

VA Energy and Water Management Program

1. **REASON FOR ISSUE.** To update the Department of Veterans Affairs (VA) Green Management Program energy and water management program policy.
2. **SUMMARY OF CONTENTS/MAJOR CHANGES.** This directive updates VA's Green Management Program energy policy to include new and updated requirements of executive orders and legislation. This document also expands the scope and applicability of this policy to water management.
3. **RESPONSIBLE OFFICE.** The Office of Asset Enterprise Management (OAEM), Office of the Assistant Secretary for Management (004).
4. **RELATED HANDBOOKS**
 - a. VA Handbook 0055.1, VA Energy and Water Management
 - b. VA Handbook 0055.2, VA Investment Process and Alternatively Financed Projects Handbook
5. **RESCISSIONS.** This directive rescinds the following directive and handbook:
 - a. VA Directive 0055, VA Energy Conservation Program, dated July 28, 2003
 - b. VA Handbook 0055, VA Energy Conservation Program Procedures, dated July 28, 2003.

CERTIFIED BY:

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

/s/
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/s/
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Distribution: Electronic Only

VA ENERGY AND WATER MANAGEMENT PROGRAM

1. PURPOSE AND SCOPE

a. This directive establishes comprehensive Department of Veterans Affairs (VA) energy and water management policies to comply with Federal mandates and to achieve internal goals.

b. This directive also sets forth Department-wide energy and water management program policy for efficient use of those resources at VA facilities.

c. This directive applies to all activities in all VA facilities.

2. POLICY

a. **General.** It is the policy of this Department to comply fully with all applicable laws and other Federal mandates at all VA facilities. While the elements of this directive apply primarily to VA-owned facilities, some elements apply only to leased facilities, and others apply to all facilities. This directive establishes requirements applicable to VA capital programs including the use of appropriated funds and alternative financing, and sets forth specific Departmental policies in the following areas: data management and reporting; energy efficient operations and maintenance; commodity purchasing; energy and water efficiency investments; renewable energy technologies; new construction and major renovations; and leased facilities. For the purposes of this directive, all references to “energy” include water, unless otherwise stated.

b. **Goals.** Energy and water management goals and requirements are set forth by the President through executive orders and by Congress through legislation. VA’s Senior Agency Official promulgates additional internal goals or requirements as appropriate.

c. **Data Management and Reporting.** Each Administration must employ the management tools it deems necessary (i.e., Administration directives or guidance) to document and measure progress towards Federal energy and water efficiency requirements. Reporting of cost and consumption data is required for all facilities for which VA is directly responsible for paying energy and/or water bills. The reporting process includes:

(1) Use of electronic energy and water consumption database(s) to record monthly usage data. Data entry will be completed and verified monthly, following utility bill verification and certification for payment. Systems currently in use by VA Administrations include Veterans Integrated Service Network (VISN) Support Service Center (VSSC) and Management and Decision Support System (MADSS), although these systems may be replaced or augmented at any time.

(2) Use of VA's financial management system to record energy, water and sewer cost data, within the parameters required for that system;

(3) Incorporation of cost and consumption data into VA's capital asset management system on a monthly basis.

(4) Reporting for "covered facilities", as mandated by the Energy Independence and Security Act of 2007 (EISA 2007), is a separate reporting requirement that is due to DOE by June 30 of each year. DOE requirements include updating facility energy manager and comprehensive energy and water evaluation information for all "covered facilities." Since Veterans Health Administration (VHA) facilities consume more than 90 percent of energy in VA facilities, VA includes all VHA- owned facilities in its definition of "covered facilities."

d. Energy Efficient Operations and Maintenance. Each Administration or staff office will develop and implement an annual energy management plan at the Administration/staff office level. Plans may be developed for the regional or facility level, if appropriate. Administration/staff office should submit the energy management plan/s to the Office of Asset Enterprise Management (OAEM) by April 30 each year that this directive or succeeding directive is in effect.

(1) Energy Management in VA Facilities. Administrations and staff offices must ensure that their facility operations reflect optimal energy and water management practices. Towards this end, VHA will ensure that:

(a) Each VISN has a full-time Energy Engineer. VISN Energy Engineers use a standard position description, and the positions are funded by VHA Central Office. This is consistent with current program office requirements.

(b) A full-time VHA facility Energy Engineer is designated to provide technical support to all VHA facilities, and may serve multiple VHA facilities. In addition, VHA Energy Engineers will provide technical assistance to National Cemetery Administration (NCA), Veterans Benefits Administration (VBA) and staff office facilities in their geographic area, on an as-needed basis, so that all VA facilities are covered.

(c) All VISNs and facilities develop and implement energy management plans that address energy and water efficiency goals through energy assessments, demand side management programs, preventive maintenance, building operations, and retro- and re-commissioning.

(d) VA facilities should take advantage of appropriate financial incentives offered by utility companies, state public service commissions, and independent system operators. These incentives are usually supported by rate payers, and making use of them will maximize VA program funding.

(2) Maintenance, Repairs, and Minor Construction. Proper maintenance and repair practices are key elements in maintaining the design efficiencies of the facilities. While implementation of these practices alone will not usually be sufficient to meet all energy reduction goals, they will assist the facility in moving toward achieving their annual energy reduction goal.

(a) Proper maintenance of energy consuming equipment and facilities are essential for continued efficient operation. All maintenance of facilities shall be done in a way that preserves or improves the energy efficiency of the facility. For example, damaged insulation impacting energy performance shall be replaced, and controls will be set to operate in accordance with design intent.

(b) All repairs shall preserve or enhance the existing energy efficient features of the facility to the fullest extent possible.

(c) Minor Construction. All minor construction projects will be subject to the same standards for sustainability, energy and water efficiency, and commissioning as major construction projects as appropriate. Project documentation shall show the options the team considered and incorporated, and which options the team rejected and reasons why. The team will consider alternative financing for implementing life-cycle cost-effective technologies when appropriated funds are not available.

(d) Non-Recurring Maintenance (NRM). All NRM construction will be subject to the same standards for energy and water efficiency as major and minor construction projects. Project records shall document the options the team considered and incorporated, and which options the team rejected and the reasons why.

(e) Energy and Water Assessments and Investments. All VA-owned facilities will be the subject of periodic assessments to identify possible energy and water efficiency investment opportunities and to ensure continued efficient operations. All Administrations and staff offices must utilize the VA five-phase investment process to identify, evaluate, implement and track the performance of measures to improve energy and water efficiency:

- Phase One – Energy Assessment Process Selection
- Phase Two – Energy Assessment
- Phase Three – Energy Investment Strategy
- Phase Four – Investment Process
- Phase Five – Measurement and Verification

These phases are explained in more detail in VA Handbook 0055.2, VA Investment Process and Alternatively Financed Projects Handbook.

1) VA will perform energy and water assessments of all facilities with a minimum of 50,000 square feet of VA-owned space at least once every four years. Smaller facilities will be evaluated on an as-needed basis, generally in conjunction with the assessment at a nearby VA facility. Members of VA's Energy Management Task Force determine the schedule for these assessments.

2) OAEM and VHA will jointly manage a central contracting center of expertise to assist with the Green Management Program contracting needs. The VA National Energy Business Center (NEBC) in Cleveland, Ohio, is the designated center. This center will perform all contracting activities and provide contracting-related support for, at a minimum, regional energy and water assessments, and centrally-funded or financed energy investments.

(f) Commodity Purchasing. Minimizing the cost of purchasing energy and water/sewer services for facilities is essential for optimizing facility operating costs. To that end, the VA Energy Management Task Force has developed a procurement strategy for centralized procurement of electricity and natural gas. This strategy will be implemented by development of a center of expertise within NEBC. In the interim, each Administration is responsible for ensuring that energy commodities are purchased cost effectively. Use of such entities as the General Services Administration's Energy Center of Expertise or the Defense Energy Support Center for utility procurements is recommended, where available. Other options may also be available in certain geographic areas.

(g) Renewable Energy Technologies. VA will implement on-site renewable energy technologies whenever determined to be technically feasible and practical, and include funding in the project application process where appropriate and in accordance with Federal statutes. Due to the rising cost of traditional energy and constant improvements in renewable energy technologies, each energy assessment of a facility or project will as a rule include renewable energy technologies.

e. New Construction and Major Renovations

(1) It is incumbent on the project design team to consider and evaluate all energy and water efficiency options necessary to meet all Federal building requirements (such as EISA 2007) during the development of each project. Project documentation shall show the options the team considered and incorporated, and which options the team rejected and reasons why. The team will consider alternative financing for employing life-cycle cost-effective technologies when appropriated funds are not available.

(2) All new construction and renovation projects must adhere to applicable Office of Construction and Facilities Management (OCFM) design and construction standards to include design manuals, design guides and master specifications, available at <http://www.cfm.va.gov/til/>.

(3) Medical centers are ideal candidates for implementation of cogeneration (combined heat and power) systems since both steam and electricity are required year-round. Cogeneration systems will be considered to be the system of choice for all new medical facilities. Documentation will be required for any deviation from this policy.

(4) Each administration or staff office should evaluate the use of renewable energy systems for all projects and include funding in project application process where appropriate and in accordance with Federal statutes. Implement where technically feasible and practical.

f. Leased Space

(1) VA occupants of leased space will work with building management staff to implement energy savings measures in the facility, when cost effective. This includes both implementing management initiatives, and making energy and water conservation suggestions to management. Ideally, building management and tenants would work as partners to reduce unnecessary energy consumption in the leased space.

(2) VA will not enter into/renew a contract to lease space in a building that has not earned the Energy Star label in the most recent year. Limited exceptions apply as detailed in EISA 2007 (Public Law 110-140) Section 435 (b).

(3) Build-to-suit lease facilities shall be designed and constructed to comply with all new building mandates.

g. Energy Investments and Performance Tracking. VA personnel responsible for capital investments at the facility, region, administration or central office level must enter data on all proposed and actual energy investments and record actual energy performance into VA's automated capital asset system, in compliance with VA capital asset management requirements and guidance.

h. Reporting Requirements. The Administrations and appropriate staff offices shall respond to VA data calls to provide information needed for Department-level consolidated reports related to the contents of this directive.

i. Management Tools. VA will employ a variety of management tools to implement the policies set forth in this directive. These are:

(1) VA Handbook 0055.1, VA Energy & Water Management

(2) VA Handbook 0055.2, VA Investment Process and Alternatively Financed Projects

(3) VA Energy Management Task Force

(4) VA Energy Management Action Plan

(5) VA National Energy Business Center

(6) Staff resources, including facility energy engineers, VISN energy engineers, and VA Central Office staff

(7) Program performance measures

(8) Energy employee performance standards

(9) Training for implementation of this directive

(10) Energy and Water Management Awareness programs

(11) Awards and recognitions.

3. RESPONSIBILITIES.

a. **Assistant Secretary for Management (ASM).** The ASM is the senior agency official for energy and water management for VA and is responsible for:

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

(2) Overseeing the VA Green Management Program;

(3) Ensuring that VA maintains a Department-level Energy Management Task Force that develops and coordinates implementation of a VA Energy Management Action Plan; and

(4) Requesting sufficient funds to ensure VA Department-wide implementation of energy and water management policies including but not limited to salary dollars for Administration and staff office energy and water management staff.

b. **Director of the Office of Asset Enterprise Management (OAEM)** is responsible for:

(1) Providing policy and implementation guidance;

(2) Overseeing and monitoring the Department-wide energy and water management program; and

(3) Chairing the VA Energy Management Task Force.

c. **VA Energy Management Task Force** develops, monitors, and updates the VA Energy Management Action Plan to meet all energy mandates.

d. **Under Secretaries, Assistant Secretaries, and Directors of staff offices.** establish and implement energy and water management programs within each organization to ensure compliance with this directive. Each is responsible for requesting sufficient funds in Administration and staff office budgets to ensure compliance with all applicable energy and water laws, regulations and executive orders. Each Administration/staff office also monitors, trends and tracks data to prioritize the funding of capital investments across the country to maximize the energy savings effort and reports such to OAEM.

e. **Deputy Under Secretary of Health for Operations and Management (DUSHOM)** oversees the execution of VHA actions under this directive.

f. **Under Secretary for Benefits** oversees the execution of VBA actions under this directive.

g. **Under Secretary for Memorial Affairs** oversees the execution of NCA actions under this directive.

h. **Heads of Staff Offices** oversee the execution of actions under this directive for VA facilities owned, leased, or operated by the respective staff office.

i. **Director of the Office of Construction and Facilities Management (OCFM)** is responsible for developing and keeping agency design criteria, building and space definitions and standards and specifications current with the changes in executive orders and legislation as each relates to energy and water management. OCFM Director is also responsible for ensuring that contracts, contract execution and post-construction processes incorporate and meet these criteria, standards and specifications.

4. DEFINITIONS.

a. **Alternative Financing.** The use of other than traditional appropriated funds to implement a project. Current alternative financing options include energy savings performance contracts, utility energy savings contracts, and enhanced-use leases.

b. **Facility Energy Assessment.** A comprehensive review of all items related to 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 and measurements, in order to evaluate energy and water consumption patterns. A comprehensive assessment will generate a list of potential projects for improving the energy and/or water efficiency of the facility.

c. **Building Life-Cycle Cost (LCC).** The total cost of owning, operating, and maintaining a building over its useful life (including such expenses as fuel, energy, labor, and replacement components) as determined by a systematic evaluation and comparison of alternative building systems. In the case of leased buildings, the LCC shall be calculated over the term of the lease. The National Institute of Standards and Technology (NIST) Handbook 135, *Life-Cycle Costing Manual for the Federal Energy Management Program*, outlines the accepted analytical methodology for complying with the requirements for all life-cycle cost assessments performed for federal facilities as set forth in 10 CFR 436, Subpart A, *Methodology and Procedures for Life-Cycle Cost Analysis*. Note that EISA 2007, Sec. 441 changed the period for life-cycle cost accounting from 25 years to 40 years.

d. **Commodity.** A purchasable unit of energy such as electricity, water, natural gas, steam, petroleum.

e. **Demand Side Management Programs.** Any program instituted to assist the energy user in reducing the instantaneous 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 programs as rebates for installing energy efficient equipment, load-shifting programs, and curtailment programs.

f. **Energy Goals.** Energy conservation goals mandated by the Federal government.

g. **Energy Investment Opportunities.** Life-cycle cost-effective measures applied to a Federal building to improve energy or water efficiency. These measures may involve energy conservation, cogeneration facilities, renewable energy, operational and maintenance efficiency improvements, or retrofit activities.

h. **Energy Savings Performance Contract (ESPC).** A contract between a Federal government entity and an energy services company (ESCO) that provides for the design, acquisition, financing, installation, testing, operation, maintenance and repair of an identified energy or water conservation measure or series of measures at one or more facilities. The ESCO funds/finances the costs of implementation, and recovers the costs from the Government over a negotiated period of time as a predetermined share of the value of the savings that the installed measures generate. Government payment to the ESCO is contingent upon realizing the ESCO-guaranteed level of future energy and cost savings.

i. **Facility Energy Engineer.** An individual who manages and coordinates an energy management program for one or more facilities.

j. **Investment Decision Matrix.** A VA document used for assessing an investment opportunity determining the most efficient funding vehicle to complete the energy investment.

k. **Investment Option.** The funding/procurement mechanism used to correct energy needs and deficiencies. This terminology refers to the use of appropriated funds (Major and Minor Construction, or NRM) and third-party alternative financing (enhanced-use leases, energy savings performance contracts, and utility energy savings contracts).

l. **Renewable Energy Technologies.** Technical applications using renewable energy as the power source. Renewable energy is generated from natural resources which are naturally replenished, and includes biomass, geothermal, solar, wind and water. For a comprehensive discussion of renewable energy as it applies to the Federal renewable energy requirements, please refer to the guidance issued by the Department of Energy's Federal Energy Management Program, *Renewable Energy Requirement Guidance for EPACT 2005 and Executive Order 13423* (http://www1.eere.energy.gov/femp/pdfs/epact05_fedrenewenergyguid.pdf).

m. **Retrofit.** The installation of an alternative building energy system or component in an existing Federal building.

n. **Utility Energy Services Contract (UESC).** A contract between a Federal agency and a utility energy services company that provides for design, acquisition, installation, testing, operation, maintenance and repair of an identified energy or water conservation measure or series of measures at one or more facilities. The utility company funds/finances the cost of implementation, and recovers the costs from the Government over a negotiated period of time.

o. **VISN.** Veterans Integrated Service Network.

p. **VISN Energy Engineer.** A person who oversees the planning and implementation of energy and water management programs within a VISN. The VISN energy engineer also provides guidance to the facility energy engineer assigned to facilities within the VISN.

5. REFERENCES.

a. *Energy Policy Act of 1992* (EPAAct or EPAAct 1992) (Public Law 102-486, 106 Stat. 2776).

b. *Energy Policy Act of 2005* (EPAAct 2005) (Public Law 109-58, 119 Stat. 594).

c. *Energy Independence and Security Act of 2007* (EISA 2007) (Public Law 110-140, 121 Stat. 1492).

d. Executive Order 13423, "*Strengthening Federal Environmental, Energy and Transportation Management.*"

- e. Executive Order 13514, "*Federal Leadership In Environmental, Energy, And Economic Performance.*"
- f. *National Energy Conservation Policy Act* (NECPA) (Public Law 95-619, 92 Stat. 3206, 42 U.S.C. 8252 et. seq), as amended.
- g. 41 CFR 102-74, *Energy Conservation.*
- h. 10 CFR 434, *Energy Code for New Federal Commercial and Multi-Family High-Rise Residential Buildings.*
- i. 10 CFR 435, *Energy Conservation Voluntary Performance Standards for New Buildings; Mandatory for Federal Buildings, Subpart C, Mandatory Performance Standards for New Federal Residential Buildings.*
- j. 10 CFR 436, *Federal Energy Management and Planning Programs.*
- k. *VA Energy Management Action Plan and Secretary's Decision Statement.*