utility bill verification and certification for payment shall be reported in the VHA Support Service Center (VSSC) data base.

(2) Energy, water, and sewer cost data shall be reported in VA's Financial Management System (FMS).

(3) Energy audit and energy and water conservation measure (ECM) data for each facility shall be entered in the U.S. Department of Energy (DOE) EISA Section 432 Compliance Tracking System (CTS).

(4) Facility information shall be entered and validated quarterly in the Energy Star® Portfolio Manager® benchmarking system.

d. **Facility Energy and Water Audits.** Facility energy and water audits shall be performed in accordance with EISA Section 432. A comprehensive EISA Section 432 energy and water audit shall be completed at each VA-owned facility at least once every four years in accordance with an OAEM-approved four-year schedule. Facilities shall record audit data and results using the approved VA reporting template available from OAEM.

(1) Section 432 facility audits shall identify operating improvements, evaluate potential ECMs, and identify the potential for generation of on-site energy via combined heat and power and renewable energy systems.

(2) Retrocommissioning shall be conducted in conjunction with the audit. Auditors shall identify and assess deficiencies found through recommissioning or retrocommissioning processes in accordance with EISA Section 432.

(3) Completed audit reports shall be submitted to OAEM via the Veterans Healthcare Administration (VHA) Energy Engineers Sharepoint site or other site in accordance with OAEM guidance.

(4) Results shall be entered into the DOE CTS in accordance with OAEM guidance.

e. **Facility Energy and Water Management Plans.** Each VA facility shall develop and implement an annual energy management plan that defines how the facility will achieve energy and water goals through capital investments, alternatively financed projects, energy audits, demand-side management programs, preventive maintenance, building operations, retrocommissioning and recommissioning projects, and other approaches. The annual energy management plans must be submitted through the Strategic Capital Investment Planning (SCIP) process in accordance with OAEM guidance.

f. **Procuring Electricity and Natural Gas.** All VA-owned facilities shall first contact the VA Program Contracting Activity Central (PCAC) to procure electricity and natural gas, and other fuels as required. Through use of authorities held by the U.S. General Services Administration and the Defense Logistics Agency, or through other advantageous contracting mechanisms such as open market procurement, PCAC shall strive to procure the requested commodities at overall reduced cost to VA. The facility and PCAC may jointly identify a more appropriate procurement activity.

g. **Energy and Water Investments.** Energy and water investments shall have the following characteristics and components:

(1) Administrations and staff offices shall submit SCIP Action Plans to address energy efficiency, renewable energy, water efficiency, greenhouse gas emissions, sustainable building, and related goals as established within SCIP.

(2) Facilities shall submit proposed energy and water investments through the SCIP process per guidance contained in VA Directive 0011, Strategic Capital Investment Planning Process. To be considered for GMP funding, renewable energy and combined heat and power projects must have been assessed via a feasibility study conducted through GMP.

(3) On-site renewable energy and combined heat and power systems proposed shall be life-cycle cost effective, except as specified in paragraph (6j) of this directive.

(4) Administrations and staff offices shall consider the use of alternative financing mechanisms for implementation of energy and water projects. Financing mechanisms include energy savings performance contracts (ESPCs), utility energy services contracts (UESCs), the Department of Energy's ESPC ENABLE program, and power purchase agreements (PPAs). Administrations and staff offices shall comply with alternative financing policies to be established in VA draft Directive, Energy and Water Investments.

(5) VA shall specify EPA's WaterSense®-labeled products or other water conserving products, when available, for all construction and lease projects. VA shall specify irrigation contractors to be certified through a WaterSense® labeled program in all construction, leasing, and applicable maintenance contracts.

(6) At a minimum, 95% of all applicable new contracting actions (i.e. having or impacting an energy or water component or aspect) shall specify Energy Star® or DOE-designated energy efficient products in accordance with E.O. 14514 and E.O. 13221.

h. **Incentives.** VA facilities shall take advantage of financial and other incentives offered by utility companies and other programs to the maximum extent practicable and allowable.

i. **Maintenance, Repairs, and Minor Construction.** All maintenance, repairs, and minor construction of facilities shall be completed in a manner that preserves or improves the efficient use of energy and water at the facility. Maintenance, repairs, and minor construction shall comply with the requirements established in VA Directive 0056, Sustainable Buildings Program, and VA Handbook 0056, Sustainable Buildings Program as well as the standards of the Office of Construction and Facility Management (CFM) Technical Information Library. (TIL)

j. **New Construction and Major Renovation.** All new construction and major renovation projects shall meet, and are encouraged to exceed, the following criteria:

(1) Renewable energy shall account for 20 percent or more of electricity used in accordance with the Presidential Memorandum of December 5, 2013. Renewable energy requirements may not be met with the purchase of renewable energy certificates or renewable energy generated outside of VA property.

(2) New construction shall use 30 percent less energy compared to the baseline building performance rating per the American National Standards Institute (ANSI)/American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc., (ASHRAE)/Illuminating Engineering Society of North America Standard (IESNA) Standard 90.1, *Energy Standard for Buildings Except Low-Rise Residential*. The most recent version of ASHRAE 90.1 mandated for Federal use by the Department of Energy shall be used to establish the baseline. Combined heat and power and renewable generation shall be considered for inclusion in all projects. Project components shall be included to meet this mandate even if not life cycle cost effective.

(3) Major renovation projects must be designed to reduce energy use by a minimum of 30 percent compared to the baseline building performance rating per ASHRAE 90.1. The most recent version of ASHRAE 90.1 mandated for Federal use by the Department of Energy shall be used to establish the baseline. Combined heat and power and renewable generation

shall be considered for inclusion in all projects. Project components shall be included to meet this mandate even if not life cycle cost effective.

(4) New construction and major renovation projects shall comply with the requirements established in VA Directive 0056, Sustainable Buildings Program and VA Handbook 0056, Sustainable Buildings Program. In the event that guidance conflicts between this Directive, Directive 0056, and other VA standards, the most energy-conserving requirement shall apply.

(5) For new construction and major renovation projects, documentation of compliance with these criteria shall be provided to the VA Senior Sustainability Officer (SSO) at least 10 business days prior to the Schematic Design II and Detailed Design II review meetings. Documentation of sustainable features shall include:

- (a) Completion of the checklist for compliance with the *Federal Guiding Principles for High Performance and Sustainable Buildings*.
- (b) Energy simulation results, including all assumptions, inputs, and outputs.
- (c) Summary of energy systems to include combined heat and power and renewable energy.
- (d) Documentation of project registration for third-party certification.
- (6) If any required design criteria is not met for any reason, approval of exemption by the VA SSO shall be required. Any proposed changes related to the above criteria after the Detailed Design II phase, including during construction, must be approved by the VA SSO. A request for exemption approval with full documentation shall be submitted to the VA SSO prior to entering the next project phase.
- (7) The VA SSO will consider the following reasons for exemptions: cost effectiveness, technical feasibility, mission-related conflicts, and other considerations. Documentation shall include the following:
 - (a) A description of the proposed deviation from the requirements.
 - (b) Life cycle cost calculations performed in accordance with EO 13423, 10 Code of Federal Regulations 436A, and EISA 2007 Section 441 and related calculations.
 - (c) All assumptions and data used for energy analyses or simulations to support the design team's recommendation.
 - (d) The maximum level of proposed compliance feasibly achievable for each requirement.
 - (e) The request for exemption shall be approved and signed by the Director of the VA program office responsible for the project.

k. **Leased Space.** VA will not enter into or renew a contract to lease space in any building that has not earned the ENERGY STAR® label in the most recent year, unless the space is included in the exceptions listed in EISA (See Section 5, References). All leased space shall comply with the requirements outlined in VA Directive 0056, Sustainable Buildings Program, and VA Handbook 0056, Sustainable Buildings Program, as well as the standards found on CFM's TIL. Build-to-suit lease solicitations shall incorporate criteria for sustainable design and development, energy efficiency, and verification of building performance in accordance with the Guiding Principles.

l. **Management Tools.** VA will employ a variety of management tools to implement the policies set forth in this directive. These include, but are not limited to, the following:

- (1) Sustainability Advisory Council
- (2) Energy Management Action Plan
- (3) Training and recognition programs (See Section 4 References).

3. RESPONSIBILITIES

a. **Under Secretaries, Assistant Secretaries, and Directors of Staff Offices.** The Deputy Under Secretary for Health for Operations and Maintenance (DUSHOM), Under Secretary for Memorial Affairs, Under Secretary for Benefits, and Directors of staff offices are responsible for the following:

- (1) Complying with mandates and directives.

(a) Implementing energy and water management programs that comply with this directive, ensuring that all aspects comply with appropriate infection control healthcare engineering policies (VHA).

(b) Meeting or exceeding VA goals and mandates, including, but not limited to, reducing greenhouse gas emissions, increasing the use of energy performance-based contracting, reducing energy and water intensity, and increasing the generation of renewable energy.

(c) Requesting sufficient funds to comply with applicable energy and water laws and mandates, including, but not limited to, salary dollars for energy and water management staff in the Administrations and staff offices.

- (d) Developing and implementing an annual energy management plan (through SCIP).

- (e) Compliance with design and construction standards published by CFM found in the TIL.

- (2) Collecting and reporting data.

(a) Reporting data on all proposed and actual energy investments, as directed by OAEM.

(b) Reporting all CTS-required data.

(c) Responding timely to OAEM data calls.

- (3) Addressing all facility management requirements.

(a) Auditing facilities using the OAEM-approved energy audit report template, according to the OAEM-approved schedule submitted by VHA, to include Veterans Benefits Administration (VBA) and National Cemetery Administration (NCA) facilities.

(b) Ensuring that the results of energy and water audits are entered into the DOE CTS per OAEM direction.

(c) Evaluating the use of energy efficiency and renewable energy technologies for all projects, and including funding in project application processes where appropriate and in accordance with Federal statutes.

(d) Ensuring a full-time Energy Manager is assigned to each Veterans Integrated Service Network (VISN) to provide technical support and perform audits for all VA facilities, including VHA, NCA, VBA, and staff office facilities within their geographic area.

(e) Ensuring each VHA facility is covered by a full-time Facility Energy Manager. A manager may cover more than one facility. Facility Energy Managers' assignments shall not be made as a collateral duty, nor shall Facility Energy Managers be assigned collateral duties. NCA, VBA, and staff offices must also assign Facility Energy Managers; this requirement may be met regionally or nationally.

(f) Assigning a Facility Sustainability Officer (FSO) at each VHA facility to serve as the coordinating point for energy, environment, transportation, sustainable buildings, and related programs. The duties of the FSO shall be reportable directly to the facility director. NCA, VBA, and staff offices must also assign an FSO; this requirement may be met regionally or nationally. The FSO shall be designated and identified to the VA SSO within 60 days of publication of this directive.

b. **Assistant Secretary for Management (ASM).** The ASM is responsible for the following:

(1) Setting Department-wide energy and water management policy.

(2) Overseeing the VA Green Management Program.

(3) Requesting sufficient funds to ensure Department-wide implementation of energy and water management policies.

c. **Director of OAEM.** The Director of OAEM is responsible for the following:

(1) Overseeing and monitoring Department-wide energy and water management programs, providing policy and implementation guidance as well as identifying and conveying budget and personnel resource needs.

(2) Leading the Energy Subject Matter Expert Team, which reviews and approves SCIP Action Plans to address energy, water, greenhouse gas, and sustainable building goals.

4. REFERENCES

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- c. Data Reports. vaww.ceosh.med.va.gov/01EN/Pages/DataReports.shtml.
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- q. National Institute of Standards and Technology Handbook 135, *Life Cycle Costing Manual for the Federal Energy Management Program*, and its annual supplement, *Energy Price Indices and Discount Factors for Life Cycle Cost Analysis: Annual Supplement toniest Handbook 135*.
- r. National Energy Conservation Policy Act. Pub. L. No. 95-619. 92 Stat. 3206. 42 U.S.C. § 8252 et. seq. As amended.

- s. Presidential Memorandum—*Implementation of Energy Savings Projects and Performance-Based Contracting for Energy Savings*. The White House, December 2, 2011. www.whitehouse.gov/the-press-office/2011/12/02/presidential-memorandum-implementation-energy-savings-projects-and-perfo.
- t. Presidential Memorandum, *Federal Leadership on Energy Management* The White House, December 5, 2013 <http://www.whitehouse.gov/the-press-office/2013/12/05/presidential-memorandum-federal-leadership-energy-management>
- u. Professional Development. vaww.ceosh.med.va.gov/01EE/Pages/Professional.shtml.
- v. Title 42 U.S. Code Section 5852. *Availability of funds*. <http://codes.lp.findlaw.com/uscode/42/73/II/5852>

5. DEFINITIONS

- a. **Alternative Financing.** Use of funding sources other than appropriated funds to implement energy or water projects. Alternative financing options include, but are not limited to, ESPCs, UESCs, ESPC ENABLE, enhanced-use leases, PPAs, and demand-side management programs.
- b. **Demand-Side Management Programs.** Any program instituted to assist the energy user in instantaneously reducing energy use (demand) on the customer side of the meter. These programs are typically sponsored by the utility company or independent system operator and include such mechanisms as rebates for installing energy-efficient equipment, as well as load-shifting and energy-use curtailment strategies.
- c. **Energy Investment.** The procurement to address deficiencies and exploit opportunities in energy and water conservation, on-site generation, and renewable energy systems at a facility. Energy investment option refers to the use of appropriated funds or any alternative financing program.
- d. **Facility Energy and Water Audit.** A comprehensive review of all energy and water consumption in a facility including as-built plans and specifications, energy records, operating and maintenance logs, visual inspections of all energized equipment, the building envelope, windows, doors, and other components. A comprehensive assessment shall include an evaluation of energy and water consumption patterns as well as the generation of a list of potential ECMs to improve the energy and water efficiency of the facility.
- e. **Renewable Energy.** The Energy Policy Act of 2005 defines renewable energy as "electric energy generated from solar, wind, biomass, landfill gas, ocean (including tidal, wave, current, and thermal), geothermal, municipal solid waste, or new hydroelectric generation capacity achieved from increased efficiency or additions of new capacity at an existing hydroelectric project."
- f. **Utility Services.** A service such as furnishing electricity, natural gas, water, sewerage, chilled water, steam, or hot water.