VA ENERGY AND WATER MANAGEMENT PROGRAM

1. **REASON FOR ISSUE.** This directive updates and revises 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.

2. **SUMMARY OF CONTENTS/MAJOR CHANGES.** This directive updates and streamlines principles, policies, responsibilities, and other key elements necessary to facilitate the continual improvement of VA's energy and water management and comply with Federal energy and water management and reporting requirements.

   a. Roles and responsibilities have been consolidated and directed primarily towards top-level leadership with greater flexibility placed within each.

   b. Areas falling under the purview of other VA-wide directives have been removed and relevant portions of former Directive 0012 added to this directive or other directives as appropriate.

3. **RESPONSIBLE OFFICE.** Office of Management (004), Office of Asset Enterprise Management (044).

4. **RELATED DIRECTIVES/HANDBOOKS**. Not applicable.

5. **RESCISSIONS.** VA Directive 0055, VA Energy and Water Management Program dated December 10, 2014 and VA Directive 0012, VA Investments in Energy and Water Efficiency and Renewable Energy, dated July 6, 2015.

CERTIFIED BY:

/s/
Guy T. Kiyokawa
Assistant Secretary for
Enterprise Integration

BY DIRECTION OF THE SECRETARY OF VETERANS AFFAIRS:

/s/
Jon J. Rychalski
Assistant Secretary for Management
and Chief Financial Officer

DISTRIBUTION: Electronic only

VA ENERGY AND WATER MANAGEMENT PROGRAM

TABLE OF CONTENTS

VA ENERGY AND WATER MANAGEMENT PROGRAM

1. **PURPOSE.** This directive updates Department of Veterans Affairs' (VA) energy and water management and investment policies to comply with Federal mandates and to achieve VA's energy and water management goals.

2. **POLICY.**

   a. **Scope**. This directive applies to all VA facilities, investments, and operations that directly or indirectly have a significant impact on VA's management, consumption, generation, or use of energy or water. A requirement in this directive is identified by "shall" or "must," a good practice by "should," permission by "may" or "can," and an expected outcome or action by "will."

   b. **General.** VA will conduct business in a way that protects human health and the environment; is technically, economically, and fiscally sound; ensures continual improvement; and supports environmental justice. A primary goal of VA energy and water management policy is to reduce VA's greenhouse gas (GHG) impact. Energy and water efficiency, decarbonization, and electrification combined with use of carbon pollution-free electricity (CFE) and comprehensive facility energy and water planning are critical components for GHG reductions. Greater energy and water efficiency also reduce costs to VA and protect limited resources. The requirements of this directive must be considered and incorporated into the policies, planning, operations, and management processes across all VA missions, activities, and functions. A list of relevant laws, executive orders (EOs), and other mandates can be found at Energy, Environment and Fleet (EEF) Energy Resources SharePoint (https://dvagov.sharepoint.com/sites/VACOOAEMEnergyResources/SitePages/Energy%20Resources%20-%20Reference.aspx).

   c. **Energy and Water Management Plan.** Each Administration shall develop an Energy and Water Management Plan (hereinafter "EWM Plans"). EWM Plans shall clearly describe how each Administration will meet the goals and requirements of this directive, relevant laws, EOs, rules, and other pertinent VA policies and guidance. EWM Plans may be subdivided within each Administration by Administrative Region (e.g., by Veterans Integrated Service Network (VISN)) and must cover all the Administration's owned facilities and leased facilities to the extent that VA has control over the leased building's energy and water use and/or investments. Initial EWM Plans must be submitted to the Office of Asset Enterprise Management (OAEM) EEF no later than November 1, 2024. Updated EWM Plans shall be submitted annually by November 1. EWM Plans shall cover a period of 5 years. At a minimum, EWM Plans must address the following areas:

      (1) **Energy Act of 2020 Compliance**. EWM Plans shall describe how all energy and water conservation measures (ECMs) identified as life cycle cost (LCC) effective in energy and water evaluations will be implemented,

within two years as required by 42 U.S.C. § 8253 (https://uscode.house.gov/view.xhtml?req=granuleid:USC-prelim-title42-section8253&num=0&edition=prelim). EWM Plans must identify the funding source and contracting method that will be used to implement the measures, as well as the planned timeline for completion and other key milestones. EWM Plans shall identify non-capital solutions (e.g., energy performance contracts) the Administrations are pursuing as well as any outreach or work to promote environmental justice and resource efficiencies, relevant to energy and water management. For measures that will be implemented through appropriated funding, or through an energy performance contract, the Strategic Capital Investment Planning (SCIP) number, or the number of the broader project/performance contract, shall be identified. EWM Plans shall also report progress towards implementing identified measures. Updates to EWM Plans must account for and address all projects implemented since the last submission and their demonstrated effectiveness and impact.

(2) **Carbon Pollution-Free Electricity (CFE).** EWM Plans shall address how each owned facility, or leased facility where electricity is not included in the lease, will meet the CFE requirements of Executive Order 14057 (https://www.fedcenter.gov/programs/eo14057/). Administrations shall consult with EEF to determine best options for reaching 100% CFE by 2030. Where CFE options are not available in a facility's market area, the facility/VISN will work with EEF and the local utility to identify future options. EWM Plans shall also identify potential locations for on-site CFE, particularly solar photovoltaics (PV), and green hydrogen. Potential locations for PV include:

(a) Recently replaced roofs, or roofs scheduled for replacement in the next 5 years;

(b) Parking garage structures;

(c) Parking lot areas that are not expected to be constructed upon for at least the next 10 years;

(d) Acreage suitable for PV.

(3) **Decarbonization Within Future Projects**. EWM Plans shall describe efforts to decarbonize facilities either through electrification, through switching to carbon-neutral fuel sources or through active carbon capture and storage that meets current U.S. Environmental Protection Agency (EPA) requirements and guidance.

(4) **Deep Energy Retrofits.** EWM Plans shall identify which facilities/square footage are planned to implement a deep energy retrofit over the next 5 years, and the project or bundle of projects that will be used to meet the

40% energy reduction from a fiscal year (FY) 2019 baseline to qualify as a deep energy retrofit. Administrations should consider the totality of all energy reduction projects at a facility that could, when taken together, constitute a deep energy retrofit. Deep energy retrofits may also include, where appropriate, demolition of space.

(5) **Federal Building Performance Standard**. EWM Plans shall identify buildings set to achieve the Federal Building Performance Standard (https://www.sustainability.gov/pdfs/federal-building-performance-standard.pdf) within the next 5 years. This includes buildings that meet either the performance pathway or the prescriptive pathway.

(6) **Metering Implementation Plan**. EWM Plans shall describe how the Administration will meet the metering requirements of this directive and VA's Metering Implementation Plan (https://dvagov.sharepoint.com/sites/VACOOAEMEnergyResources/Shared%20Documents/VA%202023-2028%20Metering%20Implementation%20Plan_Final.pdf)

(7) **Integration with Department and Facility Planning**. Administrations must coordinate EWM Plans both internally and with the Office for Construction and Facilities Management (CFM) to ensure that the EWM Plans are aligned with CFM project planning, design requirements, and specifications, and that EWM Plans are aligned and integrated with facility-level master plans. Projects identified in the current-year FY must be represented on facility and/or regional operating plans.

(8) **Annual Review**. EWM Plan Updates submitted after the initial FY 2024 EWM Plans must show what projects and ECMs were awarded and/or implemented in the previous fiscal year and identify projects and ECMs that were not awarded or implemented.

d. **Energy and Water Evaluations and Commissioning.**

(1) **Energy and Water Evaluations**. In accordance with 42 U.S.C. § 8253, comprehensive energy and water evaluations shall be completed at each covered VA-owned facility at least once every 4 years. All LCC effective ECMs must be awarded – or implemented in house - within 2 years of evaluation completion. VA covered facilities are identified in the Department of Energy's (DOE) Energy Information and Security Act of 2007 (EISA) 432 Compliance Tracking System (CTS).

(a) **Evaluation Process**. EEF will notify Administrations when facilities require an energy and water evaluation. Energy and water evaluations shall identify operating improvements and evaluate potential ECMs to include identification of CFE and clean energy systems. Facilities may include electrical, water, chilled water, alternative water, heat, or steam

distribution systems, and any VA-owned or operated energy-consuming device. Facilities should investigate data center ECMs, ongoing or continuous commissioning, International Organization for Standardization (ISO) 50001 certification, additional energy or water metering, and maintenance items with an energy or water component wherever practical. Facilities should only evaluate measures that are approved for use in VA facilities and that will meet the operational needs of the facility. However, if there are measures that are not approved for use in VA facilities but are not expressly prohibited, that would likely be LCC effective, the measures should be noted in the evaluation for future consideration by VA. The outcome of the evaluation shall be a set of LCC effective measures that are actionable, and that will be included for implementation in either an energy performance contract or a project funded through appropriations. Facilities shall record evaluation data and results using the approved VA reporting template and guidance available on EEF's Energy Resources SharePoint (https://dvagov.sharepoint.com/sites/VACOOAEMEnergyResources/SitePages/Energy%20Resources%20-%20Reference.aspx)

(b) **Reporting**. Completed evaluations and audit reports shall be submitted electronically to EEF's Energy Resources SharePoint (https://dvagov.sharepoint.com/sites/VACOOAEMEnergyResources/SitePages/Energy%20Resources%20-%20Reference.aspx) in accordance with this directive and EEF guidance. EEF shall enter the results of evaluations into the DOE's CTS.

(c) **Implementation**. All LCC effective measures must be implemented within 2 years of the date of the evaluation completion. The requirement for implementation is achieved upon award of a contract to design, construct, or include a measure in a performance contract. If a facility elects to meet its evaluation requirement through an investment grade audit (IGA) of an energy performance contract, the ECMs identified in the 100% IGA and validated by the contracting officer and Contracting Officer's Representative (COR) as economically and technically viable within the bundled project will constitute the ECMs that must be awarded for implementation within two years. At the Administration level, a minimum of 50% (by implementation value/cost) of identified LCC effective ECMs shall be implemented through energy performance contracts.

i Administrations shall identify on EWM Plans whether the LCC effective ECM shall be implemented through an energy performance contract, or through a project funded through appropriations. All projects (including energy performance contracts) shall be entered into the SCIP Automation Tool and given a SCIP project number. Where necessary, projects shall be

added to SCIP through the out-of-cycle process. Administrations shall include the SCIP number associated with that project on their EWM Plans. Where beneficial, ECMs should be incorporated into existing projects planned for award within two fiscal years.

ii ECMs that are subsequently found to not be LCC effective or technically feasible are not subject to the implementation requirement. EEF will update the ECM(s) in CTS at the request of the facility. Facilities should direct their request to EEF via the energy manager for their Administrative Region. Requests must include a justification and an updated ECM list showing the revised cost and savings information.

(2) **Recommissioning and Retro-commissioning Evaluation**. Recommissioning or retro-commissioning shall be conducted in conjunction with the energy and water evaluations. Templates and guidance are available at EEF's Energy Resources SharePoint (https://dvagov.sharepoint.com/sites/VACOOAEMEnergyResources/SitePages/Energy%20Resources%20-%20Reference.aspx). Facilities should implement the findings of the retro-commissioning or recommissioning reports as soon as practicable, and in conjunction with the other requirements of this directive.

(3) **Exceptions**. Covered facilities may be excluded from the 4-year evaluation, recommissioning, and retro-commissioning requirements if the facility meets the criteria of 42 U.S.C. 8253(f)(3)(B) (https://uscode.house.gov/view.xhtml?req=granuleid:USC-prelim-title42-section8253&num=0&edition=prelim). Energy managers who believe a covered facility may be excluded from this requirement must contact EEF to ensure compliance.

(4) **Reporting.** Completed reports shall be submitted electronically to EEF's Energy Resources SharePoint (https://dvagov.sharepoint.com/sites/VACOOAEMEnergyResources/SitePages/Energy%20Resources%20-%20Reference.aspx) in accordance with this directive.

e. **Achieving Net-Zero Emissions Buildings.**

(1) **General.** Executive Order (E.O.) 14057 requires VA owned buildings to be net-zero emissions buildings by 2045, and 50% of its owned buildings by gross square feet (GSF) to be net-zero emissions buildings by 2032. VA shall implement the following strategies to achieve this goal.

(2) **New Construction and Major Renovations.** Projects requesting initial design funds for new construction and major renovations of VA owned buildings over 25,000 GSF on or after the publication of this directive will

be net-zero emissions operated and maintained by FY 2030. They shall also fully comply with the most current version of the Guiding Principles for Sustainable Federal Buildings (https://www.sustainability.gov/pdfs/guiding_principles_for_sustainable_federal_buildings.pdf). Evidence of compliance must be submitted as part of design and construction submittal reviews. Exceptions to these requirements must be approved by CFM after consultation with OAEM.

(3) **Decarbonization and Electrification.** Whenever VA plans a significant (over $5 million) repair, replacement, renovation, refurbishment, or new construction of a fossil fuel-consuming asset, including for the purposes of heating and cooling, water heating, cooking, and non-emergency backup generation, VA shall perform and document a feasibility assessment comparing the fossil fuel-consuming equipment against a minimum of one no-carbon option, or, where no such option exists for use in a VA facility, against a low-carbon option. Low-carbon options include the use of fuels or technologies that reduce GHG emissions by at least 50% relative to the status quo option. The study must look at total cost over the lifetime of the equipment and must include the Social Cost of GHGs (SCGHG) as described in this directive. This requirement may be included in any other feasibility assessment being completed in conjunction with the project.

(4) **Building Performance Standard.** The Federal Building Performance Standard (https://www.sustainability.gov/pdfs/federal-building-performance-standard.pdf) (BPS) addresses on-site fossil fuels consumed in Federal facilities, which are the largest source of scope 1 emissions from standard operations. The BPS sets a goal for at least 30% of an agency's covered facility square footage be zero scope 1 emissions by 2030. The Federal BPS promotes deep energy retrofits as a primary mechanism for reducing or eliminating scope 1 emissions.

i Administrations should prioritize the performance pathway, eliminating scope 1 emissions from facilities as described in the BPS. Where that is not technically achievable, Administrations should implement all practicable electrification via the prescriptive pathway, as described in the BPS.

ii Administrations shall perform a lifecycle cost analysis (LCCA) for electrification projects; however, Administrations may implement electrification projects that are not LCC effective. Facilities that have not met either the performance pathway or the prescriptive pathway, regardless of LCC effectiveness, may not be counted towards the BPS requirement.

(5) **Deep Energy Retrofits.** A deep energy retrofit is defined as a project or bundle of projects that reduces facility energy use intensity (EUI) by at least 40% from a pre-renovation, FY 2019 baseline. Administrations shall

implement deep energy retrofits in at least 30% of the GSF of their owned, covered facilities by FY 2030. Facilities considering an energy performance contract should include ECMs that support a deep energy retrofit wherever feasible.

(6) Energy Efficient Design Requirements. All major renovations and new construction in VA owned buildings shall adhere to the design requirements of the VA Sustainable Design Manual (https://www.cfm.va.gov/til/sustain/dmSustain.pdf) where such requirements are not less stringent than the other requirements of this directive.

f. **Net-Zero Water Buildings.**

(1) VA Administrations should endeavor to reduce freshwater consumption to the greatest extent possible and become net-zero water buildings within other legal and policy requirements. As part of their EWM Plans, Administrations shall:

(a) Identify water intensive uses and opportunities to reduce water use through VA design and specification standards, ECMs, operational and behavioral changes, and maintenance;

(b) Integrate xeriscaping into facility management wherever practicable;

(c) Ensure that all major water uses are metered in accordance with VA's Metering Implementation Plan and that the meters can report water use to the building management system;

(d) Identify opportunities for alternative water including treatment to improve discharge water quality for re-use.

(2) In creating strategies and identifying opportunities for reducing freshwater use, Administrations shall prioritize facilities located in areas with greater water vulnerability. EEF shall provide Administrations with information regarding facility water vulnerability using FEMP's Water Vulnerability Tool (https://pnnl-gis.maps.arcgis.com/apps/dashboards/3b1e28bf76b84710955f26d586c1e962).

g. **Performance Contracting**.

(1) **General Policy**. Energy performance contracts primarily include energy savings performance contracts (ESPCs) and utility energy services contracts (UESCs) but may include other mechanisms as specified by EEF. EEF is the program office for energy performance contracts and Veterans Health Administration (VHA) Program Contracting Activity Central (PCAC) is the centralized contracting office for energy performance

contracts. All VA energy performance contracting activity must be coordinated through EEF and PCAC.

(2) VA's energy performance contracting program aligns with Federal best practices shared by the DOE Federal Energy Management Program's (FEMP) ESPC and UESC teams. CORs and others considering or supporting an energy performance contract shall review FEMP ESPC (https://www.energy.gov/femp/resources-implementing-federal-energy-savings-performance-contracts) and UESC (https://www.energy.gov/eere/femp/resources-implementing-federal-utility-energy-service-contracts) best practices and resource documents and incorporate them into practice, as well as take appropriate FEMP training (https://www7.eere.energy.gov/femp/training/) as directed by the Site Data Package (SDP) Checklist. The latest SDP Checklist and other resources can be located at EEF's Energy Resources SharePoint (https://dvagov.sharepoint.com/sites/VACOOAEMEnergyResources/SitePages/Energy%20Resources%20-%20Reference.aspx).

(3) **VHA Energy Performance Contracting Planning**. Based on submitted EWM Plans, and to ensure compliance with the Energy Act of 2020, VHA shall submit to OAEM annually by September 1 a list approved by VHA identifying new start project sites. The list must reflect program coordination with contracting and local leadership. EEF will initiate a request for this information annually and may include additional requirements or instructions as appropriate. Proposed new starts may include any combination of voluntary commitments and data-driven selections. Facilities may be combined under a single project if they have shared budgets, energy managers or other engineering staff, or are in the same region.

(4) **Energy Performance Contracting Initiation.**

(a) The first step to initiate an energy performance contract is completing the SDP Checklist, which can be found on the EEF's Energy Resources SharePoint (https://dvagov.sharepoint.com/sites/VACOOAEMEnergyResources/SitePages/Energy%20Resources%20-%20Reference.aspx). EEF will review the completed SDP and address questions or comments with the facility. Following EEF acceptance of the SDP, EEF will initiate the project through PCAC.

i Any VISN, administrative region, or facility considering an energy performance contract must include all LCC effective ECMs identified and evaluated through facility energy and water audits and retro-/recommissioning activities that have not yet been implemented through other methods. They should also consider establishing project goals to achieve a deep energy retrofit, ECMs

that support CFE generation, and other opportunities to decarbonize the facility.

(b) Project Facilitator (PF) support is required for all energy performance contracts for the duration of development, construction, and performance and must be in place prior to the issuance of the Notice of Intent to Award (NOITA). A PF is an industry expert, as verified by the Department of Energy (https://www.energy.gov/femp/federal-project-facilitators), of energy performance contracting vehicles. DOE-approved PFs have an in-depth familiarity with technical and financial analysis tools to be used in reviewing and evaluating IGAs. VA PFs have responsibility to support the VA project team in all submittal reviews, including those relating to baseline measurements and savings calculations. DOE-approved PFs are advised to follow FEMP's ESPC Project Development guide (https://www.energy.gov/femp/articles/femp-espc-project-development-resource-guide), which includes guidance for PF evaluation of baselines and savings. PFs provide support to VA project teams throughout the development and implementation process, including the annual review of measurement and verification (M&V) data. Facilities must secure their own PF funding, while PCAC will support the contracting. If for any reason a PF is not in place at any time during the contract, VHA CORs are fully responsible for review and validation of any assumptions, measurements, and calculations either in development, implementation, or M&V phases.

(c) A fully executed Customer Service Agreement (CSA) is required prior to the issuance of a NOITA to ensure all key VA stakeholders are aware of the roles and responsibilities for the project. The CSA template for both ESPCs and UESCs can be found at EEF's Energy Resources SharePoint (https://dvagov.sharepoint.com/sites/VACOOAEMEnergyResources/SitePages/Energy%20Resources%20-%20Reference.aspx).

(5) **Investment Grade Audit (IGA) Process.**

(a) Following contractor selection, the energy service company (ESCO) or utility will generally develop a preliminary assessment (PAs) and then an IGA, with multiple report iterations – generally at 30%, 60%, and 90% completion – for VA review. The VA project team shall review each submission. At a minimum, the project team includes the facility COR and additional facility and Administrative Region reviewers as appropriate, EEF's energy performance contracting point of contact, PCAC's contracting officer and specialist, VHA Healthcare, Environment and Facility Program (HEFP) assigned reviewer, and the PF. All VA reviewers must review each submission within the time allotted in the project's development schedule to avoid

delaying the project. At each review, VA reviewers must consider facility needs and potential conflicts with other VA projects, and ensure technical solutions align with VA's most recent design and construction standards in VA's technical information library (https://www.cfm.va.gov/til/), VA directives, applicable codes, standards, regulations, and other requirements. When determining LCC effectiveness for an energy performance contract, VISN/facilities shall consider the bundled payback of ECMs rather than the payback for individual ECMs. VA facility staff must witness baseline measurements and review all calculations in conjunction with contracted PF.

(b) VA awards a firm-fixed price design-build contract when the IGA is complete. At award, the project's design will be approximately 30% complete (depending on ECM complexity), and the awarded contract will encompass the completion of design, construction, and performance period services. Payment will begin after construction is complete in accordance with the contract schedule.

(6) **Leveraging Appropriated Funding (Capital Contributions).**

(a) Leveraging energy performance contracting in combination with direct appropriations is a best practice, encouraged by both DOE and E.O. 14057**.** The benefits of integrating appropriated funding into energy performance contracts is that it allows VA to maximize the use of its resources. More work can be performed with the same level of funding and with fewer constraints on facility staff and contracting resources.

i Therefore, for facilities with energy performance contracts being initiated in FY 2024 and thereafter, Administrations shall incorporate into the energy performance contract all direct-funded non-recurring maintenance (NRM) projects and associated funding planned for award prior to the expected performance contract award date with energy and water savings unless funding for such projects will expire prior to the expected performance contract award date.

ii ECMs shall be identified in the SDP or no later than the 30% IGA for inclusion in the initial energy performance contract award; additional ECMs may be considered as a modification, as allowed by the contracting officer. Any modifications that add additional work must include energy or water savings. Additional appropriated funding may be applied to energy performance contracts where available.

iii Exceptions to this requirement are allowed where the project cannot be performed as part of a performance contract or where there is a compelling reason why a particular project is not suitable for implementation through a performance contract. All exceptions must be approved by the Administration and OAEM.

(b) Capital contributions may use Medical Facilities funds, NRM funds, or funds from rebates, incentives, or grant programs such as those run by local utilities or open to Federal agencies, like DOE's Assisting Federal Facilities with Energy Conservation Technologies (AFFECT) Grant program and similar programs.

(c) Capital contributions shall be applied at award of task order or modification to supplement financing of ECM(s) which would not otherwise cashflow, particularly when such ECM(s) include support of E.O. 14057 goals such as CFE, vehicle electrification, net zero emissions buildings, and climate resilient infrastructure and operations; or, to further reduce the contract term below the allowable maximum of 23 years to maximize savings and minimize financing needs. While 42 USC § 8257 allows for a term of up to 25 years, this term must include all construction activities. VA policy is that energy performance contracts shall fit within a 23-year maximum term to allow for construction period activities and unforeseen circumstances. Where capital contributions are being considered for a project, the Administration/Administrative Region/facility shall notify PCAC of the amount available to contribute as early as possible during project development, but no later than 60 days before award.

(d) Capital contributions may also be applied after award to support up to 4 years' worth of upcoming payments at Administrative Region/facility discretion with the approval of the PCAC contracting officer. This is not a buy-down or buy-out of financing. Administration/Administrative Region/facility shall notify PCAC no later than 30 days prior to the end of a fiscal year of their request to apply funds towards an early payment.

(7) **Energy Act of 2020 Implementation.** In accordance with 42 U.S.C. § 8253 (https://uscode.house.gov/view.xhtml?req=granuleid:USC-prelim-title42-section8253&num=0&edition=prelim), at least 50% of identified LCC effective measures must be implemented through performance contracts. The 50% requirement will be measured in dollar value based on the total implementation value of all identified LCC effective measures.

(a) When determining when an ECM is LCC effective within an energy performance contract, facilities are encouraged to consider documentable operations and maintenance (O&M) savings – for example, the elimination of a maintenance contract. Savings

stemming from avoided labor costs of VA employees are not allowed. ECMs may be LCC effective as standalone ECMs, or when bundled with other ECMs.

(b) VA shall also consider how environmental benefits of ECMs can be monetized to help fund an underlying ECM, or other ECMs in a bundled project. Examples of environmental benefits include credits for reductions in greenhouse gases or the sale of environmental attributes associated with the project. Within an energy performance contract, VA's utility and/or energy services company partner should assist with identification of these opportunities for VA's review and approval.

(8) **Modifications**. Modifications to energy performance contracts to include additional work are allowed at the discretion of the contracting officer with approval from EEF and shall follow the program's most current modification approval process. All modifications must properly document cost, schedule, savings, and GHG emissions impacts. Facilities interested in pursuing a modification to their energy performance contract must reach out to their PCAC contracting officer or specialist and their EEF program office point of contact.

(9) **Central Office Review.**

(a) EEF, as VA's Energy Performance Contracting Program office, will approve site data packages prior to submission to PCAC and they, as well as PCAC's contracting officer and specialists, and the PF shall review PAs, IGAs, scope changes, and other key submittals, including proposed modifications.

(b) Other VA offices shall also review energy performance contracting submissions or other related materials, as needed. Reviews must be completed, and comments submitted for consideration within 30 calendar days of receipt.

(10) **Buy-down Policy.**

(a) **General Policy**. Consistent with DOE policy and guidance, one-time ESPC payments may be made (where appropriate funds are available) without tying such payments to other/separate energy or energy related cost savings because the interest savings themselves may be considered energy related cost savings for the purposes of 42 USC § 8287 (https://uscode.house.gov/view.xhtml?path=/prelim@title42/chapter91/subchapter7&edition=prelim) based on the EISA 2007 language providing that "in carrying out a contract under this title, a Federal

agency may use any combination of (i) appropriated funds; and (ii) private financing under an energy savings performance contract."

i VA facilities with energy performance contracts in place may choose to contribute capital to buy-down interest expenses or buy-out the remainder of an ECM or the entire project to reduce or eliminate VA's annual payment or outstanding contract term. While buy-downs and buy-outs may be appropriate in certain cases, depending on the needs of the facility, they should be used sparingly because they present VA with several short- and long-term disadvantages, including limiting or removing VA's ability to withhold payment if ECMs are not performing as expected. An OAEM Buy-downs Supplemental information file is available on **EEF's Energy Resources SharePoint** (https://dvagov.sharepoint.com/sites/VACOOAEMEnergyResources/SitePages/Energy%20Resources%20-%20Reference.aspx).

(b) **Projects in Development.** For energy performance contracts in the development phase (prior to contract award), appropriations can only be applied as a capital contribution.

(c) **Projects in Construction.** Buy-downs and buy-outs are only allowed during the construction phase if a significant change in facility use—including changes that will impact, alter, or dismantle ESPC/UESC material or equipment—or a facility closure eliminates or greatly reduces the benefit of an awarded ECM. In those instances, an ECM buy-out is the preferred path. Buying out the project may be permitted with a written explanation of the facility change and its impact on the project for the review and approval of the VISN, Contracting Officer, OAEM program office, and HEFP.

(d) **Projects in Measurement and Verification**. Buy-outs or buy-downs are permitted after the first 5 years of the performance period, once a solid record of acceptable performance has been established in which there are no outstanding and unmitigated savings shortfalls. Where M&V has shown a record of shortfalls (i.e., where an ECM or project is not meeting the guaranteed or proposed savings goals) and those shortfalls are the contractor's responsibility, a buy-down or buy-out may be considered once the ESCO or utility has corrected the issue or issues leading to the shortfall. Buying out or buying down the project prior to correction would remove VA's leverage to address the problem.

i After 5 years of M&V, and in the absence of issues with savings shortfalls, buy-outs or buy-downs can be considered with a written justification and approval from the VISN, Contracting Officer, OAEM program office, and VHA's HEFP.

(e) **Process.** VISNs/facilities with projects in construction or M&V that meet the above criteria and want to consider a buy-down or buy-out must:

i Request an estimate of interest savings from the ESCO or utility as part of the written justification to pursue a buy-down or buy-out. Interest savings must exceed total early payment, termination, and other fees and costs incurred by VA;

ii Retain performance period services, such as M&V and O&M, for the contractually agreed term unless written justification is provided and approved, even in circumstances when financing payments have been reduced or eliminated. A cost to retain these services shall be requested from the ESCO/Utility;

iii Seek all required VA approvals. Where an evaluated buy-down or buy-out aligns within the criteria listed above, the facility must obtain written approval from the VISN, Contracting Officer, VHA's HEFP, and OAEM program office prior to notification, using the template in the OAEM Buy-downs Supplemental information saved at EEF's Energy Resources SharePoint (https://dvagov.sharepoint.com/sites/VACOOAEMEnergyResources/SitePages/Energy%20Resources%20-%20Reference.aspx). and;

iv Notify the PCAC contracting officer of their intent to pursue a buy-down or buy-out no later than 90 days prior to the end of the fiscal year. Notification must include a specific dollar amount available to allow PCAC time to negotiate with the utility, ESCO and/or financier. Provide a 2237 with the funds when notifying PCAC.

(11) **Reporting Requirements.**

(a) All relevant energy performance contracting submittals must include GHG emissions reduction estimates or actuals, as appropriate. Submittals include the facility's site data package, and Task Order schedules at each stage of the investment grade audit and award to support required reporting in the Building Strategic Plan, the Annual Energy Report to DOE, and any reporting that may be requested through the White House Climate Smart Buildings Initiative or other similar initiatives.

(b) VISNs/facilities are responsible for reporting all awarded energy performance contracts and modifications in the DOE's EISA Section 432 CTS and coordinating with the contractor to report in eProject Builder (ePB) (https://eprojectbuilder.lbl.gov/login). Reporting in both CTS and ePB shall include follow up reporting of measurement and

verification information throughout the performance period. VISNs/facilities must be responsive to requests for additional energy performance contracting reporting requirements at the discretion of EEF.

(12) **Energy Savings Performance Contract Energy Sales Agreements (ESPC ESA)**. An ESPC ESA is a project structure, similar to a power purchase agreement, that uses the multiyear ESPC authority to implement distributed energy projects—referred to as ESA ECMs—on Federal buildings or land. The ESA ECM is initially privately owned for tax incentive purposes, and the Federal agency purchases the electricity it produces with guaranteed cost savings. To facilitate additional on-site CFE, Administrations shall consider the use of ESPC ESAs either as part of a larger ESPC or as a stand-alone project.

h. **Life Cycle Cost Analysis Requirements.** A LCCA shall be performed prior to implementing or deciding to implement any energy or water conservation measure, building system, or investment to include heating and cooling equipment, building envelope and utility distribution greater than $5 million. A LCCA may be accomplished through an IGA as part of an energy performance contract, as part of an EISA Section 432 energy and water evaluation, or as a separate analysis performed by the facility, VISN, Administration or Staff Office. LCCAs shall comply with the principles and procedures outlined in 10 C.F.R. 436, Subpart A, and the most recently published version of NIST Handbook 135, Life Cycle Costing Manual for the Federal Energy Management Program (https://www.wbdg.org/ffc/nist/criteria/nist-handbook-135)

(1) **For investments involving fossil fuel consuming equipment**, LCCA shall consider, at a minimum, one no/low carbon alternative wherever technology alternatives are available that meet mission requirements. If no low/no carbon alternatives are considered, a justification shall be provided in the LCCA as to why. Investments may be evaluated individually or as a bundle of measures to determine LCC effectiveness. LCCAs shall factor in the SCGHG as a part of economic analysis. The results of the LCCA must be retained and available for review.

(2) **Accounting for the Benefits of Reducing Climate Pollution**. Capturing the full costs of GHGs as accurately as possible, including by taking global damages into account, is essential for VA to understand the true cost of an investment and to conduct a thorough LCCA. The “social cost of carbon,” “social cost of nitrous oxide,” and “social cost of methane” must be included as factors in every energy and water related investment decision, as applicable. Collectively, these are referred to as the SCGHG. Whenever VA conducts a LCCA or comparative financial analysis of an energy and water investment, or an investment with a significant impact on energy and water use, the SCGHG must be considered. Requirements for SCGHG will be periodically updated to reflect Executive Branch guidance. Current

discount rates to be applied can be found in the Technical Support Document (https://www.whitehouse.gov/wp-content/uploads/2021/02/TechnicalSupportDocument_SocialCostofCarbonMethaneNitrousOxide.pdf) published by the Interagency Working Group on Social Cost of Greenhouse Gases.

i. **Metering.**

(1) All new construction and major renovation projects shall follow the metering requirements found in VA Sustainable Design Manual (https://www.cfm.va.gov/til/sustain/dmSustain.pdf) Individual buildings or systems with significant electricity, water, chilled water, steam and natural gas loads, as defined in VA's Metering Implementation Plan shall be sub-metered.

(2) Existing VA-owned Federal buildings (https://uscode.house.gov/view.xhtml?req=granuleid:USC-prelim-title42-section8259&num=0&edition=prelim) over 50,000 gross square feet shall comply with VA's Metering Implementation Plan no later than October 2028. Existing buildings shall install and maintain meters in accordance with the prioritization criteria listed in the Metering Implementation Plan. Administrations shall submit, in their EWM Plans, a description of the Administration's implementation schedule to comply with the Metering Implementation Plan. Where a facility or building cannot be brought into compliance, and explanation shall be provided in the EWM Plan.

(3) Meters must be capable of automatically communicating consumption data to a remote data acquisition system. The data acquisition system must maintain data for at least 3 years.

(4) Meters shall be calibrated and maintained as per the manufacturer's operation and maintenance manual or as needed to maintain optimal performance.

(5) Facilities with more than 10 acres of irrigable land shall install water meters. Administrations shall prioritize installing and maintaining water meters for facilities in geographic regions with higher water vulnerability as determined through the FEMP Water Vulnerability Assessment Tool (https://pnnl-gis.maps.arcgis.com/apps/dashboards/3b1e28bf76b84710955f26d586c1e962).

j. **Electricity and Energy Purchasing.**

(1) **General Policy.** VA facilities shall acquire all utilities pursuant to Federal Acquisition Regulation (FAR) Part 41, VA Acquisition Regulation (https://www.acquisition.gov/vaar) and the VA Acquisition Manual (https://www.va.gov/oal/library/vaam/index.asp). Prior to initiating a

contract for electricity or natural gas, VA facilities must coordinate with EEF to determine whether additional coordination with the VA Office of General Counsel, General Services Administration (GSA), Department of Defense (DoD), or DOE is required. Contracts for electricity and natural gas should both support the goals of this directive and E.O. 14057, while also seeking best value for the Government.

(2) **Retail Choice Markets**. Retail Choice Markets are markets where customers can choose their electricity or gas supplier. In retail choice electric and gas markets, facilities shall acquire electric and natural gas commodities through contracts awarded by GSA or the Defense Logistics Agency (DLA), where it is economically advantageous. Contracts shall be coordinated with EEF and PCAC.

k. **Carbon Pollution-Free Electricity (CFE)**.

(1) **General Policy**. VA has a goal to achieve 100% CFE with 50% being "24/7" CFE by FY 2030. CFE does not contribute to VA's GHG emissions and is therefore not an equivalent product to electricity that produces carbon emissions. CFE shares attributes with renewable technologies but is not synonymous with renewable electricity. The definitions section of this directive provides more information on what technologies constitute CFE.

i To achieve this goal, VA must coordinate with GSA, DLA, DoD, and DOE in a whole of government approach to electricity acquisition, and with each serving electric utility. EEF is the CFE program office for VA. Because electric utilities operate under jurisdiction-specific requirements and regulations, acquiring CFE for each facility may require a different approach. The below requirements are broad. Administrations must coordinate with EEF for the specific approaches for their facilities.

(2) **Net Annual CFE Goal**. Progress toward the net annual CFE goal will be measured by adding purchased CFE, on-site CFE, purchased energy attribute certificates (EACs), and grid-supplied CFE.

(a) **Purchased CFE** is CFE purchased from a qualifying CFE generation source with the associated EACs, i.e., the original associated energy attributes have not been sold, transferred, or retired, sometimes referred to as bundled EACs. Purchased CFE can be acquired through a facility's utility provider where available, a retail service provider, energy supply contractor, or through energy sales agreements or power purchase agreements, subject to eligibility requirements below.

(b) **On-site CFE** is CFE generated at a Federal facility. To count CFE produced at a Federal facility towards the net annual CFE

requirement, the Administration must obtain and retire the energy attribute certificates (EACs) sourced from the on-site CFE generation. If registration of EACs is not available or practicable, Administrations may count on-site generation toward the CFE requirement by entering generation in VSSC and retaining records of operation (where unmetered) or actual generation (metered) for at least 3 years.

(c) **Purchased EACs** are EACs that are procured independently from the purchase of physical power, sometimes referred to as "unbundled" EACs.

(d) **Grid-supplied** CFE is CFE delivered as part of default electricity service or the electricity grid mix from a utility or electric service provider. VA will use the Emissions and Generation Resource Integrated Database (https://www.epa.gov/egrid) (eGRID), using a residual mix methodology that subtracts CFE and unbundled EACs that third parties have purchased, retired, or claimed. Alternately, in accordance with CEQ Memorandum: Clarification of Grid-supplied Carbon Pollution-Free Electricity Calculation Methodology (https://www.sustainability.gov/pdfs/grid-supplied-cfe-memo.pdf), VA may use a more refined CFE percentage where the validity of the claimed percentage can be verified and recorded.

(3) **CFE Implementation by Type.**

(a) **Purchased CFE**. Where E.O. 14057 eligible CFE is available through a facility's utility, or a third party, facilities shall purchase it in quantities sufficient to claim 100% CFE when combined with the other strategies below. Such purchases must be coordinated with EEF. Acquisition may be through contracts or tariffs directly with the utility, contracts awarded by GSA or DLA, or task orders issued under a GSA Areawide contract. Exceptions to this requirement based on cost may be made on an ad-hoc basis and must be approved by the Administration after consultation with OAEM. If a tariff rate has been approved by an independent regulatory body, the tariff rate agreement does not need to be signed by a contracting officer.

(b) **On-Site CFE.** To achieve the CFE goal, VA facilities should install CFE on-site where it is feasible and LCC effective. A project may be LCC effective as a stand-alone project or when bundled with other measures. Facilities shall maintain on-site CFE to operate as designed. On-site CFE shall be metered and report, at a minimum, hourly usage to a centralized building management system or database. On-site CFE shall be maintained as part of regular facility maintenance.

(c) **Purchased EACs**. Where E.O. 14057 eligible EACs are available facilities may purchase them as an alternative to purchased CFE. Facilities must coordinate these purchases with EEF to ensure that purchased EACs are the most cost-effective method for achieving 100% CFE.

(d) **Grid-delivered CFE**. A certain percentage of electricity delivered by the utility will already be CFE per the definition of E.O. 14057. Administrations must account for this percentage by tracking it within their EWM Plans using eGRID calculation methodology or as specified in Clarification of Grid-supplied Carbon Pollution-Free Electricity Calculation Methodology (https://www.sustainability.gov/pdfs/grid-supplied-cfe-memo.pdf).

(4) **Eligibility.** To qualify towards the CFE goal, CFE must meet the following eligibility requirements found in E.O. 14057 Implementing Instructions (https://www.sustainability.gov/pdfs/EO_14057_Implementing_Instructions.pdf).

(5) **24/7 CFE**. Per E.O.14057, 50% of CFE must be "24/7" CFE by 2030. This means that the CFE must be generated within the same balancing authority as where it is used, at the same time that it is used. To accomplish this, utilities must be able to track facility hourly electric consumption and match it with the generation assets serving the facility. Administrations shall coordinate with EEF on the approach and timeline for achieving this requirement.

l. **Data, Reporting, and Tracking**. Data, reporting, and tracking requirements for VA Administrations and Staff Offices include, but are not limited to:

(1) Quarterly entry of monthly water and energy consumption, on-site generation and other data as requested by this directive, following utility bill verification and certification for payment, shall be reported in the VHA Support Service Center (VSSC) database (https://vssc.med.va.gov/EnergyV2/Default.aspx).

(2) Energy, water, and sewer costs shall be reported quarterly in VA's Financial Management System.

(3) ECM project data for each facility shall be entered in the DOE CTS on no less than a quarterly basis. To be counted as part of Energy Act of 2020 compliance, projects must be reported within CTS (https://www.eisa-432-cts.eere.energy.gov/EISACTS/Login.aspx). Energy audit data shall be entered every four years or as audits are completed.

m. **Product Requirements**. VA shall specify and purchase Energy Star® or DOE FEMP-designated energy efficient products for all applicable contracts for products or services involving energy-consuming products, in accordance with

the Energy Policy Act of 2005 Section 104, FAR Part 23 and all effective EOs. VA shall specify and purchase water efficient products and services, such as EPA WaterSense® labeled, for all applicable contracts for products or services involving water-consuming products, in accordance with FAR Part 23 and all effective EOs, when the products/services meet VA's performance requirements, specifications, and directives; are available; and are cost effective.

3. RESPONSIBILITIES.

a. **Assistant Secretary for Management and Chief Financial Officer** shall:

(1) Advise the Secretary on all energy related matters and provide general guidance and supervision to the Executive Director, Office of Management, Office of Asset Enterprise Management in the conduct of their day-to-day duties.

(2) Request funds to facilitate Department-wide implementation of energy and water management and investment policy (including salary dollars for Administration and Staff Office energy and water staff, and obligations existing under energy performance contracts).

b. **Under Secretaries, Assistant Secretaries and, Other Key Officials** shall:

(1) Comply with current legislation, regulation, EOs, and other Federal mandates, and VA directives and policies. Implement energy and water management programs that comply with this directive and meet or exceed VA energy and water goals.

(2) The National Cemetery Administration and Veterans Benefits Administration must assign full-time facility energy managers to accomplish the requirements of this directive for any facilities they administer and provide the Director of OAEM's EEF with contact information for energy managers.

(3) Review submittal materials for energy performance contracts at facilities in their Administration within 30 calendar days of submission, unless otherwise extended by the PCAC contracting officer.

(4) As part of EWM Plans, validate that proposed energy or water projects do not conflict with short or long-term facility plans.

(5) Collect and report data.

(a) Report data on energy and water cost and consumption, proposed and actual energy investments, and other data as directed by this directive and legislative requirements.

(b) Report all required data in CTS, in accordance with the requirements in this directive and legislative requirements.

(c) Respond to OAEM data calls within timeframes specified in the data call.

(6) Perform an energy and water evaluation and recommission or retro-commission each covered facility every four years, using the OAEM-approved energy audit and re/retro-commission report template.

(7) Ensure energy managers maintain training in accordance with 42 U.S.C. § 8262(3) and with the Federal Buildings Personnel Training Act of 2010.

(8) Prior to issuance, submit all energy or water directives, policy changes or formal guidance issued at the Administration level to OAEM for formal review and concurrence via the VIEWS process, or other process as agreed to by OAEM.

c. **Under Secretary for Health**, in addition to the responsibilities listed in paragraph 3 (a) above, shall:

(1) Ensure a full-time energy manager is assigned to each VISN to provide technical energy and engineering support for all VA facilities within their geographic area.

(2) Ensure each VHA facility is assigned a full-time facility energy manager. An energy manager may cover more than one facility if necessary.

(3) Ensure that energy managers, at both the VISN and facility level, primarily perform energy and water related work. They must be provided sufficient time to perform all the requirements of this directive, including performing or overseeing energy and water evaluations, re/retrocommissioning, SCIP project entry for projects with sustainability gap closures; serving as CORs for energy performance contracts; and supporting development of the Administration EWM Plans.

(4) Within 60 days of the issuance of this directive, assign a Facility Sustainability Officer (FSO) at each VHA medical center to serve as the coordinating point for energy and water, environment, and vehicle fleet management as well as sustainable buildings, climate change adaptation, environmental justice, and related programs. The FSO shall engage with facility subject matter experts in these areas and regularly attend facility-level meetings on these topics, such as participating in the Green Environmental Management Systems Committee meetings. They shall also provide leadership toward facility-wide sustainability progress and share sustainability-related information to employees to improve their awareness, as appropriate. The FSO is a leadership role, and the assigned individual must be in a position that reports directly to the facility director.

(5) Ensure that a centralized database to collect and store utility metering data is consistently maintained, and that funds for that purpose are requested as needed.

(6) Appropriately staff PCAC's energy performance contracting group such that PCAC personnel can manage the procurement efforts for performance contracts in both pre- and post-award phases, and to allow for expansion as needed to support VA and legislative requirements.

d. **Executive Director, Office of Management Office of Asset Enterprise Management** shall:

(1) Serve as the Chief Sustainability Officer (CSO) for VA. The CSO shall oversee and monitor Department-wide energy and water management programs, provide policy and implementation guidance, and in collaboration with Administrations and Staff Office, consult on budget and personnel resource needs.

(2) Issue guidance, information requests, or other requirements as needed to fulfill the purposes of this directive.

(3) Review policy, memoranda, or guidance prior to issuance by any Administration of Staff Office related to energy and water management, energy and water infrastructure, and systems or energy and water investment, to ensure compliance with this directive.

(4) Provide oversight to ensure an integrated and coordinated Departmental approach to energy and water management programs.

(5) In conjunction with the Assistant Secretary for Management and Chief Financial Officer, set Department-wide energy and water management policy.

(6) Serve as the program office for all energy performance contracting activities and maintain decision authority over energy performance contracting policy and procedures.

(7) Ensure coordination among OAEM, Administrations, Staff Offices, and facility and contracting offices regarding energy initiatives and energy performance contracts.

(8) Provide necessary assistance and guidance to support Administrations and Staff Offices in complying with this directive, applicable energy and water-related VA policies, design manuals, design guides, and VA Master Specifications; EOs; and Federal laws and regulations.

e. **Executive Director, Office of Construction and Facilities Management (CFM)** shall:

(1) Chair a "Standards Review Committee" to evaluate energy and water technologies for use on VA campuses. The Committee shall meet regularly as appropriate and shall include representation from CFM, VHA, and OAEM at a minimum. The Committee shall review energy and water technologies for which VA does not have a standard or specification, or to update standards and specifications related to energy and water technology use and application. Reviews should determine the suitability and criteria for application at VA facilities, and where suitable, develop appropriate guidance and policy.

(2) Ensure the building energy and water requirements of this directive are incorporated into CFM policies and guidance, and into VA major construction projects.

(3) Develop lifecycle cost analysis methodology for VA projects that impact energy or water use that incorporates the requirements of this directive.

f. **Director of Contracting, Program Contracting Activity Central**. As the centralized contracting office for energy performance contracts, PCAC shall:

(1) Appropriately staff the energy performance contracting group such that PCAC personnel can manage the procurement efforts for performance contracts in both pre- and post-award phases, and to allow for expansion as needed to support VA and legislative requirements.

(2) Assign a contracting officer and contract specialist for each energy performance contract to, among other duties, make all project and contract changes in scope.

4. REFERENCES. Below are the key laws, EOs and other relevant information. As requirements evolve, new or revised ones (along with available guidance) may be found on VA's intranet site at VA Publications (https://vaww.va.gov/vapubs/) and EEF's intranet site (https://dvagov.sharepoint.com/sites/vacoeef/). Additional energy and water-related information and resources can be found at EEF's Energy Resources SharePoint (https://dvagov.sharepoint.com/sites/VACOOAEMEnergyResources/SitePages/Energy%20Resources%20-%20Reference.aspx).

a. Energy Policy Act of 2005 (https://www.govinfo.gov/content/pkg/PLAW-109publ58/pdf/PLAW-109publ58.pdf)

b. Energy Independence and Security Act of 2007 (https://www.govinfo.gov/content/pkg/PLAW-110publ140/pdf/PLAW-110publ140.pdf)

c. **Energy Act of 2020** (https://www.directives.doe.gov/ipt_members_area/doe-o-436-1-departmental-sustainability-ipt/background-documents/energy-act-of-2020)

d. Executive Order 13990, "Protecting Public Health and the Environment and Restoring Science To Tackle the Climate Crisis" dated January 25, 2021 (https://www.whitehouse.gov/briefing-room/presidential-actions/2021/01/20/executive-order-protecting-public-health-and-environment-and-restoring-science-to-tackle-climate-crisis/)

e. Executive Order 14008, "Tackling the Climate Crisis at Home and Abroad," dated January 27, 2021 (https://www.federalregister.gov/documents/2021/02/01/2021-02177/tackling-the-climate-crisis-at-home-and-abroad)

f. Executive Order 14057 "Catalyzing Clean Energy Industries and Jobs Through Federal Sustainability," dated December 08, 2021 (https://www.federalregister.gov/documents/2021/12/13/2021-27114/catalyzing-clean-energy-industries-and-jobs-through-federal-sustainability)

g. Office of Management and Budget Memorandum M-22-06 (https://www.whitehouse.gov/wp-content/uploads/2021/12/M-22-06.pdf)

h. Executive Order 14057 Implementing Instructions (https://www.sustainability.gov/pdfs/EO_14057_Implementing_Instructions.pdf)

5. DEFINITIONS.

a. **24/7 Carbon Pollution-Free Electricity.** As defined in E.O. 14057, Carbon pollution-free electricity procured to match actual electricity consumption on an hourly basis and produced within the same balancing authority where the energy is consumed. Regional grid is defined as being under the same balancing authority.

b. **Alternative Water.** As defined by DOE (https://www.energy.gov/femp/alternative-water-sources), alternative water is water supplied by sustainable sources that can be used to help offset the use of fresh surface water and groundwater (such as lakes and aquifers). Alternative water sources include harvested rainwater, captured condensate from air handling units and reclaimed wastewater. Alternative water is typically used in non-potable applications such as irrigation, cooling tower makeup, and vehicle wash.

c. **Carbon Pollution-Free Electricity.** As defined in E.O. 14057, electrical energy produced from resources that generate no carbon emissions, including marine energy, solar, wind, hydrokinetic (including tidal, wave, current, and thermal), geothermal, hydroelectric, nuclear, renewably sourced hydrogen, and electrical

energy generation from fossil resources to the extent there is active capture and storage of carbon dioxide emissions that meets EPA requirements.

d. **Commissioning.** As defined in 42 U.S.C. § 8253 (https://uscode.house.gov/view.xhtml?req=granuleid:USC-prelim-title42-section8253&num=0&edition=prelim), a systematic process of ensuring, using appropriate verification and documentation, that the facility, system, or measure performs in accordance with the design documentation and intent of the facility and the operational needs of the facility. 42 U.S.C. § 8253 (https://uscode.house.gov/view.xhtml?req=granuleid:USC-prelim-title42-section8253&num=0&edition=prelim).

e. **Compliance Tracking System.** CTS is a web-based tracking system required by 42 U.S.C. § 8253(f)(7)(A) (https://uscode.house.gov/view.xhtml?req=granuleid:USC-prelim-title42-section8253&num=0&edition=prelim) to certify compliance of each Federal agency covered facility with the requirements of 42 U.S.C. § 8253(f)(3)-(5) (https://uscode.house.gov/view.xhtml?req=granuleid:USC-prelim-title42-section8253&num=0&edition=prelim). CTS, maintained by the Department of Energy, collects and tracks “covered” facility annual energy and water use, facility evaluation progress and findings, information on implemented efficiency measures, and annual benchmarking data for metered buildings.

f. **Covered Facility.** As defined in 42 U.S.C. § 8253 (https://uscode.house.gov/view.xhtml?req=granuleid:USC-prelim-title42-section8253&num=0&edition=prelim), an agency’s covered facilities for energy audits and reporting purposes must comprise at least 75 percent of total facility energy use. A covered facility includes a group of facilities at a single location or multiple locations managed as an integrated operation and contractor-operated facilities owned by the Federal government. Excludes any facilities for which the Federal government does not directly pay utilities. OAEM has determined that all VHA major medical facilities are covered facilities. The current determination and list of all covered VA facilities is maintained on the OAEM Energy Management SharePoint site.

g. **Deep Energy Retrofit.** As defined in E.O. 14057 Implementing Instructions, a deep energy retrofit leverages whole building approaches and integrative design to maximize energy efficiency and emissions reductions. To qualify as a deep energy retrofit, a project, or bundle of projects, must reduce facility energy use intensity (EUI) by at least 40% from a pre-renovation, FY 2019 baseline. I.e., a series of retrofit projects that start after FY 2019 and are implemented over several years may qualify as a deep energy retrofit if, combined, they achieve a 40% EUI reduction.

h. **Energy Attribute Certificate (EAC).** As defined in EO 14057 Implementing Instructions (https://www.sustainability.gov/pdfs/EO_14057_Implementing_Instructions.pdf),

an instrument that conveys information (attributes) about a unit of energy, including the resources used to create it, and the emissions associated with its production and use. A renewable energy certificate, or REC, is a type of EAC.

i. **Energy Conservation Measure (ECM) and Water Conservation Measure.** As defined in 42 U.S.C. § 8259, ECMs are measures that are applied to a Federal building (https://www.law.cornell.edu/definitions/uscode.php?width=840&height=800&iframe=true&def_id=42-USC-1882262281-1161808748&term_occur=999&term_src=title:42:chapter:91:subchapter:III:part:B:section:8259) that improve energy efficiency and are life cycle cost effective and that involve energy conservation, cogeneration facilities, renewable energy sources, improvements in operations and maintenance efficiencies, retrofit activities, or energy consuming devices and required support structures. For this directive, ECM also includes water conservation measures. As defined in 42 U.S.C. § 8287(c) a water conservation measure is a measure that improves the efficiency of water use, is life-cycle cost-effective, and involves water conservation, water recycling or reuse, more efficient treatment of wastewater or stormwater, improvements in operation or maintenance efficiencies, retrofit activities, or other related activities, not at a Federal hydroelectric facility.

j. **Energy Performance Contract.** Means an energy savings performance contract, a utility energy service contract that includes performance assurance, or other mechanisms as specified by EEF.

k. ***Energy Performance Contract Buy-down:*** a capital payment made to a utility or ESCO *after* award of an energy performance contract or modification that buys down some, or all, of the loan and modifies the financial schedule. A buy-down is intended to reduce VA's annual payment or outstanding contract term while retaining other contract services and requires amending the Task Order schedules.

l. ***Energy Performance Contract Buy-out***: a capital payment made to a utility or ESCO *after* award of an energy performance contract or modification that buys out the remaining loan on one or more ECMs, or the entire project. A buy-out is intended to reduce or eliminate VA's annual payment or outstanding contract term and terminate contractual responsibilities (including measurement and verification) towards ECMs or the project as a whole.

m. **Energy Savings Performance Contracts.** As defined in 42 U.S.C. § 8287(c), energy savings performance contract means a contract that provides for the performance and services for the design, acquisition, installation, testing, and, where appropriate, operation, maintenance, and repair of an identified energy or water conservation measure or series of measures at 1 or more locations. An ESPC is a partnership between a Federal agency and an ESCO. In consultation with the Federal agency, the ESCO designs and constructs a project that meets the agency's needs and arranges the necessary funding. The ESCO guarantees

that the improvements will generate cost savings sufficient to pay for the project over the term of the contract (up to 25 years, including implementation period). After the contract ends, all additional cost savings accrue to the agency. An ESPC is an energy performance contract mechanism.

n. **Energy Use Intensity.** Per DOE, a measure of the efficiency of a building calculated as:

$$\frac{\text{Total facility/building energy consumed in a year (kBTU)}}{\text{Facility/building conditioned gross square feet}}$$

o. **Facility Energy and Water Audit.** As described in DOE Facility Energy Management Guidelines and Criteria for Energy and Water Evaluations in Covered Facilities (https://www.energy.gov/femp/articles/facility-energy-management-guidelines-and-criteria-energy-and-water-evaluations), an audit report that contains sufficient detail and actionable information about ECMs so that sound project decisions can be made based on the audit results.

p. **Fossil Fuel-Consuming Equipment.** Equipment, devices, motors, turbines, engines, or any other machinery that requires the combustion of fossil fuel to perform the functions it is intended or designed to perform.

q. **Greenhouse Gas.** As defined in EO 14057 Implementing Instructions, Carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, nitrogen trifluoride and sulfur hexafluoride.

r. **Grid Region.** As defined in EO 14057 Implementing Instructions, The area of the grid within which a balancing authority maintains balance between electric load and resources.

s. **Investment Grade Audit.** A study for a specific energy performance contract project that includes detailed descriptions of the improvements recommended for the project, the costs of the improvements, and the operations and maintenance cost savings and utility cost savings projected to result from the recommended improvements.

t. **Life Cycle Cost-Effective.** As defined in 42 U.S.C. § 8253 (https://uscode.house.gov/view.xhtml?req=granuleid:USC-prelim-title42-section8253&num=0&edition=prelim), with respect to a measure, means a measure, the estimated savings of which exceed the estimated costs over the lifespan of the measure, as determined in accordance with section 42 U.S.C. 8254.

u. **Net-zero Emissions Building.** As defined in EO 14057 Implementing Instructions, Net Zero-emissions reduce greenhouse gas emissions to as close to zero as possible and balance remaining emissions with an equivalent amount of emissions removal, through natural carbon sinks, carbon capture and storage, direct air capture, or other methods. A net zero emissions building means a

building that is designed and operated so that, when connected to a regional electrical grid fully serviced by CFE, the scope 1 and 2 GHG emissions from all operational end uses are zero on an annual basis.

v. **Net-zero Water Building.** As defined in EO 14057 Implementing Instructions, A building that is designed, constructed or renovated and operated to greatly reduce total water consumption, use non-potable sources as much as possible and recycle and reuse water in order to return the equivalent amount of water as was withdrawn from all sources, including municipal supply, without compromising groundwater and surface water quantity and quality.

w. **Power Purchase Agreements (PPAs)**. PPAs allow Federal agencies to implement on-site renewable energy projects with no upfront capital costs. A developer installs a renewable energy system on Federal land or buildings. In exchange, the agency agrees to purchase the power generated by the system. The agency's power purchase payments repay the developer over the contract term. The developer owns, operates, and maintains the system for the life of the contract. GSA is currently authorized, and may delegate authority, to issue PPAs for terms up to ten years under FAR Part 41.

x. **Renewable Energy.** As defined in EO 14057 Implementing Instructions, marine energy, or electric energy produced from solar, wind, biomass, landfill gas, geothermal, municipal solid waste, or new hydroelectric generation capacity achieved from increased efficiency or additions of new capacity at an existing hydroelectric project.

y. **Renewable Energy Certificate.** As defined in OMB Memorandum M-22-06, a market-based instrument that represents the technology and environmental (nonenergy) from the generation of 1 megawatt-hour (MWh) of electricity from an eligible renewable energy resource. RECs are a type of EAC.

z. **Recommissioning.** As defined in 42 U.S.C. § 8253 (https://uscode.house.gov/view.xhtml?req=granuleid:USC-prelim-title42-section8253&num=0&edition=prelim), a process of commissioning a facility or system beyond the project development and warranty phases of the facility or system, the primary goal of which is to ensure optimum performance, in accordance with design or current operating needs, over the useful life of the facility or system, while meeting building occupancy requirements.

aa. **Retail Electric Choice Markets.** As defined in EO 14057 Implementing Instructions, also known as "deregulated market," means electricity markets where customers can choose their electric supplier.

bb. **Retro-Commissioning.** As defined in 42 U.S.C. § 8253 (https://uscode.house.gov/view.xhtml?req=granuleid:USC-prelim-title42-section8253&num=0&edition=prelim), the process of commissioning a facility,

system, or measure that was not commissioned at the time of construction of the facility or system.

cc. **Scope 1 GHG.** As defined in EO 14057 Implementing Instructions, Direct greenhouse gas emissions from sources that are owned or controlled by the agency.

dd. **Scope 2 GHG.** As defined in EO 14057 Implementing Instructions, Indirect greenhouse gas emissions resulting from the generation of electricity, heat, or steam purchased by an agency.

ee. **Scope 3 GHG.** As defined in EO 14057 Implementing Instructions, GHG emissions from sources not owned or directly controlled by an agency but related to agency activities such as vendor supply chains, delivery and transportation services, and employee travel and commuting.

ff. **Strategic Capital Investment Planning (SCIP).** Per VA's 2023 Budget Submission Volume 4 (https://www.va.gov/budget/docs/summary/fy2024-va-budget-volume-iv-construction-long-range-capital-plan-and-appendix.pdf) SCIP is a process to determine the critical unmet infrastructure needs relative to each other, across the Department, and is based on clearly defined standards, ongoing assessments, and stakeholder input.

gg. **Utility Energy Service Contract (UESC).** As defined by DOE, a UESC is a limited-source acquisition between a Federal agency and serving utility for energy management services, including energy and water efficiency improvements and energy demand reduction. A UESC that includes performance assurances is considered an energy performance contract.

hh. **Utility Services.** Per FAR part 41, The provision of electricity, natural gas, water, sewerage, chilled water, steam, or hot water to a customer.

ii. **Vertically Integrated Utility Markets.** As defined in EO 14057 Implementing Instructions, also known as "regulated markets," means electricity markets where the serving utility is responsible for generation, transmission, and distribution of electricity.