DEPARTMENT OF VETERANS AFFAIRS Strategic Sustainability Performance Plan



November 16, 2012

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Additional Information

For more information about VA's Sustainability Program, contact John Doe: John.Doe@VA.gov

Department of Veterans Affairs

Memorandum

Date: September 1, 2010

From: Secretary (00)

Subj: Sustainability Management Policy (VAIQ 7004995)

To: Under Secretaries, Assistant Secretaries, and Other Key Officials

- 1. In accordance with Executive Order (EO) 13514, Federal Leadership in Environmental, Energy, and Economic Performance (signed October 5, 2009), VA is committed to implementing sustainable programs that ensure our operations and actions are carried out in an environmentally, economically and fiscally sound manner. VA recognizes that when conducting its mission to care for our Nation's Veterans, we must do so responsibly to minimize our environmental and energy-related impacts. VA managers, employees, and contractors shall incorporate sustainability principles into decision-making and day-to-day activities to help protect public land, water, air, energy and natural resources.
- 2. This memorandum reinforces that all administrations and staff offices shall comply with the policies established in agency-wide directives dealing with sustainable practices (VA Directive 0055: VA Energy and Water Management Program; VA Directive 0056: VA Sustainable Buildings Program; VA Directive 0057: VA Environmental Management Program; VA Directive 0637: VA Vehicle Fleet Management Program). My goal is to invigorate the Department's ongoing sustainability efforts.
- 3. As a matter of policy, the Department is committed to:
- Considering environmental and energy impacts when making planning, purchasing, operating, and budget decisions;
- Reducing greenhouse gas emissions, energy consumption, water consumption, and the amount of waste produced;
- Increasing resource conservation, pollution prevention, sustainable acquisition, sustainable building design, electronics stewardship, and reuse and recycling;
- · Participating in local/regional planning to improve the sustainability of its communities;
- Improving sustainable performance by setting sustainability goals, measuring progress, taking corrective action when necessary, and communicating the results to VA management and staff;
- Using a headquarters-level Sustainability Management System as a framework for setting and reviewing sustainable objectives and targets at the Department level and Administration level; and
- Communicating and reinforcing this policy throughout the agency.
- 4. Please direct questions regarding this policy to James M. Sullivan, the VA Senior Sustainability Officer, at (202) 461-6671.

Eric K. Shinseki



DEPARTMENT OF VETERANS AFFAIRS WASHINGTON DC 20420

JUN 1 9 2012

Sustainability Management Policy

As the Department of Veterans Affairs (VA) Senior Sustainability Officer, I am confirming that the attached Sustainability Management Policy memorandum signed by Secretary Shinseki on September 1, 2010 is still in effect.

All Administration and staff offices shall comply with the policies established in agency-wide directives dealing with sustainable practices. These policies are set forth in VA Directive 0055-VA Energy and Water Management Program; VA Directive 0057-VA Environmental Management Program; VA Directive 0062- Environmental Compliance Management; VA Directive 0063-Waste Prevention and Recycling Program-VA Directive 0064, Environmental Management Systems. VA's goal is to continue to improve its ongoing sustainability efforts.

As a matter of policy, the Department is committed to:

- Complying with all Federal, state, and local energy, environmental and transportation laws and applicable Presidential Executive Orders;
- Considering environmental and energy impacts when making planning, purchasing, operating, and budget decisions;
- Reducing greenhouse gas emissions, energy consumption, water consumption, and the amount of waste produced;
- Improving energy efficiency and savings through the use of energy savings and performance contracts (ESPCs);
- Increasing resource conservation, pollution prevention, sustainable acquisition, sustainable building design, electronics stewardship, and reuse and recycling;
- Participating in local and regional planning, incorporating the principles of environmental
 justice, and considering sustainable siting to improve the sustainability of its
 communities;
- Continual improvement of sustainable performance by setting sustainability goals, measuring progress, taking corrective action when necessary, and communicating the results to VA management and staff;
- Using a headquarters-level Sustainability Management System as a framework for setting and reviewing sustainable objectives and targets at the Department level and Administration level;
- Communicating and reinforcing this policy throughout the agency.

James M. Sullivan

Senior Sustainability Officer

Enclosure

EXECUTIVE SUMMARY

Introduction

The Department of Veterans Affairs (VA) Strategic Sustainability Performance Plan (SSPP) identifies sustainability goals and defines VA's strategy for achieving these goals. The SSPP also provides a means to review and evaluate the Department's performance and progress toward meeting goals. The SSPP responds to Section 8 of Executive Order (EO) 13514, Federal Leadership in Environmental, Energy, and Economic Performance, which requires federal agencies to "develop, implement, and annually update an integrated Strategic Sustainability Performance Plan that will prioritize agency actions" for meeting sustainability goals identified in statutes, regulations, and EOs.

VA is the largest civilian agency in the Federal government with over 280,000 employees providing health care, benefits, and memorial services to our Nation's Veterans. At the end of fiscal year (FY) 2011, the VA portfolio of facilities contained 807 community-based outpatient clinics, 288 Veteran centers, 152 large medical centers, 132 cemeteries, and 56 regional benefit offices.

Agency Goals, Policy and Strategy

VA recognizes that, when conducting its mission to care for our Nation's Veterans, VA has a responsibility to minimize environmental impacts. VA's mission and activities are tied intimately to sustainability, therefore strategic and sustainability goals, as described in the SSPP, reinforce that connection. VA's sustainability policy, signed by Secretary Shinseki in 2010, is reaffirmed annually by VA's Senior Sustainability Officer.

VA built its strategy for meeting sustainability goals around a Department-level Green Management Program (GMP), led by VA's Senior Sustainability Officer. The program addresses and leverages each of VA's major organizational components: the Veterans Health Administration, the Veterans Benefits Administration, the National Cemetery Administration, and other relevant staff offices. The GMP works through a set of internal task forces and advisory groups responsible for developing and coordinating implementation of action plans, communicating policies, soliciting feedback from stakeholders, and ensuring commitment of the necessary resources to accomplish actions and goals. Finally, the GMP provides input and support for VA's Strategic Capital Investment Planning (SCIP) process, which provides funding for sustainability related capital projects.

VA's SCIP process establishes budgets for projects dedicated to meeting VA's organizational goals including sustainability. The SCIP process incorporates a wide range of criteria including financial considerations and environmental impacts. VA's holistic process of weighting each criterion on a yearly basis provides the flexibility to address unforeseen gaps and challenges while still addressing VA's overall strategic plan.

Transparency is a key tenet of sustainability. VA strives to ensure that internal and external stakeholders are well informed of VA's sustainability efforts. In addition to the SSPP, VA provides information on sustainability programs to all VA employees through internal communications, including "Hey VA" and "VA Central Office Daily News" email messages, and to the general public through publications such as *VAnguard* and external facing websites, such as VA's GMP website (www.green.va.gov). VA also engages stakeholders to obtain feedback on VA policies and decisions—for example, through its compliance with the National Environmental Policy Act.

Performance

VA continues to meet sustainability related goals and mandates while providing the highest standard of care and services to Veterans and beneficiaries. The following is a summary of some of VA's significant sustainability accomplishments and programs in the past year.

Management

VA's success in meeting sustainability goals is due in part to cross-cutting management approaches. The following are several management accomplishments:

- Continued to centrally fund positions for 90 facility-level energy engineers and 21 regional energy managers.
- Continued to centrally fund facility-level Green Environmental Management Systems (GEMS) coordinator positions at all medical centers and 20 regionallevel GEMS positions to improve management of environmental issues at facilities and provide regional oversight.
- Continued to integrate sustainability functions across the Department through the SCIP process.
- Continued to leverage VA's National Energy Business Center to execute and manage sustainability-related contracts, such as alternative fueling stations and renewable energy projects.

Greenhouse Gas (GHG) and Climate Change Adaptation

VA continues to decrease Scope 1 and 2 GHG emissions through a combination of initiatives funded at the facility, regional, and Department level. Facility- and regional-level strategies include energy conservation measures, re- and retro-commissioning, alternative fueling station installations for fleet vehicles, and on-site renewable electricity generation. Some examples of Department level accomplishments and projects include:

- Funding alternative fueling stations and on-site renewable electricity generation through technologies such as solar, wind, and renewably fueled combined heat and power (CHP) systems.
- Conducted a national employee survey to investigate Department-wide commuting habits and identify potential areas for change.
- Drafted a Climate Change Adaptation Plan (Appendix A) and Climate Change Adaptation Directive. In addition, internal guidance was created to aid staff in adaptation planning and implementation.

VA's Scope 3 emissions reduction goal is aggressive considering that VA has the least control over aspects of Scope 3 emissions. VA has grown to meet the expanding Veteran population and mission and is investigating several ways to lower Scope 3 emissions. These initiatives range from generating more on-site renewable energy, thus lowering emissions from transmission and distribution losses, to conducting surveys to better understand employee commuting and identifying avenues for reductions in their associated emissions.

Renewable Energy

Renewable energy plays a central role in helping VA meet its sustainability goals. VA has achieved several milestones in the past year. Program highlights include:

- Generated 444,635 MWh of renewable electricity in FY 2011 from on-site renewable energy systems, including solar photovoltaic (PV), wind power, and renewably-fueled CHP.
- Awarded and began the design and installation of 23 renewable energy systems as of May 2012, including 5 new renewably-fueled CHP systems and 18 PV systems.

Buildings

VA is active in the area of high-performance sustainable design. VA sought and received third-party certification for a number of facilities, supported governmental and industry groups devoted to high performance building, and developed industry-leading building designs. Currently VA has over 250 LEED® and Green Globes® certified sustainable facilities. Program highlights include:

- Participated in a pilot for the Green Building Initiative's new Federal Guiding Principles Certification and received Guiding Principles certification for over 100 buildings.
- Achieved compliance with the Guiding Principles in 9.84 percent of buildings over 5,000 gross square feet, which corresponds to 17 percent of square footage in buildings over 5,000 gross square feet.
- Developed a pilot project for net-zero energy buildings at a community living center in Canandaigua, NY. This project will use a combination of advanced energy efficient design with a range of renewable energy sources including a biomass fired combined heat and power system, solar panels, and geothermal heat pumps.
- Installed advanced electric meters at 100 percent of appropriate buildings, corresponding to 577 buildings across VA.

Fleet

VA's fleet is critical to its mission, especially in reaching home-bound Veterans and providing mental health outreach. While fleet-related emissions are a small portion of VA's total Scope 1 and 2 GHG emissions inventory (about 3 percent), VA recognizes the importance of Energy Independence and Security Act of 2007 and EO requirements for reducing petroleum consumption and increasing alternative fuel use. VA is committed to increasing the use of alternative fuels and minimizing petroleum

consumption. These goals will be accomplished through acquisition of appropriate alternative fuel vehicles and by reallocating vehicles to maximize alternative fuel use. Program highlights include:

- Opened 33 alternative fueling stations in FY 2011, bringing VA's total number of alternative fueling stations to 47.
- Launched the General Service Administration's (GSA) pilot program to test and evaluate 26 electric vehicles at 5 locations.
- Started a pilot program to automatically collect vehicle data to improve both the quality and quantity of data available to fleet managers for over 1,500 vehicles.

VA faces significant challenges meeting the petroleum consumption goals due to the Department's mission. For example, the Veteran population is growing. As the population increases and ages, VA must provide more services. These demographic changes lead to increased vehicle use and energy use. In addition, Veterans are spread throughout the nation, and VA must be accessible to all. VA must maintain many remote locations far from cities and services. These remote locations lead to increased travel distances and fuel consumption.

Water

VA is committed to meeting water use efficiency and management goals. VA faces several unique challenges in meeting these goals. Facility and regional challenges range from differences in deferred maintenance needs, budgetary priorities, and differing environments in which the facilities operate. To help mitigate some of these regional risks, VA works with local and regional organizations to help achieve water reduction goals. In addition, VA looks for opportunities to co-plan water projects with other major energy conservation measure initiatives, such as energy saving performance contracts. The following are some examples of innovative water projects at VA:

- Increased the use of reclaimed water for irrigation to minimize the use of groundwater at select cemeteries. For example, Massachusetts National Cemetery in Cape Cod, MA is saving 30 million gallons of ground water annually by using reclaimed water from nearby Otis Air Force Base for irrigation.
- Implemented shallow groundwater irrigation systems to capture and reuse irrigation water. The system at Bay Pines National Cemetery saves approximately 4 million gallons of water per year.

Pollution Prevention and Waste Reduction

As an agency with thousands of patients and visitors each year, VA makes pollution prevention and waste reduction critical components in its ongoing commitment to a clean and healthy environment. VA is committed to meeting the EO 13514 goals and has successfully implemented a range of initiatives to maintain progress. Program highlights include:

 Issued new or updated guidance documents for Environmental Compliance Management (0062), Waste Prevention and Recycling Program (0063), and Environmental Management Systems (0064).

- Conducted a composting pilot program though VA Canteen Services at 10 medical centers.
- Completed a waste management and recycling tracking system pilot program at 10 medical centers. The pilot analyzed and tracked cost avoidance from waste management efforts, reported on waste diversion efforts, and tracked progress in new pollution prevention programs. VA is in the process of issuing a request for proposals to implement the waste management tracking system Departmentwide to expand these benefits.

Sustainable Acquisition

VA is committed to sustainable acquisition as a way to help to reduce adverse impacts to the environment, conserve energy, water, and other natural resources, and improve public health and safety. To facilitate these efforts, VA has implemented policies and procedures in accordance with EO 13514 to mandate the purchase of green products and services. Program highlights include:

- Received an award for Leadership in Green Purchasing from Office Depot in part due to VA's policy for the mandatory use of the GSA Second Generation Federal Strategic Sourcing Initiative Office Supply Blanket Purchase Agreement.
- Continued to refine VA's contract review process to measure progress towards the 95 percent sustainable acquisition goal.
- Trained approximately 250 personnel in green purchasing through VA's Employee Education System created a pass-through link for the Defense Acquisition University Green Purchasing course.
- Broadcast US Department of Agriculture webinar, "From Awareness to Action: The BioPreferred® Federal Procurement Preference Program," to more than 600 VA contracting professionals at the November 2011 Chief Acquisition Officer's National Acquisition event.
- Developed an acquisition planning tool with best practices in how to integrate green purchasing requirements into acquisition planning.
- Continued to be an active participant in the interagency workgroup on sustainable acquisition and materials management, including the greening solicitations subgroup.

Electronics Stewardship and Data Centers

VA has a long-term commitment to electronics stewardship. To reinforce this commitment, the Department provides high level direction in the overarching environmental management directive (VA Directive 0057) and is specifically establishing a policy on all electronics stewardship lifecycle phases, including acquisition, operation, and disposition of electronic products. Program highlights include:

- Provided power management training to on-site and off-site users to ensure proper operation of computers in various power management states.
- Issued VA-wide operational policy for power management.
- Awarded a contract for computers and monitors that will ensure units acquired will meet the environmentally preferable and energy efficiency requirements.

Education and Outreach

VA is trying to further embed sustainability throughout the organization through an integrated education and outreach program. Program highlights include:

- Launched a new piloted green outreach and awareness campaign at three VA medical centers in 2012.
- Continued outreach efforts to improve staff awareness of sustainability, including VA Earth Day, Bike to Work Day, and America Recycles Day events.
- Encouraged employee sustainability efforts through the VA Green Routine Awards programs, which recognizes superior efforts in waste reduction, recycling, and resource conservation.
- Enhanced a range of waste prevention efforts through employee designed and implemented programs to increase cardboard recycling and office supply reuse to raise Department-wide awareness.

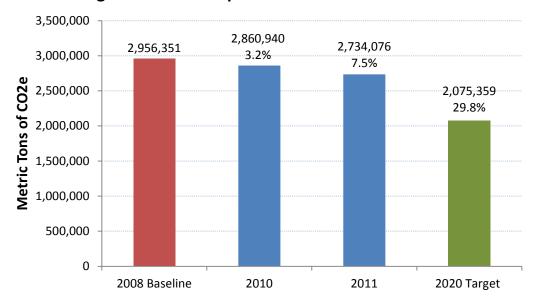
TABLE 1: SIZE AND SCOPE OF AGENCY OPERATIONS

Agency Size and Scope	FY 2011
Total Number of Employees as Reported in the President's Budget	294,481
Total Acres of Land Managed	35,243
Total Number of Facilities Owned	5,680
Total Number of Facilities Leased (GSA and non-GSA lease)	1,734
Total Facility Gross Square Feet (GSF)	172,681,667
Operates in Number of Locations Throughout U.S.	964
Operates in Number of Locations Outside of U.S.	20
Total Number of Fleet Vehicles Owned	4,041
Total Number of Fleet Vehicles Leased	12,380
Total Number of Exempted-Fleet Vehicles (Tactical, Emergency, Etc.)	594

GOAL 1: GREENHOUSE GAS REDUCTION AND MAINTENANCE OF AGENCY COMPREHENSIVE GREENHOUSE GAS INVENTORY

Agency-Specific Performance Metrics for Scope 1 & 2 GHG Emissions Reduction:

Progress toward Scope 1 & 2 Greenhouse Gas Goals

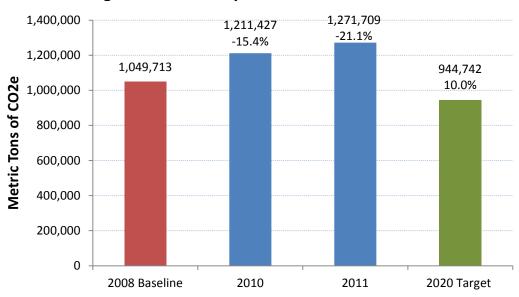


Note: E.O. 13514 requires each agency to establish a scope 1 & 2 GHG reduction target for FY2020. The target for this agency is 29.8% compared to FY2008. The red

bar represents the agency's FY2008 baseline. The green bar represents the FY2020 target reduction. The blue bars show actual status in relationship to the target. The percentage on each bar shows the reduction or increase from the FY2008 baseline.

Agency-Specific Performance Metrics for Scope 3 GHG Emissions Reduction:

Progress toward Scope 3 Greenhouse Gas Goals

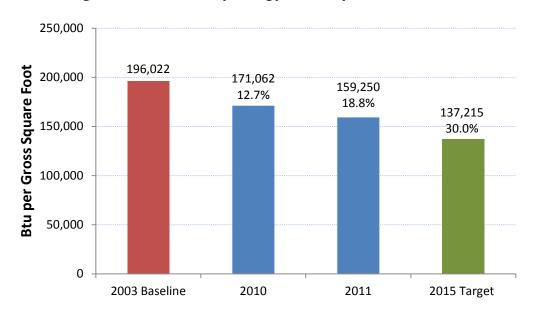


Note: E.O. 13514 requires each agency to establish a scope 3 GHG reduction target for FY2020. The FY2020 target for this agency is 10% compared to the FY2008 baseline. The red bar represents the agency's FY2008 baseline. The green bar represents the FY2020 target reduction. The blue bars show actual status in relationship to the target. The percentage on each bar shows the reduction or increase from the FY2008 baseline. A negative percentage reflects an increase in scope 3 greenhouse gas emissions.

GOAL 2: BUILDINGS

Agency-Specific Performance Metrics for Facility Energy Intensity Reduction:

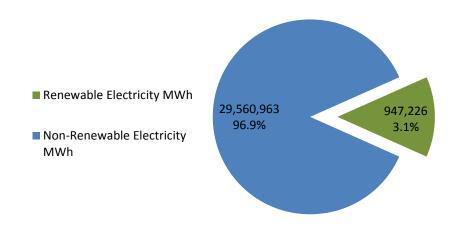
Progress toward Facility Energy Intensity Reduction Goals



Note: EISA requires agencies to reduce energy intensity by 18% for FY2011, compared to an FY2003 baseline; a 30% reduction is required by FY2015. The red bar represents the agency's FY2003 baseline. The green bar represents the FY2015 target reduction. The blue bars show actual status in relationship to the target. The percentage on each bar shows the reduction or increase from the FY2003 baseline.

Agency-Specific Performance Metrics for Renewable Energy:

Use of Renewable Energy as a Percentage of Electricity Use



Note: EPAct requires agencies to increase the use of renewable energy as a percentage of electricity use to 5% by FY2010-2012 and 7.5% by FY2013 and beyond.

Agency-Specific Performance Metrics for Total Buildings Meeting the Guiding Principles:

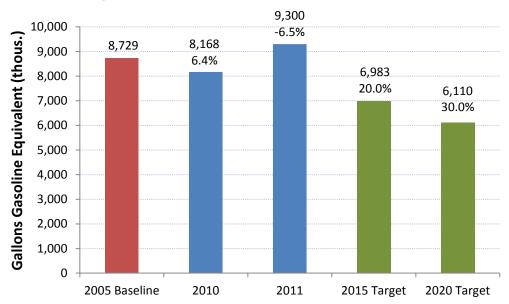
Progress toward Total Buildings Meeting the Guiding Principles 16.0 15.0% Percent of Total Buildings Meeting 14.0 the **Guiding Principles** 12.0 10.0 7.5% 8.0 6.0 4.2% 4.0 2.0 0.0 2010 2011 2015 Target

Note: E.O. 13514 requires that by FY2011 agencies have 7% of new, existing, and leased buildings >5,000 square feet meet the Guiding Principles; the requirement increases to 15% by FY2015. The green bar represents the FY2015 target. The blue bars show actual progress toward the target.

GOAL 3: FLEET MANAGEMENT

Agency-Specific Performance Metrics for Fleet Petroleum Reduction:

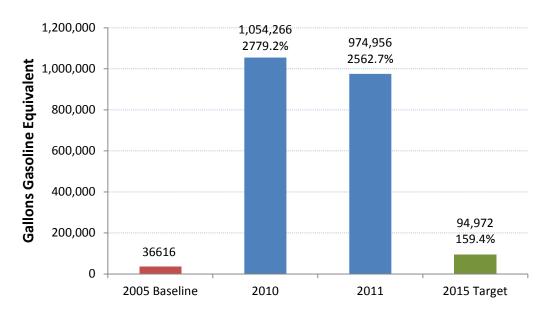
Progress toward Fleet Petroleum Use Reduction Goals



Note: E.O. 13514 and EISA require that by FY2011 agencies reduce fleet petroleum use by 12%, compared to an FY2005 baseline. A 20% reduction is required by FY2015 and a 30% reduction is required by FY2020. The red bar represents the agency's FY2005 baseline. The green bars represent the FY2015 and FY2020 target reductions. The blue bars show actual status in relationship to the target. The percentage on each bar shows the reduction or increase from the FY2005 baseline. A negative percentage reflects an increase in fleet petroleum use.

Agency-Specific Performance Metrics for Fleet Alternative Fuel Use:

Progress toward Fleet Alternative Fuel Consumption Goals

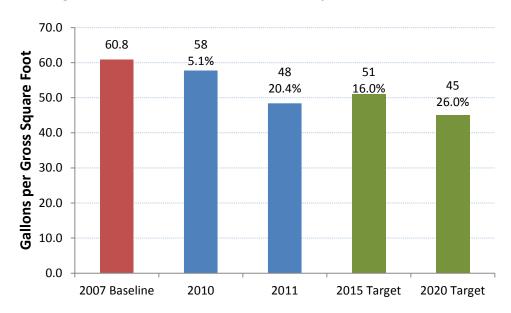


Note: E.O. 13423 requires that agencies increase total non-petroleum-based fuel consumption by 10% annually compared to an FY2005 baseline. Consequently, by FY2011 agencies must increase alternative fuel use by 77%, compared to an FY2005 baseline. By FY2015, agencies must increase alternative fuel use by 159.4%. The red bar represents the agency's FY2005 baseline. The green bar represents the FY2015 target. The blue bars show actual status in relationship to the target. The percentage on each bar shows the reduction or increase from the FY2005 baseline.

GOAL 4: WATER USE EFFICIENCY AND MANAGEMENT

Agency-Specific Performance Metrics for Potable Water Intensity Reduction:

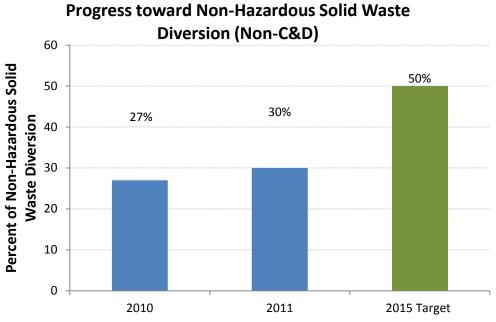
Progress toward Potable Water Intensity Reduction Goals



Note: E.O. 13514 requires agencies to reduce potable water intensity by 2% annually through FY2020, compared to an FY2007 baseline. Consequently, by FY2011 agencies are required to reduce potable water intensity by 8%, compared to an FY2007 baseline. A 16% reduction is required by FY 2015 and a 26% reduction is required by FY2020. The red bar represents the agency's FY2007 baseline. The green bars represent the FY2015 and FY2020 target reductions. The blue bars show actual status in relationship to the target. The percentage on each bar shows the reduction or increase from the FY2007 baseline.

GOAL 5: POLLUTION PREVENTION AND WASTE REDUCTION

Agency-Specific Performance Metrics for Non-Hazardous Solid Waste Diversion (Non-C&D):



Note: E.O. 13514 requires that by FY2015 agencies annually divert at least 50% of non-hazardous solid waste from disposal. The green bar represents the FY2015 target. The blue bars show actual progress toward the target.

GOAL 7: ELECTRONIC STEWARDSHIP AND DATA CENTERS

EPEAT	POWER MANAGEMENT	END-OF-LIFE	COMMENTS
			99% Power Management compliant.

EPEAT:

95% or more Monitors and PCs/Laptops purchased in FY2011 was EPEAT Compliant Agency-wide
85-94% or more Monitors and PCs/Laptops purchased in FY2011 was EPEAT Compliant Agency-wide
84% or less Monitors and PCs/Laptops purchased in FY2011 was EPEAT Compliant Agency-wide

Power Management:

 <u> </u>
100% Power Management Enabled Computers, Laptops and Monitors Agency-wide
90-99% Power Management Enabled Computers, Laptops and Monitors Agency-wide
89% or less Power Management Enabled Computers, Laptops and Monitors Agency-wide

End-of-Life:

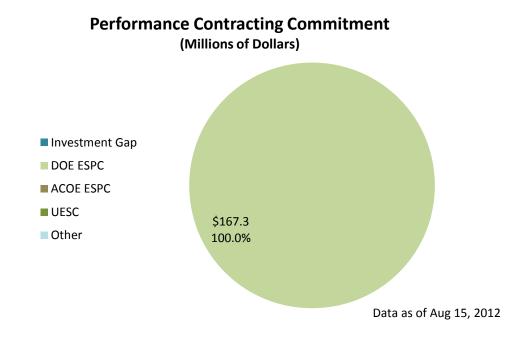
100% of Electronics at end-of-life disposed through GSA Xcess, CFL, Unicor or Certified Recycler (R2, E-Stewards)
100% of Electronics at end-of-life disposed through GSA Xcess, CFL, Unicor or non-Certified Recycler
Less than 100% of Electronics at end-of-life disposed through GSA Xcess, CFL, Unicor or non-Certified Recycler

PRESIDENT'S PERFORMANCE CONTRACTING COMMITMENT

Agency-Specific President's Performance Contracting Commitment Metrics:



Agency-Specific President's Performance Contracting Commitment Metrics:



CLIMATE CHANGE ADAPTATION PLANNING

- 1. REASON FOR ISSUE: This directive establishes policy for the Department of Veterans Affairs (VA) to ensure that VA takes necessary actions to identify and mitigate the impacts of climate change and incorporate an adaptation strategy into day-to-day decision-making and long-term planning processes. This directive also establishes policy and assigns responsibilities for planning and implementing strategies to minimize the impacts of climate change while continuing to care for America's Veterans.
- SUMMARY OF CONTENTS/MAJOR CHANGES: This directive sets forth VA policy and responsibilities related to climate change adaptation planning. It contains information on the following:
- a. Policy statements regarding VA's commitment to assessing the impact of climate change on its operations and assets.
- b. Planning and implementing strategies to minimize the impacts of climate change while carrying out its mission to serve America's Veterans.
- c. Responsibilities of VA Administrations and staff offices to implement the requirements of this directive.
- 3. RESPONSIBLE OFFICE: Office of the Assistant Secretary for Management (004), Office of Asset Enterprise Management (044), Green Management Program Service (044E)

4. RELATED DIRECTIVE: None

RELATED HANDBOOK: None

6. RESCISSIONS: None

CERTIFIED BY:

BY DIRECTION OF THE SECRETARY OF VETERANS AFFAIRS:

Roger W. Baker

Assistant Secretary for

Information and Technology

N. Todd Grams

Executive in Charge, Office of

Management, and Chief Financial Officer

Distribution: Electronic Only

VA CLIMATE CHANGE ADAPTATION POLICY

1. PURPOSE AND SCOPE

- a. The mission of the Department of Veterans Affairs (VA) is to fulfill President Lincoln's promise, "To care for him who shall have borne the battle, and for his widow, and his orphan" by serving and honoring the men and women who are America's Veterans. The goal of the Green Management Program Service within VA's Office of Asset Enterprise Management (OAEM) is to lead the Department in becoming sustainable. This supports the mission by making more resources available for Veterans' care and optimizing VA stewardship of public resources. VA recognizes that climate change will impact agency services, operations, programs, and assets and has broad national security implications. The purpose of this directive is to commit VA to assess and respond to the challenges that a changing climate poses. This policy directive will enhance VA's ability to serve and honor America's Veterans in accordance with Executive Order (EO) 13514.
- b. This directive establishes Department policy and responsibilities for VA Administrations and staff offices to evaluate and plan for the impacts of climate change.
- c. The provisions of this directive apply to all Administrations and staff offices, including those located in leased space. Each Administration and staff office shall ensure that all subordinate organizations are aware of and comply with this directive.

2. POLICY

- a. VA's goal in climate change adaption planning is to ensure continuing execution of the Department's mission. VA will enhance mission delivery by evaluating, planning for, and adapting to climate change impacts. To this end:
- (1) VA will assess and respond to the challenges that a changing climate poses to our ability to serve and honor America's Veterans;
- (2) VA will adopt the Interagency Climate Change Adaptation Task Force Guiding Principles, which will inform the Department's adaptation strategy; and
 - (3) The best available scientific data will be used in VA planning.
 - b. All Administrations and staff offices will explicitly integrate adaptation considerations and planning into existing decision-making processes and activities by the end of fiscal year (FY) 2014. This integration will ensure our mission continues to be successfully accomplished. Climate change adaptation planning will include:
- (1) A vulnerability assessment, based on the best available scientific data to be completed by the end of fiscal year (FY) 2012. The vulnerability assessment will identify sensitivity to climate change impacts and organizational capacity to adapt to both short- and long-term climate impacts. Administration and staff office vulnerability assessments will be based on the VA high-level assessment linked to http://vaww.green.va.gov/. The assessments shall be submitted to the Assistant Secretary for Management, Senior Sustainability Officer (SSO) by September 30, 2012.

VA DIRECTIVE 0065

- (2) Identification of climate change impacts that require most rapid mitigation response. Prioritize mitigation requirements based on the identified organizational vulnerability and the mission risk due to that vulnerability;
- (3) Identification of existing or new mitigation strategies or programs to address the impacts of highest concern by the end of FY 2013; and
- (4) Monitoring and review. The vulnerability assessments, impacts, and mitigation strategies will be reviewed by each Administration and staff office on an annual basis and updated as determined by the owner. Review results shall be submitted to the SSO.

3. RESPONSIBILITIES

VA recognizes that the responsibility for successful climate change adaptation planning lies with each VA Administration and staff office. This section outlines the responsibilities and business processes for specific offices/officials.

- a. **Deputy Secretary.** The Deputy Secretary is responsible for:
- (1) Establishing a strong expectation that climate change adaptation planning occurs at all appropriate organizational levels to meet the goals of this policy; and
- (2) Identifying program offices and resources within the agency to support the adaptation planning process.
 - b. **Assistant Secretary for Management**. The Assistant Secretary for Management establishes the overall policy and guidelines to implement a climate change adaptation strategy within the Department and is responsible for:
- (1) Overseeing the development and implementation of procedures and processes related to climate change adaptation planning;
 - (2) Incorporating climate change adaptation planning into high-level VA business practices.
- (3) Coordinating adaptation planning across Administrations and staff offices to ensure climate change adaptation issues are addressed in a consistent manner; and
- (4) Monitoring VA's activities to implement adaptation planning and reporting progress to the Secretary of VA, the Chairman of the Council on Environmental Quality (CEQ), the Federal Environmental Executive, the Director of the Office of Management and Budget (OMB), and other applicable entities as needed.
 - c. **Director of OAEM.** The Director of OAEM is responsible for:
- (1) Assisting with collection of existing and emerging scientific data, including the probabilities that climate change impacts will occur as envisioned by CEQ, and providing subject matter expertise and data to assist Administrations and staff offices;
- (2) Defining the VA Guidelines for climate change adaptation planning; reviewing and updating the climate change adaptation policy as necessary;

- (3) Collaborating with other agencies to facilitate the sharing of best practices in adaptation policy and planning;
- (4) Facilitating introductions among technical peers at VA and other organizations to share best practices;
- (5) Reviewing plans, mitigations, and updates developed by Administrations and staff offices; and
- (6) Coordinating the submission of required climate change adaptation reports to CEQ, Office of the Federal Environmental Executive (OFEE), OMB, and other applicable entities as needed.
 - d. Under Secretaries, Assistant Secretaries, and Other Key Officials. Each Administration and staff office is best positioned to determine how to integrate climate adaptation into its own planning and processes. Administrations and staff offices will have flexibility to develop their adaptation plan in a manner consistent and compatible with their own circumstances and objectives. Under Secretaries, Assistant Secretaries, and Directors of staff offices are responsible for the following:
 - (1) Meeting the timeline for climate change adaptation planning as specified in section 3.b;
- (2) Providing policy, guidance, and oversight on integrating climate change adaptation planning into existing Administration or staff office business practices. These business practices include, but are not limited to, emergency management planning and capital investment planning;
- (3) Ensuring appropriate and sufficient staffing and resources to support climate change adaptation planning;
- (4) Fulfilling climate change adaptation planning requirements at the Administration- or staff office-level per VA policy;
- (5) Providing all appropriate personnel with guidance and training on climate change impacts and adaptation planning; and
- (6) Responding to reporting requirements and information requests for climate change adaptation-related reports and information requested by the CEQ, OMB, OFEE, OAEM, and other entities as needed.

4. REFERENCES

- a. Executive Order (EO) 13514 Section 8(i) directs agencies to evaluate climate change risks and vulnerabilities to manage the effects of climate change on the agency's operations and mission in both the short and long term. A complete list of all environmental EOs can be found through the National Archives at: http://www.archives.gov/federal-register/executive-orders/disposition.html.
- b. The Federal Agency Climate Change Adaptation Planning Implementing Instructions and the accompanying Support Document were issued by CEQ in March 2011. The instructions

VA DIRECTIVE 0065

identify how the Federal agencies should respond to adaptation planning requirements under EO 13514.

http://www.whitehouse.gov/sites/default/files/microsites/ceq/adaptation_final_implementing_ins tructions 3 3.pdf

- c. VA high-level assessment linked to this intranet page: http://vaww.green.va.gov/
- d. VA Directive 0320, Comprehensive Emergency Management Program.

U.S. Department of Veterans Affairs Fleet Management Plan



Date: February 17, 2012

Revised: June 15, 2012

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Introduction

The Presidential Memorandum, dated May 24, 2011, entitled "Federal Fleet Performance," requires Executive Branch agencies to maximize the acquisition of alternative fuel vehicles and use alternative fuels in the vehicles; limit executive fleet vehicle size to that which is required for the agency mission; and to optimize fleet size and composition. The Department of Veterans Affairs (VA) is committed to achieving these goals for its vehicle fleet, and has been actively engaged in these activities for several years. VA has been challenged in meeting these goals due to the growth in programs designed to fully serve all Veterans, no matter where they live and regardless of their ability to visit a VA facility for service.

VA is comprised of three Administrations and a number of staff offices/organizations. The three Administrations are the Veterans Health Administration (VHA), the Veterans Benefits Administration (VBA), and the National Cemetery Administration (NCA). Together, these three Administrations manage 99 percent of the vehicles in the Department. The remainder of the fleet is managed by the Office of the Inspector General and several small offices with a few vehicles each. VHA has the overwhelming majority of the vehicles, being responsible for 90 percent of the Department's vehicles. VA vehicles are located at over 295 facilities throughout the United States.

VHA in particular has seen tremendous growth in both mission and numbers of vehicles. To counteract the effects of this growth, VHA has been closely monitoring utilization rates for the past five years. Underutilization has not posed a large issue with other VA entities since they have relatively small, stable fleets.

It is important to note that the Optimum Fleet Attainment Plan template provided by GSA does not take into account unplanned growth in fleet requirements. All future projections about progress toward goals are based on the presumption that our future vehicle needs are known, which is not the case for VA. The Veteran population we serve has been expanding rapidly, along with the types of services needed.

In keeping with other mandates, VA has acquired a large number of alternative fuel vehicles (AFVs) over the years. The current VA fleet is approximately 50% AFVs. As is the case with most agencies, alternative fuel is not necessarily available in close proximity to the vehicles. In order to make alternative fuel

available for its AFVs (primarily E85), VA is investing in alternative fuel infrastructure where its vehicles are located - on its medical center campuses. In FY 2011 alone, VA awarded contracts to install E85 fuel stations at 33 medical centers around the country.

VA Administration-specific missions also require a variety of types of vehicles. The vehicle needs of these missions are not consistent within areas or programs. As a result, in late 2010, VA tasked each Administration to develop fleet management plans for achieving the myriad of fleet-related goals at the regional level. These plans gave each region the ability to develop and implement strategies that are unique to their specific geography and mission. By the end of 2011, 30 individual plans for meeting fleet goals had been finalized or nearly finalized, enabling each region to have a tailored approach to meeting fleet mandates.

VA is also expanding the use of telematics to collect utilization data automatically. Results so far indicate that these systems provide valuable feedback to coach drivers and monitor vehicle usage. Installation of these systems will be expanded further in the coming years.

During the process of conducting the Vehicle Allocation Methodology (VAM), VA noted that the total number of vehicles in the VAM did not correspond with the total number of vehicles reported in the Federal Automotive Statistical Tool (FAST). VA attributes this problem to the lack of a single comprehensive vehicle management information system throughout the department. In the past, VA has used a combination of home-grown and GSA-developed tool for managing fleet information. The discrepancy in the number of agency vehicles points out the urgency of adopting a single agency-wide system for managing vehicle information. To that end, VA has already developed and strategy and prepared a timeline for acquisition of such a system.

VA Fleet Management Plan

Achieving optimal fleet inventory

VA evaluates fleet utilization continually, and reports underutilized vehicles monthly. Underutilized vehicles are either reassigned or disposed of as appropriate. Minimum utilization standards are shown below:

Vehicle Type	Mileage Criteria	Time Criteria	
Sedans, station wagons, and passenger carrying vans, general purpose use	12,000 miles per year,	15 days per month,	15 days per month,
	per vehicle	per vehicle	per vehicle
Light trucks (4x2) and general purpose vehicles, one ton and under	10,000 miles per year,	15 days per month,	15 days per month,
	per vehicle	per vehicle	per vehicle
Sport Utility Vehicles (4x4 and 4x2) and all other all-wheel drive vehicles	7,500 miles per year, per vehicle	15 days per month, per vehicle	15 days per month, per vehicle
Medium trucks and general purpose vehicles, 1½ tons through 2½ tons (12,500 to 23,999 GVWR)	7,500 miles per year,	15 days per month,	15 days per month,
	per vehicle	per vehicle	per vehicle
Heavy trucks and general purpose vehicles, 3 tons and over (24,000 GVWR and over)	7,500 miles per year,	15 days per month,	15 days per month,
	per vehicle	per vehicle	per vehicle
Tractor/Trailer	10,000 miles per year,	15 days per month,	15 days per month,
	per vehicle	per vehicle	per vehicle

Using the above mentioned criteria, less than 1.7% of VA vehicles were identified as underutilized. In contrast, VA's fleet grew by more than 1,700 vehicles in the same time period. The fleet growth far outstrips the number of underutilized vehicles, signaling that minor "tweaking" is needed. In order to meet our missions, we fully expect the fleet growth to continue, presumably at a slower rate of growth in the near future. We will shift vehicles among programs and locations, acquire the necessary vehicles to meet the mission growth, and eliminate low-utilized vehicles that are not appropriate for other uses. Short-term leases and rentals will continue to be encouraged for infrequent vehicle needs.

While VA has its own forward-looking Vehicle Acquisition Methodology (VAM), for this effort we used the backward-looking approach that GSA prescribed. The forward-looking approach is critical for VA to be able to meet its growing mission. VA analyzes vehicle acquisitions <u>before</u> they occur to minimize the number of vehicles acquired, and eliminate unnecessary vehicle acquisitions before they

occur. As a result, VA has a very small number of underutilized vehicles that will be quickly absorbed by growing mission requirements.

New vehicle acquisitions undergo a two-tiered approval process. First, the requestor and local fleet manager complete VA's VAM tool request form. Based on the input provided, the tool will recommend a type of vehicle (always defaulting to the smallest vehicle type that will fulfill the mission), a fuel type (based on location and fuel availability), and will assign the vehicle request a score based on the predicted utilization as well as the current utilization for that vehicle type at that location. The regional fleet manager then reviews the vehicle request before submitting for final approval to the administration fleet manager. VA has set up this rigorous process to ensure that vehicle acquisitions are well-controlled and underutilization is prevented before it occurs.

In addition to the acquisition process described above, VA policy prohibits acquiring vehicles deemed to be of excessive size for the mission. This policy applies to all levels of the organization. As a result, our fleet composition is changing. Over the past several years smaller, more fuel-efficient sedans, SUVs, 4x4s, and trucks have replaced the older generation of larger sedans and trucks. This trend is expected to continue.

The use of motor pools and vehicle sharing are other means to help VA minimize fleet size. Most medical centers have motor pools that allow the medical center staff to share vehicles instead of assigning every vehicle to a specific staff members or offices. In some areas where there are collocated facilities, such as a medical center and a VBA regional office, the motor pool is shared across the collocated facilities.

VA is also investigating vehicle sharing with other agencies. For example, the VA is investigating the idea of vehicle sharing between the Captain James A. Lovell Federal Health Care Center and their neighboring US Navy base. VA is also investigating novel solutions to help lower fleet size, such as car sharing programs (e.g., ZipCar) in metropolitan areas.

VA is enforcing, from a centralized control point, the mandate that all vehicles acquisitions must be low-GHG whenever available, and encourages the acquisition of AFVs whenever possible. VA will continue to acquire primarily AFVs when new or replacement vehicles are acquired. VA is currently limited in its ability to fuel these vehicles, but expects to install additional fueling stations. In addition, areas that are not good candidates for E85 stations will be encouraged to consider acquiring hybrids, compressed natural gas, or electric vehicles, as appropriate. VA has already begun to tailor the vehicle acquisitions to the expected fuel availability.

VA's policy to expand its AFV acquisitions is reflected in the VAM reporting tool submission. Although VA already meets and surpasses the 75% AFV acquisition requirement, VA projects to expand its AFV acquisitions by approximately 10% annually. This target will be revised to meet the growing availability of alternative fuel stations.

VA is also attempting to relocate AFVs in close proximity to fueling stations with available fuels "as soon as practicable." Challenges to this include the fact that vehicles are in constant use and are occasionally outfitted for specific uses. Newly acquired AFVs are being located where the fuel is or will be available as they are added to the fleet.

Vehicle acquisition sources

VA strives to acquire vehicles from the most cost effective sources, but occasionally must pay a little more for timely delivery of vehicles needed to provide services to our Veterans and their families. VA occasionally utilizes commercial leases for short term, quick delivery vehicles that GSA is not able to provide. Many of our commercially leased vehicles are specialty vehicles that are not available through GSA.

Our fleet managers carefully consider each option available and evaluate the cost implications before requesting approval for non-standard procurement options. Commercial leases may cost more in the short term, but generally give VA the flexibility to cancel or modify leases as the mission changes, which saves taxpayer dollars in the long run.

Although VA carefully considers each vehicle procurement, this agency is unique in that it is not able to control all new vehicles it receives. VA receives a number of donated vehicles each year, and rarely has any say as to what vehicles are donated. We would like these vehicles to be the appropriate alternative fuel vehicle for the area, but that is seldom the case. We make every effort to locate donated vehicles to the most appropriate area (either for fuel or utilization considerations), but we are often restricted by the donor to the area or program that the vehicle must support. The Presidential Memorandum specifically stated "vehicles leased or purchased" by agencies, and it should be noted that donated vehicles are not covered by this requirement.

VA has also positioned itself as a leader in new technology and occasionally acquires vehicles that are not yet cost effective as part of a pilot program to prepare for new technology. VA is currently demonstrating this strategy with plug-in electric vehicles. While electric vehicles have yet to be determined to be the most cost effective option available, VA is leading the other agencies into the world of electric vehicles. VA is receiving 26 of the 116 plug-in electric vehicles in the GSA Electric Vehicle Pilot Program. However, VA has not limited itself to GSA's pilot programs, and is testing electric vehicles in other areas on its own.

Executive Fleet Vehicles

VA has a small executive vehicle fleet for use by our executives. Eleven vehicles qualify as executive vehicles, five of which are assigned to the highest ranking agency officials, with the remaining six executive vehicles assigned to an executive motor pool for the use of all other agency executives. VA reviewed the current executive fleet in response to the Presidential Memorandum – Federal Fleet Performance, and determined that there are few opportunities to reduce the size of the vehicles. However, VA will continue to identify and review possible opportunities to replace executive fleet vehicles with alternative fuel and/or low-GHG vehicles.

Regional Fleet Plans

NCA, VBA, and VHA developed regional fleet plans that provide a strategy for how each region will contribute to the VA fossil fuel reduction goals using a common template (included as **Appendix 2**). Each region provided an overview of their planned vehicle inventories and the fuel consumption required to achieve the region's targets. They then summarized the actions they plan to take to

achieve these targets and the associated results/benefits expected. The actions are organized around three driving principles of greenhouse gas and petroleum reduction: reducing vehicle miles traveled (VMT), increasing fleet fuel efficiency, and using alternative fuels. The region chose the actions in each principle area based on an evaluation of its site-specific characteristics, mission, including availability of alternative fuel, fleet size, and fleet vehicle composition.

The three principles and related actions (from Department of Energy's Federal Energy Management Program) from which each region made selections are shown below.

Principle I. Reduce Vehicle Miles Traveled

- Consolidating trips.
 - Consolidate routes to eliminate duplication of trips and car pooling.
- Eliminating trips.
 - Use video and Web conferencing tools for meetings. Implement a transportation on demand (TOD) system – changing a fixed route, fixed schedule shuttle to a demand-responsive system.
- Using agency shuttles.
 - o Provide a shuttle service for high-use routes to consolidate trips.
- Improving scheduling and routing.
 - Optimize travel distance for delivery of services by using global positioning system (GPS) technology to improve routing and efficiency of fleet vehicles.

Principle II. Increase Fleet Fuel Efficiency

- Acquiring higher fuel economy vehicles.
 - Replace vehicles with smaller or more fuel-efficient ones, consistent with a continued ability to accomplish the fleet's mission.
 - Use the VAM to ensure that fleet vehicles are right-sized to the region's mission.
 - Select higher fuel economy vehicles in fleet replacement plans.
 - o Increase the fuel efficiency of the least efficient vehicles.
- Acquiring hybrid electric vehicles (HEVs). Acquire vehicles, such as
 those with hybrid electric drive trains, which have higher fuel economy
 than the vehicles they replace, and locate them in areas lacking access to
 alternative fuel.

- **Driving more efficiently**. Drive sensibly, observe the speed limit, remove excess weight, and use cruise control.
 - Drive at speeds that conserve fuel.
 - Use cruise control, when appropriate, on the highway to maintain a constant speed.
 - Drive safely and responsibly.
 - Remove excess weight such as unnecessary items in the trunk.

Avoiding excessive idling.

- Turn off your engine when you are parked or stopped (except in traffic) for more than 1 minute
- Avoid using a remote vehicle starter, which encourages unnecessary idling
- O Avoid drive-throughs; park and walk inside instead.

Principle III. Increase Use of Alternative Fuel

Increase the use of E85

- Optimize use of new infrastructure.
- Expand vehicles capable of using alternative fuel based on existing or planned infrastructure.
- Run dual-fueled vehicles on alternative fuel.

• Increase the use of electric vehicles.

- Identify optimal electric vehicle strategies based on fleet location characteristics.
- Evaluate availability of EVs to replace conventional-fueled vehicles.
- Evaluate life-cycle costs for acquisition of EVs.
- Replace gasoline vehicles with battery electric or plug-in hybrid electric vehicles (when available) that meet functional and mission needs.
- Install electric vehicle charging infrastructure required to support electric vehicles.

Install alternative fuel infrastructure in areas.

Install infrastructure in areas with highest AFV concentrations.

DEFINITIONS/ACRONYMS

Definitions

Alternative fuel – Alternative fuels include but are not limited to: E85 (a blend of 85% ethanol and 15% gasoline), neat (100%) biodiesel (B100), compressed natural gas, liquefied natural gas, liquefied petroleum gas or propane, and electricity.

Covered petroleum consumption – petroleum from fleet vehicles, except those vehicles considered exempt (i.e., emergency, law enforcement, and military tactical vehicles).

Acronyms

AFV	Alternatively fueled vehicle
B20	Fuel mixture of 20 percent biodiesel and 80 percent diesel
CNG	Compressed natural gas
CY	Calendar year
E85	Fuel mixture of 85 percent ethanol and 15 percent gasoline
EO	Executive Order
EPA	U.S. Environmental Protection Agency
EV	Electric vehicle
FAST	Federal Automotive Statistical Tool
FEMP	Federal Energy Management Program
FY	Fiscal Year
GGE	Gallons of gasoline equivalent
GHG	Greenhouse Gas

GPS	Global positioning system
GSA	U.S. General Services Administration
GVWR	Gross vehicle weight rating
HD	Heavy duty
HEV	Hybrid electric vehicle
LNG	Liquefied natural gas
LPG	Liquefied petroleum gas
LSV	low-speed vehicles
LSEV	low-speed electric vehicles
MD	Medium duty
MSN	Memorial Service Network
MTCO ₂ e	Metric Tons of Carbon Dioxide Equivalent
NCA	National Cemetery Administration
OAEM	Office of Asset Enterprise Management
SUV	Sport Utility Vehicle
TOD	Transportation on demand
VA	U.S. Department of Veterans Affairs
VAM	Vehicle allocation methodology
VBA	Veterans Benefits Administration
VHA	Veterans Health Administration
VISN	Veterans Integrated Service Network
VMT	Vehicle miles traveled

U.S. Department of Veterans Affairs Regional Fleet Plan Template

Region: [region name]

Prepared by: Fleet Manager [John Doe]

Date: [date approved by region]

This is a sample template.

Data contained herein is not necessarily representative of any particular region.

[Instructions: The items highlighted yellow should be filled in with your regional specific information and then un-highlighted. The items highlighted blue are instructions and should be deleted from your final Plan submission.]

Fleet Status Overview

Executive Order 13514 requires each agency to reduce fossil fuel use by using low greenhouse gas (GHG) emitting vehicles, optimizing the number of vehicles in the agency fleet, and reducing the consumption of petroleum fuel by a minimum of 2 percent annually through the end of fiscal year (FY) 2020 relative to FY 2005 baseline. The U.S. Department of Veterans Affairs (VA) is committed to achieving these fleet goals. This [region name] Regional Fleet Plan provides a strategy for how this region will contribute to the VA fossil fuel reduction goals. The following tables and charts provide an overview of the region's planned vehicle inventories and fuel consumption required to achieve the region's targets. Actions to achieve these targets are presented in the next section.

Inventory

[Provide a short 2-3 sentence explanation of the changes in the vehicle inventory]

[Instructions: Tables 1 and 2 are prepopulated based on your region's vehicle acquisition and disposal projections reported in FAST. The inventory is based on calendar year (CY). Please review the inventory for accuracy to ensure it still accurate in light of the actions chosen in the sections below.]

Table 1. Vehicle Inventory by Vehicle Type

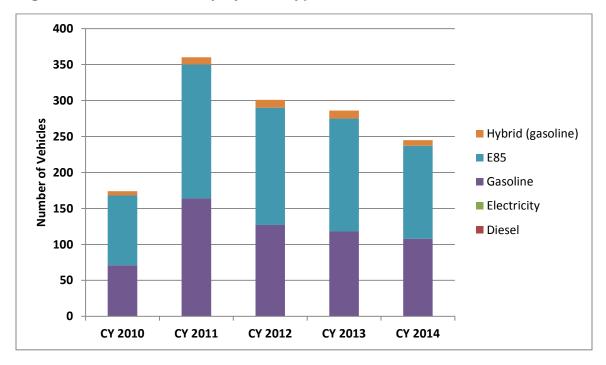
	CY 2010	CY 2011	CY 2012	CY 2013	CY 2014
Minivan 4x2 (Passenger)	7	11	12	12	8
Pickup MD	1	2	2	2	0
Sedan	112	188	166	160	144
SUV 4x2	3	4	5	5	4
SUV 4x4	45	111	85	79	70
Van 4x2 (Cargo)	3	8	8	8	3
Van MD (Passenger)	3	36	23	20	16

Table 2. Vehicle Inventory by Fuel Type

	CY 2010	CY 2011	CY 2012	CY 2013	CY 2014
Diesel	0	0	0	0	0
Electricity	0	0	0	0	0
Gasoline	71	164	127	118	108
E85	97	186	163	157	129
Hybrid (gasoline)	6	10	11	11	8

[Instructions: To populate Figures 1, 2, and 3 with the appropriate data please follow these instructions. 1.) Click inside the chart 2.) Click the "Design" tab in the tool bar ribbon 3.) Click "Edit Data" in the Data section of the Design tab. Excel should then open and have a table with the same fields as the associated table in this Plan. 4.) Enter the data in Excel as it is in the table. 5.) Close Excel and the Figure should be updated with your data.]

Figure 1. Vehicle Inventory by Fuel Type



Fuel Use

[Instructions: In Tables 3 and 4, please fill in your region's projected fuel consumption.

- This projection should be based on your vehicle inventory and utilization, as well as the actions chosen in the section below.
- The fuel consumption should be for covered vehicles only (non-covered vehicles are emergency and law enforcement vehicles).
- The annual fuel consumption goals are provided based on your region and VA achieving EO 13514 goals. Contact OAEM fleet administrator for more information.
- To calculate Gallons of Gasoline Equivalents (GGEs), use tab "D. GGE Conversions" in the GHG Calculator provided. Enter fuel consumption in natural units in column B, and column E will automatically populate GGEs for that fuel type.]

The fuel use projections below extend to FY 2015, though VA fuel goals extend to FY 2020 in accordance with Federal mandates.

[Provide a short 2-3 sentence explanation of the changes in the fuel consumption and reasons your region projects to meet/not meet the targets]

Table 3. Covered Petroleum Fuel Consumption in GGE

	FY 2005 Baseline	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Target	56,371	49,606	48,479	47,351	46,224	45,096
Projected						
Diesel						
Gasoline						
Total						

[Instructions: Update Figure 2 to match Table 3, see instructions above.]

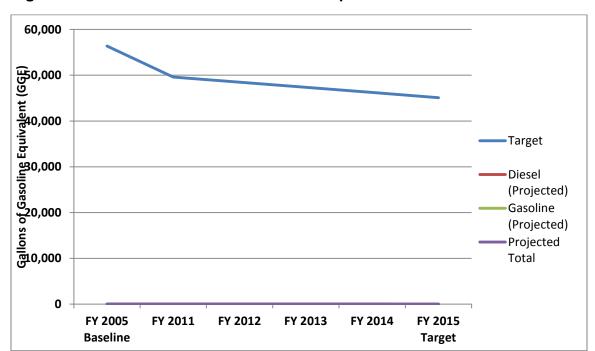


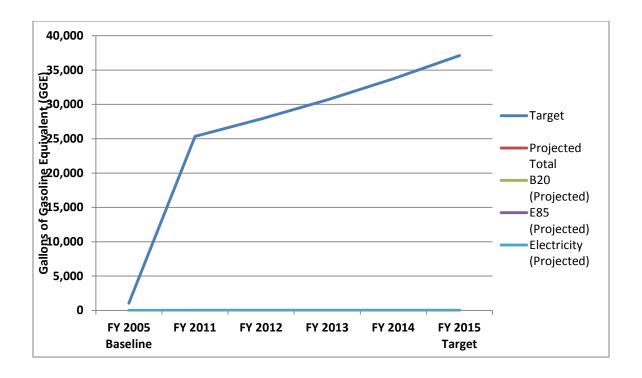
Figure 2. Covered Petroleum Fuel Consumption in GGE

Table 4. Alternative Fuel Consumption in GGE

	FY 2005 Baseline	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Target	1,051	25,347	27,881	30,669	33,736	37,110
Projected						
E85						
B20						
Electricity						
(others if necessary)						
Total						

[Instructions: Update Figure 3 to match Table 4, see instructions above.]

Figure 3. Alternative Fuel Consumption in GGE



Fossil Fuel Reduction Action Plan

The improvements shown above will be obtained through a combination of efforts. The actions noted below provide greater detail on steps that will be taken and the associated results/benefits expected. The actions are organized around three driving principles of greenhouse gas and petroleum reduction¹: reducing vehicle miles traveled (VMT), increasing fleet fuel efficiency, and using alternative fuels. The region chose the actions in each principle area based on an evaluation of its site-specific characteristics, mission, including availability of alternative fuel, fleet size, and fleet vehicle composition.

¹ The three driving principles are discussed in greater detail in the Fleet Management Guidebook and Fleet Management Handbook published by DOE-FEMP

Principle I. Reduce Vehicle Miles Traveled

Reducing VMT directly reduces the region's consumption of fuel. The strategies to reduce VMT can be applied to all fleet vehicles, regardless of vehicle size or fuel type. The region selected the following actions to reduce its VMT:

[Instructions: The bullets below are suggested actions. Please delete the items your region will not pursue, and add any necessary actions not listed]

- Consolidating trips.
 - Consolidate routes to eliminate duplication of trips and car pooling.
- Eliminating trips.
 - Use video and Web conferencing tools for meetings. Implement a transportation on demand (TOD) system – changing a fixed route, fixed schedule shuttle to a demand-responsive system.
- Using mass transportation.
 - Use mass transportation alternatives to eliminate fleet vehicle transportation needs.
- Using agency shuttles.
 - o Provide a shuttle service for high-use routes to consolidate trips.
- Improving scheduling and routing.
 - Optimize travel distance for delivery of services by using global positioning system (GPS) technology to improve routing and efficiency of fleet vehicles.
- Using alternative modes of transportation.
 - Using alternative modes of transportation such as bicycles and low-speed vehicles as appropriate.

Planned Actions Details

[Provide a brief narrative explaining more details about your region's plans to implement the selected actions

Example:

- Establish partnership with ZipCar in DC region to eliminate 6 cars
- Issue guidance requiring the use of transit if traveling from facilities connected by transit with travel time less than 30 minutes
- Coordinate with GSA for access to shuttle from X to Y
- Acquire 1 LSEV at X campus for testing and evaluation

Expected Results/Benefits

[Provide a brief narrative of the expected results of the selected actions. Include quantitative benefits expected if possible.]

[Instructions: In Table 5, please include expected results from reducing VMT. Show calculations in Appendix A as appropriate.

- To calculate Gallons of Gasoline Equivalents (GGEs), use tab "D. GGE Conversions" in the GHG Calculator provided. Enter fuel consumption in natural units in column B, and column E will automatically populate GGEs for that fuel type.
- To calculate GHG emissions, please use the GHG Calculator-Fleet spreadsheet provided. Please list the total GHG emissions for the change in VMT and GGE. For VMT emissions, enter the change in VMT in tab "C. Vehicle Miles Traveled" in the appropriate category. Choose the closest alternative if the exact vehicle is not listed. For GGE, enter the change in GGE in tab B. in the appropriate category.]

Table 5. Summary of Expected Results from Reducing VMT

	Expected Annual Change
VMT (miles)	
Petroleum Fuel Use (GGE)	
Alternative Fuel Use (GGE)	
GHG Emissions (MTCO ₂ e)	

Principle II. Increase Fleet Fuel Efficiency

Increasing fleet fuel efficiency can help the region reduce its petroleum consumption and GHGs. These strategies can be implemented throughout the fleet in all vehicle sizes and fuel types. Selected actions to improve fleet fuel efficiency include:

[Instructions: The bullets below are suggested actions. Please delete the items your region will not pursue, and add any necessary actions not listed]

- Acquiring higher fuel economy vehicles.
 - Replace vehicles with smaller or more fuel-efficient ones, consistent with a continued ability to accomplish the fleet's mission.
 - Use the VAM to ensure that fleet vehicles are right-sized to the region's mission.
 - Select higher fuel economy vehicles in fleet replacement plans.
 - o Increase the fuel efficiency of the least efficient vehicles.
- Acquiring hybrid electric vehicles (HEVs). Acquire vehicles, such as those with hybrid electric drive trains, which have higher fuel economy than the vehicles they replace, and locate them in areas lacking access to alternative fuel.
- Maintaining vehicles to improve fuel economy. Improve maintenance by implementing best practices.
 - Follow manufacturer's recommended maintenance including filter changes.
 - Keep tires properly inflated to the recommended tire pressure.
 - Use the recommended grade of motor oil for your vehicle to increase fuel economy.
- **Driving more efficiently**. Drive sensibly, observe the speed limit, remove excess weight, and use cruise control.
 - Drive at speeds that conserve fuel.
 - Use cruise control, when appropriate, on the highway to maintain a constant speed.
 - Drive safely and responsibly.
 - Remove excess weight such as unnecessary items in the trunk.
- Avoiding excessive idling.
 - Turn off your engine when you are parked or stopped (except in traffic) for more than 1 minute
 - Avoid using a remote vehicle starter, which encourages unnecessary idling
 - Avoid drive-throughs; walk inside instead.

Planned Actions Details

[Provide a brief narrative explaining more details about your region's plans to implement the selected actions

Example:

- Issue guidance and provide training to drivers on efficient driving techniques.
 Install dashboard stickers.
- Install 5 efficient driving monitor systems and monitor vehicle performance
- Establish driver reward program to reward efficient driving
- Downsize 20 SUVs and large sedans to compact cars
- Install idling monitoring on 10 vehicles to quantify idling fuel consumption

Expected Results/Benefits

[Provide a brief narrative of the expected results of the selected actions. Include quantitative benefits expected if possible.]

[Instructions: In Table 6, please include expected results from increasing fuel fleet efficiency. Show calculations in Appendix A as appropriate.

- To calculate Gallons of Gasoline Equivalents (GGEs), use tab "D. GGE Conversions" in the GHG Calculator provided. Enter fuel consumption in natural units in column B, and column E will automatically populate GGEs for that fuel type.
- To calculate GHG emissions, please use the GHG Calculator-Fleet spreadsheet provided. For GGE, enter the change in GGE in tab B. in the appropriate category. For electricity use in electric vehicles, enter the facility zipcode and kWh used in the vehicle in tab "A. EV Electricity."]

Table 6. Summary of Expected Results from Increasing Fuel Fleet Efficiency

	Expected Annual Change
Petroleum Fuel Use (GGE)	
Alternative Fuel Use (GGE)	
GHG Emissions (MTCO ₂ e)	

Principle III. Increase Use of Alternative Fuel

Increasing alternative fuel use can help the region displace its petroleum consumption and reduce GHGs. Alternative fuels include but are not limited to: E85 (a blend of 85% ethanol and 15% gasoline), neat (100%) biodiesel (B100), compressed natural gas (CNG), liquefied natural gas (LNG), liquefied petroleum gas (LPG) or propane, and electricity. The region's location determines the type of alternative fuel vehicle types and infrastructure pursued. Selected actions to increase the use of alternative fuel include:

[Instructions: The bullets below are suggested actions. Please delete the items your region will not pursue, and add any necessary actions not listed]

Increase the use of E85, CNG, LNG, and LPG.

- Optimize use of existing infrastructure.
- Optimize use of existing retail station(s).
- Obtain access to nearby fleet fueling stations.
- Optimize use of new infrastructure.
- Expand vehicles capable of using alternative fuel based on existing or planned infrastructure.
- Convert conventional fuel tank to E85.
- Promote development of local alternative fuel infrastructure.
- Run dual-fueled vehicles on alternative fuel.

Increase the use of neat Biodiesel and Biodiesel Blends.

- o Optimize use of existing infrastructure.
- Optimize use of existing retail station(s).
- Obtain access to nearby fleet fueling stations.
- Optimize use of new infrastructure.
- Expand vehicles capable of using biodiesel fuel based on existing or planned infrastructure.
- Convert conventional fuel tank to biodiesel.
- Promote development of local biodiesel fuel infrastructure.

Increase the use of electric vehicles.

- Identify conventional fueled vehicles that are not candidates to be replaced with AFVs or use biodiesel.
- Identify optimal electric vehicle strategies based on fleet location characteristics.
- Evaluate availability of EVs to replace conventional-fueled vehicles.
- Evaluate life-cycle costs for acquisition of EVs.
- Replace conventional vehicles that operate solely within campus with lowspeed electric vehicles.
- Replace gasoline vehicles with battery electric or plug-in hybrid electric vehicles (when available) that meet functional and mission needs.
- Install electric vehicle charging infrastructure required to support electric vehicles.

- o Meter, monitor, and report electricity used in electric vehicles separately.
- Install alternative fuel infrastructure in areas.
 - Install infrastructure in areas with highest AFV concentrations.
- Communicating and coordinating with nearby fleets.
 - Communicating and coordinating with nearby fleets (both regulated and private sector) to aggregate demand for alternative fuel.

Planned Actions Details

[Provide a brief narrative explaining more details about your region's plans to implement the selected actions

Example:

- Coordinate with NREL to load fleet profile into Fleet Atlas and evaluate AF use potential
- Install B5 tank and use on 2 diesel trucks
- Install separate electric meter and EV charging station
- Acquire 1 LSEV at X campus for testing and evaluation
- Coordinate with other federal agency to gain access to their AF station
- Relocate 30 E85 vehicles to locations with access to AFI

Expected Results/Benefits

[Provide a brief narrative of the expected results of the selected actions. Include quantitative benefits expected if possible.]

[Instructions: In Table 7, please include expected results from increasing alternative fuel use. Show calculations in Appendix A as appropriate.

- To calculate Gallons of Gasoline Equivalents (GGEs), use tab "D. GGE Conversions" in the GHG Calculator provided. Enter fuel consumption in natural units in column B, and column E will automatically populate GGEs for that fuel type.
- To calculate GHG emissions, please use the GHG Calculator-Fleet spreadsheet provided. For GGE, enter the change in GGE in tab B. in the appropriate category. For electricity use in electric vehicles, enter the facility zipcode and kWh used in the vehicle in tab "A. EV Electricity."]

Table 7. Summary of Expected Results from Increasing Alternative Fuel Use

Expected Annual Change

Petroleum Fuel Use (GGE)

Alternative Fuel Use (GGE)

GHG Emissions (MTCO₂e)