

DEPARTMENT OF VETERANS AFFAIRS  
Strategic Sustainability Performance Plan



June 3, 2011

DEPARTMENT OF  
**VETERANS AFFAIRS**

VVA

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Section 1:

Agency

Policy

and

Strategy

VVA



# DEPARTMENT OF VETERANS AFFAIRS

## Washington DC 20420

### Sustainability Management Policy

As the Department of Veterans Affairs 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 with sustainable practices (VA Directive 055: VA Energy and Water Management Program; VA Directive 0057: VA Environmental Management Program; VA Directive 0637: VA Vehicle Fleet Management Program). Our goal is to invigorate the Department's 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;
- Increasing resource conservation, pollution prevention, sustainable acquisition, sustainable building design, electronics stewardship, and reuse and recycling;
- Participating in local and regional planning 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

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

# I. Agency Policy Statement

The Department of Veterans Affairs (VA) recognizes when conducting its mission to care for our Nation's Veterans, it has a responsibility to minimize environmental and energy-related impacts. VA is committed to complying with relevant environmental and energy statutes, regulations, and Executive Orders (EO). VA formalized this commitment by issuing an expanded sustainability policy in fiscal year (FY) 2010, which it updated and reissued in FY 2011.

In addition to a strong policy statement from VA leadership, the Department is demonstrating its commitment to meeting sustainability targets and goals through green projects and programs. Recent efforts include:

- Formally assessing 173 medical center campuses for compliance with the "Guiding Principles for Federal Leadership in High Performance and Sustainable Buildings" (Guiding Principles) and potential for third-party certification.
- Developing a tool that helps identify the proper motor vehicle to procure based on its intended usage and the availability of nearby alternative fuels.
- Continuing to centrally fund facility-level Green Environmental Management System (GEMS) coordinator positions at all medical centers and 20 regional-level GEMS positions to improve management of environmental issues at the facility level and provide regional oversight.
- Centrally funding 91 energy engineers and 21 regional-level energy managers to similarly improve management of energy issues.

As outlined in this Strategic Sustainability Performance Plan (SSPP), VA must implement aggressive strategies to meet the special challenges that the VA mission poses for sustainability targets and goals. VA hospitals and community living centers operate continuously, use energy-intensive medical equipment and processes, and are subject to stringent air quality standards. While VA's mission is expanding to reach more Veterans in more locations, its commitment to providing high quality health care is undiminished.

VA is actively planning a number of strategies to continue its commitment to protecting the environment and serving Veterans in the coming years. These strategies include:

- Constructing alternative fueling stations to implement VA's strategy to reduce petroleum use in the face of an expanding mission.
- Completing building-level metering at all VA- owned facilities ahead of the requirements in the [Energy Policy Act \(EPAAct\) of 2005](#) and [Energy Independence and Security Act of 2007 \(EISA\)](#) for both electric and non-electric metering.

VA is committed  
to aggressive  
strategies  
to meet its  
sustainability  
goals.

VA's activities in support of its four strategic goals are intimately tied to sustainability.

- Installing and commissioning on-site renewable electricity generation systems, including renewably fueled combined heat and power, solar photovoltaic (PV), wind, and ground source heat pump systems.
- Implementing water efficiency improvements which will result in up to 475,000 gallons of potable water savings per facility per year.

## II. Sustainability and the Agency Mission

The VA's mission 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. In its four strategic goals for completing this mission, VA's activities are intimately tied to sustainability. The ways in which these four goals and this collaboration relate to sustainability are:

1. Improve the Quality and Accessibility of Health Care, Benefits, and Memorial Services While Optimizing Value – Improved environmental quality is consistent with VA's goal to provide the best quality health care, benefits, and memorial services.
2. Increase Veteran Client Satisfaction with Health, Education, Training, Counseling, Financial, and Burial Benefits and Services – While VA is responsible for vocational rehabilitation and employment, it also has found that non-recurring maintenance (NRM) projects for energy, water, and environmental improvements at VA facilities often provide opportunities for Veteran-owned small businesses.
3. Raise Readiness to Provide Services and Protect People and Assets Continuously and in Time of Crisis – By building sustainability into planning and investment decisions, VA is positioning itself to be able to provide services to the Nation regardless of circumstance.
4. Improve Internal Customer Satisfaction with Management Systems and Support Services to Achieve Mission Performance and Make VA an Employer of Choice by Investing in Human Capital – By providing sustainable facilities and offices, VA is ensuring employees have a positive and healthy work environment.

In addition, some of VA's [Strategic Plan's](#) initiatives address sustainability, such as the Enterprise Energy Cost Reduction initiative. These initiatives are part of VA's strategy to pursue the President's overarching goal for the Department—to transform VA into a 21st century organization focused on our Nation's Veterans as its clients.



VA's mission also introduces key challenges regarding sustainability. These challenges can be categorized into three groups. The first challenge is hospital energy and air quality requirements. Providing cutting-edge health care requires an increasing amount of energy-intensive equipment and processes. Along these lines, standards, such as indoor air quality, for hospitals and health care facilities, are more complex than for other building types. VA is addressing this challenge by:

- Aggressively implementing energy conservation measures to reduce non-healthcare plug load.
- Maximizing the use of on-site renewably fueled electrical and thermal energy, as well as increasing on-site renewable energy generation.
- Implementing retro-commissioning to ensure systems work the way they were designed, thereby improving energy efficiency, comfort, and indoor air quality.
- Replacing old equipment with energy efficient models.

The second challenge VA faces regarding sustainability is hospital and cemetery water requirements. Hospitals use large amounts of water through infection control protocols, sterilization processes, and laundry operations and due to regulations do not have the opportunity to reuse water as a commercial facility may. Also, maintaining cemetery grounds appropriately to memorialize and respect Veterans is traditionally water intensive. VA is addressing this challenge by:

- Implementing water conservation measures and best water management practices to reduce non-healthcare water use.
- Installing water efficient sterilization systems.
- Implementing water reduction strategies in laundry and other non-medical areas;
- Increasing xeriscaping.
- Using "smart" irrigation controllers.

VA's expanding mission is the final challenge. VA is increasingly delivering its services, including its mental health outreach, to Veterans at their homes. As reflected by the demographics of our armed services, increased outreach and services are being provided to women Veterans. Finally, VA is serving new Veterans returning from Operation Enduring Freedom and Operation Iraqi Freedom. To address these issues, VA is:

- Right-sizing its fleet and expanding use of fuel efficient vehicles.
- Increasing the use of alternative fuels in VA fleet and GSA leased vehicles.

VA's expanding mission—and its energy, air quality and water requirements—pose key sustainability challenges.

Table 1, Summary of VA Size and Scope of Operations

Total # Employees (Full-time employee equivalents)	284,316
Total Acres Land Managed	34,252
Total # Facilities Owned	5,566
Total # Facilities Leased (GSA lease)	238
Total # Facilities Leased (Non-GSA)	1,382
Total Facility Gross Square Feet (GSF)	158,312,000
Operates in # of Locations throughout U.S.	917
Operates in # of Locations outside of U.S.	20
Total # Fleet Vehicles Owned	3,635
Total # Fleet Vehicles Leased	11,069
Total # Exempted-Fleet Vehicles (Tactical, Emergency, Etc.)	390
Total Operating Budget FY 2010 (\$MIL)	127,207
Total # Contracts Awarded FY 2010	243,517
Total Amount Contracts Awarded FY 2010 (\$MIL)	16,116
Total Amount Spent on Energy Consumption FY 2010 (\$MIL)	501
Total BTU Consumed per GSF in FY 2010	172,000
Total Gallons of Water Consumed per GSF in FY 2010	57.8
Total Scope 1&2 GHG Emissions (Comprehensive) FY 2008 Baseline MMTCO <sub>2e</sub>	2.991
Total Scope 1&2 GHG Emissions (Subject to Agency Scope 1&2 Reduction Target) FY 2008 Baseline MMTCO <sub>2e</sub>	2.957
Total Scope 3 GHG Emissions (Comprehensive) FY 2008 Baseline MMTCO <sub>2e</sub>	1.077
Total Scope 3 GHG Emissions (Subject to Agency Scope 3 Reduction Target) FY 2008 Baseline MMTCO <sub>2e</sub>	1.049

To help put these challenges in context, Table 1 provides a summary of the size and scope of VA's operations as of the end of FY 2010 that can be compared to other Government agencies. The overall VA healthcare system provided 679,600,000 in-patient visits, a 2.7 percent increase over FY 2009, and 75,600,000 out-patient visits, a 3.6 percent increase over FY 2009, to approximately 8,300,000 enrollees, a 3 percent increase over FY 2009, in FY 2010. In addition, VA provides memorial services at 131 National Cemeteries.

### III. Greenhouse Gas Emissions Reductions Goals

VA has committed to a 29.6 percent reduction in [Scope 1 & 2](#) greenhouse gas (GHG) emissions and a 10 percent reduction of [Scope 3](#) GHG emissions by FY 2020, below the FY 2008 baseline. The [VA Green Management Program \(GMP\)](#) Service, part of the Office of Asset Enterprise Management (OAEM), coordinates the VA GHG program

activities, including compiling / calculating the GHG inventory and reductions efforts. The GMP collaborates with each Administration and staff office, as appropriate, to ensure VA's GHG related activities and processes are on track to meet the Department's reduction goals.

VA will meet the Scope 1 & 2 goals through a combination of initiatives funded at the facility-, regional-, and Department-level. Facility- and regional-level strategies include energy conservation measures (ECM), re- and retro-commissioning, alternative fueling station installations, and on-site renewable electricity generation. Projects funded at the Department level include additional alternative fueling stations, and additional on-site renewable electricity generation through technologies such as solar, wind, and renewably fueled combined heat and power (CHP). A 26.2 percent reduction in Scope 1 & 2 emissions is projected to come from meeting the FY 2015 alternative fuel use, petroleum reduction, energy intensity reduction, and on-site renewable electricity targets as set forth in the [Energy Policy Act of 2005](#). VA plans to achieve the additional 3.4 percent reduction required to meet VA's FY 2020 GHG goal by leveraging identified renewably fueled CHP projects, which are expected to produce 170,000 megawatt hours (MWh) per year.

VA will continue to make significant progress in its GHG emissions reduction efforts thanks in part to over \$402 million in funding from the [American Recovery and Reinvestment Act](#) (ARRA) for energy efficiency and renewable energy projects in FY 2009 and FY 2010.

VA set an aggressive yet achievable Scope 3 GHG reduction goal of 10 percent. VA's emissions from employee commuting are a particular challenge, given the current size of VA and the increasing demand for Veteran care and services. To meet its target, VA is relying on a combination of strategies and technology advances that include meeting existing targets (such as renewable energy and waste reduction); improving fuel economy based on [Corporate Average Fuel Economy](#) (CAFE) standards; and implementing innovative commuting strategies, such as telework and alternate work schedules. VA developed and delivered an employee commuting survey to one percent of VA employees for FY 2010. This statistically significant survey captured VA

VA will meet its goal of a 29.6% reduction in Scope 1 & 2 emissions through initiatives targeting all levels of the Department.

North Chicago Energy Plant; Electric meter at VA facility



Accountability for sustainability improvements is shared throughout VA.

employee commuting habits, which will help VA tailor its reduction strategies to its employees' needs.

## IV. Plan Implementation

VA built its processes for effective implementation of environmental- and energy-related EOs and statutes around its Department-level GMP. The GMP is located within OAEM, which is led by the Senior Sustainability Officer (SSO). The GMP owes its success to the strength of its relationship with the rest of the agency. Tasked with internal coordination and communication about the plan, the GMP oversees dissemination of the plan to the field and assures leadership and accountability, the integration of agency policy and planning, budgeting integration, and rigorous evaluation of progress.

OAEM is responsible for setting VA policy on sustainability, fleet, environmental, and energy-related issues and overseeing implementation of these policies within each of the three Administrations ([Veterans Health Administration \[VHA\]](#), [National Cemetery Administration \[NCA\]](#), [Veterans Benefits Administration \[VBA\]](#)) and staff offices. Staff offices crucial to implementation efforts include the [Office of the Chief Information Officer](#) and the [Office of Acquisition, Logistics, and Construction \(OALC\)](#), which includes the [Office of Construction and Facilities Management \(OCFM\)](#).

OAEM further built its processes around three task forces (Energy Management, Fleet Management, and Environmental Management) and two advisory councils (Green Buildings and GHG). These groups are ongoing and feature active participation from members, who include facility, regional, and central office representatives from a variety of functional areas. The task forces and advisory councils meet at least quarterly and have four main responsibilities:

1. Develop, maintain, and coordinate implementation of management action plans, which serve as VA-wide implementation plans for meeting the challenges relevant to each group, including milestones and responsible parties.
2. Communicate policies and approaches within the group for improved coordination.
3. Disseminate policies and approaches to the field and other stakeholders, and solicit critical feedback.
4. Identify and ensure commitment of the necessary resources for Department-level actions and initiatives.

These groups update the management action plans quarterly in coordination with representatives from the Administrations and staff offices to track progress, provide a mechanism for constant re-evaluation and improvement, and maintain member focus on these issues. The task forces and advisory councils report up to an overarching Sustainability Task Force. The Sustainability Task Force is comprised of cross-functional senior level executives.

Figure 1: Sustainability Organizational Chart

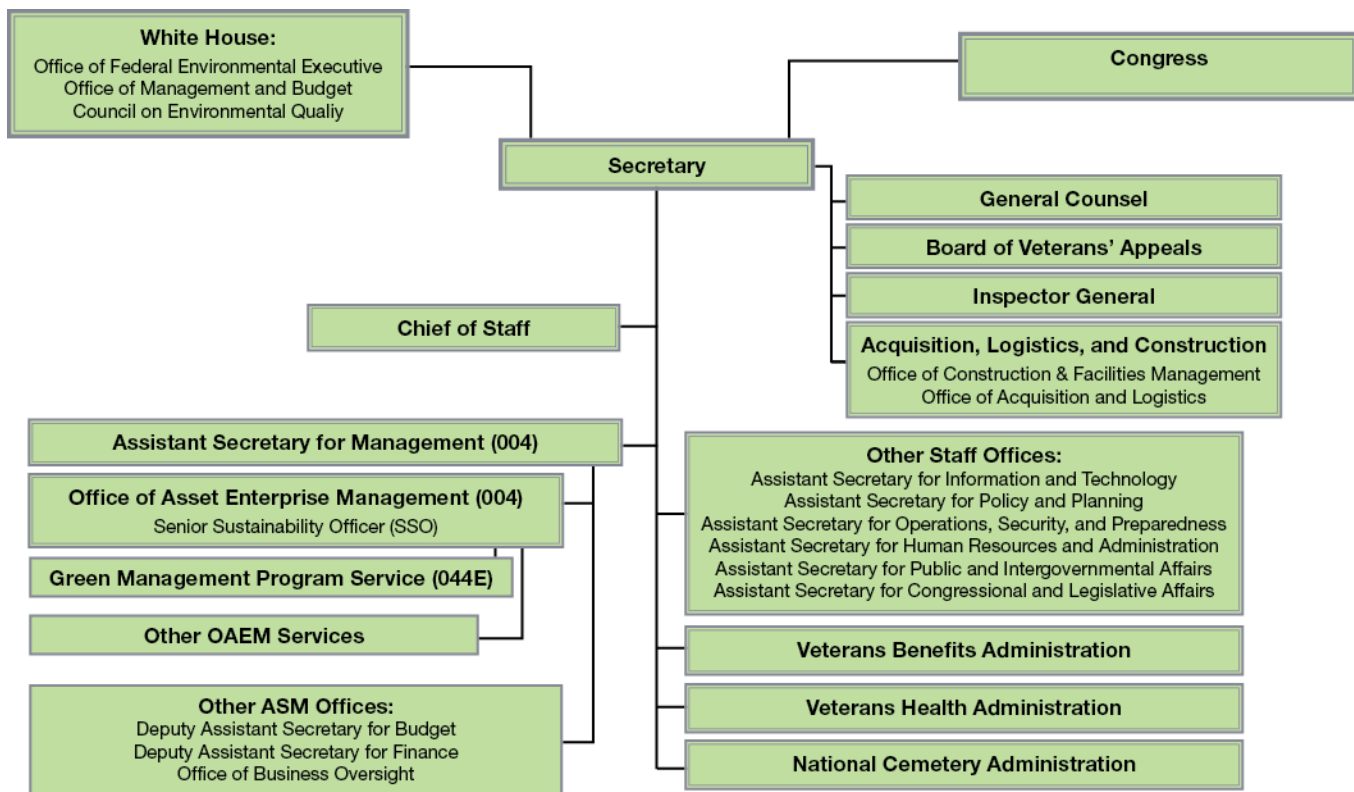


Figure 1 shows the VA organizational structure. OAEM resides within the Office of Management, led by the Assistant Secretary for Management, who also serves as the Department's Chief Financial Officer. This organizational structure allows for close coordination and allocation of resources to achieve VA's sustainability goals. In addition, while the SSO is ultimately responsible for meeting VA's sustainability targets and goals, accountability for improvements in sustainability is shared throughout the organization. The SSO chairs the Sustainability Task Force. VHA operates at the Central Office level (VHACO) and also is divided into 21 Veterans Integrated Service Networks (VISN), which are regional health system networks and important to policy and communication dissemination in VHA. VA defined sustainability-related metrics in the position descriptions for VISN directors. VA included these requirements in the position descriptions of VISN energy managers, facility energy engineers, and GEMS coordinators.

VA has integrated accountability for sustainability goals throughout the Department with metrics for individual managers and staff members. Reporting on goal progress is centralized within OAEM to facilitate oversight. This office uses a number of tools to track progress. The primary external tool is the [Office of Management and Budget \(OMB\) scorecard](#). However, because this scorecard does not evaluate granular progress, either by level of organization or by metrics beyond the top-level targets, VA uses additional tools to achieve the desired level of granularity. For example, VA has developed internal performance measures for evaluating if the proper programs are in place and how well individual facilities are performing. In addition, VA has measurable deliverables for every action in its management action plans. As

mentioned previously, the task forces review these action plans quarterly, and OAEM tracks progress. VA also uses surveys of the GEMS coordinators to understand how each facility is maintaining its environmental management system (EMS). Finally, the GMP tracks a number of additional metrics, such as [ENERGY STAR®](#) qualified buildings, [Leadership in Energy and Environmental Design \(LEED®\)](#) certifications, and [Green Globe®](#) certifications for VA facilities.

Table 2. Critical Planning Coordination

Originating Report / Plan	Scope 1 & 2 GHG Reduction	Scope 3 GHG Reduction	Develop and Maintain Agency Comprehensive GHG Inventory	High-Performance Sustainable Design / Green Buildings	Regional and Local Planning	Water Use Efficiency and Management	Pollution Prevention and Waste Elimination	Sustainable Acquisition	Electronic Stewardship and Data Centers	Agency Specific Innovation
GPRA Strategic Plan	Yes	Yes	N/A	Yes	No	Yes	No	Yes	Yes	N/A
Agency Capital Plan	Yes	No	N/A	Yes	Yes	Yes	Yes	Yes	Yes	N/A
A-11 300s	N/A	N/A	N/A	Yes	N/A	Yes	N/A	Yes	No	Yes
Annual GHG Inventory and Energy Data Report	Yes	No	Yes	N/A	N/A	Yes	N/A	N/A	N/A	N/A
EISA Section 432 Facility Evaluations/ Project Reporting/ Benchmarking	Yes	N/A	N/A	Yes	N/A	Yes	N/A	N/A	Yes	No
Budget	Yes	Yes	Yes	Yes	N/A	Yes	Yes	Yes	Yes	Yes
Asset Management Plan / 3 Year Timeline	Yes	N/A	N/A	Yes	Yes	Yes	Yes	Yes	N/A	N/A
Circular A-11 Exhibit 53s	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Yes	Yes	N/A
OMB Scorecards	Yes	N/A	N/A	Yes	N/A	Yes	Yes	Yes	Yes	N/A
Department of Energy's Annual Federal Fleet Report to Congress and the President	Yes	N/A	Yes	N/A	Yes	N/A	N/A	Yes	N/A	N/A
Data Center Consolidation Plan	Yes	Yes	N/A	Yes	N/A	N/A	N/A	N/A	Yes	N/A
Environmental Management Systems	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	N/A
Instructions for Implementing Climate Change Adaptation Planning	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Other (reports, policies, plans, etc.)	Yes	Yes	N/A	Yes	N/A	Yes	No	Yes	N/A	Yes

Table 2 shows the long-term integrating relationship between the sustainability plan and other planning and reporting efforts that VA employs. The “other” report in the table is the VA Strategic Capital Investment Planning (SCIP) process. Through the use of “Yes,” “No,” and “N/A,” this table shows progress toward producing the desired integration. “Yes” means the goal has been integrated into the subject report; “No” means it has not yet been integrated; and “N/A” means integration is not applicable or not appropriate. It is important to note agencies other than VA control the content and format of a number of these reports.

VA invests in projects that will best aid in accomplishing Department-wide goals.

## V. Evaluating Return on Investment

VA methodologies for determining investment decisions are complex and vary by Administration, region, and facility. The aspect of the investment process which does not vary is the Department’s pursuits of investments that will not diminish VA’s ability to meet its mission. VA’s current capital expenditure evaluation process, SCIP, exemplifies VA’s current processes for making investment decisions after it applies the mission criteria.

The SCIP process provides a systems approach to its investment decisions. The SCIP is VA’s master capital investment plan, which provides better focus on investment decisions on an organization-wide basis. Unlike the previous process VA used, which evaluated only major and minor projects and compared only within project type, the SCIP evaluates major, minor, NRM, and lease projects and compares across project types.

VA uses the SCIP to look at the entire portfolio of possible investment decisions and select the projects that will best aid in accomplishing Department-wide goals such as meeting Federal mandates. For example, to inform the SCIP with regard to renewable energy projects, VA conducts feasibility studies across the country that analyze the technical and financial performance of the project. The Department can then select the best performing project for investment. SCIP also considers other factors when ranking projects such as reducing greenhouse gases, reducing water use, ensuring safety, supporting an expanded VA mission, generating energy, and meeting the Department’s sustainable building goals. VA then has the ability to perform pilot installations to assess the actual performance of the given type of project. VA can then leverage this knowledge to improve the installation and operation processes for future installations.

VA considers the social impacts of all investment decisions.

### a. Economic Lifecycle Cost / Return on Investment

VA uses two methods in the investment decision-making process to incorporate economic lifecycle cost and to maximize return on investment (ROI). The first method is cost-benefit analysis, performed during business case development as part of the SCIP process and in support of GMP internal project evaluation. The second method is VA's integrated approach in which it uses the lessons learned from pilot projects to guide the selection of future projects, thereby improving the ROI of its entire portfolio of projects over time.

VA always performs a cost-benefit analysis when selecting projects and initiatives. All projects must complete standard Federal business case documentation, such as an OMB A-11 Exhibit 300 or similar document, when going through the SCIP process. This process takes into account the entire lifecycle of the investment, from initial acquisition to final disposition, providing VA with a clear picture of the lifetime financial performance of the project. GMP uses ROI information to perform an internal evaluation of projects that it may fund. Like SCIP, GMP looks for projects that not only aid the Department in meeting environmental mandates and internal targets, but also provide the best possible ROI.

In addition to the analytical examination of financial projections, VA takes an integrated approach to evaluating the ROI of projects over time. VA leverages its size by performing pilot projects that provide real-world data on how similar projects will perform when implemented to scale in the field. The lessons learned through the pilot process help guide VA in selecting the best possible solutions when similar projects are implemented throughout the Department in appropriate locations and climates. When selecting projects for a given location, combining knowledge about that location and the lessons learned through the pilot process is vitally important to providing the best possible ROI.

### b. Social Costs and Benefits

VA considers the social impacts of all investment decisions and seeks to maximize value for our Nation's Veterans and for the Nation as a whole. As a reflection of the priority VA places on maximizing the social benefit of its investment decisions, the top two criteria in the SCIP process are service and safety. By "service," VA means that projects must further its mission to provide world-class services and benefits for our Nation's Veterans. The "safety" criterion is used to ensure that VA is performing its mission in ways that improve the safety with which services are delivered. Because VA only invests in projects that forward the mission in ways that improve Veteran safety, the social benefits must outweigh the costs for any investment to take place.

### c. Environmental Costs and Benefits

Sustainable design concepts are incorporated into project planning from the outset to reduce VA's collective environmental impact. The new SCIP scoring process ensures criteria for water and energy conservation, renewable energy, sustainable buildings,



and GHG emissions reduction are fundamental considerations for evaluating viability of any individual project. As the planning process progresses, VA completes the appropriate level of National Environmental Policy Act (NEPA) analysis of potential environmental impacts prior to funding the proposed construction or renovation project.

#### d. Mission-Specific Costs and Benefits

While maximizing the value of the services VA provides, it may encounter costs that other government agencies would not encounter. However, the benefits of meeting its mission outweigh the costs VA incurs. For example, the medical benefits of using state-of-the-art medical technologies outweigh the potential costs incurred when those technologies consume greater amounts of energy to operate and require VA to purchase renewable energy credits in order to meet GHG emissions reduction targets. Similarly, planning for anticipated future needs may also dictate investment decisions.

#### e. Operation & Maintenance and Deferred Investments

VA performs facility condition assessments on a three-year cycle, covering one-third of its facilities each year, in lieu of calculating deferred maintenance. Like service, safety, and the GMP goals, these facility condition assessments are integrated into the SCIP process and are a further tool for maximizing the value of VA's investments. VA prioritizes maintenance and repair activities based on factors including safety, quality of life, protection of assets, and protection of the environment. VA uses the assessments to allocate the needed resources including fund allocations based on facilities' current and anticipated needs.

#### f. Climate Change Risk and Vulnerability

A risk analysis is included with completion of the OMB A-11 Exhibit 300 and reviewed during the SCIP. Thanks to this risk analysis, VA is preparing for some of the potential risks associated with climate change, even though it has not explicitly considered climate change risk as part of that analysis. For example, VA has undertaken studies on how it could respond to and operate during severe weather occurrences which may become more common and severe due to climate change. One way VA deals with such events is to set requirements for the survivability of its major facilities. VA considers survivability and sustainability as mutually supporting objectives, is actively exploring possible ways to use sustainable practices to fulfill survivability requirements, and is investigating integrating climate change risk and vulnerability into its planning processes. These efforts are supported by the Office of Continuity of Operations.

Survivability and sustainability are mutually supporting objectives in VA's preparations for severe weather events.

## g. Alternate Financing

VA plans to continue to use alternative financing consistent with its successful use of third-party financing mechanisms, such as energy savings performance contracts, utility energy services contracts, and enhanced use leases to finance energy and water conservation measures. VA utilizes a central management and central contracting approach to alternative finance project implementation. OAEM is responsible for centrally managing all projects and coordinates with the VA National Energy Business Center (NEBC) to perform all related contracting activities. NEBC ensures quality financing by employing contracting officers and specialists with training specifically in alternative financing. When entering into such financing arrangements, VA works to ensure reasonable cost savings estimates, proper project implementation, and accurate measurement and verification of savings. VA considers the cost and availability of funds from multiple sources when evaluating project viability.

## VI. Transparency

External audiences will be the key focus for outreach regarding VA's GHG reduction goals, accomplishments, and performance on each goal. Of the various communications vehicles for making these details public, VA plans for its Website to play a major role. VA sustainability coverage will include:

- Dedicated coverage on the [VA's GMP Webpage](#).
- Brief coverage in the "[Fiscal Year 2010 Performance and Accountability Report](#)."

The most comprehensive coverage will be on the GMP Webpage, where data transparency will be the highest priority. Site visitors, both VA employees and external stakeholders, will be able to compare GHG performance against reduction goals and measure the Department's overall progress in GHG reduction.

In addition to these postings, the VA Office of Public and Intergovernmental Affairs will send an announcement about the SSPP's completion to its email distribution list and include a link to further details on the VA website. VA will also investigate including coverage on the VA's blog, [VAntage Point](#), and publicizing plan highlights in an article in VA's in-house magazine [Vanguard](#). Broad internal agency communication on goals and accomplishments will include outreach through VA-wide broadcast messages such as "Hey VA" and "VA Central Office Daily News." VA will also post information about the plan on the VA Green Scene blog, an internal social networking site focusing on sustainability-related issues.

The larger focus for internal agency communication will be on assuring the necessary implementation. At the outset, high-level communications from the SSO to heads of Administrations and staff offices will provide a framework for Department-wide action by engaging these leaders in the completion of the five top-level implementation action plans mentioned in Section 1.IV, Plan Implementation.

The primary burden for internal communications will fall in general to the three task forces and two advisory groups (see Section 1, IV). As the drivers of implementation, these groups will share the details of their respective management action plans and follow up as needed with appropriate staff, including chief engineers, facility energy engineers, VISN energy managers, VISN directors, chief logistics officers, facility and regional fleet managers, facility level environmental/facilities management, and GEMS coordinators. Performance metrics will be tracked at the facility level and reported back up through the organization to the reporting office. Staff will also provide feedback through the task forces and advisory groups. This feedback will pass back up the chain to inform VA outreach to external audiences through the vehicles described above.


Internal outreach will focus on assuring the necessary implementation.

Boise VA Regional Office – LEED Gold building



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Section 2:  
Performance  
Reviews and  
Annual Update



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# I. Summary of Accomplishments

VA marked the past year with a number of significant accomplishments.

## Management

- Continued to centrally fund positions for 90 facility-level energy engineers and 21 regional energy managers.
- Continued to centrally fund facility-level GEMS coordinator positions at all medical centers and 20 regional-level GEMS positions to improve management of environmental issues at the facility level and provide regional oversight.
- Continued to integrate environmental, energy, and fleet functions across the Department.
- Continued to use NEBC, which is a VA centralized green procurement office for managing energy and other sustainability-related contracts, such as purchasing commodities and fueling stations.
- Obligated approximately \$30 million in ARRA funded ECMs and \$283 million in direct funded ECMs in FY 2010.
- Continued to develop VA-wide policy and guidance documents, including documents in areas of Sustainable Buildings, Energy and Water Management, Energy Investment Process and Alternatively Financed Projects, Fleet Management, Environmental Compliance Management, Environmental Management Systems, Waste Prevention and Recycling, Chemicals Management, Sustainable Acquisition, and Electronics Stewardship.

## Buildings

- Evaluated medical center campuses for potential third-party certification, including 173 evaluations completed through an online self-assessment of the buildings.
- Achieved compliance with the [Guiding Principles](#) in 13.54 percent of square footage in buildings over 5,000 GSF, which corresponds to 4.2 percent of buildings over 5,000 GSF. Of the total number of VA buildings 7.7 percent are in compliance with the Guiding Principles.
- Ensured optimal building performance through contracts awarded to conduct retro-commissioning activities at 43 facilities in FY 2010.
- Developed an Energy and Water Management Program Review Protocol to evaluate facility- and VISN-level implementation of policies and strategies to address requirements.

VA has begun design and installation of 50 renewable energy projects, in addition to 15 already in operation.

- Developed and implemented a policy to integrate sustainability into the design process of major construction projects at the earliest planning stage.
- Utilized an updated master building specification that references an updated [Sustainable Design and Energy Reduction Manual](#).
- Began implementation of a space consolidation plan developed in the fall of 2010.
- Instructions were issued for all CFM new construction / major renovation projects to comply with the Guiding Principles.
- Implemented the requirement to lease only ENERGY STAR® labeled buildings as of December 2010.

## Renewable Energy

- Operated 12 solar PV systems, 2 wind power systems, and 1 renewably fueled CHP system as of May 2011, bringing VA's total electricity from renewable energy projects to 14,700 MWh.
- Awarded and began design and installations for renewable energy systems, including 7 new renewably fueled CHP systems and 43 PV systems at medical centers and cemeteries as of May 2011.

## Fleet

- Utilized a vehicle allocation methodology (VAM) tool, developed to help identify the proper motor vehicle to procure based on its intended usage and the availability of nearby alternative fuels. VA provided Department-wide training on the tool, including to 168 fleet managers in calendar year 2010.

Solar PV pilot program at Dallas VA Medical Center



- Conducted environmental assessments in preparation for installing E85 alternative fuel stations, including 89 completed by May 2011.
- Operated alternative fueling stations at 14 locations. In addition, VA has 22 E85 stations awarded and under construction. Another 23 E85 stations are in the solicitation phase.
- VAMC Martinsburg installed and operates VA's first solar electric vehicle charging station powered by an 8 kW solar array.

## GHG

- Tracked GHG emissions reduction progress by completing a GHG inventory for the FY 2008 baseline and FY 2010 that included Scope 3 emissions.
- Distributed a national employee survey to investigate agency-wide commuting habits and make recommendations for reducing Scope 3 emissions.
- Implemented a GHG program that follows a recently developed [GHG Inventory Management Plan](#).
- Pursued Scope 3 reduction activities from a Scope 3 emissions reduction action plan, which was created to help guide the agency in meeting its targets.

## Water

- Identified water-related ECMs to provide water savings. In the past year, VA identified water improvements with the potential to save up to 475,000 gallons per year per facility.
- Identified pilot projects that can be used to prove the VA-applicability of novel water savings technologies and techniques. In the past year, "smart" irrigation methods at VISN 21 were identified as a pilot project for VA. This project has the potential to save up to one million gallons per year per facility.
- Ft. Bliss and Bourne National Cemeteries are achieving savings of 56 million gallons and 30 million gallons of water, respectively, after their first year of operation in FY 2010 with new system upgrades.
- VA Greater Los Angeles Healthcare System partnered with the Los Angeles Department of Water and Power to replace 7.5 acres of turf with drought tolerant landscaping, saving 8.1 million gallons of water annually at no cost to VA.

## EMS

- Surveyed GEMS coordinators in FedCenter to evaluate status of facility-level EMS, including a report conducted for FY 2010.

VA has identified water improvements with the potential to save 475,000 gallons per year per facility.

The VA Green Routine Awards recognize superior staff efforts in waste reduction, recycling and resource conservation.

## Pollution Prevention and Waste Reduction

- Began implementing a revised [VHA Waste Minimization Report](#) to report on construction and demolition (C&D) waste diverted and waste sent to landfills, incinerators, and other disposal methods.
- Promoted an updated [VA Greening Action Guide and Toolkit](#) that includes source reduction and recycling.
- Conducted outreach activities to improve awareness on pollution prevention and waste reduction, including a pledge drive, VA Earth Day and America Recycles Day events, and the Green Scene blog.
- VISN 1 has seven facilities piloting [Waste Wise](#), a free voluntary waste reduction program managed by the U.S. Environmental Protection Agency (EPA). The VISN recently completed their first annual report on waste tracking and reduction activities, which will help the facilities show results and target materials for improvement.

## Sustainable Acquisition

- Utilized a methodology VA developed to review FY 2011 1st quarter contracts for compliance with the 95% sustainable acquisition goal, and refined it for the FY 2011 2nd quarter contract review.
- Participated in interagency sustainable acquisition working groups focusing on greening solicitations and developing methodologies for tracking the 95% sustainable acquisition goal.
- Employed a pass-through link to the Defense Acquisition University green purchasing course from the [VA Talent Management System](#).
- Issued green purchasing guidance to procurement staff, such as the "Acquisition Heads Up" email reminding contracting officers of their responsibilities in green purchasing and including a reference guide.
- Integrated green purchasing into GEMS trainings, including those conducted in August 2010 and April 2011.
- Purchased products through the [Federal Strategic Sourcing Initiative for Office Supplies Second Generation](#), and issued guidelines to mandate purchase of remanufactured toner cartridges.

## Electronics Stewardship and Data Centers

- Delivered the VA Final Data Center Consolidation Plan for the Federal Data Center Consolidation Initiative and conducted asset inventories.
- Awarded a contract that includes requirements for [EPEAT®](#) and energy efficient PCs and monitors.
- Procured additional 90,000+ licenses of power management software, and installed software on over 280,000 targeted workstations.



- Continued to use ARRA funds for sustainability improvements, including a project at the VA data center in Austin, TX.
- Developed VA-wide draft operational policy for power management.

## Education and Outreach

- Conducted outreach activities to improve staff awareness of sustainability, including a green pledge drive, VA Earth Day, Bike to Work Day, and America Recycles Day events, and a commuting fair to help promote sustainable commuting practices.
- Encouraged grassroots leadership in sustainability through the [VA Green Routine Awards](#) program, which recognizes superior efforts in waste reduction, recycling and resource conservation among staff.
- Supported the efforts of GEMS coordinators and energy engineers through the [VA Sustainability Achievement Awards](#), which recognize the finest efforts in ten areas of sustainable operations.
- Revamped the [Green Management Program Website](#) to include updated information such as a detailed map of VA energy projects and the VA SSPP.
- Updated [VA Green Routine Website](#) to enhance the user experience, allowing for easier access to sustainability success stories and lessons learned of VA facilities across the country.
- Launched “VA Green Scene”, an internal social networking site focusing on sustainability-related issues.
- Launched internal VA Green Management Program Website that provides sustainability-related resources and tools for VA employees.

Building energy efficiency and on-site renewable energy systems will play a vital role in reducing VA’s GHG emissions.

## II. Goal Performance Review

### 1. GOAL: Scope 1 & 2 Greenhouse Gas Reduction

VA committed to a 29.6 percent reduction in Scope 1 & 2 GHG emissions by FY 2020 over the FY 2008 baseline. The Department’s Scope 1 & 2 goal-subject GHG emissions totaled approximately 2.86 million metric tons of carbon dioxide equivalent (MMT<sub>CO2e</sub>) in FY 2010, approximately a three percent reduction from the FY 2008 baseline. VA’s integrated approach to GHG reductions takes into account everything from initial project selection to building operation, renewable energy system implementation, and fleet operations. On-site fuel consumption in buildings accounts for about 28 percent of emissions, purchased electricity accounts for about 63 percent and the remaining emissions come from fleet vehicles and fugitive emissions. Therefore, improvements in building energy efficiency and installation of on-site renewable energy systems will play a vital role in reducing VA’s GHG emissions.

VA has pushed the responsibility of meeting GHG and energy reduction goals to the facility level.

Given the varying sources of Scope 1 & 2 GHG emissions, VA has integrated GHG emissions reduction planning throughout the organization. VA's SCIP initiative takes into account GHG and energy savings in prioritizing capital investments across VA. This integration emphasizes to senior management the importance of meeting reduction goals when making capital expenditure decisions. On the micro-scale, VA has pushed the responsibility of meeting GHG and energy reduction goals to the facility level. For example, energy and therefore GHG reduction goals are integrated in the job descriptions for facility and regional energy engineers.

VA continues to centrally fund 90 facility energy engineers and 21 VISN energy engineers to help implement its Scope 1 & 2 emissions reduction activities. These full-time employees work together with OAEM, as well as with engineering and fleet management staff throughout the agency for whom energy and fleet management are collateral responsibilities.

VA's Energy Management and Fleet Management task forces and GMP lead the planning and coordination for achieving the Department's energy, fleet, renewable energy and Scope 1 & 2 GHG emissions reduction goals. The task forces meet quarterly to coordinate implementation of Department-level management action plans for achieving VA's energy- and fleet-related targets. The VA GHG Advisory Group also supports the GHG reduction efforts and developed a GHG management action plan to explicitly address the GHG requirements of EO 13514. Finally, VHA developed five-year VISN- and facility-level energy management plans that provide a roadmap for how VHA will meet its targets. The agency status section provides information about VA's planned projects to meet future targets.

For FY 2009 and FY 2010, the Department budgeted \$58,742 and \$343,743,000 in ARRA funding for energy efficiency and renewable energy projects. These projects have helped VA reach its three percent reduction in Scope 1 & 2 emissions.

### Buildings and Renewable Energy

VA's sustainable building program, as discussed in Goal 3, contributes to VA's Scope 1 & 2 emissions reduction. VA currently uses [ENERGY STAR® Portfolio Manager](#) to benchmark the performance of VHA and NCA facilities. VA actively trains energy managers in continuous commissioning, re-commissioning, and retro-commissioning of buildings, as well as in building energy audit procedures. This training will improve VA staff's ability to identify energy and operational inefficiencies in the course of everyday operations and to better specify, contract for, and manage third-party audit and commissioning efforts. The operational improvements not only improve energy efficiency, but also improve comfort and indoor air quality.

By aggressively pursuing ECMs as well as setting an internal goal of 15 percent of electricity from renewable sources, VA expects to exceed FY 2015 energy intensity and renewable installation targets. These energy efficiency projects and on-site renewable energy systems will result in a projected 26.2 percent reduction in Scope 1 & 2 GHG emissions. VA will achieve the remaining 3.4 percent reduction between FY 2015 and FY 2020 by installing renewably fueled CHP systems at up to 17 facilities, which are expected to generate up to 170,000 MWh annually.

## 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 & 2 GHG emissions inventory (less than 3 percent), VA recognizes the importance of EISA 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 consistent with its mission by reallocating vehicles to maximize alternative fuel use and right-sizing the fleet. VA has developed a vehicle allocation methodology (VAM) tool that allows fleet managers to identify the preferred vehicle for its intended usage. The VAM tool also guides the fleet managers to procure alternative fuel vehicles (AFV) where appropriate and low-GHG vehicles whenever possible. This tool, in combination with the increased availability of alternative fuels, will help VA lower the Scope 1 & 2 GHG emissions from fleet vehicles. Furthermore, VA will increase the use of alternative fuel by installing alternative fuel (E85, biodiesel, and electricity) stations at VA medical centers across the Nation.

While the Department has struggled to meet the petroleum use reduction metric due to its expanding mission VA plans to construct alternative fueling stations and increase the use of low-GHG vehicles to meet this goal. Furthermore, VA now operates 14 alternative fueling stations and has 22 E85 stations awarded and under construction and 23 additional E85 stations in the solicitation phase. VA plans on leveraging this infrastructure with the development of regional fleet management plans that will allow VISNs to develop regional strategies based on their unique needs. VA is also investigating the current executive fleet to identify any potential opportunities to replace conventional vehicles with alternative fuel and/or low-GHG vehicles. Since this process has just started, the target in Table 3 is listed as to be determined (TBD).

VA has set an internal goal of 15% of electricity from renewable sources.

Electric vehicle charging station at Oakhurst (CA) clinic; E-85 fueling station at Martinez (CA) clinic



### Outreach

VA began a behavioral change initiative in FY 2010, featuring employee education, outreach, and recognition awards. The VA Green Routine Awards program has drawn attention to facilities that have saved resources and provided cost-savings through innovative recycling programs, better stewardship of waste streams, and decreased use of disposable items. The VA Sustainability Achievement Awards program has recognized facilities that have found innovative ways to reclaim water, reduce hazardous waste, expand recycling, and optimize the performance of fan coil units, among other achievements.

Table 3. Scope 1 & 2 GHG-Related Targets

SCOPE 1&2 GHG TARGET	Unit	FY 10	FY 11	FY 12	FY 13	FY 14	FY 15	...	FY 20
<b>Buildings</b>									
Energy Intensity Reduction Goals (BTU/SF reduced from FY03 base year)	%	15%	18%	21%	24%	27%	30%	...	hold
Planned Energy Intensity Reduction (BTU/SF reduced from FY03 base year)	%	15%	18%	21%	24%	27%	30%	...	hold
Renewable Electricity Goals Percent of electricity from renewable sources)	%	5%	5%	5%	15%	hold	hold	...	hold
Planned Renewable Electricity Use (Percent of electricity from renewable sources)	%	5%	5%	5%	15%	hold	hold	...	hold
<b>Fleet</b>									
Petroleum Use Reduction Targets (Percent reduction from FY05 base year)	%	10%	12%	14%	16%	18%	20%	...	30%
Planned Petroleum Use Reduction (Percent reduction from FY05 base year)	%	10%	12%	14%	16%	18%	20%	...	30%
Alternative Fuel Use in Fleet AFV Target (Percent increase from FY05 base year)	%	61%	77%	95%	114%	136%	159%	...	hold
Planned Alternative Fuel Use in Fleet AFV (Percent increase from FY05 base year)	%	61%	77%	95%	114%	136%	159%	...	TBD
Senior Executive Fleet Replaced with Low-GHG, High Efficiency Vehicles (Percent replaced from FY08 base year)	%	TBD	TBD	TBD	TBD	TBD	TBD	...	TBD
Total Scope 1&2 GHG Emissions (Comprehensive)	MMTCO <sub>2e</sub>	3.069	2.90	2.81	2.72	2.63	2.54	...	2.11
Total Scope 1&2 GHG Emissions (Subject to Agency Scope 1&2 GHG Reduction Target)	MMTCO <sub>2e</sub>	2.86	2.86	2.78	2.69	2.60	2.51	...	2.08
Overall Agency Scope 1 & 2 Reduction (reduced from FY08 base year)	%	3%	3%	6%	9%	12%	15%	...	29.6%

Table 3 summarizes VA's status and planned progress in Scope 1 & 2 GHG reductions including energy intensity reduction, renewable electricity use, petroleum reduction, and alternative fuel use. It is important to note that the projections for comprehensive Scope 1 & 2 emissions reductions are a rough estimate and may change since they are not subject to annual reduction targets.

## Agency Status

### Highlights

- Continued to centrally fund positions for 90 facility-level energy engineers and 21 regional energy managers.
- Utilized a VAM tool, which was developed to help identify the proper vehicle to procure based on intended usage and the availability of nearby alternative fuels. VA provided training on the tool to 168 fleet managers in calendar year 2010.
- Operated 12 solar PV systems, 2 wind power systems, and 1 renewably fueled CHP system as of May 1, 2011, bringing VA's total electricity from renewable energy to 14,700 MWh.
- Conducted 89 environmental assessments in preparation for installing E85 alternative fuel stations by May 2011.
- Obligated approximately \$30 million in ARRA funded ECMs and \$283 million in direct funded ECMs in FY 2010.
- Operated alternative fueling stations at 14 locations. In addition, VA has 22 E85 stations awarded and under construction and 23 additional E85 stations in the solicitation phase.
- Installed and continues to operate VA's first solar electric vehicle charging station powered by an 8 kW solar array at the VAMC in Martinsburg, WV.
- Continued use of NEBC, VA's centralized green procurement office for managing energy and other sustainability-related contracts, such as commodity purchasing and alternative fueling stations.
- Awarded and began design and installation of renewable energy systems, including 7 new renewably fueled CHP systems and 43 PV systems at medical centers and cemeteries as of May 2011.
- Continued to develop VA-wide policy and guidance documents, in the areas of Energy and Water Management, Energy Investment Processes, Alternately Financed Projects, and Fleet Management.

### Planned Actions and Projects

- Comply with EPCAct electric metering requirements one year ahead of statutory schedule.
- Comply with EISA non-electric metering requirements four years ahead of the statutory schedule using ARRA funding.
- Continue to investigate and implement renewable energy projects.

- Continue to implement ECMs for which funding has been obligated.
- Continue to install alternative fueling stations at VHA medical centers, including completion of the 22 stations under construction and the additional 23 stations currently in the procurement process.
- Support fleet managers in use of the VAM tool.
- Develop regional fleet management plans for achieving 2015 goals.

## 2. GOAL: Scope 3 Greenhouse Gas Reduction and Develop and Maintain Agency Comprehensive Greenhouse Gas Inventory

VA committed to a 10 percent reduction in Scope 3 GHG emissions by FY 2020 over the FY 2008 baseline. This goal is not as aggressive as VA’s Scope 1 & 2 reduction goal as VA has less operational control of Scope 3 emissions generation. Calculation of Scope 3 emissions includes electricity transmission and distribution losses, employee commuting, employee business travel, off-site waste water treatment, and off site solid waste disposal. It is important to note that the forward looking values for the comprehensive Scope 3 emissions are estimates based on the assumption that the total of VA’s exempt Scope 3 emissions remains constant. From FY 2008 to FY 2010, VA had an expanding mission resulting in approximately a 14 percent increase in the number of full-time employees. VA’s size is an important factor in calculating and reducing Scope 3 GHG emissions, as the emissions from both employee commuting and off-site wastewater treatment plants are a direct result of the quantity of full time employees. In FY 2008, approximately 77 percent of the emissions are from Federal employee commuting and business travel, 10 percent from transmission and distribution losses, and nearly 12 percent were from contracted waste disposal. VA will rely on a number of approaches and technological advances to achieve the Scope 3 reduction goal. Table 4 shows the anticipated annual reductions for Scope 3 GHGs.

Table 4. Scope 3 GHG-Related Targets

SCOPE 3 GHG TARGET	Units	FY 10	FY 11	FY 12	FY 13	FY 14	FY 15	...	FY 20
Total Scope 3 GHG Emissions (Comprehensive)	MMTCO <sub>2e</sub>	1.25	1.07	1.06	1.05	1.03	1.02	...	0.97
Total Scope 3 GHG Emissions (Subject to Agency Scope 3 GHG Reduction Target)	MMTCO <sub>2e</sub>	1.211	1.04	1.03	1.02	1.01	1.00	...	0.95
Overall Agency Scope 3 Reduction (reduced from FY08 base year)	%	0%	1%	2%	3%	4%	5%	...	10%
Other, as defined by agency	%	-	-	-	-	-	-	...	-

The GMP has completed the FY 2008 baseline and FY 2010 inventory and is responsible for maintaining the inventory in future years. VA's Scope 3 GHG emissions were 1.05 MMTCO<sub>2</sub>e in FY 2008 and 1.21 MMTCO<sub>2</sub>e in FY 2010. While VA is confident that the current GHG Data Action Plan and Inventory Management Plan are comprehensive, VA will revisit these action plans each year based on lessons learned from that year's inventory experience. In addition, VA developed a Scope 3 Emissions Reduction Plan to address all Scope 3 emission categories currently required under Federal guidance. VA will closely review data availability, tools used, and calculation methodologies to improve data accuracy, reduce process inefficiencies, and increase the overall simplicity of the inventory process.

VA will reduce transmission and distribution losses by decreasing the amount of purchased electricity, by reducing energy intensity, and increasing on-site electricity generation from CHP systems, solar PV, and wind turbines, as a part of Goal 1 Scope 1 & 2 GHG reductions.

VA does not currently have any active landfills; therefore all GHG emissions resulting from solid waste disposal are reported under Scope 3 emissions. VA will also see a reduction in off-site waste disposal through a variety of waste reduction strategies as described in Goal 5 of this plan.

Employee commuting at VA accounts for approximately 72 percent of VA's total Scope 3 emissions. In order to identify and calculate Scope 3 GHG emissions from employee commuting, the GMP worked with the National Center for Organization Development, an internal group familiar with VA's policies and procedures, to create and disseminate a survey on employee commuting patterns. The survey was distributed online to 1 percent or approximately 3,000 employees. At the end of the survey, employees were given the opportunity to answer in their own words 'What can VA do to reduce the environmental impact of your commute?' and 'What could VA do to improve your commute to work?' GMP will use employee responses to this and other questions to identify future strategies for reducing Scope 3 GHG emissions from employee commuting. VA will see an additional reduction in Scope 3 emissions due to changes in CAFE standards, which are expected to improve the average on-the-road fleet economy of the U.S. fleet from approximately 21 miles per gallon (mpg) in 2008, to over 24 mpg by 2020. VA is also continuing to investigate and implement telework options for employees which will decrease Scope 3 emissions from commuting.

The GMP office leads the Scope 3 program with the help of the Energy Management Task Force, the Environmental Management Task Force and the GHG Advisory Group. As discussed in goal 1 and goal 5 of this document, the task forces are responsible for helping VA meet energy and waste targets that will also provide Scope 3 GHG emissions reductions. The GHG Advisory Group developed a GHG Action Plan and Scope 3 Reduction Action Plan. These plans define VA's strategies for achieving its Scope 3 GHG emissions reduction target beyond those reductions accomplished through meeting its other targets. In addition, the GHG Advisory Group developed a Scope 3 Data Action Plan to identify and address gaps, such as working with the FedTraveler vendor to ensure appropriate modifications are made to this on-line travel system to allow agencies to receive business ground travel data.

Results of a recent employee survey will inform future strategies to reduce Scope 3 emissions.

## Agency Status

### Highlights

- Tracked GHG emissions reduction progress by completing a GHG inventory for the FY 2008 baseline and FY 2010 that included Scope 3 emissions.
- Implemented a GHG program that follows the recently developed GHG Inventory Management Plan.
- Pursued Scope 3 reduction activities from a Scope 3 emissions reduction action plan, which was created to help guide the agency in meeting targets.
- Conducted a national survey of commuting habits of one percent of VA employees. These responses will allow VA to develop reduction strategies tailored to VA's commuting patterns.
- Conducted outreach activities to improve staff awareness of sustainable commuting options, including a VA Bike to Work Day event.
- Held an employee commuting fair to provide employees in the DC area information on all of the commuting options in the DC area including vanpools, public transit, local bike paths, and the regional bike share program.

### Planned Actions and Projects

- Continue to monitor progress of other projects that impact Scope 3 emissions.
- Continue to maintain the GHG inventory.
- Investigate improved data collection methods that could ease the GHG inventory process, such as adding new data fields to VA databases.

Bio-mass energy plant at Mountain Home (TN) VA Medical Center; Fort Harrison (MT) Regional Office – LEED certified building





### 3. GOAL: High-Performance Sustainable Design / Green Building & Regional and Local Planning

VA is active in the area of high-performance sustainable design. It sought and received third-party certification for a number of its facilities, supported governmental and industry groups devoted to high performance building, and developed industry-leading building designs. VA currently has 25 LEED® and Green Globes® certified sustainable facilities. VA evaluated an additional 173 medical center campuses for potential third-party certification through an online self-assessment tool provided by the [Green Building Initiative™](#).

With 25 third-party certified facilities, VA has made 13.54 percent of square footage in buildings over 5,000 GSF sustainable and compliant with the Guiding Principles, which corresponds to 4.2 percent of buildings over 5,000 GSF. Of the total number of VA buildings, 7.7 percent meet the Guiding Principles. VA is on schedule to meet the OMB sustainable building target in 2015.

In addition, VA is involved with many governmental and industry groups that focus on high performance buildings. Through its participation in the Interagency Sustainability Working Group, VA assisted in drafting guidance on high performance buildings. VA is also an active member of the [National Institute of Building Science \(NIBS\)](#) and played an integral role in the development of the [Whole Building Design Guide for Hospitals](#). This guide reaches beyond VA and encourages the design, building, and operation of high performance hospitals everywhere. VA is also working with the [National Research Council](#) to study the effects of continuous commissioning and retrocommissioning on indoor air quality in health care environments.

VA regularly updates its [Hospital Building System](#), initially developed in 1977, to take into account state-of-the-art hospital design. A key tenet of this system is to minimize the impact of both cost and materials required for future renovations and modifications. By planning for future needs in the initial design of a facility, VA lessens the lifetime impact of building reconstruction and maintenance, thus lowering the total cost of ownership for all facilities.

The Green Building Advisory Council Sustainable Building Implementation Plan is the primary method for addressing these goals. As the agency status section shows, VA has a number of current projects that will help it reach the goals set out in this SSPP. OCFM is responsible for the design and implementation of major construction ( $\geq$  \$10 million), while the VA Administrations are responsible for the design and implementation for minor construction ( $<$  \$10 million) and NRM. OAEM provides guidance and takes the lead on reporting for this goal.

Given the unique needs of medical centers, VA may have difficulty meeting all of the goals shown in Table 5. Particularly challenging given VA's mission are the daylighting, energy efficiency, and net-zero energy requirements.

Especially for older medical centers, which were often not designed to optimize natural daylight, the requirements to provide effective internal lighting through natural light are a challenge. VA also has dark rooms on the interior of the building that house specialized equipment and functions, such as surgery and X-ray.

Twenty-five  
VA facilities  
are certified  
sustainable.

The unique needs of medical centers make sustainability goals a special challenge.

Three factors complicate efforts to meet the energy efficiency requirement:

1. Energy intensive equipment like X-ray and Computerized Axial Tomography (CAT) scanners are necessary to meet the VA mission.
2. The requirement for frequent air changes makes VA medical facilities highly dependent on weather and outdoor conditions.
3. The number of patient visits is increasing.

Since VA builds and operates energy-intensive hospitals and medical research facilities, it will be challenging to meet the net-zero building goal. Net-zero energy is commonly defined as returning as much energy to the grid, on an annual basis, as a facility takes from it. By this definition, VA may have more success achieving net-zero energy for non-healthcare facilities. In order to move toward net-zero medical facilities, VA will aid the development of Federal guidance around net-zero energy buildings. VA is planning to conduct a pilot of a net-zero energy building at one of its sites. In addition, VA's goal is to collaborate with other agencies to develop the appropriate definition of net-zero for VA medical and research facilities.

Regional and local planning plays a pivotal role in VA's operations. Building new medical centers, extending new services to Veterans, and honoring the Nation's fallen would be impossible without addressing the environmental stewardship, fleet, and energy planning of the region. The agency status section summarizes the regional and local planning-related projects that are currently underway.

VA is in the process of re-writing its NEPA implementing regulations (38 CFR Part 26) to reflect revisions to the applicable environmental regulations as well as changes in VA structure and activities. VA issued the NEPA Interim Guidance for Projects in September 2010 for use until the NEPA regulations are finalized. This guidance covers the majority of VA's NEPA actions and essentially all of the new or renovated facility

actions into which sustainable design needs to be incorporated. These actions will help ensure the Department is appropriately identifying and analyzing environmental and energy impacts associated with its activities.

VA has identified innovative approaches for integrating its mission with regional and local transportation and energy networks. The Department engages with local and regional transportation planners to better enable Veterans to travel to VA facilities without driving, since many of VA's customers are elderly or disabled. The Department is co-locating community based outpatient clinics close to the Veterans' residences to reduce Veteran and employee travel distances. In addition, VA works collaboratively with regional and local authorities regarding their energy networks. For example, VA planned the Mountain Home VAMC CHP project in close collaboration with both the local steam consumers and, later, an enhanced-use lease provider. This collaboration resulted in a CHP system fueled by renewable landfill gas that provides steam to local customers through an enhanced-use lease.

Portland (OR) VA Medical Center – received 3 Green Globes® rating

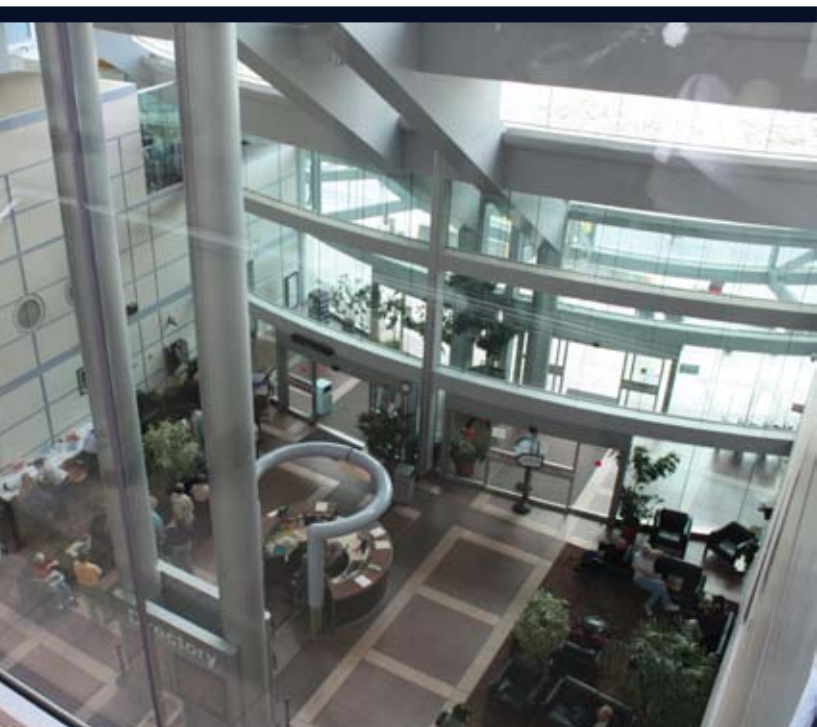


Table 5. Sustainable High Performance Building Targets

SUSTAINABLE HIGH PERFORMANCE BUILDINGS (Buildings Meeting Guiding Principles)	Units	FY 10	FY 11	FY 12	FY 13	FY 14	FY 15	...	FY 20
Owned Buildings (by number of buildings / by GSF)	%	4.2/13%	7/13%	8/14%	10/14.5%	12/15%	15/15%	...	15/15%
FRPP-Reported Leased Buildings (by number of buildings / by GSF)	%	0%	0%	0%	0%	0%	0%	...	0%
Total Buildings (by number of buildings / by GSF)	%	4.2/13%	7/13%	8/14%	10/14.5%	12/15%	15/15%	...	15%

Table 5 shows the targets in terms of both percent of buildings meeting the Guiding Principles and percent of gross square footage meeting these principles. It is important to note VA plans to achieve the Department's overall target of 15 percent by number of buildings through projects at its owned buildings. VA selected this approach, as it generally does not have significant control over buildings it leases. VA expects to benefit from the EISA requirement that all new building leases after December 19, 2010, will be for buildings that have earned an ENERGY STAR® label. Some of these leased buildings may meet Guiding Principles, but VA is not counting on these buildings to meet its targets.

Several organizations within VA provide staff for the sustainable buildings effort and, in conjunction, their regional and local planning efforts. At the Department-level, OAEM provides policy and reporting support. OCFM personnel provide design guidance and standards generation, construction oversight, and program management support. At the VA Administration and facility levels, energy and construction managers, contracting officers, and facility managers all provide support for this effort. Finally, the VA Green Building Advisory Council, Energy Management Task Force, and the Environmental Management Task Force all support various facets of VA's sustainable building efforts.

## Agency Status

### Highlights

- Evaluated medical center campuses for potential third-party certification, including 173 evaluations completed through an online self-assessment of the buildings.
- Achieved compliance with the Guiding Principles in 13.54 percent of square footage in buildings over 5,000 GSF, which corresponds to 4.2 percent of buildings over 5,000 GSF. Of the total number of VA buildings, 7.7 percent are in compliance with the Guiding Principles.
- Ensured optimal building performance through contracts awarded to conduct retro-commissioning activities at 43 facilities in FY 2010.
- Achieved EO 13514 and regulatory requirements at VHA through the development of the Energy and Water Management Program Review Protocol

Enabling Veterans to travel to VA facilities without driving is an agency priority.

to evaluate facility- and VISN-level implementation of policies and strategies to address requirements.

- Implemented a policy to integrate sustainability into the design process at the earliest planning stage.
- Utilized an updated master building specification that references an updated Sustainable Design and Energy Reduction Manual
- Began implementation of a space consolidation plan developed in fall 2010.
- Instructions were issued for all CFM new construction / major renovation projects to comply with the Guiding Principles.
- Implemented the requirement to lease only ENERGY STAR® labeled buildings as of December 2010.
- Continued to develop VA-wide policy and guidance documents, including those in the area of Sustainable Buildings.

#### Planned Actions and Projects

- Conduct a pilot of a net-zero energy building.
- Continue to actively participate as a member of the Interagency Sustainability Working Group that is working to develop net-zero energy guidance.
- Develop new sustainable building policy / guidance in line with Guiding Principles.
- Certify new major construction projects through either Green Globes® or LEED®. For example, VA is designing its new hospital in Denver to be LEED® Silver and comply with the Guiding Principles.
- Perform sustainable building assessments to obtain Green Globe® or LEED® certification.
- Continue to evaluate facilities that rank high in the Green Globes® assessment for third-party certification.
- Evaluate process to ensure conformance with new ENERGY STAR® lease requirement.
- Develop, through the new SCIP process, a Department-wide plan for optimizing capital expenditures while taking into account environmental impacts.
- Continue the process of updating the VA NEPA regulations.
- Continue to consult local, state, and Federal historic preservation organizations before and during historic rehabilitations.
- Continue incorporating local and regional mass transportation into the design of new facilities.
- Award contracts to conduct retro-commissioning activities at up to 76 facilities for FY 2011 to ensure optimal building performance.

## 4. GOAL: Water Use Efficiency and Management

VA is committed to meeting EO water use efficiency and management goals, despite its unique challenges. These vary not only by facility or region, but by Administration as well. Facility and regional challenges range from differences in deferred maintenance needs, budgetary priorities, and climate realities. Not all buildings are the same age or require the same degree of maintenance. Some facility and regional directors place greater priority on achieving water reduction goals. No two regions, and few facilities, can expect the same temperatures or rainfall throughout the year. VA works with local and regional organizations to help achieve water reduction goals. For example, the VA Greater Los Angeles Healthcare System partnered with the Los Angeles Department of Water and Power to replace 7.5 acres of turf with drought tolerant landscaping. This water conservation project is expected to save 8.1 million gallons of water annually and was achieved at no cost to the VA.

While facilities and regions vary in the nature of the challenges they face, the Administrations vary by which goals are most challenging. VHA's potable water reduction goal is more problematic than for non-potable water reduction. Hospitals use large volumes of water in their daily operations and face restrictions on how they can reduce or reuse water. For example, the amount of water used in sterilization processes is mandated and therefore cannot be changed. While for NCA non-potable water use reductions are more difficult. Maintaining respectful cemeteries with the appearance that Veterans and their families expect can require large amounts of water. NCA non-potable water use, as a result, represents 12 percent of VA's total water consumption.

VA is committed to ensuring that any development or redevelopment of VA facilities is conducted in a manner that maintains or restores storm water runoff to the maximum extent technically feasible. VA achieves these results through the use of green infrastructure / low impact development tools provided by EPA EISA Section 438 technical guidance documents. Storm water management guidance was also included in the recently updated [Sustainable Design and Energy Reduction Manual](#). Training was conducted during FY 2010 and 2011 for facility energy engineers to ensure awareness of green infrastructure and low impact development.

OAEM is responsible for setting targets and policy for each sub-goal as well as reporting, while the Administrations, staff offices, and OCFM are responsible for implementation. More specifically, VA's energy engineers and VISN energy managers implement its efforts to achieve potable and non-potable water use reduction goals in existing buildings with guidance from the Energy Management Task Force. This task force meets quarterly and maintains VA's Department-level energy action plan, which includes water initiatives and is the agency-level implementation plan, including specific actions and milestones. One of the most challenging actions continues to be measuring non-potable water, which is now metered at only a handful of VA facilities. VA is currently developing a strategy for achieving this metering

Solutions to VA's water challenges sometimes spring from innovative efforts in the field. James H. Quillen VA Medical Center in Mountain Home, Tennessee, for example, recently won a Green Routine Award for an innovative water-saving measure: the operating room nursing staff reduced the need for biomedical

Through a landscaping project in LA, the VA will save 8.1 million gallons of water a year.

VA is developing a strategy to measure non-potable water use.

waste treatment by 86 percent by putting a stop to the practice of treating all operating room waste as regulated medical waste, a measure with strong potential for replication elsewhere.

Table 6. Water Use Efficiency and Management Targets

WATER USE EFFICIENCY & MGMT	Units	FY 10	FY 11	FY 12	FY 13	FY 14	FY 15	...	FY 20
Potable Water Reduction Targets (gal/SF reduced from FY07 base year)	%	6%	8%	10%	12%	14%	16%	...	26%
Planned Potable Water Reduction (gal/SF reduced from FY07 base year)	%	5.1%	8%	10%	12%	14%	16%	...	26%
Industrial, Landscaping, and Agricultural Water Reduction Targets (gal reduced from FY10 base year)	%	-	2%	4%	6%	8%	10%	...	20%
Planned Industrial, Landscaping, and Agricultural Water Reduction (gal reduced from FY10 base year)	%	-	2%	4%	6%	8%	10%	...	20%
Other, as defined by agency									

Table 6 shows the targets for water use efficiency. The energy engineers, VISN energy managers, GMP staff, and GEMS consultants also work on water use efficiency. In addition, NCA agronomists, engineers, and maintenance staff have collateral responsibilities for managing water use.

### Agency Status

#### Highlights

- Identified water-related ECMs to provide water savings. In the past year, VA identified water improvements with the potential to save up to 475,000 gallons per year per facility.
- Identified pilot projects that can be used to prove the VA-applicability of novel water savings technologies and techniques. In the past year, “smart” irrigation methods at VISN 21 were identified as a pilot project for VA. This project has the potential to save up to one million gallons per year per facility.

- Ft. Bliss and Bourne National Cemeteries are achieving savings of 56 million gallons and 30 million gallons of water, respectively, after their first year of operation in FY 2010 with new system upgrades.
- VA Greater Los Angeles Healthcare System partnered with the Los Angeles Department of Water and Power to replace 7.5 acres of turf with drought tolerant landscaping, saving 8.1 million gallons of water annually at no cost to VA.
- Continued to develop VA-wide policy and guidance documents, including in the area of Energy and Water Management.

#### Planned Actions and Projects

- Implement identified water-related ECMs and continue to investigate future water-related ECMs. The implemented ECMs will save up to 475,000 gallons per year per facility.
- Implement pilot projects, such as “smart” irrigation methods at VISN 21, and continue to identify future water-related pilot projects. The “smart” irrigation pilot has the potential to save up to one million gallons per year per facility.
- Develop a strategy for metering non-potable water use.

## 5. GOAL: Pollution Prevention and Waste Elimination

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 has successfully implemented a range of initiatives to maintain progress towards reducing its solid and hazardous waste. In FY

Massachusetts National Cemetery’s treated water bladder storage; “Smart” irrigation system at Fort Bliss National Cemetery



VA recycled or composted 27% of its non-hazardous solid waste in FY 2010.

2010, VA diverted 27 percent of its non-hazardous solid waste through recycling and composting programs. In addition, VA diverted 67 percent of its C&D waste.

OAEM is responsible for setting targets and policy for each sub-goal in addition to reporting on goal status. VA Administrations and staff offices are responsible for implementation of these policies and goals. The VA Environmental Action Plan, maintained by OAEM in conjunction with Administration staff of the Environmental Task Force, is a key method for implementing each sub-goal. This Plan identifies actions necessary to achieve the goal and tracks progress on goal implementation. The VA EMS is also a fundamental part of the implementation of this goal by establishing objectives and targets for the organization. The EMS at each facility works in conjunction with the VA EMS to help ensure waste reduction and pollution prevention projects are integrated into daily activities at VA.

VA has developed a number of tools to help guide the Department in its pollution prevention and waste reduction efforts. The VA Greening Action Guide and Toolkit has been updated to include topics such as reducing paper usage and recycling. This Toolkit is designed to be easy to use for staff at all levels in VA. VA has also incorporated pollution prevention and green purchasing into GEMS training to ensure awareness at the facility-level. In addition, OAEM has begun the process of drafting a set of policy / guidance documents for Waste Prevention and Recycling and Chemicals Management. These documents will establish VA policy in each area and align policy with EO 13514 and other applicable rules and will identify VA staff responsible for implementation and strategies for achieving the goals.

VA is enhancing its efforts in education and outreach activities to improve awareness of pollution prevention and waste reduction. For example, VA recently ran a pledge drive in which employees committed to a pollution prevention activity, such as increasing recycling. VA has also organized annual events around Earth Day and America Recycles Day for exhibitors, such as local government recycling programs, Federal agency sustainability programs, and VA sustainability programs, to present information to VA employees. In addition, OAEM recently initiated the Green Scene blog to educate VA employees about Earth Day and other sustainability-related activities. VA will continue these annual activities and plans to explore expanding its blog and social media outreach efforts.

With facilities across the country, one of VA's challenges in this goal area is to track waste data in a consistent manner. For example, because the data were not required when VA established its recycling reporting processes, VA has not always distinguished C&D materials from other waste diverted or reported the specific waste disposal method (e.g., landfill or incinerator). VHA, which accounts for approximately 99 percent of VA's total waste, gathers waste data through its annual Waste Minimization Report. In FY 2010, VHA revised the data call to request data on waste sent to landfills, incinerators, or other disposal methods, and C&D waste diverted. These modifications, in addition to the trainings for facility staff on the report revisions, will help VA gather more precise data for future years. VHA is also starting a pilot program at ten VA facilities to implement a standardized waste tracking system through [Practice Greenhealth](#).



VA has a variety of systems to track and report on chemical usage at facilities, ranging from Excel spreadsheets to sophisticated software systems. The Caribbean Healthcare System and New England Healthcare System, for example, have recently implemented a chemicals inventory tracking system that will allow facilities to manage chemical usage and disposal more efficiently. VA is exploring options to implement a single VA-wide chemicals inventory tracking software system to assist with reducing and minimizing the environmental impact of chemicals at VA.

VA is committed to using integrated pest management practices to reduce the use of toxic and hazardous chemicals. VHA, for example, recently updated its Integrated Pest Management Handbook to reflect the latest management operations and best practices. VA will also include integrated pest management guidance in its upcoming Chemicals Management and Pollution Prevention policy / guidance documents.

VA is also making strides to reduce its food waste from cafeterias and yard waste from hospital grounds and cemeteries. Despite the health and sanitation concerns associated with storing food waste, a number of VA medical facilities have overcome these challenges to implement effective food composting programs. For example, San Francisco, CA, St. Cloud, MN, and Martinsburg, WV medical centers have worked with food service and housekeeping staff to divert thousands of pounds of food waste each week from landfill to compost. Additionally, the Dayton, OH medical center developed a tool to estimate the amount of yard waste (grass, twigs, and leaves) diverted through cold composting. NCA manages hundreds of acres of land and has implemented cold composting programs throughout the Administration. As another example, Fort Snelling National Cemetery established three acres for wood chips and three acres for leaves composting, which is also used by the neighboring city of Richfield, and reuses the composted material at the Cemetery. VA will compile these best practices and disseminate them throughout VA to promote composting practices.

VA is implementing a standardized waste tracking system through a pilot program at ten VA facilities.

Food service trash sorting for composting; Participants in Kitchen Garden Project, San Francisco VA Medical Center



VA is working to reduce its food waste from cafeterias and yard waste from hospital grounds and cemeteries.

Table 7. Pollution Prevention and Waste Reduction Targets

POLLUTION PREVENTION & WASTE REDUCTION	Units	FY 10	FY 11	FY 12	FY 13	FY 14	FY 15	...	FY 20
Non-Hazardous Solid Waste Diversion Targets (Non-C&D)	%	27 %	32 %	35 %	40 %	45 %	50 %	...	50%
C&D Material & Debris Diversion Targets	%	67 %	10 %	20 %	30 %	40 %	50 %	...	50%
If agency uses on-site or off-site waste-to-energy, estimated total weight of materials managed through waste-to-energy	Tons or pounds	10,702 tons	TBD	TBD	TBD	TBD	TBD	...	TBD
Number of sites or facilities with on-site composting programs	#	65	TBD	TBD	TBD	TBD	TBD	...	TBD
Number of sites or facilities recycling through off-site composting programs	#	142	TBD	TBD	TBD	TBD	TBD	...	TBD
If agency has on-site or off-site composting programs, estimated total weight of materials diverted to composting	Tons or pounds	3,377 tons	TBD	TBD	TBD	TBD	TBD	...	TBD
% of agency-operated offices / sites with a recycling program	%	82%	TBD	TBD	TBD	TBD	TBD	...	TBD
If agency offices located in multi-tenant buildings, % of those buildings with a recycling program	%	78%	TBD	TBD	TBD	TBD	TBD	...	TBD
% of agency-operated residential housing with recycling programs	%	79%	TBD	TBD	TBD	TBD	TBD	...	TBD
Other, as defined by agency									

\*Diversion refers to source reduction and recycling and does not include waste-to-energy.

Table 7 shows VA's targets for pollution prevention and waste reduction. It is important to note that a majority of the forward looking targets in Table 7 are listed as TBD because the Department does not currently generate forward looking projections for those metrics. Given that VA is committed to meeting all of its pollution prevention and waste minimization mandates, VA expects these metrics to hold steady or improve.

## Agency Status

### Highlights

- Continued to centrally fund facility-level GEMS coordinator positions at all medical centers and 20 regional-level GEMS positions to improve management of environmental issues at the facility level and provide regional oversight.
- Began implementing a revised VHA Waste Minimization Report to report on C&D waste diverted and waste sent to landfills, incinerators, and other disposal methods.
- Conducted GEMS training in August 2010 and April 2011 using material that integrates source reduction, hazardous waste, and green purchasing.
- Promoted an updated VA Greening Action Guide and Toolkit that includes source reduction and recycling.
- Conducted outreach activities to improve awareness on pollution prevention and waste reduction, including a pledge drive, VA Earth Day and America Recycles Day events, and the Green Scene blog.
- VISN 1 has seven facilities piloting Waste Wise, a free voluntary waste reduction program managed by the EPA. The VISN recently completed their first annual report on waste tracking and reduction activities, which will help the facilities show results and target materials for improvement.
- Continued to develop VA-wide policy and guidance documents in Environmental Compliance Management, Environmental Management Systems, Waste Prevention and Recycling, and Chemicals Management.

### Planned Actions and Projects

- Draft policy / guidance documents in the following subject areas: Environmental Compliance Management, Waste Prevention and Recycling, Chemicals Management and Pollution Prevention, Sustainable Buildings, and Green Purchasing.
- Initiate a pilot program at ten VA facilities to implement a standardized waste tracking system through Practice Greenhealth.
- Design training on waste prevention and recycling non-hazardous solid waste and C&D waste.
- Identify, compile, and disseminate best practices in composting at VA.
- Explore options to implement a single VA-wide chemicals inventory tracking software system.

VA is committed to sustainable acquisition to help reduce adverse environmental impacts.

- Identify commonly used chemicals within VA and potential substitutes.
- Continue annual educational events, such as Earth Day, and explore expanding the Green Scene blog and social media outreach efforts.

## 6. GOAL: 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 mandating the purchase of green products and services. NCA and VHA have recently implemented green purchasing procedures as needed to address unique Administration-level requirements. VA is also in the process of drafting guidance on green purchasing that reflects the latest requirements in EO 13514 and other regulations.

VA organizations have integrated support of the Department’s sustainable acquisition efforts into their operations where applicable. At the Department level, OALC provides policy, training, logistics, and acquisition support while OAEM provides policy, training, and reporting support. Each Administration also has its own purchasing and contracting group. Finally, each facility or region may have its own contracting and purchasing personnel who can leverage the environmental knowledge of the GEMS coordinators to aid them in making green purchasing decisions. The VA Environmental Action Plan is a key strategic implementation method for the sustainable acquisition program. Additionally, the Green Purchasing Working Group helps identify specific steps necessary to achieve the goals and provides implementation support.

Table 8. Sustainable Acquisition Targets

SUSTAINABLE ACQUISITION	Units	FY 10	FY 11	FY 12	FY 13	FY 14	FY 15	...	FY 20
New Contract Actions Meeting Sustainable Acquisition Requirements	%	TBD	95%	hold	hold	hold	hold	...	hold
Energy Efficient Products (Energy Star®, FEMP-designated, and low standby power devices)	%	TBD	TBD	TBD	TBD	TBD	TBD	...	TBD
Water Efficient Products	%	TBD	TBD	TBD	TBD	TBD	TBD	...	TBD
Biobased Products	%	TBD	TBD	TBD	TBD	TBD	TBD	...	TBD
Recycled Content Products	%	TBD	TBD	TBD	TBD	TBD	TBD	...	TBD
Environmentally Preferable Products / Services (excluding EPEAT – EPEAT in included in Goal 7)	%	TBD	TBD	TBD	TBD	TBD	TBD	...	TBD
SNAP / non-ozone depleting substances	%	TBD	TBD	TBD	TBD	TBD	TBD	...	TBD
Other, as defined by agency	-	-	-	-	-	-	-	...	-

Table 8 shows VA's targets for sustainable acquisition. VA has several systems it uses to track purchasing, but it is extremely difficult to track the sustainable attributes of each agency purchase. In order to measure and report progress towards sustainable acquisition targets, VA will continue exploring ways to improve tracking, including looking at electronic contract writing and financial management systems for possible enhancements. Therefore, the targets for these sub-goals are TBD.

VA utilizes a variety of tools to facilitate education and awareness on green purchasing requirements. The VA Talent Management System recently implemented a pass-through link that provides direct access to the Defense Acquisition University course on green purchasing. VA plans to advertise this course within VA to increase awareness on green purchasing. To further promote understanding and compliance with green purchasing mandates, VA will explore ways to incorporate green purchasing training into its Contract Professional training program. Additionally, green purchasing will be a topic at the VA Chief Acquisition Officer's 2011 National Acquisition Conference. VA has also integrated a green purchasing training component into its GEMS training. Approximately 90 GEMS coordinators completed this course in August 2010, 55 in April 2011, and additional training is scheduled for fall 2011. In October 2010, VA's procurement policy office issued an "Acquisition Heads-Up" to the VA acquisition community regarding green purchasing requirements. This notice reminded contracting officers of their responsibilities in regards to green purchasing and included a reference guide for acquisition professionals in determining the proper green purchasing clauses and provisions for inclusion in solicitations and contracts. Green purchasing is also integrated, as appropriate, into VA guidance documents. For example, the recently updated VA Sustainable Design and Energy Reduction Manual includes a section on reducing the environmental impact of building materials.

In October 2010, VA issued guidelines for acquiring office supplies that mandated the use of GSA Federal Strategic Sourcing Initiative for Office Supplies, Second Generation. As part of this guidance, VA logistics and contracting professionals were mandated to purchase remanufactured toner cartridges. This action changed the VA toner cartridge procurement preference and strengthened sustainable procurement practices within the Department.

VA staff training programs include a green purchasing component.

Table 9. Sustainable Acquisition Contract Review

SUSTAINABLE ACQUISITION CONTRACT REVIEW	1st QTR FY 11	2nd QTR FY 11	3rd QTR FY 11 (Planned)	4th QTR FY 11 (Planned)
Total # Agency Contracts	28,000	39,432	TBD	TBD
Total # Contracts Eligible for Review	2,800	1,491	TBD	TBD
Total Contracts Eligible Contract Reviewed (i.e., 5% or more eligible based on previous OMB guidance)*	131 reviewed, 80 applicable	76 reviewed, 76 applicable	TBD	TBD
# of Compliant Contracts	53	63	TBD	TBD
Total % of Compliant Contracts	66%	83%	TBD	TBD

VA has conducted reviews of quarterly contract actions and is assessing results.

In November 2010, VA conducted a review of applicable FY 2011 1st quarter contract actions. VA pulled a random sample of 140 newly awarded contract actions (approximately 5 percent of eligible contract actions), excluding modifications and delivery / task / purchase orders, from VA's electronic contract management system (eCMS). Time and resource constraints precluded review of any greater number of contract actions. VA developed a review template and guidance for the review team to use in assessing the contracts. The team was able to access and review 131 actions. Of those, the team determined that 80 were eligible for review for green purchasing requirements, and 53 of those actions covered or included one or more types of applicable green purchasing requirements. The column entitled "1st QTR FY 11" in Table 9 summarizes the results of this review. Note that the numbers for "Total # Agency Contracts" and "Total # Contracts Eligible for Review" were estimated using eCMS data for contracts awarded in FY 2010 1st quarter, since complete FY 2011 1st quarter data were not yet available at the time the review was conducted. Given VA's size and number of contract actions issued every quarter, this review exercise posed significant challenges. Challenges encountered included the number and complexity of green purchasing requirements, applicability determination, the varying levels of green purchasing and contract review expertise among reviewers, and, in a few cases, difficulty accessing contract documents. VA is assessing the review results and lessons learned to define a process for recurring quarterly review of contracts.

VA recently conducted a review of FY 2011 2nd quarter contract actions and is continuing to assess the results. A summary of the preliminary review results can be found in Table 9. Note that the number for "Total # Agency Contracts" was estimated using eCMS data for contracts awarded in FY 2011 2nd quarter.

VA is participating on multiple newly-formed interagency working groups on greening solicitations and developing methodologies to track compliance with the 95 percent sustainable acquisition goal. VA and DOE recently proposed an approach for tracking compliance and conducting sustainable acquisition contract reviews. VA will continue to help the groups develop guidance and focus the discussion on key questions, such as definition of key terms, eligibility of contracts for green product requirements, and how to determine when a contract is green enough to be counted toward the 95 percent goal.

## Agency Status

### Highlights

- Utilized a methodology VA developed to review FY 2011 1st quarter contracts for compliance with the 95 percent sustainable acquisition goal, and refined it for the FY 2011 2nd quarter contract review.
- Employed a pass-through link to the Defense Acquisition University green purchasing course from the VA Talent Management System.
- Issued green purchasing guidance to procurement staff, such as the "Acquisition Heads Up" email reminding contracting officers of their responsibilities in green purchasing and including a reference guide.
- Integrated green purchasing into GEMS trainings, including the trainings conducted in August 2010 and April 2011.

A January 2010 environmental management directive establishes policy on all electronics stewardship lifecycle phases.

- Purchased products through the Federal Strategic Sourcing Initiative for Office Supplies Second Generation, and issued guidelines to mandate purchase of remanufactured toner cartridges.
- Continued to develop VA-wide policy and guidance documents, including in the area of Sustainable Acquisition.
- Participated in interagency sustainable acquisition working groups focusing on greening solicitations and developing methodologies for tracking the 95 percent sustainable acquisition goal.

#### Planned Actions and Projects

- Explore ways to incorporate green purchasing training into the VA Contract Professional training program.
- Include green purchasing as a topic at the VA Chief Acquisition Officer's 2011 National Acquisition Conference.
- Define process for the recurring quarterly contracts review.
- Advertise the Defense Acquisition University Green Purchasing training course.
- Conduct green purchasing training at GEMS training in fall 2011.

## 7. GOAL: Electronic Stewardship and Data Centers

VA staff operates over 280,000 computers and laptops, and VA has over 80 computer rooms and data centers which house electronic equipment for enterprise information technology (IT) systems. Given the scale of VA operations, addressing electronics stewardship and data center issues is an important step to meeting Department-wide energy and environmental goals. The Environmental Management Action Plan addresses the goals related to electronics stewardship and the Federal Data Center Consolidation Initiative Plan addresses the data centers goals. Table 10 shows VA's targets for electronic stewardship and data centers. Note that this information is based on best available data from reporting organizations, which represent a majority of VA's electronics footprint.

Table 10. Electronics Stewardship and Data Center Targets

ELECTRONIC STEWARDSHIP & DATA CENTERS	Unit	FY 10	FY 11	FY 12	FY 13	FY14	FY15
% of electronic product acquisition covered by current ENERGY STAR <sup>®</sup> specifications that must be energy-star qualified	%	83%	100%	100%	hold	hold	hold
% of covered electronic product acquisitions that are EPEAT <sup>®</sup> - registered	%	98%	95%	95%	hold	hold	hold
% of covered electronic product acquisitions that are FEMP- designated	%	75%	95%	95%	hold	hold	hold
% of agency, eligible PC, Laptops, and Monitors with power management actively implemented and in use	%	TBD	100%	100%	100%	hold	hold
% of agency, eligible electronic printing products with duplexing features in use	%	51%	95%	100%	100%	hold	hold
% of electronic assets covered by sound disposition practices	%	100%	100%	100%	100%	hold	hold

VA has long-standing policies to purchase and use environmentally preferable products.

ELECTRONIC STEWARDSHIP & DATA CENTERS	Unit	FY 10	FY 11	FY 12	FY 13	FY14	FY15
% of agency data centers independently metered, advanced metered, or sub-metered to determine monthly (or more frequently) Power Utilization Effectiveness (PUE)	%	9%	40%	60%	80%	90%	100%
Reduction in the number of agency data centers	#	0	0	39	39	0	0
% of agency data centers operating with an average CPU utilization greater than 65%	%	0%	50%	75%	hold	hold	hold
Maximum annual weighted average Power Utilization Effectiveness (PUE) for agency	#	2.9	1.8	1.7	1.6	1.5	1.4

### Electronics Stewardship

VA has a long-term commitment to electronics stewardship. To reinforce this commitment, the Department issued an environmental management directive in January 2010, VA Directive 0057, to provide high level direction and specifically establishing policy on all electronics stewardship lifecycle phases, including acquisition, operation, and disposition of electronic products.

Collaboration across VA offices is required to support the Electronic Stewardship effort, and VA has established responsibilities for specific groups to ensure the effectiveness of this effort. Office of Information and Technology (OI&T), OALC, and individual facilities provide the staff to develop, support, and implement VA policy as it pertains to the acquisition, operation, maintenance, and disposition of computers and data centers. OAEM staff, the VA Environmental Management Task Force, VA personal property managers, GEMS coordinators, and others provide policy, reporting, and implementation support.

### Acquisition / Procurement

VA has long-standing policies to purchase and use environmentally preferable products and to include green requirements in contracts. A new VA contract for PCs and monitors was recently awarded and includes ENERGY STAR® and EPEAT® requirements. In addition, all servers procured for the National Data Center Program in FY 2010 were ENERGY STAR® qualified, when available, and the National Data Center Program plans to continue acquiring ENERGY STAR® qualified servers when they are available. A more detailed discussion of the Department’s sustainable acquisition program can be found in Goal 6.

Due to the decentralized purchasing and operation of other electronic equipment, such as imaging devices, printers, and faxes, it is extremely difficult for VA to quantify precisely the percentage of electronic equipment covered by current ENERGY STAR® specifications. VA’s strategy is to mandate purchases of ENERGY STAR® qualified equipment when available, include green requirements in contracts, and identify green purchasing training opportunities for acquisition personnel.

### Operation / Use

As discussed, VA tries to ensure that energy efficient and environmentally preferable electronics and computers are procured in order to minimize their impact during their lifetime of use. In order to further minimize its energy use, VA has procured power



management software and installed it on over 280,000 targeted workstations. The power management software is able to track all baselines, savings, and any power events on any of the installed machines.

The Department is developing operational policy to enable the power savings features of the installed software. In addition, the policy / guidance will ensure that the hardware ENERGY STAR® power savings features will be enabled. It is important to note that certain mission critical hospital and IT systems are not eligible for power management. For example, units connected to biomedical equipment, and workstations in surgical suites and at nursing stations, as well as IT systems processing mission-critical data used to provide healthcare to patients must remain active and available at all times.

VA is promoting additional environmentally preferable strategies for the use of electronics. For example, VA intends to promote the use of duplex printing in both the Electronics Stewardship and the Waste Prevention and Recycling policy / guidance documents, which are currently under development. Also, the new VA contract for personal computers requires a four-year refresh cycle, in line with the requirement in the EO 13423 Implementing Instructions that agencies strive to extend the useful lifetime of electronic equipment to four or more years.

VA is addressing the challenges inherent in meeting these goals. For example, OI&T shares responsibility for meeting certain aspects of the use phase of electronics stewardship with other VA staff offices and Administrations, as well as, to some extent, individual employees. For example, while OI&T is in the processing of setting Department wide policy on power management, implementation will be handled at the local level and tailored to the mission needs of individual facilities. Regarding duplex printing, it is unclear whether OI&T or local administrative personnel have the greater influence over what type of equipment is requested and purchased. Also, local users often have control over whether double-sided printing is enabled and utilized. These issues will be addressed through the Environmental Task Force and the development of policy / guidance.

VA has procured power management software and installed it on over 280,000 targeted workstations.

Atlanta VA Medical Center – received 3 Green Globes rating for entire campus



Electronic stewardship does not end when the use phase is completed.

### Disposition / End of Life

VA understands that electronic stewardship does not end when the use phase is completed. The environmental directive, VA Directive 0057, requires the use of environmentally sound practices with respect to the disposition of electronic equipment that has reached the end of its useful life. The Department will continue promoting sound disposition methods through upcoming policy / guidance documents on Electronics Stewardship and the Waste Prevention and Recycling Program. VA has begun to gather data on the disposition of electronics through the Sustainable Practices Data Call.

In general, the majority of used electronic equipment is handled in an environmentally sound manner through UNICOR where 100 percent of the material received from VA is reused or recycled. For electronics not sent to UNICOR, VA still seeks environmentally preferable disposition methods. For example, VA Gulf Coast Veterans Health Care System in Biloxi, MS, found an innovative use for an industrial shredder purchased to grind wood and non-recyclable paper waste for composting. Staff tested the shredder for its capacity to grind electronic equipment holding sensitive data. When it proved successful, staff began using the shredder to destroy hard drives, cell phones and magnetic tapes, which are then crated and shipped to a recycling facility. To date, the shredder has processed more the 3,500 pieces of electronic equipment for recycling from various medical centers in the region. The practice has saved the facility \$120,000 in disposal costs.

### Data Center Consolidation

VA is working aggressively to meet the data center related targets set out in EO 13514 and the Federal Data Center Consolidation Initiative. VA currently operates enterprise IT systems in over 80 computer rooms and data centers throughout the

organization. This includes large self-contained data centers, like Austin Information Technology Center in Austin, TX, and smaller computer rooms located in various hospitals / medical centers, and VISN computer rooms across the country. VA has committed to bringing the number of data centers down to four by 2020. To accomplish this, VA will consolidate / decommission the enterprise IT systems for Veterans Health Information Systems and Technology Architecture, an enterprise-wide information system supported by electronic health records, which are currently housed in the various hospitals across the county, by 2014. Six of these systems will be migrated by the end of calendar year 2011, with roughly half of the remaining medical center systems migrated by the end of 2013, and the other half migrated by the end of 2014.

Oakland Mental Health Clinic – LEED certified building



The rest of the VA enterprise IT systems are scheduled in phases for consolidation in four large national data centers. Award of the leases for the first two national data centers is scheduled for FY 2013 with the third lease scheduled to be awarded in FY 2014. This consolidation effort will allow VA to ensure use of energy efficient procedures and practices at all of the data centers and meet its energy-related data center goals via newly developed lease agreements.

VA currently has independent metering for approximately 9 percent of its data centers. The lack of independent metering at the individual data centers in the hospitals accounts for this low number, but since these data centers will be decommissioned by 2014, there are no plans to install sub-meters at these locations. VA projects that by 2013, the percentage will increase to 57 percent and will increase to 100 percent by completion of the consolidation.

VA currently has an estimated average power utilization efficiency (PUE) for its data centers of 2.9. The data center consolidation program is anticipated to bring this number down to 2.2 by 2015, and VA projects the target of 1.6 will be reached by 2018.

VA is addressing improvements in CPU utilization at its data centers. However, there are three significant causes of CPU utilization being below the defined goals:

- VA legacy applications are typically hosted on dedicated hardware with low CPU utilization. VA has begun to address this issue by converting dedicated systems to virtualized ones. By increasing the number of virtualized servers, VA will drive the average CPU utilization up.
- VA must support routine performance requirements as well as performance bursts to online users. Although routine utilization may be at a lower level, the systems must still be capable of operating during increments of higher demand without degradation of response time performance. VA has begun to address this issue through greater utilization of monitoring software to improve the predictability of performance bursts, resulting in greater load sharing optimization.
- Data replication/processing (write only) for Continuity of Operations (COOP) servers is lower than read/write utilization online and routinely operates at a lower CPU utilization, yet must be capable of operating at read/write utilization online in the event of a fail-over. This issue is inherent to the nature of COOP in the event of a disaster and is only improved through implementation of items 1 and 2 above.

In summary, VA's server strategy must simultaneously take into account normal activity, intermittent bursts of activity, local fail-over capacity, as well as fail-over to other facilities in the event of a disaster. These requirements cannot be met at 65 percent CPU utilization for the vast majority of the VA production systems. VA estimates the highest reasonable value attainable by the end of the data center consolidation will still be below 65 percent because of the COOP requirements.

VA's data centers effort has also benefited from ARRA funding. VA has applied approximately \$9 million to install a myriad of environmental improvements to its Austin, TX, data center. These improvements include:

- Converting air conditioning system to chilled water system which is more efficient, saving both money and electricity.

Consolidation of data centers will allow VA to ensure use of energy efficient procedures and practices.

The Recovery Act has enabled \$9 million in environmental improvements at the Austin, TX data center.

- Re-lamping the facility to cut lighting energy usage and costs by 75 percent and provide a higher quality of light.
- Installing 125 kW of grid-tied solar panels.
- Installing a one million gallon water cistern to allow the harvesting of chilled water for data center cooling when energy prices are the lowest (off-peak).
- Replacing water fixtures to save approximately 875,000 gallons of water per year.
- Installing high efficiency boilers to save on natural gas usage.

### Agency Status

#### Highlights

- Delivered the VA Final Data Center Consolidation Plan for the Federal Data Center Consolidation Initiative and conducted asset inventories.
- Awarded a contract that includes requirements for EPEAT® and energy efficient PCs and monitors.
- Procured additional 90,000+ licenses of power management software, and installed software on over 280,000 targeted workstations.
- Continued to use ARRA funds for sustainability improvements, including a project at the data center in Austin, TX, that has the following measures:
  - Converting air conditioning HVAC system to chilled water, which is more efficient, saving both money and electricity.
  - Re-lamping the facility to cut lighting energy usage and costs by 75 percent and provide a higher quality of light.
  - Installing 125 kW of grid-tied solar panels.
  - Installing a one million gallon water cistern to allow the harvesting of chilled water for data center cooling when energy prices are the lowest (off-peak).
  - Replacing water fixtures to save approximately 875,000 gallons of water savings per year.
  - Installing high efficiency boilers.
- Developed a draft VA-wide operational policy for power management.

#### Projects and Next Steps

- Draft and finalize Electronics Stewardship VA-wide policy / guidance documents.
- Explore ways to improve tracking of the acquisition of EPEAT® and ENERGY STAR® qualified IT products.
- Continue improving systems for tracking progress in the three phases of the lifecycle.

- Promote VA Greening Action Guide and Toolkit.

## 8. GOAL: Agency Innovation & Government-Wide Support

As one of the largest Federal agencies, VA is in a unique position to employ innovative strategies to achieve its goals. New methods and programs are vital to allow VA to meet its mission demands in a dynamic world. The following are a sampling of ways in which VA is embracing innovation:

- VA is a leader in sustainable building design for hospitals and has worked with NIBS to develop the Whole Building Design Guide for Hospitals. In addition, VA is taking a lead in the Federal Interagency Sustainability Working Group to define net-zero buildings.
- VA is working with the American Society of Heating, Refrigerating, and Air-Conditioning Engineers to conduct ventilation studies and experiments in a vacant VA hospital in Florida. This is a unique opportunity as field experiments can be conducted in an actual hospital without affecting patient care, while providing real world results.
- VA is installing renewably fueled or low emission CHP systems at seven VAMCs.
- VA's telehealth program, the dissemination of medical information through interactive media for the purpose of consultation and possibly even remote medical examinations, currently provides care to over 50,000 Veteran patients in their homes and local communities using technologies such as Home Telehealthcare System. This approach contributes to GHG-emission savings by reducing the need for employee and patient travel while expanding services to Veterans.

VA is in a unique position to employ innovative strategies to achieve its goals.

Fort Bliss National Cemetery – xeriscaping design



The Green to Green program integrates VA's commitment to helping Veterans and being good environmental stewards.

- VHA has developed a series of guidance documents that provide recommendations on the management, use, and handling of pharmaceuticals, which are significant environmental drivers for VHA activities. The guidance includes the appropriate waste management practices based upon regulatory requirements, industry standards, applicable guidance, and best practices. These documents will be provided to all facilities within VHA and may eventually be made public for private industry use.
- VA's new Green to Green program develops a pathway to assist the men and women who have served our country the ability to transition from uniform service into a career and or job opportunity in the green technology, energy, and recycling fields. VA collaborates with other Federal agencies, state and local governments, businesses, and educational institutions to develop and identify funding, training, and job opportunities for Veterans in the energy / environment field. Green to Green integrates VA's commitment to helping our Veterans and being good environmental stewards.

VA has two Department-level employee recognition programs, one for environmental and energy professionals who specialize in sustainable projects, and another for employee grassroots environmental efforts. The programs encourage and promote energy efficiency and sustainability along with other green management initiatives. The VA Sustainability Achievement Awards are given to professionals within the agency who have demonstrated outstanding environmental stewardship and whose efforts have resulted in significant contributions to the environment. The award categories include waste / pollution prevention, recycling, green purchasing, Environmental Management Systems, high performance / sustainable buildings, alternative fuel / fuel conservation in transportation, water conservation, energy efficiency, renewable energy, and electronics stewardship.

Cheyenne VA Medical Center – ENERGY STAR® qualified building



The VA Green Routine Awards are given to employees who have developed, initiated, and / or significantly contributed to efforts and programs outside of their daily duties to instill and encourage green, sustainable practices at their workplace. These practices encompass energy and water reduction, reduction in petroleum-based fuels, green purchasing, recycling, pollution prevention, and other sustainability areas. For example, the San Francisco VAMC partnered with a local community group to engage the Medical Center community in practicing environmental stewardship through sustainable gardening. Through a series of 10 demonstrations and hands-on workshops funded with a grant from the Wellness Committee, the Kitchen Garden Project taught more than 100 Veteran patients, visitors, and staff how to design, install, and maintain their own small kitchen garden using local materials, companion plants, and natural pest management. The workshops also taught participants about the overall environmental health benefits of growing food locally, as well as how to engage in conserving water, energy resources, and minimizing waste through composting and recycling.

VA's employee recognition programs encourage and promote energy efficiency and sustainability.

Table 11. Agency Innovation and Government-Wide Support

AGENCY INNOVATION & Government-Wide Support	Units	FY 10	FY 11	FY 12	....	FY 20
Programs, Projects, Initiatives that support Gov-wide efforts						
Other, as defined by agency						

Table 11 has intentionally been left blank.

Wind turbine, Massachusetts National Cemetery; Durham VA Medical Center – received 2 Green Globes rating for entire campus



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Section 3:

Agency

Self

Evaluation

VVA

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*Note: OMB and CEQ will update these questions annually to reflect current Administration priorities or actions due. For 2011, please respond to the following items. **Each agency's total response for this section should be limited to one or two pages.***

For all agencies: Please answer "yes" or "no" to the following 5 key questions. If the answer is "no", please provide an explanation in the accompany text.

Does your Sustainability Plan incorporate and align sustainability goals, GHG targets and overarching objectives for sustainability with the Agency Strategic Plan?	Yes
Does it provide annual targets, strategies and approaches for achieving the 2015 and 2020 goals?	Yes
Is the Sustainability Plan consistent with the FY 2012 President's Budget?	Yes
Does the Sustainability Plan integrate all statutory and Executive Order requirements into a single implementation framework for advancing sustainability goals along with existing mission and management goals, making the best use of existing and available resources?	Yes
Does your plan include methods for obtaining data needed to measure progress, evaluate results, and improve performance?	Yes

Other Key Questions for 2011:

1. Did your agency meet by 12/30/10 due date and/or is it now able to demonstrate comprehensive implementation of the EO 13423 Electronic Stewardship goals?
  - Acquire at least 95 percent EPEAT®-registered electronics
  - Enable ENERGY STAR® or power management features on 100 percent of eligible PCs
  - Extends the life and / or uses sound disposition practices for its excess or surplus electronics

(If these goals have not been met and demonstrated, then agency should describe its plan and milestones to demonstrate full compliance.)

VA does acquire 95 percent EPEAT®-registered electronics and does mandate and use sound disposition practices. The Department is in the process of developing and implementing a policy that will allow it to enable power savings features on all eligible systems. Special care is being taken to ensure that the implementation of the power savings features will not impact systems supporting VA's 24/7 healthcare mission.

2. Is your agency tracking and monitoring all of its contract awards for inclusion of requirements for mandatory Federally-designated green products in 95 percent of relevant acquisitions?

(If it is finding non-compliance issues, then it should identify corrective actions the agency is taking this year to demonstrate compliance with the 95 percent sustainable acquisition goal by the end of FY 2012.)

VA has developed and utilized a methodology to review a representative sample of its eligible contracts. This methodology was discussed as a model for the interagency working group on sustainable acquisition. Given the sheer number of contracts that VA awards, over 243,000 in FY 2010, and given the level of effort required to perform an in-depth audit using VA's current methodology, VA is reviewing the number of acquisitions it will be able to audit in-depth.

3. Has your agency completed energy evaluations on at least 75 percent of its facilities?

(If agency has not met this goal, then it should describe plans for catching up on this requirement in the next 6 months.)

Yes

4. Will your agency meet the deadline of October 1, 2012 (EPACT'05 Sec 103) for metering of energy use? (Agency should provide current status of buildings metered and plans for meeting the deadline).

Yes

5. If your agency reports in the FRPP, will it be able to report by December 2011 that at least 7 percent of its inventory meets the High Performance Sustainable Guiding Principles?

(If no, agency needs to provide schedule and plan for actions to be taken in the next six months.)

Yes



Dedication ceremony for a 50-kilowatt wind turbine at Massachusetts National Cemetery

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# Appendix:

# Acronyms

# VVA

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AFV	Alternative Fuel Vehicles
ARRA	American Recovery and Reinvestment Act
C&D	Construction and Demolition
CAFE	Corporate Average Fuel Economy
CAT	Computerized Axial Tomography
CHP	Combined Heat and Power
ECM	Energy Conservation Measures
EISA	Energy Independence and Security Act of 2007
EMS	Environmental Management System
EO	Executive Order
EPA	Environmental Protection Agency
EPAct	Energy Policy Act
FY	Fiscal Year
GEMS	Green Environmental Management System
GHG	Greenhouse Gas
GMP	Green Management Program Service
GSF	Gross Square Feet
IT	Information Technology
kW	Kilowatt
LEED	Leadership in Energy and Environmental Design®
MMTCO <sub>2</sub> e	Million Metric Ton Carbon Dioxide Equivalent
MPG	Miles Per Gallon
MWh	Megawatt Hours
NCA	National Cemetery Administration
NEBC	National Energy Business Center
NEPA	National Environmental Policy Act
NIBS	National Institute of Building Science
NRM	Non-Recurring Maintenance
OAEM	Office of Asset Enterprise Management

OALC	Office of Acquisition, Logistics, and Construction
OCFM	Office of Construction and Facilities Management
OI&T	Office of Information and Technology
OMB	Office of Management and Budget
PUE	Power Utilization Efficiency
PV	Photovoltaic
ROI	Return on Investment
SCIP	Strategic Capital Investment Planning
SSO	Senior Sustainability Officer
SSPP	Strategic Sustainability Performance Plan
TBD	To Be Determined
VA	Department of Veterans Affairs
VAM	Vehicle Allocation Methodology
VAMC	VA Medical Center
VBA	Veterans Benefits Administration
VHA	Veterans Health Administration
VISN	Veterans Integrated Service Networks



