U.S. Department of Veterans Affairs

Sustainability Report and Implementation Plan

2020

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Executive Summary

The mission of the U.S. Department of Veterans Affairs (VA) is to fulfill President Lincoln's promise, "To care for him who shall have borne the battle, and for his widow, and his orphan." VA provides numerous benefits and services to honor the men and women who are America's Veterans, including medical care, financial benefits, and memorial services. Sustainability is fundamental to achieving this mission. VA strives to provide healthy, productive, and cost-effective environments for Veterans, staff, and visitors while minimizing any negative impacts of our operations on the communities and environments in which we operate. Cost savings achieved in energy and sustainability efforts are reinvested to better serve Veterans.

VA's commitment to sustainability is well represented by the agency's success in winning recognition through the non-profit sustainable healthcare organization, Practice Greenhealth. This year, VA medical centers received eight of the organization's most prestigious "Top 25" category awards, along with numerous awards in other categories. VA hospitals overall use 40 percent less energy per square foot than the national average for all hospitals[1].

VA continues to experience unprecedented growth in services being provided to our Nation's Veterans and beneficiaries. Since 2008, the number of VA employees has grown by 52% to 379,998 employees as of FY 2019 and the number of patients seen per day has increased 41% to 240,343 patients per day in 2019. VA facilities are located throughout the country to reach Veterans in their communities, with 8,069 buildings in 804 cities, totaling nearly 200 million square feet. This portfolio encompasses vastly different needs for building operations, from the National Cemetery Administration's low energy intensity cemetery facilities to the Veterans Health Administration's acute care hospitals with high energy demand. At the same time, the VA vehicle fleet has grown over 75 percent to 21,887 vehicles performing mission-specific functions, such as transporting Veterans to and from appointments.

VA strives to meet sustainability-related targets while providing the highest standard of care. As VA works towards sustainability related goals and mandates, mission requirements continue to evolve. For example, to better serve Veterans, VA is providing healthcare and other services to Veterans in their homes and neighborhoods as well as at VA facilities. Such developments, in addition to the Department's strict requirements related to infection control in its health care facilities, present unique and significant challenges to ongoing efforts to meet sustainability goals. Despite these challenges, VA has made substantial achievements in many sustainability areas.

Through investments in energy improvements and renewable energy, energy use and water use per square foot have each been reduced by about one third (28.5% and 34.5%) since 2003 and 2007, respectively. In recent years, this progress has been fueled particularly by energy performance contracting, with $82.9 million in contracts awarded in FY 2019 alone. VA has certified 44% of building square footage as sustainable. This has been made possible by certification of new buildings upon their completion, but also through a sustained effort to certify existing VA buildings. Renewable energy use is over 10 percent of total electricity use.

[1] Bawaneh, K., Nezami, F. G., Rasheduzzaman, M., & B. Deken (2019). Energy Consumption Analysis and Characterization of Healthcare Facilities in the United States. *Energies, 12(3775).*

Each year, VA evaluates capital investment projects through its Strategic Capital Investment Planning (SCIP) process, which ranks projects based on the extent to which they address various mission needs. When a project addresses a need, it earns points, with higher priority needs conferring most points. Needs in SCIP are expressed as "gaps" that represent a target or goal that must be met. SCIP currently features four sustainability-related gaps: energy efficiency, water efficiency, renewable energy, and sustainable buildings. These gaps are based on mandates for federal agencies in these areas.

Going forward, VA will continue to pursue efficiency and cost-savings strategies in alignment with Executive Order 13834. Key strategies for FYs 2021 and 2022 focus on energy performance contracting, data quality, and assessing energy project opportunities.

- VA continues to identify beneficial energy projects that serve the mission and are responsible with taxpayer dollars while reducing VA's environmental impact. Improving energy resiliency and reliability, upgrading critical infrastructure, and lowering operating costs increase VA's ability to serve Veterans. Where possible, VA seeks to employ non-traditional funding for these projects, including energy performance contracting.
- Energy performance contracting has been an innovative way for VA to channel private sector investment into improvements for VA's energy and water infrastructure. With VA's awarded portfolio of over $868 million of energy performance contracts as of February 2020, VA is already addressing infrastructure and building system needs at 80 VA medical centers across the country. This strategy will continue to be a priority with eighteen additional planned projects and modifications totaling approximately $330 million in value for FYs 2020 and 2021.
- VA has undertaken comprehensive efforts to improve data quality. VA has continued to review and correct fleet data nationwide. Additionally, in FY 2020, VA has launched an inventory review of all VA-owned vehicles. This detailed report, with attributes of each vehicle, should greatly improve the accuracy of owned vehicle data. VA has also undertaken extensive efforts for managing energy data, tracking performance contracts in eProject Builder, entering and reviewing VA data in the Department of Energy (DOE) Comprehensive Tracking System (CTS) database, and populating VA's annual energy report to DOE with rigorously reviewed data. VA plans to focus on optimizing these efforts in the coming years to ensure the best quality data for managing facilities and vehicles. In 2019, VA also conducted a review of its entire combined heat and power (CHP) and solar photovoltaic (PV) portfolio. This effort looked at the performance of over 100 distributed generation systems and provided insight into how the systems are being operated and maintained. The review allows VA to report more accurate generation data, and to understand when systems are not performing as expected.

Implementation Summary: Facility Management

1. FACILITY ENERGY EFFICIENCY

FY 2019 Energy Intensity Progress (Btu/GSF):

28.5% reduction from FY03

7.1% increase from FY18

FY 2020-FY 2021 Plan:

0.5% reduction in FY20 from FY19

0.5% reduction in FY21 from FY20

VA strives to accomplish the agency mission in an energy efficient way where possible by conducting required energy audits, making use of all available contracting methods, including performance contracts, to replace inefficient equipment, and making use of renewable power where possible. VA's agency-level energy management program supports the site-specific needs of over 170 medical centers, 133 cemeteries, and various regional offices. In VA's SCIP process, each facility must identify how they plan to meet the energy efficiency target of reducing energy intensity by 30 percent compared a 2003 baseline.

Implementation Status

- Performed energy audits and retro-commissioning for 25 percent of VA covered facilities to inform future energy efficiency measures.
- Implemented new technologies, such as high-efficiency boilers, LED lighting, and updated building management systems, when retrofitting or constructing new facilities to reduce building energy consumption per square foot.
- VA mission has grown, as evidenced by continually increasing patient load numbers – since 2008, average patient visits per day have increased more than 40%, from 170,739 to 240,343 in 2019 – and the Veteran population continues to shift, requiring reallocation and expansion of services. Despite that, VA is close to the goal of 30% reduction in energy intensity.
- VA hospitals overall use 40 percent less energy per square foot than the national average for all hospitals (234,104 Btu/sf or 738.5 kWh/m2). In FY 2019, VA estimates that utility expenses would have been 76 percent higher without VA's efficiency efforts.

Priority Strategies & Planned Actions

- VA will perform energy audits and retro-commissioning for 25% of its covered facilities this year.
- Based upon the results of energy audits, VA facilities will submit promising projects into the SCIP process, including plans to pursue energy performance contracts. Facilities will continue development and implementation of projects previously submitted through SCIP.
- VA will continue to ensure that future infrastructure investments are as energy efficient as is economically possible.
- VA facilities continue to add information technology infrastructure and state-of-the-art medical equipment to provide the best treatment possible for Veterans. This mission- driven trend towards increasing energy intensity means that VA has an increasingly difficult task of reducing from the baseline.

2. EFFICIENCY MEASURES, INVESTMENT, AND PERFORMANCE CONTRACTING

FY 2019 Performance Contracting – Investment value and number of new projects awarded:

$82.9M/4 new projects and 22 modifications in FY19

FY 2020-FY 2021 Plan:

$100M/4 projects in FY20

$100M/4 projects in FY21

VA's centralized energy performance contracting program provides support across VA by upgrading energy and water equipment, modernizing buildings, and making critical infrastructure improvements. Energy performance contracts are incorporated into VA's SCIP process as a component of plans for evaluating facility energy needs and the potential for energy efficiency improvements. In addition, data from VA's facility energy audits are used to identify energy and water conservation measures for inclusion in future energy performance contracts.

Implementation Status

- In FY 2019, VA awarded $82.9 million in energy performance contracts through 26 contract actions that are expected to generate $60.8 million of avoided energy and water costs over the life of the contracts. Additionally, VA is on track to meet its FY 2020 goal of awarding $100 million.
- With VA's total awarded portfolio of over $868 million of energy performance contracts since 2012, VA is addressing infrastructure and building system needs at 80 VA medical centers across the country. The installed systems and upgrades across 69 million square feet of medical center space are expected to translate into $1.4 billion of energy and water savings over the life of the contracts, and approximately $51 million of annual avoided energy and water costs to VA facilities.
- Long paybacks for renewable energy projects remain a challenge within the maximum 25-year contract limit.
- VA facility and regional energy managers face the challenge of balancing the priorities of developing energy performance contracts with competing mission requirements. Developing energy performance contracts is a complex process that requires multiple levels of technical, legal, contracting and programmatic review, which in turn creates a lengthy and time-intensive path to award.
- Budgetary, hiring and design standard issues contribute to planning uncertainties and longer development timelines.

Priority Strategies & Planned Actions

- VA will continue to pursue efficiency and savings through energy performance contracting at its facilities. VA's planned investment for FY 2020 is $100 million across eight projects, and $100 million across four projects for FY 2021.
- VA will continue to use energy performance contracting as a tool to aid facilities in addressing facility condition assessment deficiencies, deferred maintenance issues, and infrastructure upgrades to mission critical building and energy systems.

3. RENEWABLE ENERGY

FY 2019 Renewable Electricity Use:

10.5% of total electricity in FY19

FY 2020-FY 2021 Plan:

10.6% of total electricity in FY20

10.7% of total electricity in FY21

VA's agency-level renewable energy program supports the site-specific needs of over 170 medical centers, 133 cemeteries, and various regional offices. In VA's SCIP process, each region must identify how it plans to meet the renewable energy target of 7.5% renewable energy consumption with on-site renewable energy projects. While VA is exceeding this target at the agency level, there remain regions that have not met it. This process helps ensure continuing improvement overall. VA regularly evaluates renewable generation as part of its performance contract investment grade audit process.

Implementation Status

- VA integrates renewable energy generation and consumption into its overall sustainability strategy by purchasing renewable energy directly from servicing utilities, requiring that bulk

electric commodity purchases contain a minimum of 20% renewable, and purchasing renewable energy certificates (RECs). Roughly half (5% of total energy, half of 10.5%) of VA's renewable energy consumption was provided by RECs secured through bulk commodity purchasing.

- In FY 2019, 42% of VA renewable energy was generated from on-site renewable energy systems and 58% was due to renewable energy credits.
- In FY 2019, VA completed installation of 4 MW of on-site solar PV panels at the Houston VA Medical Center. In total, VA has installed over 100 MW of on-site solar PV systems.
- Regulations surrounding renewable energy projects, such as standby tariffs and reserve charges, challenge VA's ability to implement lifecycle cost effective on-site renewable energy projects.
- A significant decrease in VA's on-site generation compared to the previous year is due primarily to higher quality data – 43.8% of the decrease in renewable energy is attributed to corrections of significant overreporting. This fiscal year, VA completed a review of its entire portfolio of renewable energy systems and identified several errors in generation reporting that have since been corrected. Additionally, challenges in effectively maintaining existing systems has contributed to the decrease in on-site generation, along with aging systems. VA continues to explore solutions to these challenge at the local level, with support from central office.

Priority Strategies & Planned Actions

- Integrate on-site renewable energy generation into new construction where economically feasible.
- Pursue potential renewable energy power purchase agreements (PPAs) in markets where shorter terms (five years or fewer) are economically viable. PPAs allow federal customers to purchase energy at stable, below market rates from third party developer projects that may or may not be located on federal property. In addition to budgeting advantages, PPAs can help mitigate energy project risk arising from frequent needs to modify structures. Additionally, as on-site renewable generation assets age and become less efficient, PPAs can help replace lost generation without upfront investment.
- Pursue energy sales agreements (ESAs) for renewable energy within energy performance contracts where technically and economically viable. These are similar to PPAs, but the generating asset must be on agency property. Currently, VA is evaluating several potential ESAs as part of energy performance projects in development.
- Investigate renewable energy and energy storage systems as part of facility energy audits and current and future energy performance contracts.
- Continue to follow up with local facilities on the results of a comprehensive review of VA's renewable assets to assess performance and address deficiencies.
- In 2020, as part of a utility energy service contract, VA will repair a photovoltaic array and will conduct a survey of numerous other arrays already installed to determine how to maximize performance and add capacity where possible.
- Implement maintenance contracts to bring systems to optimum performance.
- Participate in a performance assessment with DOE's Federal Energy Management Program (FEMP) and the national laboratories to identify areas for performance improvement of renewable generating assets.

4. WATER EFFICIENCY

FY 2019 Water Intensity Progress (Gal/GSF):

34.5% reduction from FY07

0.4% reduction from FY18

FY 2020-FY 2021 Plan:
0.2% reduction in FY20 from FY19
0.2% reduction in FY21 from FY20

VA's primary mission is to serve Veterans, and provide the healthcare, benefits, and memorial services they deserve. We strive to accomplish that mission in a water efficient way where possible – despite challenges such as required flushing of pipes to prevent Legionnaire's disease. We conduct water audits and make use of all available contracting methods, including performance contracts to replace inefficient equipment, and work to improve metering and data reporting. VA's agency-level water efficiency program supports the site-specific needs of over 170 medical centers, 133 cemeteries, and various regional offices. In VA's SCIP process, each facility must identify how it plans to meet the water efficiency target of 20% reduction in water use intensity compared to a 2007 baseline. While VA is exceeding this target at the agency level, there remain facilities that have not met it. The SCIP process helps ensure continuing improvement overall.

Implementation Status

- VA evaluates water efficiency as part of its facility energy audits and has installed water efficient technologies at sites and facilities across the Department.
- Since 2013, 14 percent of projected cost avoidance from VA's awarded energy performance contracting portfolio is attributable to water efficiency improvements. To date, VA expects to realize approximately $5.9 million in annual water cost savings from these projects.
- VA national cemeteries engage in efforts to minimize the use of irrigation water, including web-based irrigation controllers and advanced sensors to control the amount of water used.
- Installing water reclamation technology while simultaneously meeting healthcare sanitation standards remains a challenge in healthcare facilities, as patient health and safety takes precedence.
- Mission-related concerns can make implementing certain key requirements challenging. For example, VA must implement safety requirements in its hospitals and other buildings with overnight stays to help prevent and control healthcare-associated Legionella (Legionnaires' disease). Meeting these requirements impacts the agency's ability to meet energy and water conservation targets. Specifically, the safety standards increase water and energy demand because they require, among other activities: 1) increased flushing of hot and cold water at outlets; and 2) maintaining specific water temperature ranges—cold water should be kept at or below 67 degrees to the greatest extent practicable, and hot water should be kept no lower than 124 degrees. Cooling water below 67 degrees in hot environments where cold water is commonly warmer than 67 degrees requires additional energy, and flushing water systems increases water use.

Priority Strategies & Planned Actions

- Continue to evaluate water efficiency improvements as part of facility energy audits and performance contracts, including water balancing analyses to help identify savings opportunities.
- Install water efficient technologies at sites and facilities, particularly within energy performance contracts. Virtually all of VA's performance contracts in development explore potential water efficiency measures. Measures commonly considered include fixture upgrades, cooling tower upgrades and other chiller plant improvements, and repairing leaks in chilled water, hot water and steam distribution systems.

5. HIGH PERFORMANCE SUSTAINABLE BUILDINGS

FY 2019 Sustainable Buildings Progress:

681 sustainable Federal buildings

36.9% of buildings / 43.5% of gross square footage (GSF)

FY 2020-FY 2021 Plan:

37.0% of buildings in FY20

37.1% of buildings in FY21

VA's agency-level sustainable buildings program supports the pursuit of sustainability in new construction, renovation, and among VA's existing building inventory. In VA's SCIP process, each medical campus/organization must identify how it plans to meet the target of achieving sustainability for 15% of their buildings. Buildings may be internally certified via a centrally controlled process or certified via a third party. While VA is exceeding this target at the agency level, there remain medical campuses that have not met it. The SCIP process helps ensure continuing improvement overall.

Implementation Status

- VA requires new construction to adhere to the Guiding Principles for Sustainable Federal Buildings or achieve sustainable building certification via a DOE-approved third-party system.
- VA has made extensive efforts to certify existing buildings with over 400 existing buildings certified in the past decade. Only limited opportunities remain to certify existing buildings.
- Building on past success, VA has made online and other resources available so VA staff can pursue internal certification or third-party certification.
- The VA Acquisition Academy's Facilities Management School administers a Sustainability Facility Professional (SFP®) Certificate program focusing on three areas: strategy and alignment for sustainable facility management; managing sustainable facilities; and operating sustainable facilities.

Priority Strategies & Planned Actions

- VA will continue to require compliance with the Guiding Principles or achieve sustainable building certification via a DOE-approved third-party system for all new construction, encourage certification for existing buildings, and seek out new candidates for certification.
- VA plans to pursue Energy Star certification for all eligible buildings in the current year.
- VA will maintain an internal SharePoint site dedicated to sustainable buildings information and resources.

6. WASTE MANAGEMENT AND DIVERSION

FY 2019 Non-hazardous Waste Management and Diversion:

132,191.0 metric tons of non-hazardous solid waste generated*

27.1% diverted and 72.9%[2] sent to treatment and disposal facilities

*not including construction and demolition waste

[2] The 72.9% for treatment and disposal is an estimate based on the following assumptions: 1) metric tons (MT) of non-hazardous solid waste generated – MT of waste diverted = MT of waste sent to treatment and disposal facilities; and 2) % of waste sent to treatment and disposal facilities = 100% -- % of waste diverted. VA collected waste generation and diversion data and not aggregated agency-level data specifically regarding treatment and disposal.

FY 2020-FY 2021 Plan:

0.0% reduction in non-hazardous solid waste generated in FY20 from FY19
27.2% diverted and 72.8% sent to treatment and disposal facilities in FY20

0.0% reduction in non-hazardous solid waste generated in FY21 from FY20
27.3% diverted and 72.7% sent to treatment and disposal facilities in FY21

VA's agency-level waste management program supports the efforts of VA organizations to reduce, reuse, and recycle materials and waste and to maintain lifecycle cost-effective waste prevention and recycling programs.

Implementation Status

- In calendar year (CY) 2018, VA medical centers ended their use of the Practice Greenhealth (PGH) Tracker, a waste tracking tool. In CY 2019, the Veterans Health Administration (VHA) developed and transitioned to its new Waste Tracker system, making incremental improvements and providing extensive training to users as it rolled out region by region. Transitioning to a much more sophisticated system across such a large organization has been challenging, requiring additional system adjustments and user trainings.
- "Challenges in Recycling" training was conducted and attended by over 280 individuals with waste management responsibilities. The objectives were to discuss the current marketplace of recycling and to encourage facilities to improve the quality of collected recyclables.
- VA medical centers (VAMCs) around the country earned numerous prestigious public and private sector awards for outstanding and innovative achievements in pollution prevention and waste reduction. Programs that recognized VAMCs include the U.S. Environmental Protection Agency's (EPA's) Federal Green Challenge (FGC) Awards, and PGH's Environmental Excellence Awards. For example, VAMCs won two 2020 PGH Circles of Excellence awards in the Waste and one in the Chemicals categories, eight Making Medicine Mercury-Free awards, and eleven Greening the Operating Room Recognition awards.
- VA outreached to environmental professionals throughout the agency regarding a variety of EPA training webinars, such as Sustainable Materials Management Prioritization Tools, the 2019 WasteWise award winners, the 2020 Federal Green Challenge award nomination and data submission process, the 50th anniversary of Earth Day, and food waste challenges during COVID-19. VA also distributed information on EPA's Resource Conservation and Recovery Act (RCRA) Public Participation Toolkit, hazardous waste management guidance, and updates on certain waste-related rulemaking efforts.
- VA major construction projects typically include a specification requiring the contractor to develop and implement procedures to recycle construction and demolition waste to a minimum of 50 percent.
- International and domestic recycling markets have weakened over the last several years, in part due to some countries prohibiting imported plastics and other recovered materials from the U.S. and other countries. Reduced export markets for recycled materials therefore have made recycling much more difficult and expensive, depending on location and material.

Priority Strategies & Planned Actions

- Additional improvements to the Waste Tracker system will be explored, and training provided, as VHA pursues its ongoing strategy of improving waste management, tracking, and data entry.
- VHA will provide additional waste management training to the field, e.g., on regulated medical waste.

- VHA will work to update its Recycling Guide in CY 2021.

Implementation Summary: Fleet Management

1. TRANSPORTATION / FLEET MANAGEMENT

FY 2019 Petroleum Reduction Progress (Gal):
4.2% increase in petroleum fuel since 2005
2.1% increase in petroleum fuel since FY18

FY 2019 Alternative Fuel Use Progress (Gal):
1,532.2% increase in alt fuel since 2005
11.3% decrease in alt fuel since FY18

FY 2020-FY 2021 Plan:
0.0% reduction in FY20 from FY19
0.0% reduction in FY21 from FY20

FY 2020-FY 2021 Plan:
0.0% increase in FY20 from FY19
0.0% increase in FY21 from FY20

VA's agency-level fleet management program supports fleet managers throughout VA in acquiring, using and disposing of their fleet vehicles efficiently and effectively. VA is addressing the challenges posed by a growing mission with additional vehicle needs through acquisition of alternative fuel vehicles (AFVs) and fleet manager training. However, growing demand for vehicles across the agency and reduced availability of E-85 fuel make just maintaining levels of alternative fuel and petroleum use a challenge.

Implementation Status

- The VA fleet has grown 75% since 2008 to 21,887 vehicles in FY 2019 to help fulfill VA's expanding mission to provide world-class care and services to our Nation's Veterans. The fleet is composed of 36% sedans and 54% trucks and medium-duty vehicles. These vehicles help VA deliver healthcare and other services to Veterans at home and in their communities, as well as transporting them to and from appointments, and facilitating other services. VA's fleet priority is to execute these tasks for the mission despite the increase in miles driven. Sustainability efforts are centered around acquiring low greenhouse gas (GHG) and alternative fuel vehicles. Proposed acquisitions of light-duty and medium-duty passenger vehicles that are not low GHG require documentation demonstrating the mission need. VA's use of alternative fuels has increased drastically since 2005 and stands at 9.5% of fleet fuel use. However, in FY 2020, many VA on-campus E-85 stations have closed due the ending of a national agreement with the General Services Administration (GSA) that reimbursed VA for fuel for GSA leased vehicles. Limited availability of E-85 vehicles and fuel has also made using alternative fuel more difficult for VA facility fleet managers. These issues make continued progress in increasing alternative fuel use a significant challenge.
- VA fleets continue to acquire electric and plug-in hybrid vehicles when appropriate and pursue installation of electric vehicle charging infrastructure.
- Fleet managers are provided with centralized training and support to help achieve EO 13834 goals of a more efficient and effective fleet.
- VA has integrated the acquisition of AFVs into its overall sustainability strategy. In FY 2019, VA exceeded the Energy Policy Act standard of 75% for procurement of alternative fuel vehicles. This included acquiring 1,044 E-85 flexfuel vehicles, 442 hybrids, 36 plug-in hybrids, and 4 all-electric vehicles.
- To continue "right-sizing" vehicles, VA utilizes a vehicle allocation methodology (VAM) tool to assist with acquisition choices. This tool calculates the most efficient vehicle type to meet the mission based on the planned usage of the vehicle.

- Virtually every medical center fleet includes several donated vehicles. These donations represent up to ten percent of the owned fleet nationwide. Donated vehicles are almost never AFVs or low GHG emitting vehicles. Under Title 38 United States Code (U.S.C.) sections 8301 to 8305, VA has the authority to accept gifts, which includes gifts of vehicles. While VA policy encourages donations of more efficient vehicles, VA accepts vehicle donations, regardless of condition or type, and does so on an ongoing basis.

Priority Strategies & Planned Actions

- In FY 2020, VA has launched an inventory review of all VA-owned vehicles. This detailed report, with attributes of each vehicle, should greatly improve the accuracy of owned vehicle data. VA will complete an inventory of half of all agency-owned fleets by the end of FY 2020.
- Beginning in late FY 2019, VA Fleet Management has held monthly webinars on critical topics, such as acquisition, data reporting, etc. VA will complete at least 9 training webinars in FY 2020. Additionally, VA regularly adds resources to its SharePoint site for fleet managers, provides recorded online training, and encourages attendance to trainings provided by GSA.
- VA will continue to ensure that the most efficient type of vehicle is acquired for a given function by using the VAM tool. The use of this tool is mandatory for every new vehicle acquisition.
- VA plans to purchase alternative fuel and acquire electric and plug-in hybrid vehicles as feasible, and install electric vehicle charging infrastructure. VA will continue to meet federal requirements for alternative fuel, AFV acquisition, and low GHG vehicle acquisition.

Implementation Summary: Cross-Cutting Operations

1. SUSTAINABLE ACQUISITION / PROCUREMENT

FY 2019 Sustainable Acquisition Progress:

0.18% of contract actions and 4.55% of obligations (in dollars), for a total of $1245.1 M in contract actions with statutory environmental requirements[3]

FY 2020-FY 2021 Plan:

0.19% of contract actions and 4.56% of obligations (in dollars)

0.20% of contract actions and 4.57% of obligations (in dollars)

VA's agency-level green purchasing program supports VA organizations' efforts to procure environmentally preferable goods and services. Training and outreach are key VA strategies to promote performance in this area.

Implementation Status

- In its outreach efforts, VA informed acquisition and environmental professionals about a variety of sustainable acquisition training opportunities, such as those at the Federal Environmental Symposium, a Green Electronics Council webinar on Sustainable Procurement in the Healthcare Sector, and a DOE FEMP webinar covering requirements for purchasing energy-efficient products.
- The Spring 2019 (Earth Day) edition of *Green Purchasing News* was issued to the VA acquisition workforce and announced that VA's new market research guide for acquisition teams won an internal VA sustainability award. Updated in August 2019, the guide is geared for

[3] Per data from the FY2019 FPDS-NG Sustainability Report, 0.18% is "% Total Actual Actions" (i.e., number of sustainable actions/number of virtually all actions), 4.55% is "% Total Actual Dollars" (i.e., $value of sustainable actions/$value of virtually all actions), and $1245.1M is "Total Actual Dollars" (i.e., total dollar value of actions with sustainable acquisition clauses). This data includes contract actions with statutory environmental and/or environmentally preferable requirements.

personnel involved in the acquisition planning process. It includes a comprehensive section with websites for researching sustainable products and services, such as GSA's Green Procurement Compilation, as well as key Federal environmentally preferable purchasing program websites covering statutory requirements for energy efficient, recycled content, and biobased products.

- On August 30, 2019, VA published a final rule in the Federal Register (FR 2019-18524) that added the first sustainable acquisition subpart to the VA Acquisition Regulation (VAAR): 823.1, Sustainable Acquisition Policy. For new contracts and orders above the micro-purchase threshold, this policy gives contracting officers the option to insert a solicitation provision to include an evaluation factor for an offeror's Sustainable Acquisition Plan.
- VA recognized successes in green purchasing and other sustainability efforts through an internal awards program and encouraged participation in external awards programs. Several VAMCs earned external awards for their achievements in sustainable acquisition.
- Made comprehensive updates to the VA green purchasing and environmental webpages.
- Per data derived from an FPDS Sustainability Report, in FY 2019 VA had 1,289 biobased actions, exceeding the 684 "number of actions" biobased product purchase target.
- VA makes significant use of GSA "Best-In-Class" contracting solutions to help meet the sustainable acquisition goal, such as Office Supplies Fourth Generation (OS4), and Maintenance Repair and Facility Supplies (MRFS).

Priority Strategies & Planned Actions

- Conduct outreach on education and training opportunities.
- Use insights and analysis from the interagency Sustainable Acquisition and Materials Management (SAMM) working group to help inform internal policies and improve data quality.
- VA's biobased purchasing targets for FY 2020 are 698 contract actions and $113,468,713.38 (i.e., estimated total dollar value of the 698 contract actions). (Targets are based on data obtained from FPDS-NG Sustainability Reports).
- Promote participation in internal and external awards programs relating to green purchasing and other sustainability efforts.

2. ELECTRONICS STEWARDSHIP

FY 2019 Electronics Stewardship Progress[4]:

100.0% of newly purchased or leased equipment met energy efficiency requirements
100.0% of electronic equipment disposed using environmentally sound methods*
*Reuse, donation, recycling, transfer, sale, or demanufacturing.

In managing the Department's electronic assets, VA's policy is to buy Electronic Product Environmental Assessment Tool (EPEAT) registered electronic products (which meet statutory energy efficiency requirements), enable the Energy Star features on agency computers and monitors, and use environmentally sound practices with respect to the disposition of electronic equipment that has reached the end of its useful life. Buying EPEAT helps ensure that VA is meeting current statutory requirements for purchasing energy efficient products (i.e., Section 104 of the Energy Policy Act of 2005) and current Federal Acquisition Regulation Subpart 23.704 provisions for the purchase of EPEAT-registered equipment.

[4] Per best available internally collected data, 100% of VA equipment purchased meeting EPEAT-registry standard, and 100% of end-of-life electronic assets managed in an environmentally sound manner. Per EPA website, all Electronic Product Environmental Assessment Tool (EPEAT)-registered products are required to meet the ENERGY STAR technical specifications for that product.

Implementation Status

- Among other options, VA utilizes a memorandum of understanding with UNICOR to recycle used electronics.
- VAMCs won a multitude of EPA Federal Green Challenge (FGC) awards, including a 2019 national level award for one facility that achieved a 23 percent reduction in copy paper use from 2017 to 2018 by defaulting its existing multifunctional printers to print duplex, and enabling electronic meeting capabilities instead of printing for all of its conference rooms. Another VAMC earned a 2018 national level FGC award for Electronics and Transportation by, among other things, increasing its purchasing of Electronic Product Environmental Assessment (EPEAT)-registered electronics by 542 percent over the previous year, from 87 to 559 units.
- VA's new market research guide was updated in August 2019 and provides links to EPEAT and the Energy Star and DOE FEMP energy efficient product program websites.
- Informed VA components of educational opportunities, such as a DOE FEMP webinar on Energy Efficient Product Procurement, and another on EPA's Sustainable Materials Management (SMM) Prioritization Tools. Provided links to electronics stewardship assessment tools, such as EPEAT, the Electronics Environmental Benefits Calculator, and the Waste Reduction Model (WARM), which helps organizations track energy savings from various waste management practices, including sustainable electronics management.
- Provided comprehensive information to VA IT staff regarding EPEAT procurement, power management, and electronics stewardship reporting requirements.
- Among other IT contracting solutions, VA utilizes NASA SEWP V to help meet the electronics stewardship goal.

Priority Strategies & Planned Actions

- Utilize UNICOR to recycle VA end-of-life electronics.
- Use insights and analyses from the interagency Federal Electronics Stewardship Working Group (FESWG) to help inform internal policies.
- Conduct internal outreach efforts on electronics stewardship.

3. GREENHOUSE GAS EMISSIONS

FY 2019 Scope 1&2 Greenhouse Gas (GHG) Emissions:

10.7% reduction from FY 2008

7.9% increase from FY 2018

Since conducting its initial inventory of GHG emissions, VA has focused primarily on investments in energy efficiency and renewable energy to reduce GHG emissions, along with acquisition of alternative fuel vehicles and related fueling infrastructure.

Implementation Status

- VA continues building efficiency upgrades, energy investments, and employee awareness campaigns to achieve both energy intensity and GHG emissions reductions. However, an increase in patient load has contributed to a rise in energy use. The reduction in renewable energy use in FY 2018 also contributed to increasing energy use. The increase in energy use in FY 2018 is closely tied to the increase in GHG emissions.
- Since FY 2008, VA has seen a significant increase in patient visits (40%) and demand for benefit services. To meet these expanding mission needs, VA hired additional employees (52 percent growth), expanded its building footprint by 31%, and grew its vehicle fleet by 72%,

improving the quality of service that VA provides to Veterans and their families. Thanks to VA's proactive energy, water and fleet management efforts, however, VA has reduced its emissions over the same period.
- Through VA's focused sustainability programs, VA continues building efficiency upgrades, energy investments, and employee awareness and education campaigns to achieve both energy intensity and GHG emissions reductions despite the challenges of a growing agency and mission.

Priority Strategies & Planned Actions
- VA will continue building efficiency upgrades and energy investments, particularly with energy performance contracts, as well as employee awareness campaigns.
- VA will continue to acquire AFVs and low GHG-emitting vehicles that meet mission needs.
- Fleet managers will continue to use DOE's FleetDash tool to improve their fleet's performance in fueling dual-fuel vehicles with alternative fuels.

Agency Priorities and Highlights

NOTABLE PROJECTS AND HIGHLIGHTS

- Every year, the VA Energy Management Program recognizes projects with contributions to sustainability. This year's winners include individuals in a wide variety of positions, from food services to engineering, with projects reducing water use, saving energy, reducing food waste, and more.
- In 2019, three VA employees were recognized through the Federal Energy and Water Management Program Awards. This included an individual Career Exceptional Service Award for innovation and use of cutting-edge technology over more than 20 years, as well as the FEMP Director's Award for efforts toward creating a resilience planning tool.
- 103 VAMCs/VHA regions won 142 of a total 600 Practice Greenhealth 2020 Environmental Excellence Awards, including 8 of the Top 25 Awards (exemplifying the highest standards for environmental sustainability practices in health care), 22 Circles of Excellence Awards, and 19 Emerald Awards. Winning these awards demonstrates VHA's strong commitment to sustainability.
- Under the 2019 Federal Green Challenge awards program, one VAMC was recognized in the Mid-Atlantic region waste diversion category for recycling 1,450 tons of materials; sending 17.5 tons of wood waste to shred into an absorbent material that is then processed at an environmental recovery center; and composting all grass clippings, leaves, and wood from downed trees/limbs.
- Through an internal 2020 sustainability awards program, four VAMCs were recognized for their waste diversion and related activities. One facility reduced food waste by 5600 pounds through food donation to on-site outpatient programs, another achieved 55.34% recycling in 2019, yet another reduced waste generation and increased cardboard and paper recycling, and the fourth developed a comprehensive hazardous and solid waste management program manual.
- VA participated in external awards programs that recognize successes in green purchasing and other sustainability efforts. For example, VAMCs won three 2020 Practice Greenhealth Circle of Excellence awards in the Environmentally Preferable Purchasing category, and one in the Chemicals category, as well as eight Making Medicine Mercury-Free awards. Another VAMC earned a 2019 national level Federal Green Challenge award in Purchasing for, among other things, putting into place its new Environmentally Preferable Purchasing and Pollution Prevention Policy.