

U.S. Department of **ENERGY** 

# 2012 Strategic Sustainability Performance Plan

**Report to The White House Council on Environmental Quality** 

> United States Department of Energy Washington, DC 20585



# 2012 Strategic Sustainability Performance Plan

### **Contents**

- Main Document
  - Policy Statement
  - Executive Summary
  - Size and Scope of Agency Operations
  - Goal Analysis
- Appendix A Climate Change Adaptation Plan
- Appendix B Fleet Management Plan
- Appendix C Biobased Purchasing Strategy



Agency Contact: Jennifer C. MacDonald Director, DOE Sustainability Performance Office jennifer.macdonald@hq.doe.gov 202-586-8645

### **Department of Energy**

### 2012 Strategic Sustainability Performance Plan Agency Policy Statement

There is great urgency associated with the Department's continuous and vital mission. An increasingly complex, global environment has brought into sharp focus the relationships between energy security, climate change, and national security objectives—all against a backdrop of concerns about U.S. economic competitiveness. In this third annual Strategic Sustainability Performance Plan (SSPP), the Department pledges to continue working aggressively, "with the fierce urgency of now," to achieve sustainability goals set by statutes, regulations and Executive Orders (EO). Through its vital and urgent mission, DOE will meet its sustainability goals by utilizing teamwork and continuous improvement.

The Department commits to the following sustainability approaches:

- Enhancing Efficiency Gains. DOE cross-functional laboratory teams will continue to identify cost-effective energy solutions at high energy, mission-specific facilities. These efforts will build on past successes, including the implementation of a DOE-developed cryogenic refrigeration innovation at three DOE megawatt-scale particle accelerators, which reduces their electricity needs by one-third.
- Expanding Clean Energy. DOE will continue leveraging its own expertise to identify and pursue utility scale renewable energy projects on DOE land. By the end of FY 2012, DOE will operate new biomass and photovoltaic renewable plants providing 52 megawatts of clean energy. The Department will pursue larger utility scale renewable energy projects providing up to 155 megawatts in clean energy in FY 2013. The Department will also continue to give preference to tribes and tribal majority-owned business organizations for the purchase of electricity produced by renewable resources, renewable energy products, and renewable energy by-products in accordance with Section 2602 of the Energy Policy Act of 2005.
- Evolving Sustainable Campuses. DOE sites will continue to evolve sustainable campuses. As evidenced by DOE's commitment to energy efficiency, Sandia National Laboratory's Building 753 was one of eight buildings selected as a finalist in the first annual Better Buildings Federal Awards. Occupancy sensors and the low energy baseline of Building 753 will serve as a best practice for all DOE office buildings.
- Engaging Employees and the DOE Community. Coordinated through the Department's Sustainability Performance Office, DOE will continue to cut across stove-piped programs, embrace whole-enterprise thinking, and challenge established habits and procedures to instill culture change. DOE encourages behavior change through a Department-wide annual sustainability awards program that recognizes sustainability achievements throughout the complex. Leading by example, DOE Headquarters recently unveiled a Mobile Work Center, the first of its kind at its Forrestal Building. The 1,600 square foot shared office space features desk spaces that can be reserved for DOE employees who telework or travel and need an office while at Headquarters.

As a leader in developing clean energy and energy efficiency technologies, DOE will continue to aggressively leverage its mission to ensure that the Department meets and exceeds statutory, regulatory, and EO goals, while leading the Federal government and the Nation to a more

sustainable future ault

Daniel B. Poneman Senior Sustainability Officer Deputy Secretary of Energy

JUN 29 2012 Date



### Department of Energy 2012 Strategic Sustainability Performance Plan Executive Summary



As the Federal leader in clean energy research and development, DOE has a unique opportunity for the Department to lead by example and implement sustainability into all aspects of operations.

The Strategic Sustainability Performance Plan (SSPP) embodies DOE's sustainability commitment laid out in its 2011 Strategic Plan. Consistent with the objectives of Executive Order (EO) 13514, the

Department continues to integrate the principles of sustainability into its



DOE HQ solar array on the roof of the Forrestal North Building

decision-making processes. The annual budget process is informed by the goals of the SSPP, starting at the Under Secretary level and progressing through the Program Secretarial Offices (PSO) to DOE's National Laboratories and sites. The Department continues to align its site-level environmental, energy, and real property planning systems to elevate sustainability in site management. DOE Order 436.1, *Departmental Sustainability*, ensures that senior leaders, managers, staff, and DOE contractors are accountable for meeting sustainability requirements. The Sustainability Performance Office leads DOE's sustainability efforts, coordinates long-term implementation of the SSPP, and oversees progress towards sustainability goals.

### **Approach**

DOE continues to develop innovative technologies to advance the landscape of the Nation's energy portfolio. In addition, DOE's broad expertise accelerates the development of on-site renewable energy implementation, energy and water efficiency measures, and other sustainability projects that help the Department and other Federal Agencies achieve compliance with sustainability statutes, regulations and EOs. Furthermore, DOE will continue to address sustainability by following key objectives:

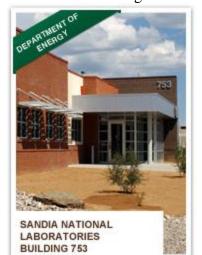
- Enhancing Efficiency Gains
- Expanding Clean Energy
- Evolving Sustainable Campuses
- Engaging Employees and the DOE Community
- Improving data quality to inform operations and decision making

### **Achievements**

Sandia National Laboratory's Building 753 was recently selected as one of eight finalists for the first annual Better Buildings Federal Awards. This competition recognizes the federal government's highest-performing buildings and challenges agencies to achieve the greatest

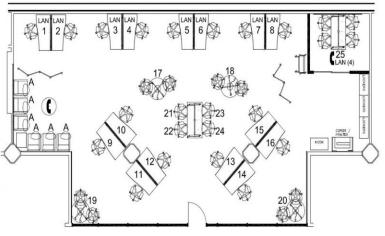
reduction in annual energy intensity – or energy consumed per square foot. These eight highly efficient buildings, and the dedication of individual agencies to meeting their energy goals, underscore commitments to save energy and reduce energy costs at federal facilities, while creating jobs and protecting our air and water.

The National Nuclear Security Administration (NNSA) established its Green Fleet Team in 2005 to plan for increased alternative fuel use, alternative fuel vehicle acquisitions, reduction in petroleum use, and fleet greenhouse gas emissions reductions. To decrease the fleet's environmental impact while increasing operational efficiency, Federal and contractor team members are actively encouraged to share best practices and implement pilot



approaches to achieve breakthrough performance. To date, the NNSA Fleet has realized significant accomplishments towards getting to green by increasing alternative fuel use 159 percent from a FY 2005 baseline and decreasing covered petroleum use by approximately 40 percent.

To promote teleworking and a mobile work force, DOE recently launched a first of its kind Mobile Work Center (MWC) at its Headquarters Building (Forrestal). The MWC is a 1,600 square foot shared office space that features wired and wireless network connectivity, modular seating, storage lockers and collaboration areas for DOE employees and contractors. Up to 25 desk spaces in the MWC can be reserved in advance using an online scheduling tool.



DOE HQ Mobile Work Center

In FY 2012, a new steam plant at the Savannah River National Laboratory was completed and operational. The new thermal-only steam plant utilizes biomass as its primary fuel source. Early 1950's vintage coal-fired boilers were replaced with new state-of-the-art boilers and emission controls while maintaining steam availability around-the-clock at minimum cost. This new plant was installed utilizing an existing Energy Savings Performance Contract (ESPC) in place at the site. The facility is projected to produce up to 20 megawatts of clean energy with annual

savings of 100,000 to 300,000 tons of GHG emissions, 161,000 tons of coal, 300,000 gallons of fuel oil, and \$35 million in energy and operation and maintenance costs.

Goal	Baseline	FY 2011 Results	FY 2011 Target	FY 2011 Performance (vs. Baseline)
Energy Intensity Reduction (Btu/GSF) <sup>1</sup>	227,379	175,106	-18%	-23.0%
Potable Water Intensity Reduction (Gal/GSF) <sup>2</sup>	70.5	60.1	-8%	-14.7%
Petroleum Reduction (GGE) <sup>3</sup>	7,401,460	7,019,643	-12%	-5.2%
Alternative Fuel Increase (GGE)	624,704	1,574,650	77%	152.1%
Scope 1&2 GHG Reduction (MtCO <sub>2</sub> e) <sup>4</sup>	4,588,900	4,011,036	-14%	-12.6%
Scope 3 GHG Reduction (MtCO <sub>2</sub> e)	848,698	745,507	-2%	-12.2%
Renewable Energy (MWh) <sup>5</sup>	5,165,367	493,256	5%	9.5%
Sustainable Buildings	2,557	41	7%	1.6%

A summary of DOE's performance towards the goals of EO 13514 are in the table below:

1. BTU – British Thermal Units

2. Gal/GSF – Gallons per Gross Square Foot

3. GGE – Gasoline Gallons Equivalent

4. MtCO<sub>2</sub>e – Metric tons Carbon Dioxide Equivalent

5. MWh – Megawatt hours

### **Communication and Outreach**

The Department transparently communicates its sustainability goals and results with internal and external audiences. Keeping stakeholders apprised of DOE progress and results is consistent with DOE's Open Government Plan and is essential to achieving the cultural change needed to integrate sustainability throughout DOE.

DOE will continue to engage its stakeholders and employees to enhance continuous improvement in the implementation of sustainability EOs and related statutes. This includes gathering data and operational experiences from DOE programs and sites, and the dissemination of internal scorecards that provide feedback on progress toward goals. To encourage participation and feedback, a virtual comment box accessible to all DOE staff through email (sustainability@hq.doe.gov) collects ideas and suggestions on DOE sustainability efforts. The monthly DOE SPOtlight newsletter highlights upcoming events, raises awareness, and shares best practices and lessons learned with DOE programs, sites, and the entire sustainability community.

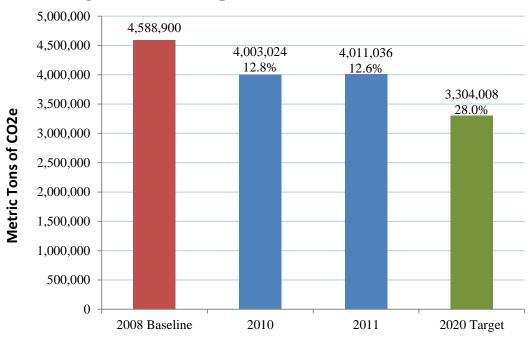
Information is accessible through DOE's public website where the SSPP, and associated milestones/performance information, are posted. DOE provides periodic updates on the status of programs, initiatives and accomplishments associated with the SSPP. This information can be found at www.sustainability.energy.gov.

# TABLE 1: SIZE AND SCOPE OF AGENCY OPERATIONS

Agency Size and Scope	FY 2011
Total Number of Employees as Reported in the President's Budget	116,108
Total Acres of Land Managed	2,285,789
Total Number of Facilities Owned	18,511
Total Number of Facilities Leased (GSA and Non-GSA lease)	519
Total Facility Gross Square Feet (GSF)	128,517,887
Operates in Number of Locations Throughout U.S.	47
Operates in Number of Locations Outside of U.S.	0
Total Number of Fleet Vehicles Owned	3,850
Total Number of Fleet Vehicles Leased	10,201

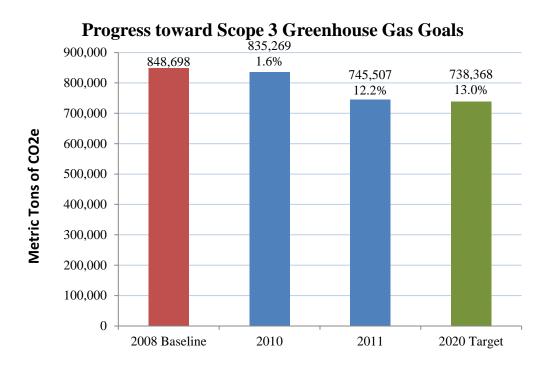
### GOAL 1: GREENHOUSE GAS REDUCTION AND MAINTENANCE OF AGENCY COMPREHENSIVE GREENHOUSE GAS INVENTORY

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



**Progress toward Scope 1 & 2 Greenhouse Gas Goals** 

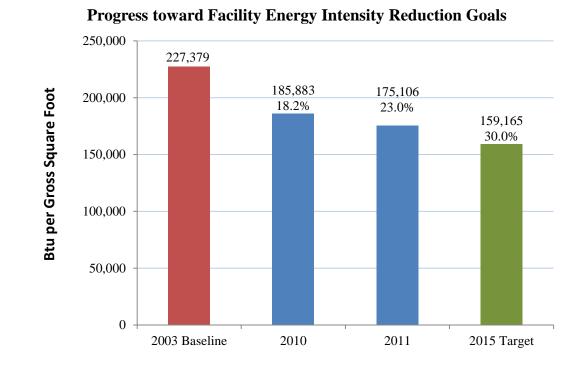
Note: E.O. 13514 requires each agency to establish a scope 1 & 2 GHG reduction target for FY2020. The target for this agency is 28% compared to FY2008. The red bar represents the agency's FY2008 baseline. The green bar represents the FY2020 target reduction. The blue bars show actual status in relationship to the target. The percentage on each bar shows the reduction or increase from the FY2008 baseline.



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

Note: E.O. 13514 requires each agency to establish a scope 3 GHG reduction target for FY2020. The FY2020 target for this agency is 13% compared to the FY2008 baseline. The red bar represents the agency's FY2008 baseline. The green bar represents the FY2020 target reduction. The blue bars show actual status in relationship to the target. The percentage on each bar shows the reduction or increase from the FY2008 baseline.

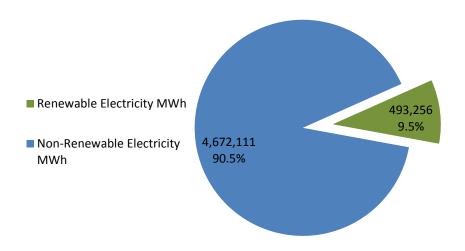
### **GOAL 2: BUILDINGS**



### **Agency-Specific Performance Metrics for Facility Energy Intensity Reduction:**

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

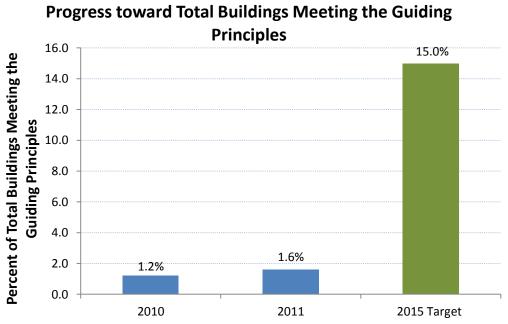
### Agency-Specific Performance Metrics for Renewable Energy:



Use of Renewable Energy as a Percentage of Electricity Use

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

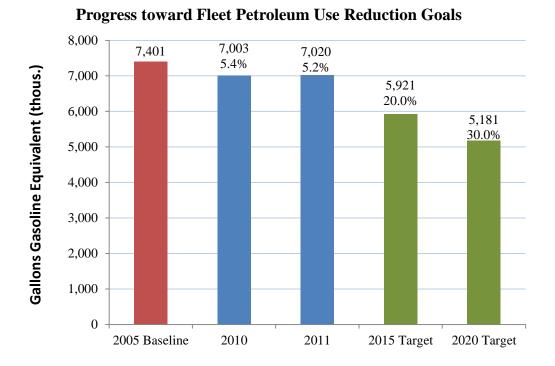
# **Agency-Specific Performance Metrics for Total Buildings Meeting the Guiding Principles:**



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

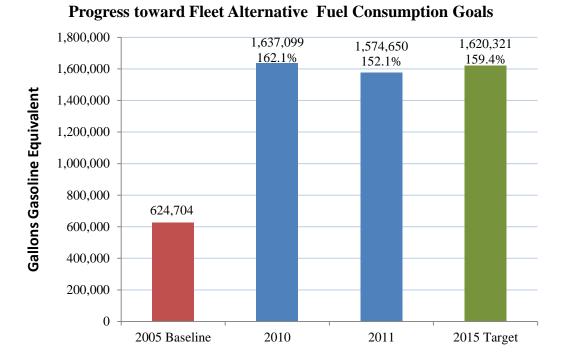
Department of Energy – 5

### **GOAL 3: FLEET MANAGEMENT**



### **Agency-Specific Performance Metrics for Fleet Petroleum Reduction:**

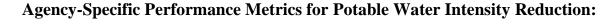
Note: E.O. 13514 and EISA require that by FY2011 agencies reduce fleet petroleum use by 12%, compared to an FY2005 baseline. A 20% reduction is required by FY2015 and a 30% reduction is required by FY2020. The red bar represents the agency's FY2005 baseline. The green bars represent the FY2015 and FY2020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

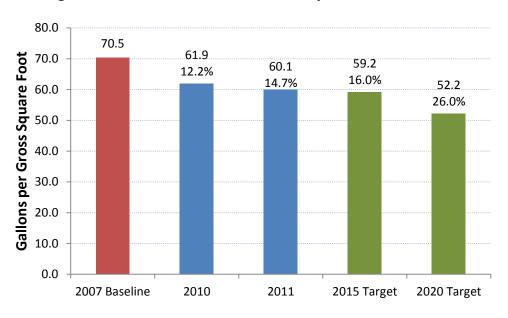


### **Agency-Specific Performance Metrics for Fleet Alternative Fuel Use:**

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

### **GOAL 4: WATER USE EFFICIENCY AND MANAGEMENT**



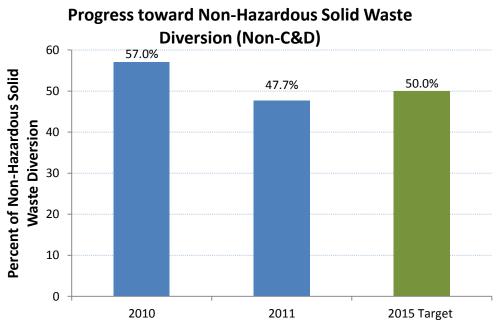


**Progress toward Potable Water Intensity Reduction Goals** 

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

### **GOAL 5: POLLUTION PREVENTION AND WASTE REDUCTION**

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



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

# **GOAL 7: ELECTRONIC STEWARDSHIP AND DATA CENTERS**

EPEAT	POWER MANAGEMENT	END-OF-LIFE	COMMENTS
	$\bigcirc$		99% Power Management Compliant

### EPEAT:

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

### Power Management:

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

### End-of-Life:

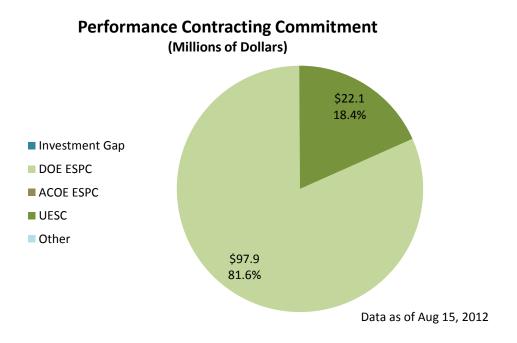
100% of Electronics at end-of-life disposed through GSA Xcess, CFL, Unicor or Certified Recycler (R2, E-Stewards)
100% of Electronics at end-of-life disposed through GSA Xcess, CFL, Unicor or non-Certified Recycler
Less than 100% of Electronics at end-of-life disposed through GSA Xcess, CFL, Unicor or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

# PRESIDENT S PERFORMANCE CONTRACTING COMMITMENT



### **Agency-Specific President's Performance Contracting Commitment Metrics:**

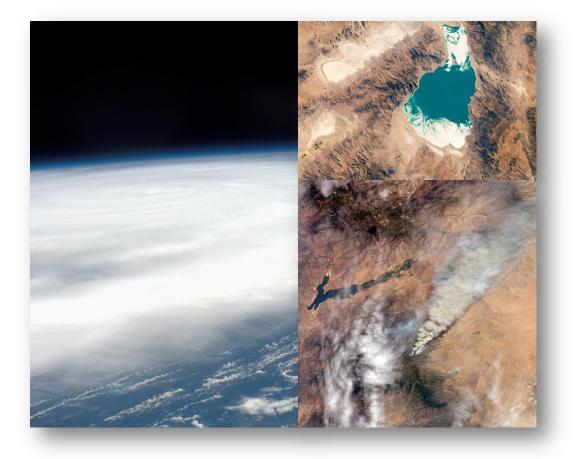
**Agency-Specific President's Performance Contracting Commitment Metrics:** 





U.S. Department of Energy Climate Change Adaptation Plan June 2012





# Climate Change Adaptation Plan U.S. Department of Energy

"Adaptation planning will begin immediately and intelligently through a flexible, incremental process informed by the best science and technical information effectively translated into action." – Secretary of Energy Steven Chu, June 2, 2011

# The DOE Policy Framework for Climate Change Adaptation

The U.S. Department of Energy (DOE) recognizes that changes in the global climate system will affect DOE. Given this, DOE is considering and learning more about how the climate is changing and will affect DOE and its mission, while beginning the process of mainstreaming climate change resilience within DOE.

On June 2, 2011, Secretary Chu issued a Climate Change Adaptation Policy Statement (Policy Statement)<sup>1</sup> committing DOE to prepare for potential climate change impacts. This policy statement:

- Affirms DOE's commitment to plan for and manage the short and long-term effects of climate change;
- Requires DOE to establish effective strategies to adapt its mission to potential climate change effects through internal planning, implementation and collaborating across the Federal community;
- Designates the Associate Deputy Secretary as the Senior Agency Official for Climate Change Adaptation at DOE, supported by the Sustainability Performance Office (SPO);
- Adopts the "Guiding Principles"<sup>2</sup> of the Interagency Climate Change Adaptation Task Force (Task Force); and,
- Commits DOE to fulfill the requirements set forth by the Council on Environmental Quality (CEQ) in the *Implementing Instructions*.<sup>3</sup>

DOE's efforts are aligned with efforts underway across the Federal Government. Sections 8(i) and 16 of Executive Order 13514 require Federal agencies to assess climate change vulnerability and support government-wide climate change adaptation planning efforts led by CEQ.

<sup>&</sup>lt;sup>1</sup><u>http://www1.eere.energy.gov/sustainability/pdfs/doestatement\_ccadaptationpolicy.pdf</u>

<sup>&</sup>lt;sup>2</sup> As defined in the <u>2011 Progress Report of the Interagency Climate Change Adaptation Task Force: Federal Actions</u> for a Climate Resilient Nation.

<sup>&</sup>lt;sup>3</sup> <u>Implementing Instructions for Federal Agency Climate Change Adaptation Planning</u> Cover images courtesy of NASA, accessible at: <u>http://visibleearth.nasa.gov/</u>

This DOE Climate Change Adaptation Plan (Adaptation Plan) takes the national and international context of the DOE mission, the local context of DOE facilities and nearby stakeholders, and other Federal climate change adaptation efforts into consideration. In addition to reports of the Task Force, official CEQ instructions and supporting guidance, and a variety of other information resources, the following national reports were considered in the development of initial agency actions and priorities:

- National Action Plan: Priorities for Managing Freshwater Resources in a Changing Climate;<sup>4</sup>
- Draft National Fish, Wildlife and Plants Climate Adaptation Strategy:<sup>5</sup> and,
- Draft National Ocean Policy Implementation Plan.<sup>6</sup>

# The DOE Mission, Management Principles, and Climate Change Adaptation

DOE's mission is to ensure America's security and prosperity by addressing its energy, environmental, and nuclear challenges through transformative science and technology solutions. DOE achieves its mission through an operational and adaptable framework that supports the following strategic goals:<sup>7</sup>

- Catalyze the timely, material and efficient transformation of the nation's energy system and secure U.S. leadership in clean energy technologies;
- Maintain a vibrant U.S. effort in science and engineering as a cornerstone of our economic prosperity with clear leadership in strategic areas; and,
- Enhance nuclear security through defense, nonproliferation, and environmental efforts.

DOE performs numerous activities in support of these goals, including: conducting fundamental energy science and energy technology research, development, demonstration and deployment (RDD&D); marketing and distributing Federally-generated power through the DOE Power Marketing Administrations (PMAs); remediating, improving environmental quality, and serving as stewards for DOE managed lands; and maintaining the U.S. Strategic Petroleum Reserve and nuclear stockpile. DOE also works internationally on security and energy-related topics, including accelerating the development and deployment of clean energy technologies.

The DOE Strategic Plan also establishes Management Principles<sup>8</sup> which inform climate change adaptation at DOE:

- Our mission is vital and urgent;
- Science and technology lie at the heart of our mission;

<sup>&</sup>lt;sup>4</sup> <u>http://www.whitehouse.gov/sites/default/files/microsites/ceq/2011\_national\_action\_plan.pdf</u>

<sup>&</sup>lt;sup>5</sup> <u>http://www.wildlifeadaptationstrategy.gov/index.php</u>

<sup>&</sup>lt;sup>6</sup> http://www.whitehouse.gov/administration/eop/oceans/implementationplan

<sup>&</sup>lt;sup>7</sup> 2011 DOE Strategic Plan: <u>http://energy.gov/downloads/2011-strategic-plan</u>

<sup>&</sup>lt;sup>8</sup> 2011 DOE Strategic Plan: <u>http://energy.gov/downloads/2011-strategic-plan</u>

- We will treat our people as our greatest asset;
- We will pursue our mission in a manner that is safe, secure, legally and ethically sound, and fiscally responsible;
- We will manage risk in fulfilling our mission;
- We will apply validated standards and rigorous peer review; and,
- We will succeed only through teamwork and continuous improvement.

These and the iterative DOE sustainability planning process are consistent with the CEQ Task Force "Guiding Principles,"<sup>9</sup> briefly summarized as:

- Adopt Integrated Approaches;
- Prioritize the Most Vulnerable;
- Use Best-Available Science;
- Build Strong Partnerships;
- Apply Risk-Management Methods and Tools;
- Apply Ecosystem-based Approaches (where appropriate);
- Maximize Mutual Benefits; and,
- Continuously Evaluate Performance.

Other relevant policies and strategies will also inform the climate change adaptation process. For instance, DOE is demonstrating its commitment to Environmental Justice through the implementation of its *Environmental Justice Strategy* and *Five-Year Implementation Plan.*<sup>10</sup> DOE's climate change adaptation efforts will be aligned with the DOE *Environmental Justice Strategy* and consistent with Federal policy.

The DOE vision for climate change adaptation is the integration of climate change resiliency across all DOE programs wherever appropriate. Considerations of climate change resilience informed by best available data are seen as an integral new part of the rigorous planning, risk assessment, and careful investment that already define the DOE mission.

Climate change adaptation is not new to DOE; rather, climate change is an ongoing part of DOE research, modeling, and policy development. A strong culture of prevention, integrated safety management, and operational excellence in potentially hazardous working environments already exists throughout DOE. Climate change resiliency will inform operational and capital planning, as well as provide information back into the larger applied research body of climate change adaptation. By finding common themes and trends, climate change adaptation will cut across all aspects of the DOE mission.

This Adaptation Plan serves as the initial version of a living plan, subject to annual updating with DOE's Strategic Sustainability Performance Plan (SSPP). It will be updated and modified as the understanding of climate change improves, allowing DOE to better forecast climate change impacts, quantify risk, and identify opportunities.

<sup>&</sup>lt;sup>9</sup> 2011 Progress Report of the Interagency Climate Change Adaptation Task Force

<sup>&</sup>lt;sup>10</sup> http://www.lm.doe.gov/default.aspx?id=1889

In addition, the DOE Climate Change Adaptation Working Group will continue to serve as an ongoing forum for:

- Exchanging information and best practices across DOE programs; and,
- Updating this Adaptation Plan, on an annual, iterative basis.

# Climate Change Vulnerability and Opportunity

In their October 5, 2010, *Progress Report*, the Task Force stated that:

- "The global climate is changing, and the impacts of this change are being felt across the United States and the world."
- "The Federal Government also has an important stake in adaptation because climate change directly affects Federal services, operations, and programs across the country. Virtually every aspect of the Federal Government will be impacted by climate change in some way."<sup>11</sup>

DOE's workforce comprises roughly 16,000 Federal and 100,000 contractor employees working at facilities in 40 states and the District of Columbia. DOE's facilities are located in all nine U.S. climate regions established by the U.S. Global Change Research Program (USGCRP).<sup>12</sup> These facilities include DOE National Laboratories containing cutting-edge research and development facilities used by more than 26,000 users from academia, industry, other government agencies and foreign governments annually. DOE facilities also maintain unique processes and house advanced materials, including nuclear materials critical to U.S. national security.

DOE's mission also extends beyond the fence lines of its sites. Many RDD&D activities are conducted by DOE in collaboration with academic, non-profit, and private-sector and other government institutions, both domestically and internationally. For example: electrical transmission systems of the Power Marketing Administrations span multiple states; the Strategic Petroleum Reserve utilizes non-DOE pipelines and infrastructure; and, DOE collaborates internationally through a number of bilateral and multilateral entities on clean energy technology RDD&D, including the Clean Energy Ministerial.

Locations where the DOE mission is conducted are likely to encounter a combination of climate change effects both in the form of direct acute events (e.g., severe weather) and long-term changes (e.g., in average annual precipitation). DOE sites could also experience indirect effects, particularly those related to social systems and infrastructure, both acute (e.g., economic and political instability) and long-term (e.g., changes in population and social demographics).

<sup>&</sup>lt;sup>11</sup> <u>http://www.whitehouse.gov/sites/default/files/microsites/ceq/Interagency-Climate-Change-Adaptation-Progress-Report.pdf</u>

<sup>&</sup>lt;sup>12</sup> USGCRP. *Global Climate Change Impacts in the US*. 2009: http://globalchange.gov/publications/reports/scientific-assessments/us-impacts

In its high level vulnerability analysis DOE found that:

- DOE could potentially be exposed to global, national, regional and location-specific effects of climate change;
  - Regardless of present uncertainty as to the exact character and timing of local climate change effects, DOE mission and facilities in every major U.S. climate region could be affected.
- DOE's mission, site operations and programs have varying degrees of sensitivity, depending on location and type of work. National and global climate change implications relevant to the DOE mission must also be considered. Potential impacts and/or opportunities may include:
  - Operational and budget impacts due to magnified water and energy/electricity shortages and/or prolonged droughts;
  - Damage to facility infrastructure or operational disruptions due to more frequent and/or more extreme flooding, wildfire, or severe weather events;
  - Damage to coastal facilities due to sea level rise and/or more frequent and/or more extreme weather events including hurricanes and storm surge;
  - Operational constraints due to temperature changes;
  - Workforce issues such as, health impacts associated with climate-induced disease propagation and heat stress, and marginal cost of living impacts directly associated with more severe weather events;
  - Reduced operational efficiency, increased costs and other operational constraints, disruptions, and/or delays;
  - New barriers to technology RDD&D for technologies not designed or otherwise suited for regional climate resilience; and,
  - New mission opportunities, both domestic and international, to enhance climate change resilience and ensure energy and economic security.
- Given the nature of its mission and in-house expertise, DOE possesses considerable adaptive capacity within existing policy, planning, and operational frameworks. Greater and more consistent integration will ensure resilience to future climate change effects.

All aspects of the DOE mission may be affected by climate change to varying degrees over time. More information is required to understand the nature and timing of specific potential impacts and opportunities, quantify risk, and identify appropriate interventions. DOE programs and facilities will obtain additional information and perform more detailed analysis as necessary to plan for climate change resiliency, working with regional partners wherever possible.

DOE's facilities and activities are vulnerable to climate change. However, DOE has the opportunity to enhance its own operations while also contributing technical expertise and climate change resilient energy solutions. Through this, DOE can ensure the continuity of its own operations, and help the U.S. and its international partners adapt to a changing climate.

As one of its priority actions for Fiscal Year (FY) 2012, DOE initiated a study to characterize the impacts of climate change on the U.S. energy sector and infrastructure to identify gaps and opportunities for DOE to support climate change resiliency efforts in the energy sector. While DOE analyzes the context of its mission in changing climate and identifies additional or refined information sources, DOE programs and facilities will begin leveraging existing information and partnerships to start planning.

# Integrating Climate Change Resilience

Effectively responding to climate change vulnerabilities does not require the establishment of new DOE programs. Rather, DOE programs will integrate climate change resiliency considerations into existing planning processes to ensure continued success of the DOE mission. DOE views climate change resilience as complementary to other goals and objectives at DOE, such as emergency response, reducing GHG emissions and reducing dependency on natural resources. The successful integration of climate change resilience is a cross purpose of these similar goals, as illustrated in Figure 1.

# Figure 1 – Sustainability and Emergency Response Preparedness Activities Can Promote Climate Change Resilience, When Inclusive of Climate Change Adaptation Considerations

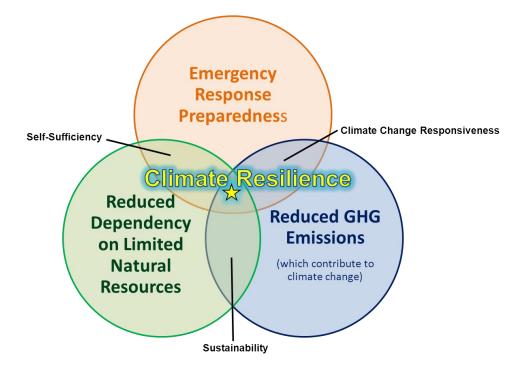


Figure 1 touches on several interrelated goals. Many other factors also contribute to climate change resiliency, such as facility location and design. It is important to consider that while climate change mitigation measures can enhance climate change resiliency, the mitigation measures themselves must also be climate change resilient in their location, design, and application. It is also important to consider that while emergency response preparedness is

essential given uncertainty associated with future natural phenomena hazards, operational risk prevention measures and forward-looking infrastructure design are also equally important.

During FY 2013, DOE will continue to update all appropriate Departmental planning documents to address climate change adaptation. DOE will review all Departmental Directives, companion Guides, and Technical Standards to determine which require updating to include climate adaptation planning considerations, and will prioritize these updates according to a multi-year schedule. This effort is already underway as part of a priority action for FY 2012. DOE Directives, Guides, and Technical Standards for emergency response planning were already scheduled for updating in FY 2012 to better address beyond design basis events; climate change resiliency considerations are also being integrated where appropriate.

DOE programs will also begin to look at their specific missions and facilities during FY 2013 for climate change adaptation considerations and updates. DOE programs will distribute this Adaptation Plan to all their sub-programs and facilities, and:

- Assess program-specific vulnerabilities and opportunities at a high level in their 2013 Composite Sustainability Plans (CSPs), per SPO guidance;
- Ensure that all facilities address climate change adaptation in their 2013 Site Sustainability Plans (SSPs), in accordance with SPO guidance;
- Ensure that all Emergency Response Plans are updated to include any relevant climate change considerations, as appropriate, in accordance with DOE Directives and Guides;
- Identify any additional program-specific planning documents and guidance that should be updated to include climate change adaptation planning considerations, including strategic or multi-year program plans, and establish a timeline for their updating; and,
- Propose, in each program CSP, at least one priority facility, location, or region that would benefit most from a detailed pilot vulnerability assessment.

The SPO will support DOE programs as climate adaptation considerations are incorporated into plans and processes, by providing:

- Climate change adaptation planning guidance and support for DOE programs;
- Guidance, leadership, and facilitation for the annual updating of this Adaptation Plan through the Working Group and Collaborative Action Process (CAP);
- Regular updates on CEQ and Federal agency climate change efforts, information and related guidance/requirements;
- Coordination for climate change adaptation planning and support, disseminating useful information, best practices, and resources from outside DOE to its programs, along with the:
  - Office of Science, Office Biological and Environmental Research, Climate and Environmental Sciences Division (CESD);
  - Office of Policy and International Affairs, Office of Climate Change Policy and Technology (CCP&T);
  - Office of Congressional and Intergovernmental Affairs, Office of Tribal and Intergovernmental Affairs (TIA);
  - Office of Environmental Justice (EJ); and,

• Consultations, advice, and referrals for DOE programs to sources of technical information and experts on climate science, vulnerability assessment and risk analysis, along with CESD and CCP&T, as appropriate.

# Climate Impact Forecasting and Risk Analysis to Support Adaptation Planning

To plan for climate change resiliency, it is necessary to understand:

- The timing, location, and character of climate change effects; and,
- Specific vulnerability and the magnitude of program and infrastructure risk, including that associated with broader impacts over time.

DOE's mission and operations are faced with differing climate change induced risks and vulnerabilities that vary based on geographic location. Additionally, there is uncertainty as to the exact nature, magnitude and timing of potential impacts at each geographic location where the DOE mission is conducted.

Given that the DOE mission occurs at numerous geographic locations it is not appropriate to define a prescriptive "one size fits all" methodology for assessing specific vulnerabilities. Rather, there are some common information resources and approaches that DOE programs and facilities will use to begin assessing their vulnerability, and where appropriate, characterize climate change risk. DOE expects that climate change adaptation information sources will improve over time as climate change models are improved, fundamental uncertainties are addressed, and methodologies for quantifying risks (and benefits for adaptation measures) are refined.

In order to address the initial climate change adaptation planning needs of DOE programs and facilities, DOE will provide internal guidance to its programs and sites as a priority action for FY 2012.

To ensure that DOE, partners in the Federal community and beyond have the climate information essential to adaptation planning, DOE will continue in FY 2013 to:

- Participate in the Interagency Climate Change Adaptation Planning Task Force and its associated working groups;
- Participate in the US Global Change Research Program (USGCRP), which is working to provide interagency climate information solutions and develop regional information hubs; and,
- Conduct fundamental climate and atmospheric research and modeling used both in the U.S. and throughout the world to plan for climate change adaptation.

# **Regional Coordination**

As climate change effects are experienced, DOE's climate change adaptation planning efforts will ultimately be local and regional endeavors. Regional coordination will be fostered at DOE's facilities, through the iterative sustainability planning process. However, regional planning and coordination is already occurring in other aspects of the DOE mission (e.g., power marketing, and energy technology transfer, deployment and market transformation). DOE will also begin to integrate climate change resilience into these program strategies in FY 2013, working with regional partners as appropriate. Some DOE National Laboratories already perform local and regional downscaled climate change modeling to understand local risks. Where this is not the case, the SPO, CESD and CCP&T will help DOE programs and sites identify regional:

- Sources of climate change adaptation information; and,
- Federal partners and existing partnerships for climate change adaptation planning.

DOE will leverage and support existing and emerging regional resources and partnerships while planning for enhanced climate resiliency as information sharing and collaborations are critical to successful climate change adaptation.

# Transparency, Public Review and Comment

DOE recognizes the importance of early stakeholder engagement and transparency in its climate change adaptation planning process. DOE will engage stakeholders as appropriate as specific issues are addressed, such as the identification of vulnerabilities in the U.S. energy supply system and DOE strategies to support adaptation in this sector. The public will continue to be engaged for specific projects through the National Environmental Policy Act (NEPA) process, as well as similar state and local processes. DOE will conduct its climate change adaptation planning and implementation in a manner consistent with existing U.S. laws, regulations, and Federal and DOE policies, as well as treaties with Federally-recognized Tribes. Each year, DOE will make its final approved plan available to the public on the DOE website, and will consider feedback from the public during annual updates.

## Multi-Year Goals and Objectives, and FY 2013 Actions

DOE multi-year goals and objectives to better understand and address climate change risks and opportunities are established in Table 1. FY 2013 actions described in this plan support these goals and objectives.

	Goal 1: Improve Understanding of Climate Change Effects and Impacts			
Better Understand		Objective 1.1: Work with other agencies to improve our understanding of climate change		
		Objective 1.2: Work with other Federal agencies and local jurisdictions (as appropriate) to develop regional partnerships for climate change information sharing and collaboration		
Risks & Opportunities	G	Coal 2: Improve Understanding of Climate Change Vulnerabilities and Risk		
Opportunities		Objective 2.1: Develop and refine methodologies for comparative quantitative climate change risk analysis and prioritizing climate change resiliency actions		
		Objective 2.2: Conduct detailed risk or vulnerability assessments, as appropriate, for specific DOE programs or facilities		
	G	Goal 3: Mainstream Climate Change Adaptation at DOE		
		Objective 3.1: Update all appropriate Department-wide plans, strategies, directives, guides, technical standards, and training		
Address Risks & Opportunities		Objective 3.2: Update all appropriate program-specific plans, strategies and planning processes		
	G	oal 4: Improve the Climate Resiliency of all DOE Sites		
		Objective 4.1: Update all appropriate DOE site plans to address climate change resiliency		
		Objective 4.2: Identify or establish and participate in regional climate change adaptation partnerships, as appropriate, for all DOE facilities		

# A DOE Vision for Climate Change Resilience

By improving the resiliency of its programs and operations to climate change, DOE will ensure the sustainability of its mission, and its ability to serve the needs of the Nation. By working with partners to advance the scientific understanding of the Earth's climate system, improving our ability to forecast local changes in climate, and understanding how we will be impacted by these changes, DOE will ensure its mission remains climate change resilient, while helping others adapt. By reaching out to local, regional, and global partners while planning for adaptation, DOE can share its unique modeling, climate science expertise, and engineering capabilities while leveraging and enhancing the work of others to improve climate change resiliency throughout the country.

"DOE will continue to leverage its unique modeling, climate science expertise, and engineering capabilities in collaboration with other agencies and institutions, to continuously improve understanding of the effects of climate change and identify appropriate adaptation strategies." – Secretary of Energy Steven Chu, June 2, 2011

### **Background**

On May 24, 2011, the President of the United States issued a Memorandum on Federal Fleet Performance to senior leaders of all Executive Departments and Agencies in the Federal Government, providing guidance on the accomplishment of the Administration's Federal fleet performance goals and ensuring compliance with Executive Order 13514 of October 5, 2009, Federal Leadership in Environmental, Energy, and Economic Performance. The Presidential Memorandum directed agencies to use the Vehicle Allocation Methodology (VAM) to determine their optimal fleet inventory targets and develop a Fleet Management Plan (FMP) to achieve the targets no later than December 31, 2015. Agencies must also incorporate their FMPs into their Annual Strategic Sustainability Performance Plans, beginning with their June 2012 plan submission.

### **DOE's Optimal Fleet Inventory**

### INVENTORY SIZE

On January 27, 2011, US DOE Secretary Steven Chu signed an agency memorandum on Management of Fleet Inventory that challenges the agency to reduce fleet inventory by 35 percent within three years while ensuring the fleet is mission-appropriate and cost-effective across all sites and field offices. DOE Agency Fleet Management had already launched plans to meet this challenge by the time President Obama signed the May 24, 2011 Memorandum on Federal Fleet Performance. In compliance with the Presidential Memorandum and GSA Bulletin B-30, DOE Agency Fleet Management has aligned its Vehicle Allocation Methodology (VAM) with the Secretary's fleet reduction challenge for fiscal year (FY) 2012.

The Secretary's initiative calls for a 35 percent reduction of fleet inventory in three years based on an FY 2005 baseline, without sacrificing either mission critical elements or the Department's commitment to operate in a safe, secure and environmentally sound manner. As laid out in the next section, DOE's current VAM plan aims to achieve the inventory goals set by the Secretary's initiative by the same 35 percent reduction amount.

Furthermore, DOE will also strive to ensure that 100 percent of Light-Duty Vehicle (LDV) acquisitions are Alternative Fuel Vehicles (AFVs) by FY 2015, while maintaining the optimal mission-appropriate fleet size.

Two specific concentrations will be integral to achieving these goals. The first is the increased use of Low-Speed Vehicles (LSVs), including Neighborhood Electric Vehicles (NEVs) or Low-Speed Electric Vehicles (LSEVs), which do not officially count towards DOE's fleet vehicle inventory size – thereby decreasing total inventory size. This vehicle equipment will replace larger vehicles whose sole mission and application is on-site delivery and service. Further, the Department will continue to pursue the incorporation of LSVs, NEVs, and LSEVs into its overall fleet inventory. The inclusion of these

equipment types will help the Department more accurately manage the entirety of its fleet assets. To date, DOE has not collected this information for all Departmental elements.

The second focus will be to utilize GSA's short-term vehicle rental plan. GSA's rule change on December 8, 2011 in the 41 CFR 102-34 Motor Vehicle Management regulations to increase the 60 continuous day rental timeframe to 120 continuous days is ideal for DOE fleet managers. The agency utilizes a large number of vehicles on a seasonal basis, depending on short-term requirements. Allowing field sites to dispose of vehicles acquired and/or used seasonally enables these sites to decrease and optimize their inventory size by now relying on GSA's altered short term vehicle rental options.

DOE Fleet Management Plan will continue right-sizing efforts to include a review of site requirements (mission and programs); budget (fleet associated costs); and inventory (having the right number and type of vehicle). Any reduction in the vehicle inventory will not sacrifice the Department's ability to perform its mission in a safe, secure, and environmentally sound manner.

Centralized accounting of all vehicles will remain a critical component to assist DOE fleet management. Although DOE Headquarters provides oversight for all vehicles, DOE does not presently have a centralized management system to track vehicles that are owned or commercially leased. The Department is currently working with GSA to implement a Federal Fleet Management System (FedFMS) to include all owned and commercially leased vehicles. An anticipated date for full implementation is still being determined.

DOE's ability to meet the goals defined in this Fleet Management Plan are contingent upon GSA's ability to acquire and supply DOE's requested vehicles based on vehicle availability and budgetary constraints.

### VEHICLE SIZE

In addition to achieving an optimal total inventory size, DOE continues efforts to right-size its fleet vehicles. In order to achieve the agency's petroleum and GHG reduction targets, as well as its inventory reduction and AFV acquisition targets, the following details DOE's vehicle right-sizing rationale. As field site missions allow, DOE fleets will:

- Emphasize smaller vehicle sizes with higher fuel economy. For example, SUVs that are found to be primarily used for transporting passengers rather than cargo, will be replaced by smaller and/or more fuel efficient vehicle options.
- Reduce the number of 4X4 vehicles, which are generally less fuel efficient, from inventory where terrain and vehicle mission does not demand it; replace with either 4X2 vehicles or smaller size and more fuel efficient vehicles.
- Reduce the number of owned and commercial-leased vehicles. Local fleet managers will determine and justify that these acquisition types are not possible or cost-effective to be leased via GSA. Once established, the vehicles could then be eliminated from the inventory and field site missions can either be achieved by short-term rental vehicles via GSA or LSEVs which do not count towards inventory amount.
- Reduce the number of heavy duty vehicles that are agency-owned, without compromising mission safety and security. Where applicable and cost-effective, consider short-term rentals via GSA as an alternative to vehicles owned and maintained by the agency.
- Incrementally increase the number of AFVs. Optimal AFV replacements for conventional vehicles will not be offered by GSA across all vehicle types immediately in

FY12; thus a gradual increase in Light-Duty AFV acquisitions is planned until it reaches 100 percent in FY2015 as required.

### **Schedule to Achieve Optimal Fleet Inventory**

DOE's Vehicle Allocation Methodology plan mirrors DOE's Secretarial initiative, which challenged the Department to reduce the fleet inventory by 35 percent over 3 years.

### Plans to Acquire All AFVs for LDVs by 12/31/2015

In FY 2011, 65% of DOE's Light Duty Vehicle inventory consisted of Alternative Fueled Vehicles. The optimal inventory goal is for 100% of all LDVs to be AFVs by FY 2015. DOE plans to use fleet optimization tools, such as the NREL Optimal Vehicle Acquisition (NOVA) analysis being offered by DOE FEMP, in order to set plans and schedules to achieve this goal, beginning with the FY 2013 vehicle acquisition cycle. The specific recommended vehicles for acquisition and disposal will be coordinated between all local DOE fleet managers and their corresponding GSA Fleet Service Representative (FSR).

DOE has already initiated efforts to integrate AFVs into the agency's fleet. In 2010, in fulfillment of Executive Order 13514, the Secretary began a 3-year, 3-phase strategy to reduce GHG emissions. As a result of this strategy, the Secretary directed agency fleets to significantly increase delivery of hybrid electric vehicles (HEVs) as lease replacements for disposed vehicles via GSA. By the end of FY 2011, DOE incorporated a total of 895 HEVs into its fleet inventory.

In 2011, GSA initiated an Electric Vehicle (EV) Pilot Program to assist agencies in acquiring and testing EVs and Electric Vehicle Supply Equipment (EVSE) in their fleets. As an initial participant, DOE received 15 EVs (Chevrolet Volts) from GSA to distribute to 4 sites around the US in FY 2012. As the agency increases awareness about the optimal utilization and application of EVs for its various vehicle missions, it plans to continue integrating EVs into its fleets in order to achieve the 100 percent goal of all LDV-AFV acquisitions.

### Agency Plans and Schedules for Locating AFVs in Proximity to AFV Fueling Stations

DOE Agency Fleet Management will coordinate closely with DOE FEMP and GSA to ensure that those AFVs that can fuel with alternative fuel will have proximity and access to AFV fueling stations. By utilizing tools, such as NOVA analysis, the Alternative Fuel Station Locator, and other tools located on DOE's Alternative Fuels Data Center (AFDC), DOE will arrange its acquisition process in a manner that verifies that AFVs have access to alternative fuel relative to its reported garage location. In cases where public access to alternative fuel would be unfeasible, DOE will investigate opportunities to utilize HEVs in those locations or otherwise install agency-owned alternative fuel infrastructure.

Although the effort to improve AFV access to AFV fueling infrastructure may involve relocation and reallocation of the agency's fleet vehicles, DOE will be mindful of all expenses involved. The scheduled placement of recommended vehicle acquisitions and disposals will be coordinated between all local DOE fleet managers and their corresponding GSA FSRs.

# Vehicle sourcing decision(s) for purchasing/owning vehicles compared with leasing vehicles through GSA Fleet or commercially.

When comparing cost of owned vehicles to leased vehicles, compare all direct and indirect costs projected for the lifecycle of owned vehicles to the total lease costs over an identical lifecycle. Include a rationale for acquiring vehicles from other than the most cost effective source.

Agencies should consider whether to lease or purchase equipment based on a case-by-case evaluation of comparative costs and other factors (CFR 48). For all vehicle acquisitions, DOE considers the costs associated with leasing the vehicle versus owning the vehicle outright. In many cases, the preferred choice for DOE vehicle acquisitions is through a GSA lease, as general vehicle lifecycle costs are explicit, thus increasing the efficiency of the fleet planning process. However, substantial savings may be realized through purchasing certain vehicle types rather than leasing. To that end, DOE will perform detailed cost comparisons prior to any vehicle acquisition.

Federal fleet managers must apply Federal standards in the acquisition process for new or replacement vehicles. The standards simplify competitive procurements, help achieve better acquisition prices and delivery dates, and provide a practical degree of standardization within the Federal automotive fleet.

FMR 102-34.30-80 provides that, except for exempted vehicles, all motor vehicles acquired for official purposes by executive agencies shall be selected to achieve maximum fuel efficiency and be limited to the minimum body size, engine size and optional equipment necessary to meet the agencies' requirements.

Lease/purchase analysis is only appropriate after the agency has decided to acquire a vehicle. Completion of a lease/ purchase analysis is a good business practice to identify whether leasing or purchasing is in the best interest of the Federal Government. Motor vehicles are capital assets. All leases of capital assets must be justified as preferable to direct Federal Government purchase and ownership per 41 CFR 101-25.501.

Currently, 26 percent of DOE's fleet vehicle inventory is agency-owned. DOE also utilizes commercially leased vehicles on a short-term or seasonal basis, because of limited availability or higher costs associated with a GSA lease. Where possible, DOE plans to reduce these types of vehicle acquisitions via GSA's short-term vehicle rental program, as well as through the increased acquisition of LSVs.

Additionally, the Department will continue to promote the use of vehicle sharing and carpooling at DOE sites and National Laboratories. At the interagency and regional level, DOE will explore the feasibility of developing vehicle sharing and fleet-on-demand networks with other Federal entities. DOE will work with GSA, FEMP, and regional partners to address this issue.

### Agencies' fleet management plans must be incorporated into their Annual Strategic Sustainability Performance Plan (as required by GSA Bulletin B-30) beginning in June 2012.

DOE's fleet management plan will be incorporated into the agency's Annual Strategic Sustainability Performance Plan (SSPP).

### APPENDIX

### UTILIZATION STANDARDS

DOE's minimum utilization standards have been established in 41 CFR Chap 109 – 38.5103 by vehicle/equipment size and type and are currently only based on annual mileage (see table below). Vehicles and equipment meeting or exceeding minimum annual mileage are considered fully utilized and no other action is necessary. When operating circumstances prevent the motor vehicle utilization standards from being met, local use objectives must be established and met<sup>1</sup>. Utilization standards regarding amount of use besides mileage are currently undefined by the CFR, and to be determined. Other standards for utilization may include Days per Year, Hours of Use per Day, and Number of Trips per Week as identified in the chart below.

Vehicle/Equipment Type	Minimum Utilization (Annual Mileage)	Minimum Utilization (Days per Year)	Minimum Utilization (Hours of Use per Day)	Minimum Utilization (Number of Trips per Week)
Sedans and station wagons, general purpose use	12,000 mi	TBD	TBD	TBD
Light trucks (4×2's) and general purpose vehicles, one ton and under (< 12,500 GVWR)	10,000 mi	TBD	TBD	TBD
Medium trucks and general purpose vehicles, 11/2 ton through 21/2 ton (12,500 to 23,999 GVWR)	7,500 mi	TBD	TBD	TBD
Heavy trucks and general purpose vehicles, three ton and over (> 24,000 GVWR)	7,500 mi	TBD	TBD	TBD
Truck tractors	10,000 mi	TBD	TBD	TBD
All-wheel-drive vehicles	7,500 mi	TBD	TBD	TBD
Other trucks, ambulances, buses, law enforcement motor vehicles, and special purpose vehicles	None*	TBD	TBD	TBD

<sup>&</sup>lt;sup>1</sup> Currently, DOE's local utilization standard determinations are made on an ad-hoc basis by local / regional fleet managers and details are unavailable to the organizational fleet manager for reporting at this time.

\*No utilization standards are established for other trucks, ambulances, buses, law enforcement motor vehicles, and special purpose vehicles. The use of these motor vehicles shall be reviewed at least annually by the motor equipment fleet manager and action shall be taken and documented to verify that the motor vehicles are required to meet programmatic, health, safety, or security requirements

#### § 109-38.5103 Motor vehicle utilization standards.

(a) The following average utilization standards are established for DOE as objectives for those motor vehicles operated generally for those purposes for which acquired:

(1) Sedans and station wagons, general purpose use-12,000 miles per year.

(2) Light trucks  $(4\times 2's)$  and general purpose vehicles, one ton and under (less than 12,500 GVWR)—10,000 miles per year.

(3) Medium trucks and general purpose vehicles, 11/2 ton through 21/2 ton (12,500 to 23,999 GVWR)—7,500 miles per year.

(4) Heavy trucks and general purpose vehicles, three ton and over (24,000 GVWR and over)—7,500 miles per year.

(5) Truck tractors—10,000 miles per year.

(6) All-wheel-drive vehicles—7,500 miles per year.

(7) Other motor vehicles—No utilization standards are established for other trucks, ambulances, buses, law enforcement motor vehicles, and special purpose vehicles. The use of these motor vehicles shall be reviewed at least annually by the motor equipment fleet manager and action shall be taken and documented to verify that the motor vehicles are required to meet programmatic, health, safety, or security requirements.

(b) When operating circumstances prevent the above motor vehicle utilization standards from being met, local use objectives must be established and met as prescribed in §109–38.5105 of this subpart.

### § 109-38.5104 Other motor equipment utilization standards.

No utilization standards are established for motor equipment other than motor vehicles. Each DOE office should establish through an agreement between the fleet manager and the OPMO utilization criteria for other motor equipment including heavy mobile equipment and review, adjust, and approve such criteria annually. Utilization of various classifications of other motor equipment can be measured through various statistics including miles, hours of use, number of trips, and fuel consumption. A utilization review of other motor equipment shall be performed at least annually by the motor equipment fleet manager to justify retainment or disposition of excess equipment not needed to fulfill Departmental, programmatic, health, safety, or security requirements.

### § 109-38.5105 Motor vehicle local use objectives.

(a) Individual motor vehicle utilization cannot always be measured or evaluated strictly on the basis of miles operated or against any Department-wide mileage standard. For example, light trucks specifically fitted for use by a plumber, welder, etc., in the performance of daily work assignments, would have uniquely tailored use objectives, different from those set forth for a truck used for general purposes. Accordingly, efficient local use objectives, which represent practical units of measurement for motor vehicle utilization and for planning and evaluating future motor vehicle requirements, must be established and documented by the Organizational Motor Equipment Fleet Manager. The objectives should take into consideration past performance, future requirements, geographical disbursement, and special operating requirements.

(b) These objectives shall be reviewed and adjusted as appropriate, but not less often than annually, by the motor equipment fleet manager. The reviews shall be documented. The Organizational Motor Equipment Fleet Manager is responsible for reviewing and approving in writing all proposed local use objectives.

#### § 109-38.5106 Application of motor vehicle use goals.

(a) At least annually, the motor equipment fleet manager will review motor vehicle utilization statistics and all motor vehicles failing to meet the applicable DOE utilization standard or local use objective must be identified.

- (b) Prompt action must be initiated to:
- (1) Reassign the underutilized motor vehicles;
- (2) Dispose of the underutilized motor vehicles; or

(3) Obtain a special justification from users documenting their continued requirement for the motor vehicle and any proposed actions to improve utilization. Any requirement for underutilized motor vehicles which the motor equipment fleet manager proposes to continue in its assignment, must be submitted in writing to the Organizational Motor Equipment Fleet Manager for approval.

(c) Both Department-wide standards and local use objectives should be applied in such a manner that their application does not stimulate motor vehicle use for the purpose of meeting the objective. The ultimate standard against which motor vehicle use must be measured is that the minimum number of motor vehicles will be retained to satisfy program requirements.

### Addendum to the 2012 Strategic Sustainability Performance Plan: Responding to the President's Memorandum on Promotion of Biobased Markets

On February 21, 2012, President Obama signed a Memorandum, *Driving Innovation and Creating Jobs in Rural America through Biobased and Sustainable Product Procurement*. The memorandum requires all federal agencies to undertake a number of activities to increase their purchase of biobased products. The Department of Energy is moving aggressively to implement the Presidential Memorandum requirements.

### Accomplishments to date include:

- The Department of Energy (DOE) continues to exceed the 95 percent sustainable acquisition contract review goal from Executive Order (E.O.) 13514. In FY 2011, 97 percent of reviewed contract actions included sustainability requirements. The Department will continue these efforts while ensuring future applicable contract actions include provisions and clauses for biobased products.
- DOE sites and National Laboratories have aggressively developed sustainable acquisition programs and policies. At DOE's Strategic Petroleum Reserve, the Buy-it-Green program was developed to tie together environmentally preferable purchasing with toxics reduction, recycling, and waste reduction. Through this integrated solution, the site has maintained a nearly 100 percent affirmative procurement compliance. Through efforts like these at DOE sites, the Department will implement policies and guidance to ensure increased awareness and purchases of biobased products.
- The Department's National Renewable Energy Laboratory (NREL) awarded its first green janitorial contract in FY 2011. The requirements under this contract are based on LEED for Existing Buildings: Operations & Maintenance. Since FY 2011, 30 percent of cleaning products have been biobased and 100 percent of paper products have been from recycled content.
- In FY 2011, DOE Headquarters launched an internal awards program to recognize sites for successfully purchasing products that save energy, conserve water, and reduce health and environmental impacts. DOE sites are incentivized to purchase Priority Products, in seven categories, whose performance goes "beyond compliance." These products have thus become integrated as sustainable approaches to DOE site missions.

### **Baseline for Biobased Contracting:**

Prior to the issuance of the President's February 2012 Memorandum on Biobased Procurement, DOE's policy was to include the clause FAR 52.223-2 "*Affirmative Procurement of Biobased Products Under Service and Construction Contracts*" in appropriate contracts, as required by the FAR. However, DOE did not focus compliance reviews on the presence of clauses and provisions for biobased products. The Department will work in FY 2013 to develop a baseline for biobased clauses and provisions.

### FY 2013 Target/Compliance Goal:

• Without an accurate baseline, the Department is unable to gauge future performance towards meeting the biobased requirements. However, DOE will strive to meet a level of 50 percent compliance for all relevant new acquisitions by the end of FY 2013.

### **Strategies for Improving Compliance:**

The Department of Energy's strategy for improving compliance--full incorporation of requirements and clauses for biobased products in relevant and appropriate contracts and follow on activities to ensure compliance is achieved--includes the following elements:

- The Department of Energy's Sustainable Acquisition Working Group has a proven track record of disseminating valuable information and providing training to DOE's acquisition and procurement community. The Working Group, which recently celebrated its tenth anniversary, includes more than 400 Federal and contractor staff. The Working Group meets bi-monthly to address current issues and requirements and share lessons learned. In addition to conference calls, the working group maintains a listserve and website to share information. Direct technical assistance is also carried out to ensure DOE facilities meet the Department's sustainable acquisition goals. The Working Group will continue to emphasize bio-preferred purchasing to ensure the Department increases its purchases of biobased products and includes provisions in future contract actions.
- The Department will leverage recent successes at DOE sites and National Laboratories by sharing best practices and lessons learned. For example, DOE will use the National Renewable Energy Laboratory's successful incorporation of biobased requirements into a recent janitorial contract and share those lessons through a web-based training session.
- As many DOE sites have already incorporated sustainable acquisition into their sitelevel Environmental Management Systems (EMS), DOE will continue this strategy while promoting further expansion to include preferences for biobased procurements.
- DOE sites have implemented policies to promote the purchase of sustainable and biobased products. At the Oak Ride Operations Office (ORO), purchases of non-compliant products under the Purchasing Card (P-Card) program require written pre-approval from the subject matter expert. In addition, the site's suppliers under the hosted catalogs are required to provide only compliant energy, water, recycled, and biobased products. The Department will promote this program as a model for other sites and National Laboratories.
- The Department will expand its annual awards program to include awards for sites, programs, and personnel to recognize notable achievements and performance in bio-preferred purchasing.

### **Required Specification Reviews:**

Not applicable.