U.S. Department of
ENERGY

2015 Strategic Sustainability Performance Plan

Report to The White House
Council on Environmental Quality
and Office of Management and Budget

June 2015

United States Department of Energy

Washington, DC 20585

U.S. Department of Energy

2015 Strategic Sustainability Performance Plan

June 30, 2015

For information, contact:
DOE Sustainability Performance Office
John Shonder, Director
202-586-8645

DOE 2015 Strategic Sustainability Performance Plan Agency Policy Statement

In this sixth annual Strategic Sustainability Performance Plan, DOE pledges to continue to be a leader in the Federal government, working aggressively to achieve sustainability goals and requirements through teamwork and continuous improvement. The increasingly complex relationships between energy security, water resources, climate change, and national security along with the release of E.O. 13693 have made salient the demands of sustainability requirements on Federal agencies. Along with mission objectives, energy efficiency, and principles of sustainability will drive decisions on capital infrastructure, real property, and information technology.

The Department commits to "**LEAD**" the Federal government through implementation of the following sustainability approaches:

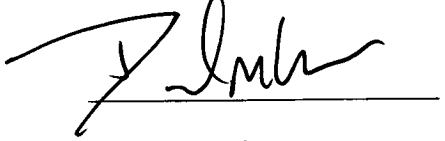
- *Leverage the Science*
  DOE will continue to leverage the science conducted by our National Laboratories to benefit the Federal government and the nation as a whole. Cross-functional laboratory teams will continue to identify cost-effective energy solutions at DOE facilities in areas such as energy intensive processes, and renewable energy. As an example, Brookhaven National Laboratory is currently developing a new Northeast Solar Energy Research Center on its campus that will enable solar energy research, testing, and collaboration between government and industry.

- *Empower our Employees*
  Coordinated through the Department's Sustainability Performance Office (SPO), DOE will continue to collaborate across programs and offices, embrace whole-enterprise thinking, and challenge established habits and procedures to instill culture change. DOE encourages behavior change through a variety of efforts, including through recognition programs that highlight Departmental success stories. These efforts empower employees to make sustainability a personal and professional priority.

- *Analyze our Progress, Bridge the Gaps*
  The Department is committed to continuous improvement of its operations by rigorously analyzing performance to identify opportunities to strengthen programs. For example, the National Renewable Energy Laboratory's pilot of the use of state-of-the-art power strips that enable metering and control of plug-in loads at employee workstations. The data from these power strips is being used to optimize power management settings on the campus to achieve maximum efficiency.

- *Drive Innovation*
  DOE will continue to be a Federal leader in the uptake of innovative clean technologies, including larger utility scale renewable energy projects on DOE land. One example is DOE's Pantex Plant which in June 2014 began full production of an 11.5 megawatt wind farm, which is the largest Federally-owned wind farm in the United States. This project is financed through an Energy Savings Performance Contract and will supply nearly 60 percent of the electricity used by the site.

As a leader in developing clean energy and energy efficiency technologies, DOE will continue to aggressively leverage its mission to ensure that it meets and exceeds sustainability goals and requirements, while leading the Federal government and the Nation to a more sustainable future.



David M. Klaus
Chief Sustainability Officer

6/30/2015
Date

Department of Energy
2015 Strategic Sustainability Performance Plan
Executive Summary

The mission of the Department of Energy (DOE or Department) is to ensure America's security and prosperity by addressing energy, environmental, and nuclear challenges through transformative science and technology solutions. Carried out at 47 geographically dispersed locations across the United States, the Department's mission depends on high-energy mission specific facilities that support the pursuit of new and advanced forms of energy, basic science and research, and technologies that will lead to a clean and affordable energy economy.

DOE's Strategic Sustainability Performance Plan (SSPP) embodies the Department's sustainability commitment laid out in its 2014 Strategic Plan, including efforts "to operate more efficiently, perform cleanup, and address post-closure responsibility [resulting in] sites and laboratories with smaller footprints and more efficient and effective infrastructure." Established procedures and progress over the past 5 years (since DOE's first SSPP) have established a foundation for DOE to meet the objectives of Executive Order (E.O.) 13693, *Planning for Federal Sustainability in the Next Decade*. By Fiscal Year (FY) 2025, DOE commits to reducing greenhouse scope 1 & 2 emissions by 50 percent and scope 3 emissions by 25 percent from a FY 2008 baseline. DOE will also strive to increase the use of clean and alternative energy sources. By FY 2025, the Department will strive for clean energy to comprise 25 percent of the total building electric and thermal energy, and for renewable electric energy to comprise 30 percent of total electric energy. DOE will look to leverage performance based contracting and other alternative financing mechanisms to expand renewable energy and other energy conservation improvements.

As the Federal leader in energy efficiency, renewable energy, and clean energy research and development (R&D), DOE has both a unique opportunity and a clear responsibility to lead by example and integrate sustainability into all aspects of its operations. In FY 2014, multiple on-site renewable generating projects began construction or became fully operational. DOE will continue to pursue projects that advance renewable energy and energy efficiency at its facilities. As DOE plans the replacement for its Forrestal building, the Department will ensure that its new facility serves as a showcase for energy efficiency and sustainability.

DOE leverages its foundation in scientific research to engage local communities—including businesses, local governments, and schools—to test and deploy technologies developed by DOE National Laboratories, and to implement comprehensive, effective approaches to reduce energy consumption and environmental impacts. DOE sites will continue to be utilized as test beds for R&D pilots to advance energy technology and improve performance.

Sustainability is prioritized at DOE through the assignment of Deputy Under Secretary for Management and Performance as the Department's Chief Sustainability Officer (CSO). In this capacity, the CSO chairs the Senior Sustainability Steering Committee and oversees Departmental attainment of sustainability goals and requirements. The Sustainability Performance Office (SPO) serves as the principal lead for the Department on matters relating to sustainability and supports the CSO in the execution of duties including monitoring performance, developing guidance, reporting, data collection and analysis, and implementing and updating the SSPP. DOE Under Secretaries support the CSO in

meeting sustainability goals and are responsible for planning, resourcing, implementing, monitoring, reporting, and managing the achievement of sustainability goals for their respective portfolios.

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 to DOE's National Laboratories and sites. The Department aligns 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.

Over the next year, DOE will continue to engage its stakeholders and employees to strive for continuous improvement in the implementation of sustainability objectives. Efforts will include gathering data, reporting operational experiences and lessons learned from DOE programs and sites, and disseminating internal scorecards to provide feedback on progress towards goals. To encourage participation and feedback, a virtual comment box is accessible to all DOE staff through email (sustainability@hq.doe.gov) to collect ideas and suggestions on DOE sustainability efforts. The monthly DOE SPOtlight newsletter raises sustainability awareness by highlighting upcoming events and sharing best practices and lessons learned with DOE programs, sites, and the entire DOE community. The Department also facilitates a robust set of workgroups and communities of practice. Information is accessible through DOE's sustainability public website where the SSPP and associated performance information is posted. DOE also 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. The Department also utilizes PowerPedia, DOE's internal information-sharing site, to share sustainability information, resources, and performance data.

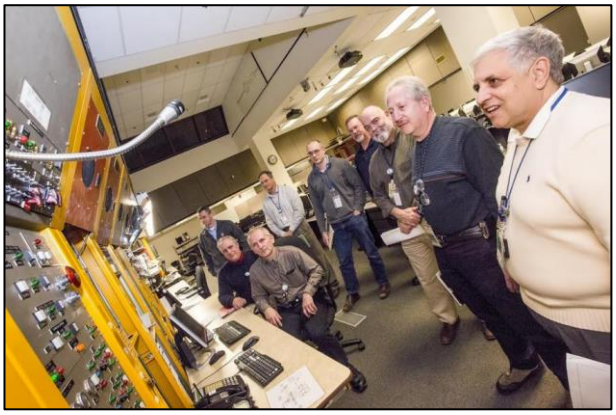
The following table summarizes DOE's FY 2014 performance toward many of the key SSPP goals. The progress does not address all new goals prescribed by E.O. 13693, as some require new baseline year data and end goal targets.

	Goal	FY 2014 Target	FY 2014 Performance (vs. baseline)
	Scope 1 & 2 GHG Reduction (FY 2008 baseline)	-19%	-34.4%
	Scope 3 GHG Reduction (FY 2008 baseline)	-5%	-23.8%
	Energy Use Intensity Reduction (FY 2003 baseline)	-27%	-28.4%
	Sustainable Buildings	13%	5.0%
	Petroleum Reduction (FY 2005 baseline)	-18%	-18.7%
	Potable Water Use Intensity Reduction (FY 2007 baseline)	-14%	-27.4%
	Renewable Electric Energy	7.5%	19.5%

Since its first SSPP, DOE has quickly advanced on numerous sustainability goals and is exceeding targets for GHG emissions, renewable energy, energy and water intensity, and alternative fuel use. While there is more work ahead, DOE looks forward to partnering with its sites, National Laboratories, and other Federal agencies to secure a sustainable future for the Department.

Goal 1 – Greenhouse Gas (GHG) Reductions

DOE has made significant progress in reducing GHG emissions. Through FY 2014, the Department reduced scope 1 & 2 (direct) and scope 3 (indirect) GHG emissions by 34.4 and 23.8 percent, respectively, each relative to a FY 2008 baseline. Consistent with E.O. 13693, DOE will commit to making further reductions to agency GHG emissions through FY 2025. DOE will strive to reduce scope 1 & 2 GHG emissions by 50 percent and scope 3 GHG emissions by 25 percent, each relative to a FY 2008 baseline.



PPPL officials inspect the NSTX-U control room

DOE's success in reducing scope 1 & 2 emissions is directly related to the improved performance and overall efficiency of its facilities. Over the past few years, the Department completed installation and began operations of several large scale renewable energy projects at DOE sites. At the Savannah River Site (SRS), four on-site biomass steam plants have reduced the site's dependence on coal and have helped reduce scope 1 & 2 emissions by more than 70 percent since to FY 2008.

Sulfur hexafluoride (SF_6) emissions constitute 10.9 percent of DOE's FY 2014 scope 1 & 2 emissions and, due to their high global warming potential (GWP), limiting these emissions is essential. Since 2010 DOE sites have optimized SF_6 capture programs, resulting in a 52 percent reduction of this potential GHG since FY 2008. DOE sites will continue to pursue reduction programs in the next fiscal year. The Princeton Plasma Physics Laboratory (PPPL) reduced scope 1 & 2 emissions 80 percent since FY 2008, primarily due to a decrease of 38,000 $mtCO_2e$ from SF_6 reduction measures. PPPL will continue to prioritize SF_6 reductions measures at the lab. The National Spherical Torus Upgrade (NSTX-U) is expected to be completed in 2015 and will serve as the most powerful spherical fusion facility on Earth. Since 2010 DOE sites have optimized SF_6 capture programs, resulting in a 52 percent reduction of this potent GHG since FY 2008. DOE sites will continue to pursue reduction programs in the next fiscal year.

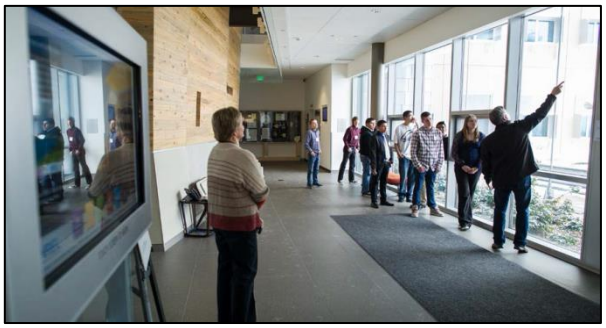
Employee commuting is the largest contributor to DOE's scope 3 GHG emissions portfolio, accounting for 57 percent of the Department's total. To reduce scope 3 GHG emissions, DOE encourages the use of mass transit, carpooling and vanpooling, alternative transportation, and promotes teleworking, teleconferencing, and alternative work schedules. The Department is currently evaluating barriers to improving employee commuting and teleworking and will develop a strategy for making additional strides in these areas. DOE's scope 3 GHG emissions are also attributable to transmission and distribution (T&D) losses. As the Department expands on-site renewable and clean energy generation at DOE sites, T&D loss emissions should decrease.

While recent progress is encouraging, continued success in reducing GHG emissions remains challenging. At many DOE sites, mission-related activities are expected to increase, expanding the

demand for energy and electricity and potentially increasing the use of certain high-GWP gases. As a result, DOE will be challenged to sustain reductions. To help counter these increases, DOE intends to continue performing site-level energy and fugitive emissions management assessments (while considering the use of potential alternatives to certain high-GWP gases) and implement cost-effective conservation measures to maximize efficiency, including utilization of Energy Savings Performance Contracts (ESPC).

Goal 2 – Sustainable Buildings

DOE performs its mission at 47 geographically dispersed sites across the U.S. to advance basic science and research, expand the use of clean, affordable, and safe energy, safeguard the nation's nuclear stockpile, and clean up the legacy of cold war activities. DOE facilities consist of unique scientific laboratories, accelerators, light sources, supercomputers and data centers, industrial facilities, and traditional office space environments.



NREL's campus tour features clean energy technologies in a net zero energy building, the Research Support Facility.

As a result of these unique factors, the Department is challenged with integrating sustainability into aging infrastructure and energy intensive processes. DOE will continue efforts to bring its building stock over 5,000 square feet into compliance with the Federal Guiding Principles (GP) for Federal Leadership in High Performance Sustainable Buildings (HPSB) by FY 2025.

Through FY 2014, 5 percent of the Department's building stock complied with the GPs. DOE made significant progress over the past year to improve sustainable building performance. In FY 2014, DOE added 31 buildings to its green building portfolio, for a total of 132 HPSB facilities. This represents more than a 30 percent increase in HPSB compliant facilities over FY 2013 performance. In FY 2014, the Sandia National Laboratory (SNL) added a tenth LEED certified building to its building inventory. SNL operates nearly 39 percent of the National Nuclear Security Administration's (NNSA) total HPSB compliant inventory. DOE will look to leverage these successful projects, as well as site-level energy audits and assessments, to evaluate potential energy conservation measures at additional facilities. For all potential projects, DOE will calculate return on investment and life cycle costs when establishing funding priorities. DOE also plans to include efficiency criteria as a factor when selecting building leases and to require lessors to disclose carbon emissions or energy consumption for the building portion occupied.

DOE will also expand the design and implementation of net zero buildings. For the FY 2016 SSPP, the Department will develop a FY 2025 target for net zero energy, waste, and/or water buildings.

DOE will strive to reduce energy intensity 25 percent by FY 2025, through reductions of 2.5 percent each year, relative to a to-be-determined FY 2015 baseline. DOE will actively promote the use of sound energy management, cost-effective energy conservation measures, and building level and data center metering to meet this goal.

Supercomputers play a vital role in the Department's research mission, with several of the fastest—and most efficient—super computers residing at DOE National Laboratories. According to the 2014 Green500 list, DOE facilities operate six of the top 50 most efficient supercomputers in the world, more

than any other organization. In December 2014, the Idaho National Laboratory (INL) acquired the Falcon super computer to enable researchers to build more comprehensive scientific models and improve predicted outcomes for a variety of nuclear and energy-related issues.

Goal 3 – Renewable Energy

President Obama touring the DOE Headquarters (Forrestal Building) rooftop solar panels

DOE has made great strides in expanding on-site renewable energy generation across the complex. In FY 2014, DOE's renewable energy performance amounted to 19.5 percent of total electricity use. DOE's performance is attributed to the development of on-site renewable energy projects, renewable energy siting bonuses, and the purchase of renewable energy credits. This progress places DOE on-track to meet E.O. 13693's FY 2025 30 percent goal. In addition to striving to meet the renewable electricity goal, DOE will accelerate the implementation of clean energy technologies to meet the new 25 percent goal for building thermal and electric energy. DOE has developed several large-scale on-site renewable energy projects, with many financed through performance-based energy contracts, including ESPCs.

Major renewable energy accomplishments include the following:

- At the Savannah River Site (SRS), four biomass steam plants concluded their second full year of operation. The plants eliminated the site's use of coal, utilized 322,000 tons of biomass and bio-derived fuel, and helped the site reach 48 percent renewable energy use as a percentage of total electricity usage. The SRS biomass plant was financed through the largest ESPC in the federal government.
- Argonne National Laboratory's (ANL) renewable energy installations proved effective in FY 2014. The on-site solar array avoids emitting 110 $mtCO_2e$ and generates 120,000 kWh each year. ANL's wind turbine systems provide energy to the lab's shipping, receiving and vehicle maintenance facility, generating 6,000 kWh. ANL's geothermal heat pump system eliminates the use of approximately 668 million Btus of natural gas per year.
- The Pantex Plant completed the largest wind farm on federal land in June 2014. The Pantex Renewable Energy Project (PREP)—a five-turbine, 11.5 megawatt wind generation system—is expected to avoid 40,000 $mtCO_2e$ and produce 60 percent of the site's electricity needs.
- The Northeast Solar Energy Research Center (NSERC) at the Brookhaven National Laboratory (BNL) became operational in May 2014. The 508 kW solar research facility can be reconfigured into multiple, smaller arrays to test a multitude of different scenarios.

The economic feasibility of large renewable energy systems continues to challenge DOE sites, as many receive low cost electricity making payback periods too long to pursue. However, DOE will continue to encourage the inclusion of on-site renewable generation into all new construction projects. In addition, DOE issued a policy on preference for purchasing renewable energy from Indian Tribes pursuant to the

Department's authorities under the Energy Policy Act (EPAct) of 2005. Through these collective strategies, DOE anticipates meeting the 30 percent target by FY 2025.

Goal 4 – Water Use Efficiency & Management

Water is essential to the DOE mission, as industrial processes account for the majority of DOE's potable and non-potable water use. Many DOE sites use water for evaporative cooling towers, process heat removal, cooling accelerators, supercomputers, and data centers. The reliance on water-intensive mission-critical activities presents a unique challenge for DOE in meeting the E.O. 13693 water use reduction goals.

Part of LLNL's reduced irrigation water use success is tied to a policy of planting water-wise shrubs for landscaping.

The Department is currently on-track to meet the FY 2025 goal of a 36 percent reduction in potable water use intensity. As of FY 2014, DOE reduced potable water intensity by 27.4 percent relative to the FY 2007 baseline, exceeding the interim target of 14 percent. DOE's performance can be attributed to the efforts of several large water consuming sites that upgraded processes in FY 2014. Stanford Linear Accelerator Center (SLAC) reduced potable water consumption in buildings by 2 million gallons and reduced irrigation water use by 7 million gallons from FY 2013 to FY 2014. Lawrence Livermore National Laboratory (LLNL) initiated an Irrigation Reduction Plan that reduced water use by 17 million gallons in FY 2014. Princeton Plasma Physics Laboratory (PPPL) installed two coolant recirculating chillers suitable for use in closed loop systems that are expected to reduce water consumption by 600,000 gallons annually while also adjusting elevated water tower valve testing methodology to conserve an additional 300,000 gallons each year.

DOE will be challenged to maintain success over the next few years as water-intensive mission-related activities increase. Cooling demand for supercomputers and scientific processes makes future progress difficult to predict. To overcome these obstacles, the Department will continue to employ proactive water management strategies. In FY 2014, DOE sites performed upgrades to improve water efficiency based on findings from site-level water assessments. Lawrence Berkeley National Laboratory (LBNL) replaced bathroom faucet aerators with low-flow restrictors across the lab's main campus, resulting in estimated annual water use savings of 1.3 million gallons. DOE will continue to conduct site-level water audits and assessments and implement cost effective measures to improve water efficiency.

Furthermore, DOE will continue to pursue water recycling and reuse options to reduce potable water use. To support this approach, several DOE sites are converting once-through cooling systems to closed-loop and reusing process water or gray water and/or storm water runoff to displace potable water use, when cost effective and allowable by local regulation.

Goal 5 – Fleet Management

The Department promotes fleet management principles that increase the acquisition of alternative fuel vehicles and encourage reductions in petroleum consumption. Collectively, these measures improve the

Department's ability to optimize the size and composition of its vehicle fleet required to fulfill mission objectives.

Through FY 2014, the Department reduced fleet petroleum use 18.7 percent relative to the FY 2005 baseline, a 3.6 percent goal improvement from FY 2013. In addition, the Department increased alternative fuel consumption by 182 percent relative to the FY 2005 baseline. DOE's progress well exceeds the alternative fuel use 2014 target of 135.8 percent and places the Department well ahead of the E.O. 13693 FY 2015 goal of a 159 percent increase. The Department is currently meeting or exceeding interim goal targets for petroleum use, alternative fuel use, and alternative fuel vehicle acquisition.

ORNL's wireless power transfer mail system in action

During FY 2014 several DOE sites made key advancements in fleet sustainability. LBNL increased its employee electric vehicle charging program from 18 to 30 permits and expanded the size of its E85 and electric vehicle fleet by 36 and 14 percent, respectively. Ames Laboratory increased alternative fuel use 80 percent from FY 2013 to FY 2014 while completing a successful pilot program for employee electric vehicle charging. Pacific Northwest National Laboratory (PNNL) optimized management of their mail truck shipping and receiving delivery fleet to reduce total mileage driven by 12 percent. Oak Ridge National Laboratory (ORNL) researchers incorporated wireless power transfer (WPT) technology into its mail delivery program, highlighting the practical use of homegrown DOE technologies at DOE sites. Teams of ORNL researchers—as well as the DOE's Vehicle Technologies Program—worked together in retrofitting a Toyota Prius for WPT and installing WPT platforms at the mailroom facility.

The Department will be challenged in the coming years to achieve further progress against the fleet goal targets. DOE's varied mission requires the use of heavy-duty, petroleum intensive fleet vehicles, some of which are not readily available in alternative fuel, zero emission, or plug-in hybrid platforms. In addition, many DOE sites are located in remote locations inaccessible to alternative fueling stations.

In the next year, the Department will continue efforts to reduce fleet-related GHG emissions. When fueling and acquiring new fleet vehicles, DOE will promote vehicle right-sizing, fleet optimization, and the use of available alternative fueling locator tools. Also, DOE will search for opportunities to replace petroleum-dedicated vehicles, and update its Vehicle Allocation Methodology (VAM) to determine the optimum fleet inventory with an emphasis on eliminating unnecessary or non-essential vehicles from the agency's fleet.

Goal 6 – Sustainable Acquisition

The Department of Energy has a foundation of policies, procedures, guidance, and programs that support sustainable acquisition goals and requirements. The Federal Acquisition Regulation (FAR) establishes uniform acquisition policies at the federal level, while the Department of Energy Acquisition Regulation (DEAR) establishes uniform acquisition policies that implement and supplement the FAR.

The Department of Energy Acquisition Guide provides guidance and procedural material for procurement and acquisition personnel.

Through the end of FY 2014, the Department exceeded goal targets for sustainable acquisition. DOE maintained a level of 95 percent or greater for applicable new contract actions that included sustainable clauses and provisions, as determined by quarterly sustainable acquisition contract reviews.

Per E.O. 13693, the Department will expand procurement of biobased products. In FY 2014, the Department established a biobased contracts baseline of 35 percent. During the FY 2014 contract reviews, DOE noted that 76 percent of all new applicable contract actions contained biobased clauses or provisions. The Department is dedicated to reaching the E.O. 13693 goal of 95 percent biobased compliance. To ensure success, in FY 2015 DOE will strive to procure biobased-compliant contracts totaling $50 million in total contract value. The Department will assess performance by reviewing a random selection of contracts comprising no less than 5 percent of new contract actions.

The Department will also strengthen sustainable acquisition criteria in new construction contracts. Based on contract review data from the past year, DOE determined that 94 percent of all new construction contracts reviewed contained sustainable acquisition clauses. DOE will strive to maintain this success for the foreseeable future.

DOE displays leadership in both its own purchasing efforts, and within the Federal community, through its GreenBuy program, which incentivizes acquisition of products with strong sustainability attributes. Green Buy received the 2015 Leadership Award from the Sustainable Purchasing Leadership Council, and is being referenced as a resource by EPA and CEQ to help implement E.O. 13693. For 2016, GreenBuy is being opened to all Federal agencies.

To ensure DOE procurement professionals have all the tools necessary to meet the requirements of E.O. 13693, the Department will update the Sustainable Acquisition chapter of its internal Acquisition Guide. DOE will continue to promote external resources, such as General Services Administration's (GSA) Green Procurement Compilation tool, to inform DOE purchasing specialists of sustainable options when completing procurements.

Goal 7 – Pollution Prevention & Waste Reduction

The Department seeks to prevent or reduce pollution at the source whenever feasible. Pollutants and waste that cannot be prevented through source reduction will be diverted from entering the waste stream through environmentally safe and cost-effective reuse or recycling to the greatest extent practicable.

Testing for SF_6 leakage at PPPL.

As prescribed by E.O. 13693, the Department will continue efforts to divert at least 50 percent of non-hazardous solid waste and construction and demolition (C&D) debris. In FY 2014, DOE reported a 52.1 percent diversion rate for non-hazardous solid waste and a 63.2 percent diversion rate for C&D waste.

Over the course of FY 2014, many DOE sites took proactive steps to improve recycling and diversion of wastes while reaping the rewards of their investments in sustainability. For example, the Los Alamos National Laboratory (LANL) implemented 32 pollution prevention projects resulting in a cost savings to the laboratory of $5.6 million. The Y-12 National Security Complex similarly implemented 90 pollution prevention initiatives, eliminating more than 23.8 million pounds of waste and generating a projected cost avoidance of more than $1.6 million. In addition, over the past two and a half years, SRS has realized a savings of $1.4 million through implementation of the Paperless Work Package process. The Paperless Work Package is a computerized maintenance management system which provides seamless control of a facility operation from the end user to document storage, without the need for any paper. SRS expects to continue this process to realize additional savings.

The Department also works to reduce fugitive emissions from SF_6 and other potent GHGs. Since FY 2008, DOE has reduced SF_6 emissions by 52 percent. DOE sites that emit SF_6 have implemented comprehensive capture programs. For example, the PPPL program minimizes SF_6 emissions from high-voltage power systems, resulting in a 96 percent reduction in SF_6 emissions since FY 2008. Western Area Power Administration (WAPA) reduced their SF_6 leakage rate to less than 6 percent despite an increase in total nameplate capacity. ANL captured and recycled nearly 8,000 pounds of SF_6 from the Argonne Tandem Linear Accelerator System, a savings equivalent of over 80,000 $mtCO_2e$. Similarly successful programs at other sites have resulted in significant fugitive emissions savings. In addition to SF_6, DOE sites track emissions of a wide variety of other potent GHGs, including hydrofluorocarbons (HFC). DOE maintains a Fugitive Emissions Workgroup, comprised of representatives from Departmental elements that are significant users of fluorinated gases, to stay abreast of emerging issues and to share best practices and lessons learned. DOE is collaborating with EPA and CEQ to support the phase-down of HFC use in the Federal sector.

Goal 8 – Energy Performance Contracts

Graphical representation of the proposed Combined Heat & Power (CHP) plant at Argonne National Laboratory.

Performance-based contracts are an important component of DOE's approach to integrating sustainability into all aspects of its mission. Implementing projects that save energy and water and reduce deferred maintenance are critical to ensure efficient, effective and sustainable operations. The Department understands the capabilities of performance contracting to make improvements that would have been otherwise difficult to attain. Since DOE began participating in the ESPC program in the late 1990s total project investment has reached over $550 million.

DOE remains committed to its pledge to increase the use of performance based contracts. In January 2014, as part of President's challenge to Federal agencies to enter into $4 billion in performance-based contracts by December 2016, DOE pledged a commitment value of $275 million. Through FY 2014, DOE awarded $155.4 million in ESPCs and Utility Energy Savings Contracts (UESC). The Department recognizes this progress is well short of its goal and will increase efforts to ensure the commitment is fulfilled. Additionally, the Department will commit to setting new annual performance contract targets

beginning in FY 2017.

DOE made several key advances in performance contracting over the past year. In March 2014, ANL awarded an ESPC for the construction of a 6.3 megawatt-electric (MWe) Combined Heat & Power (CHP) plant. The plant is projected to reduce GHG emissions by 33,044 tons each year and produce $52.3M in savings over the 15 year contract term. At SRS, $39 million in contract modifications were made to the biomass boiler plant ESPC, to include a backup boiler and other performance upgrades. Many sites continue to explore options for ESPCs, UESCs, and other opportunities. Performance contracts present numerous challenges and DOE is actively seeking solutions to meet its commitment to the President's $4 billion goal, and to implement future performance-based contracts as required by E.O. 13693. The unique nature and mission requirements of several DOE sites result in heightened safety, security, or energy requirements, which can make ESPCs, Power Purchase Agreements (PPA), and other alternative financing mechanisms challenging. Additionally, some sites are located in areas where the costs of water and power are relatively low, leading to unattractive returns on investments.

Goal 9 – Electronics Stewardship

DOE is working to implement numerous electronics stewardship strategies to reduce energy use, waste, and associated costs. In the past year, the Department made significant strides to ensure proper care of electronics through their entire life-cycle. In FY 2014, many DOE sites continued exemplary performance and met sustainable electronics purchasing and disposal goals.

In FY 2014, DOE Headquarters purchased EPEAT registered and ENERGY STAR qualified products for 100 percent of laptops, desktops, monitors, and printers. In addition, 95 percent of all purchased electronics were EPEAT registered. In addition, the East Tennessee Technology Park (ETTP) was recognized by the Federal Green Challenge for outstanding efforts in reducing its environmental footprint, including electronics purchasing and disposition and energy management.

DOE utilizes the internal IT Sustainability Working Group to facilitate the sharing and learning of best practices. Composed of representatives from DOE field, program and corporate offices, the working group aims to define and lead the strategic direction of data center energy efficiency, electronics stewardship, and related IT sustainability activities across the agency.

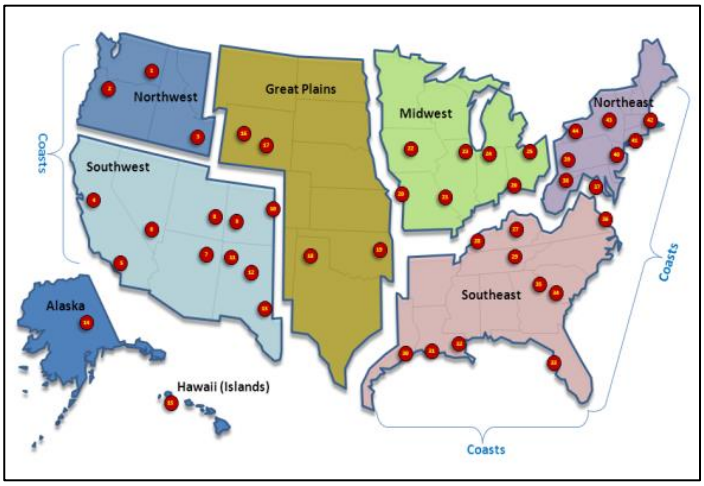
DOE is a recognized leader within the Federal community on electronics stewardship. DOE co-chairs the Federal Electronics Stewardship Working Group, facilitating the sharing of lessons learned in electronics stewardship across the Federal community, and is a co-chair of the National Strategy for Electronics Stewardship. DOE also provides one of two Federal representatives for the EPEAT Advisory Board and is actively engaged in standards development processes for electronic products.

DOE uses the United States Postal Service's Blue Earth recycling program to ensure sustainable disposal of both Federally-owned and employee-owned end of life of electronics. DOE also utilizes UNICOR and third-party certified private recyclers for responsible electronics recycling.

Over the past year, DOE examined Department-wide data on power management and duplex printing, with the goal of better understanding implementation and challenges. DOE engaged sites meeting the power management goal to identify best practices, and engaged underperforming sites to offer technical assistance. For duplex printing, DOE is currently developing print management guidance, in line with the Federal Sustainable Print Management Policy Template, to identify print management best practices and provided recommendations for reducing paper use. DOE is working towards enabling 100 percent of eligible computers and imaging equipment with automatic duplex printing and power management features.

Goal 10 – Climate Change Resilience

DOE is making progress in its climate change adaptation and resilience activities by accounting for the national context of the DOE mission, the local context of DOE facilities and nearby stakeholders, and planning for potential climate-related events. DOE successfully updated its Climate Change Adaptation Plan and will continue to work to align its objectives with the strategies outlined in E.O. 13693 and the President's Climate Action Plan.



DOE Facilities and Climate Regions

DOE utilizes an internal Climate Adaptation Working Group to provide guidance and best practices of climate adaptation activities across the Department. The group includes DOE program managers, site operators, and technical experts. DOE and its employees actively participate in numerous partnerships and working groups, from the local and regional to the interagency level. Many DOE sites, including PNNL, are engaged in research partnerships to further their understanding of climate change related risks and vulnerabilities. These partnerships include collaborations with research institutions, including the University of Maryland, and other federal agencies, including the Department of Homeland Security (DHS), National Aeronautics and Space Agency (NASA), and Environmental Protection Agency (EPA).

DOE's scientific experts and advanced computing capabilities offer significant benefits to the international climate science research effort, as well as information necessary for proper climate-related planning. DOE will continue to coordinate climate change resiliency efforts across programs and missions. In FY 2014, the Department issued a climate change impact survey to DOE sites to gauge site preparedness. DOE will continue efforts to increase knowledge and awareness of climate change impacts and vulnerabilities and will utilize the information gathered from the surveys and other research. Since FY 2014, three DOE sites completed site level assessments, and a fourth assessment is planned to be completed in FY 2015. The assessments are designed to quantify and assess climate change risks and vulnerabilities. These pilot assessments will serve as replicable models for future site level analyses at additional DOE sites and their content will contribute to the development of a vulnerability assessment guide.

DOE is also working to integrate climate adaptation concerns into all applicable DOE orders, policies, and planning documents. DOE sites are located in all eight climate regions identified in the 2014 National Climate Assessment, as established by the U.S. Global Change Research Program (USGCRP),

and are vulnerable to impacts from climate change in those regions. Climate change vulnerability knowledge and data will continue to be provided to the DOE Emergency Management Issues Special Interest Group (EMI SIG) to inform emergency response programs and policies as well as provide training opportunities and promote information sharing across the Department.

DOE has already experienced significant climate-related impacts at several DOE sites. To help raise awareness of the interconnected nature of climate preparedness, the Department developed a case study, "Climate Change at Lost Alamos National Laboratory: The Adaptation Challenge." The case study illustrates how the interplay of multiple natural phenomena in the region—drought, insect infestation, wildfire, flooding—can impact Federal facility operations and regional ecosystem dynamics.

In May 2015, DOE held a Leadership Development Series Event, "Climate Change for Federal Managers and Senior Leaders." This two-hour briefing provided a high-level overview of the emerging challenges associated with climate change for broad range of the Department's management and leadership. DOE is hosting a 1.5 day Climate Adaptation and Vulnerability Assessment training in late June, in partnership with the Association of Climate Change Officers, to provide a more in-depth grounding in climate science and variability. The training will offer help in identifying climate hazards, conducting vulnerability assessments, and leveraging data and tools.

Table of Contents

Cover Page
Policy Statement
Executive Summary
Size & Scope of Agency Operation – Table 1: Agency Size & Scope
Agency Progress toward (Prior) Sustainability Goals in E.O. 13514 and E.O. 13423
Goal 1: Greenhouse Gas (GHG) Reduction
Agency Progress toward Scope 1 & 2 GHG Goal
Agency Progress toward Scope 3 GHG Goal
Goal 2: Sustainable Buildings
Agency Progress toward Facility Energy Intensity Reduction Goal
Agency Progress toward Total Buildings Meeting the Guiding Principles
Goal 3: Fleet Management
Agency Progress toward Fleet Petroleum Use Reduction Goal
Agency Progress toward Fleet Alternative Fuel Consumption Goal
Goal 4: Water Use Efficiency & Management
Agency Progress toward Potable Water Intensity Reduction Goal
Goal 5: Pollution Prevention & Waste Reduction
Agency Progress toward Pollution Prevention & Waste Reduction
Goal 6: Sustainable Acquisition
Agency Progress toward Sustainable Acquisition Goal
Goal 7: Electronic Stewardship & Data Centers
Agency Progress toward EPEAT, Power Management and End of Life Goals
Goal 8: Renewable Energy
Agency Renewable Energy Percentage of Total Electricity Usage
Goal 9: Climate Change Resilience
Agency Climate Change Resilience
Goal 10: Energy Performance Contracts
Agency Progress in Meeting President's Performance Contracting Challenge (PPCC) Goal
Agency Strategies to Meet Goals of E.O. 13693
Goal 1: Greenhouse Gas (GHG) Reduction
Goal 2: Sustainable Buildings
Building Energy Conservation, Efficiency, and Management
Building Efficiency Performance, and Management
Goal 3: Clean & Renewable Energy
Agency Clean Energy Share of Total Electric and Thermal Energy Goal
Agency Renewable Energy Share of Total Electricity Consumption Goal
Goal 4: Water Use Efficiency & Management
Potable Water Consumption Intensity Reduction Goal
ILA Water Consumption Reduction Goal
Goal 5: Fleet Management
Agency Progress toward Fleet Per-Mile Greenhouse Gas Emissions Goal
Goal 6: Sustainable Acquisition
Sustainable Acquisition Goal - Biobased
Goal 7: Pollution Prevention & Waste Reduction
Agency Progress toward Pollution Prevention & Waste Reduction
Goal 8: Energy Performance Contracts
Agency Progress on Energy Performance Contracting
Goal 9: Electronic Stewardship
Agency Progress on Electronic Stewardship
Goal 10: Climate Change Resilience
Appendices

Size & Scope of Agency Operation – Table 1: Agency Size & Scope

Agency Size and Scope	FY 2013	FY 2014
Total Number of Employees as Reported in the President's Budget	115,546	109,160
Total Acres of Land Managed	2,228,684	2,225,843
Total Number of Buildings Owned	10,641	10,754
Total Number of Buildings Leased (GSA and Non-GSA Lease)	67	57
Total Building Gross Square Feet (GSF)	119,590,298	118,448,964
Operates in Number of Locations Throughout U.S.	47	47
Operates in Number of Locations Outside of U.S.	0	0
Total Number of Fleet Vehicles Owned	3,657	3,067
Total Number of Fleet Vehicles Leased	10,537	10,935
Total Number of Exempted-Fleet Vehicles (Tactical, Law Enforcement, Emergency, Etc.)	1,346	1,023
Total Amount Contracts Awarded as Reported in FPDS ($Millions)	23,872	25,386

Agency Progress toward (Prior) Sustainability Goals in E.O. 13514 and E.O. 13423

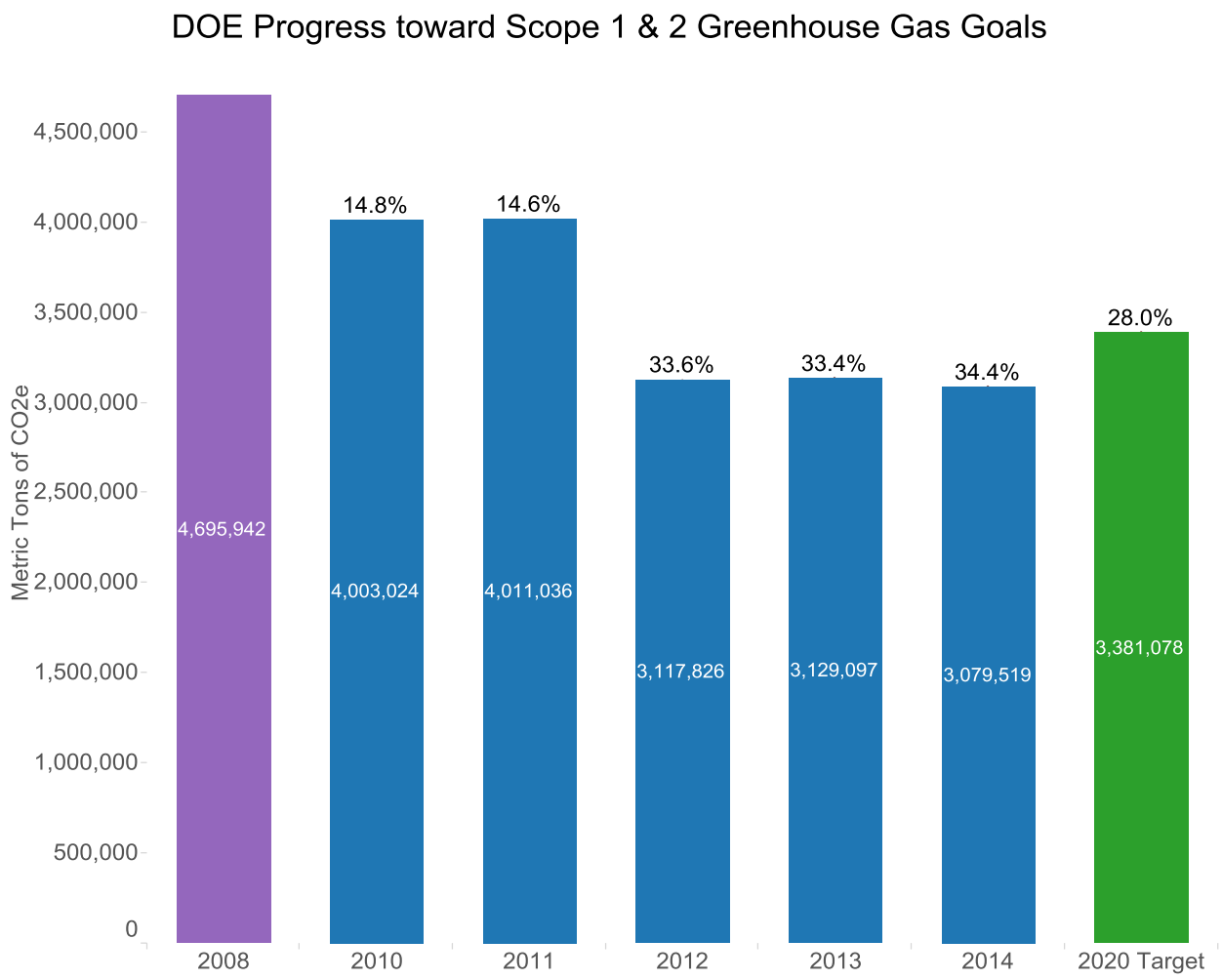
This section provides an overview of agency progress towards the sustainability goals established in E.O. 13514 and E.O. 13423. The subject of many of these goals has been carried over into E.O. 13693 and a review of past performance is useful to determine program effectiveness and development of strategies for future implementation.

Goal 1: Greenhouse Gas (GHG) Reduction

Agency Progress toward Scope 1 & 2 GHG Goal

E.O. 13514 required each agency establish a Scope 1 & 2 GHG emission reduction target to be achieved by FY 2020. The purple bar represents the agency's FY 2008 baseline. The green bar represents the FY 2020 target reduction. The blue bars represent annual agency progress towards achieving this target. The percentage at the top of each bar represents the reduction or increase from the FY 2008 baseline. A negative percentage value indicates that the emissions have increased compared to the 2008 baseline.

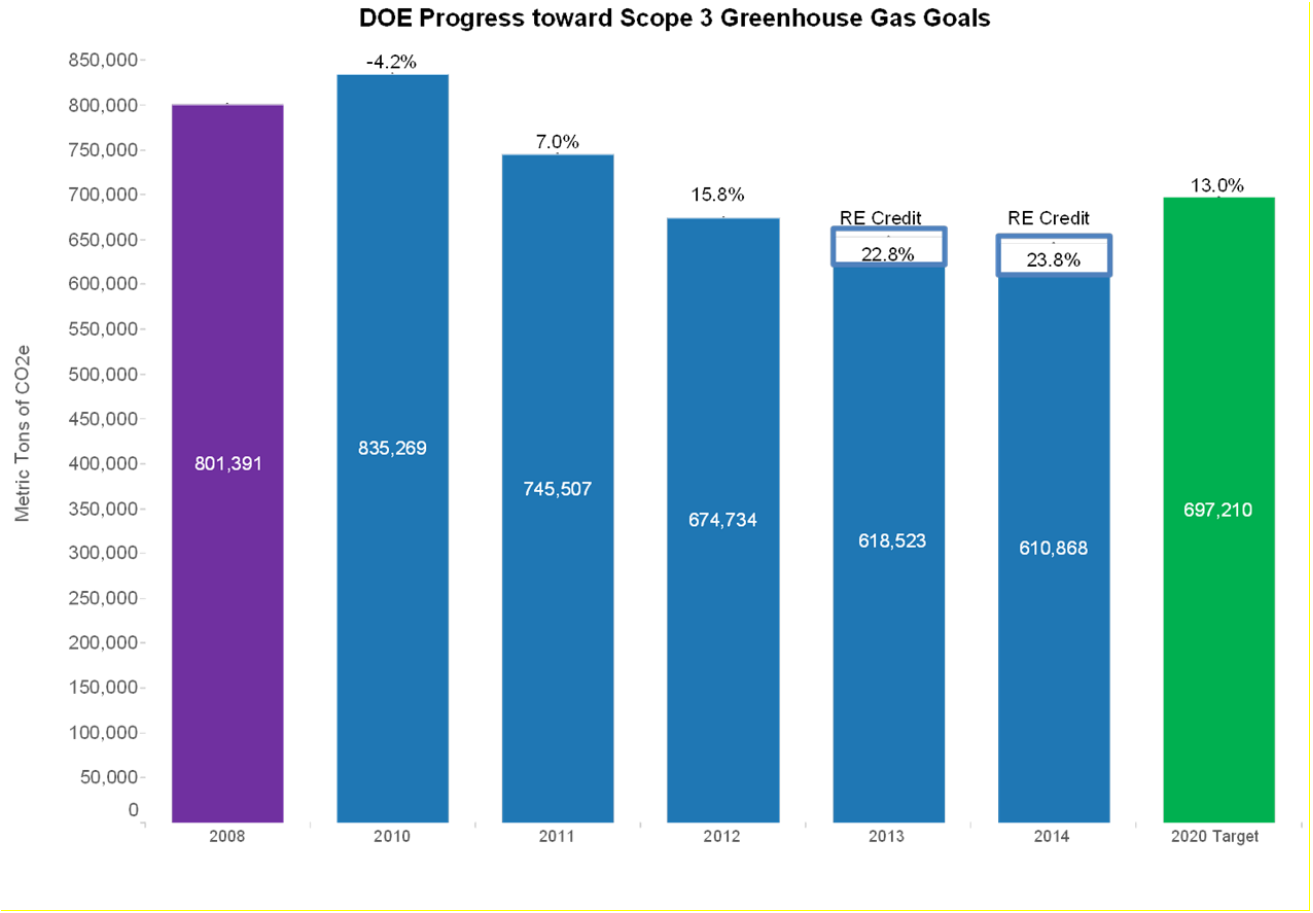
Figure 1-1: Agency Progress toward Scope 1 & 2 GHG Goal



Agency Progress toward Scope 3 GHG Goal

E.O. 13514 required each agency establish a Scope 3 GHG emission reduction target to be achieved by FY 2020. The purple bar represents the agency's FY 2008 baseline. The green bar represents the FY 2020 reduction target. The blue bars represent annual agency progress on achieving this target. The percentage at the top of each bar represents the reduction or increase from the FY 2008 baseline. A negative percentage value indicates that the emissions have increased compared to the FY 2008 baseline.

Figure 1-2: Agency Progress toward Scope 3 GHG Goal

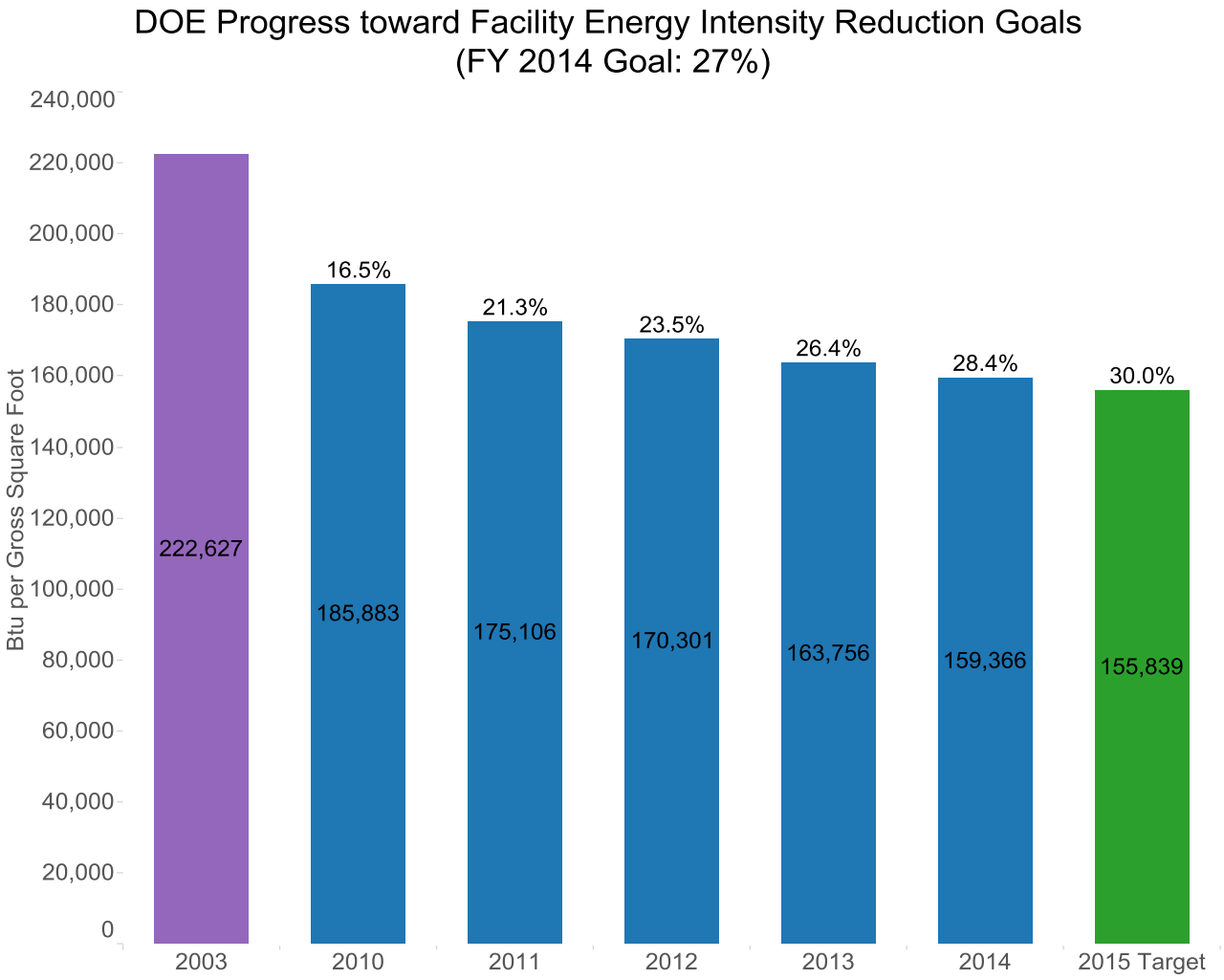


Goal 2: Sustainable Buildings

Agency Progress toward Facility Energy Intensity Reduction Goal

E.O. 13514 section 2 required that agencies consider building energy intensity reductions. Further, the Energy Independence and Security Act of 2007 (EISA) requires each agency to reduce energy intensity 30 percent by FY 2015 as compared to the FY 2003 baseline. Agencies are expected to reduce energy intensity by 3 percent annually through FY 2015 to meet the goal. The purple bar represents the agency's FY 2003 baseline. The green bar represents the FY 2015 target reduction. The blue bars show annual agency progress on achieving this target. The percentage at the top of each bar represents the reduction or increase from the FY 2003 baseline. A negative percentage value indicates that the energy intensity has increased compared to the FY 2003 baseline.

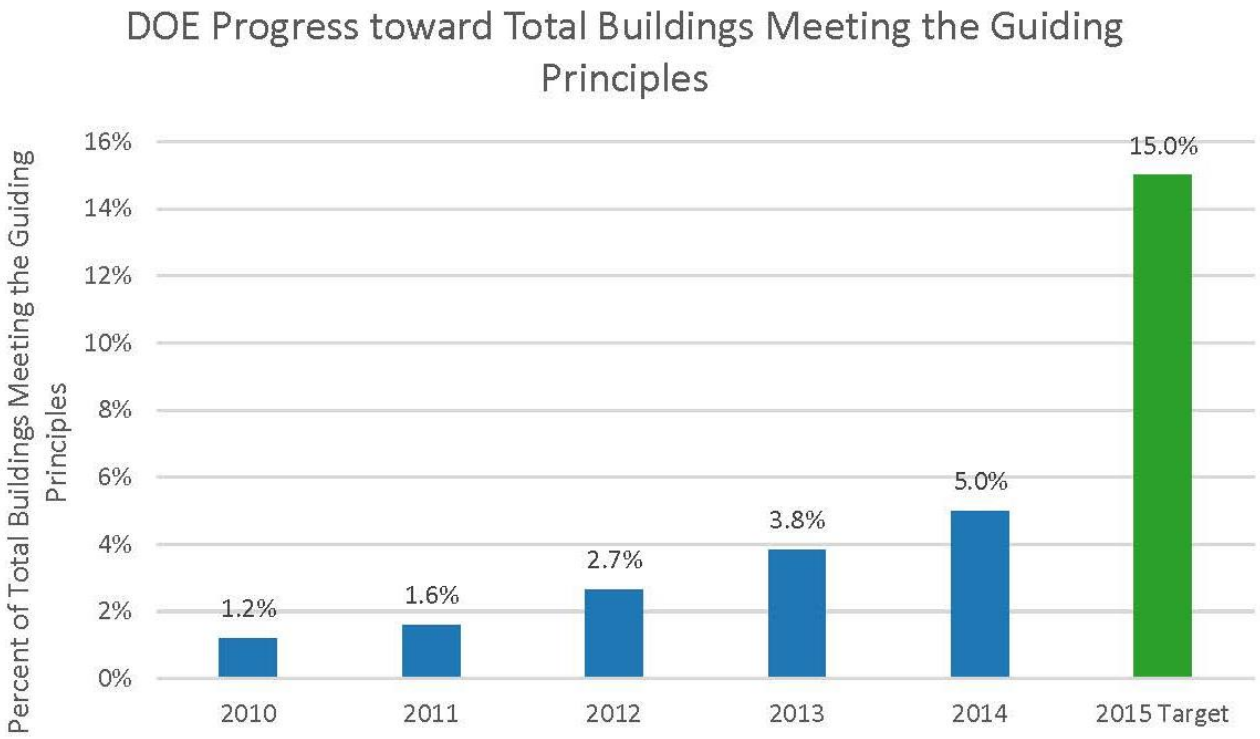
Figure 2-1: Agency Progress toward Facility Energy Intensity Reduction Goal



Agency Progress toward Total Buildings Meeting the Guiding Principles

E.O. 13514 required that by FY 2015, 15 percent of agencies' new, existing, and leased buildings greater than 5,000 square feet meet the Guiding Principles. In order to meet the FY 2015 goal, agencies should have increased the percentage of conforming buildings by approximately 2 percent annually from their FY 2007 baseline. The green bar represents the FY 2015 target. The blue bars represent annual agency progress on achieving this target.

Figure 2-2: Agency Progress toward Total Buildings Meeting the Guiding Principles

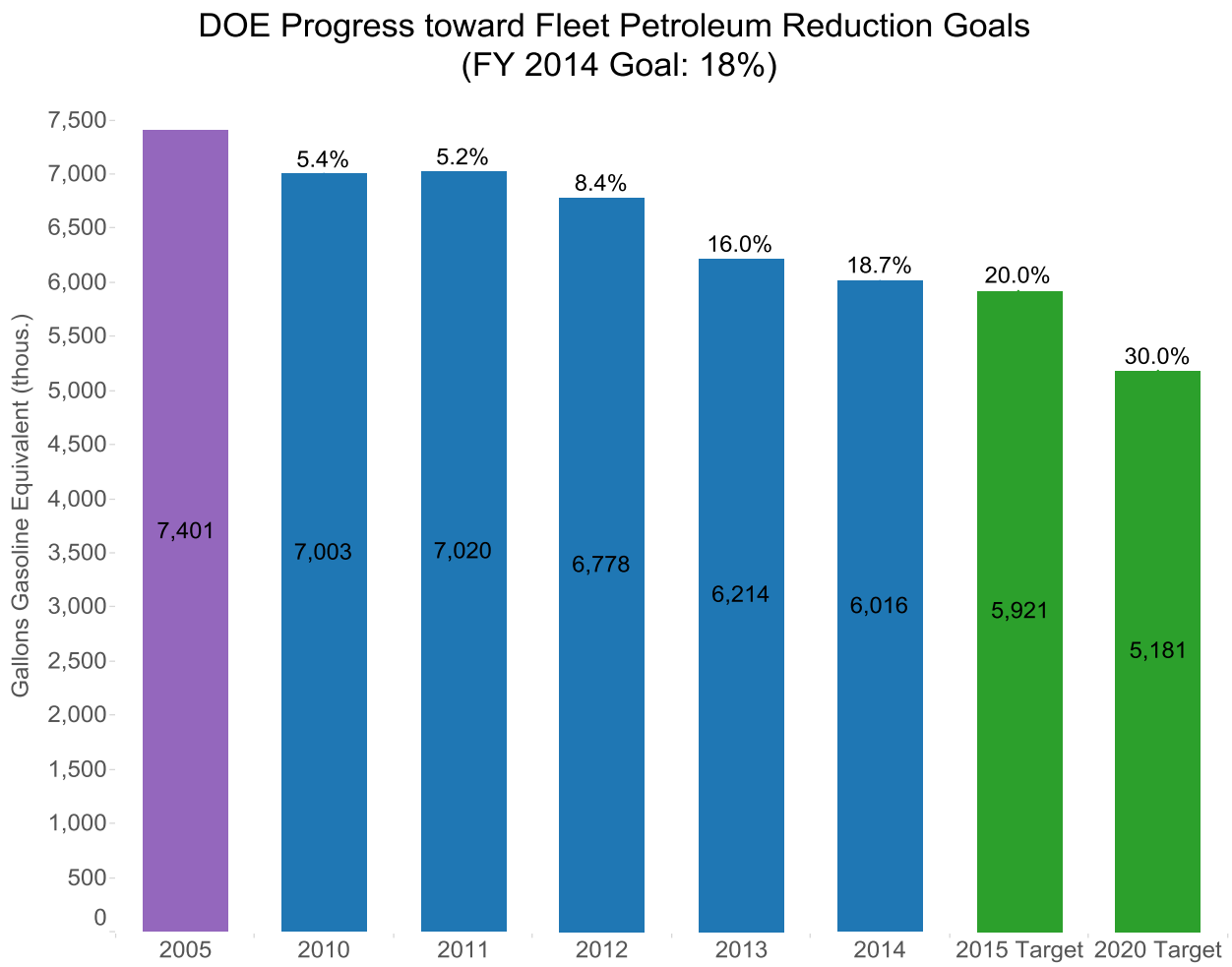


Goal 3: Fleet Management

Agency Progress toward Fleet Petroleum Use Reduction Goal

E.O. 13514 required and the Energy Independence and Security Act of 2007 (EISA) requires that by FY 2015 agencies reduce fleet petroleum use by 20 percent compared to a FY 2005 baseline. Agencies were expected to achieve at least a 2 percent annual reduction. The purple bar represents the agency's FY 2005 baseline. The green bars represent the FY 2015 target reduction. The blue bars represent annual agency progress on achieving these targets. The percentage at the top of each bar represents the reduction or increase from the FY 2005 baseline. A negative percentage indicates an increase in fleet petroleum use.

Figure 3-1: Agency Progress toward Fleet Petroleum Use Reduction Goal

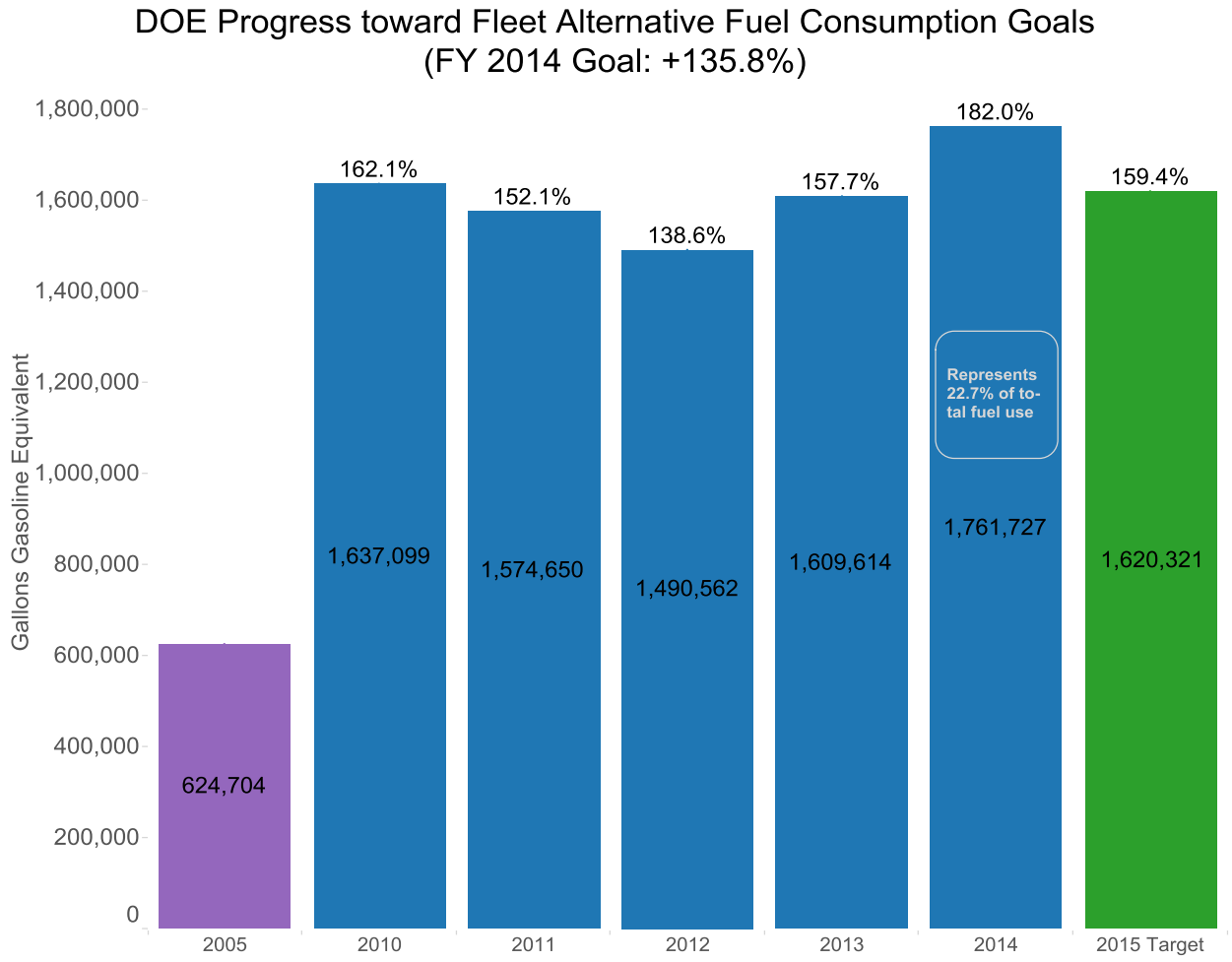


Agency Progress toward Fleet Alternative Fuel Consumption Goal

E.O. 13423 required that agencies increase total alternative fuel consumption by 10 percent annually from the prior year starting in FY 2005. By FY 2015, agencies must have increased alternative fuel use by 159.4 percent, relative to FY 2005. The purple bar represents the agency's FY 2005 baseline. The green bar represents the FY 2015 target. The blue bars represent annual agency progress on achieving

this target. The percentage at the top of each bar represents the reduction or increase from the FY 2005 baseline. A negative percentage indicates a decrease in fleet alternative fuel use.

Figure 3-2: Agency Progress toward Fleet Alternative Fuel Consumption Goal



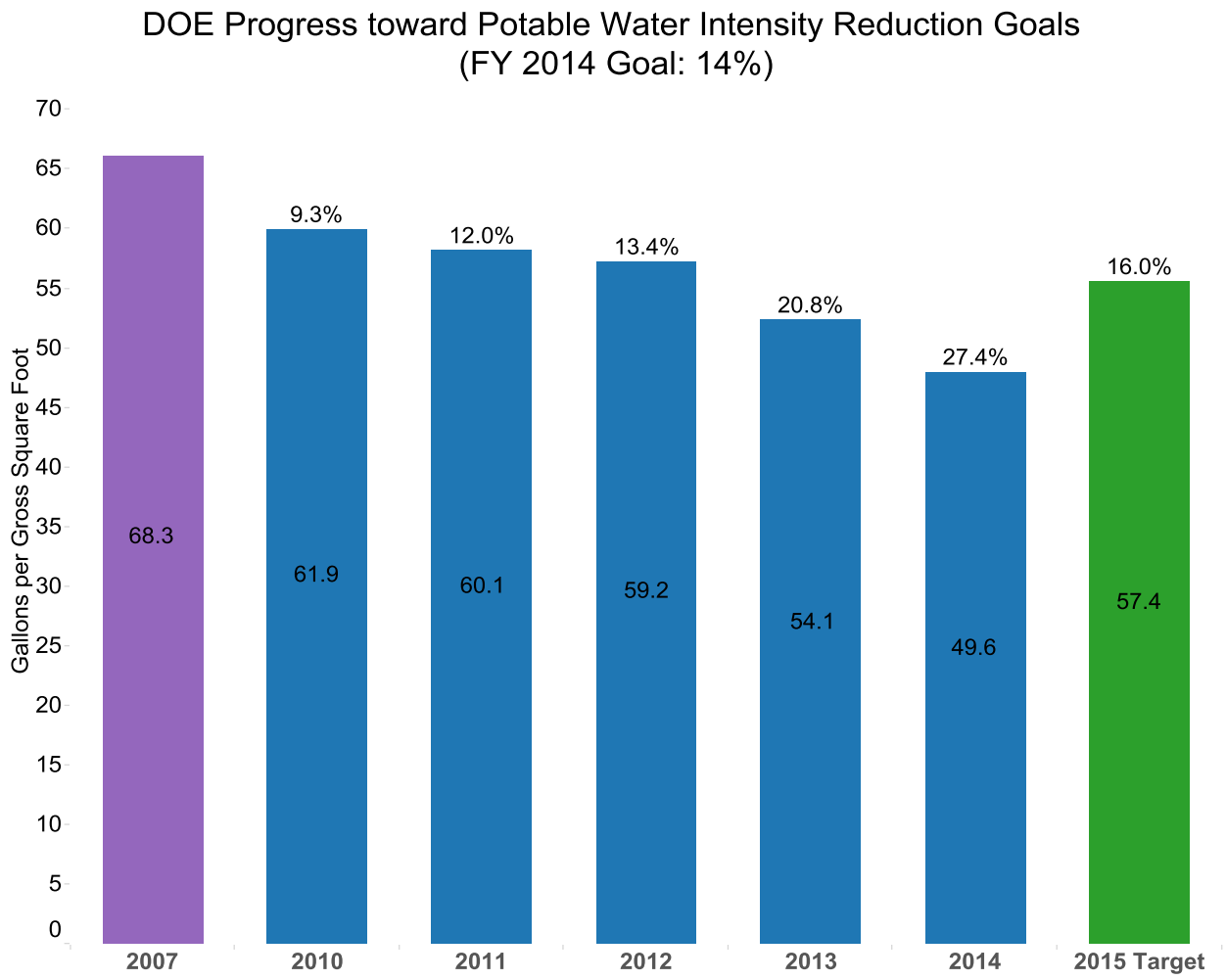
Goal 4: Water Use Efficiency & Management

Agency Progress toward Potable Water Intensity Reduction Goal

E.O. 13514 required agencies to reduce potable water intensity by 2 percent annually through FY 2020 compared to an FY 2007 baseline. A 16 percent reduction was required by FY 2015 and a 26 percent reduction was required by FY 2020. The purple bar represents the agency's FY 2007 baseline. The green bars represent the FY 2015 target. The blue bars represent annual agency progress on achieving these targets. The percentage at the top of each bar represents the reduction or increase from the FY 2007 baseline. A negative percentage value indicates that potable water use intensity increased compared to the FY 2007 baseline.

Agency data for progress towards the industrial, landscaping and agricultural water use reduction target is not available.

Figure 4-1: Agency Progress toward Potable Water Intensity Reduction Goal



Goal 5: Pollution Prevention & Waste Reduction

Agency Progress toward Pollution Prevention & Waste Reduction

E.O. 13514 required that Federal agencies promote pollution prevention and eliminate waste. The E.O. required agencies to minimize the use of toxic and hazardous chemicals and pursue acceptable alternatives. It also required that agencies minimize waste generation through source reduction, increase diversion of compostable materials, and by the end of FY 2015 divert at least 50% of non-hazardous and 50% of construction and demolition debris.[1]

Agency Data For This Goal Is Not Available.

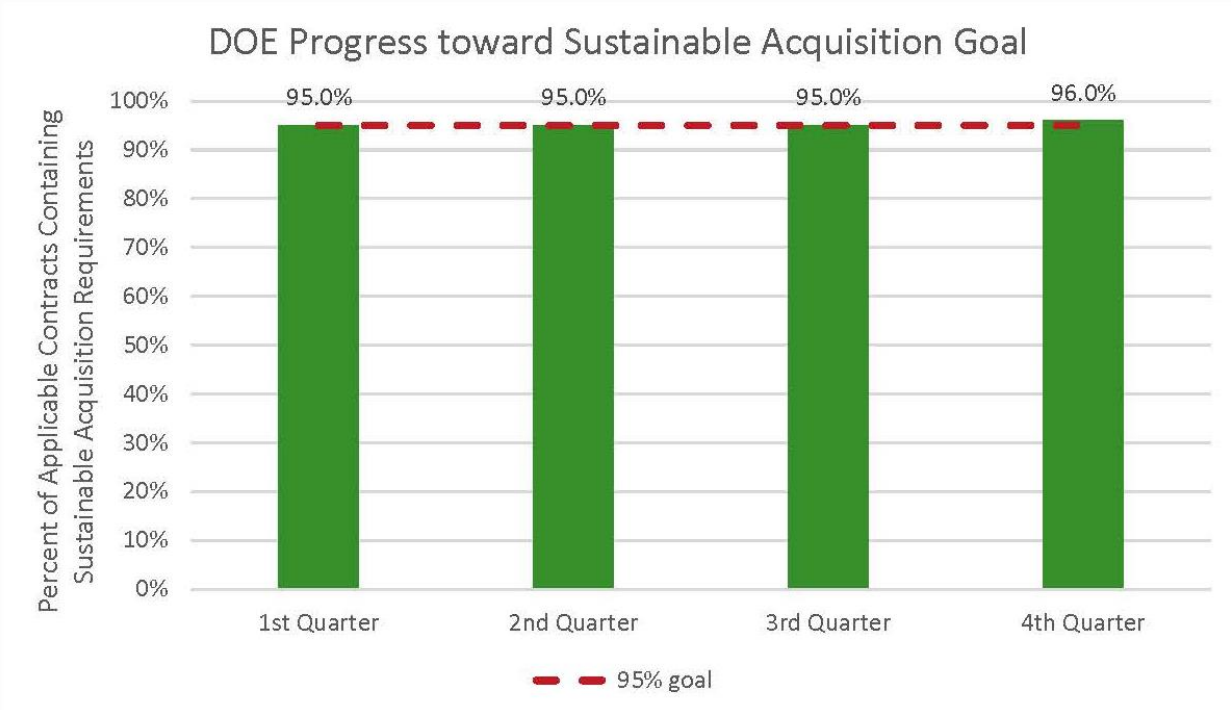
[1] Waste accounting guidance will be issued in spring of 2015. Agencies will be expected to begin implementation as soon as practicable. Accounting will begin in FY 2016.

Goal 6: Sustainable Acquisition

Agency Progress toward Sustainable Acquisition Goal

E.O. 13514 required agencies to advance sustainable acquisition and ensure that 95 percent of applicable new contract actions met federal mandates for acquiring products that are energy efficient, water efficient, biobased, environmentally preferable, non-ozone depleting, recycled content, or are non-toxic or less toxic alternatives, where these products meet performance requirements. To monitor performance, agencies perform quarterly reviews of at least 5 percent of applicable new contract actions to determine if sustainable acquisition requirements are included.

Figure 6-1: Agency Progress toward Sustainable Acquisition Goal



Goal 7: Electronic Stewardship & Data Centers

Agency Progress toward EPEAT, Power Management and End of Life Goals

E.O. 13514 required agencies to promote electronics stewardship by: ensuring procurement preference for EPEAT-registered products; implementing policies to enable power management, duplex printing, and other energy-efficient features; employing environmentally sound practices with respect to the disposition of electronic products; procuring Energy Star and FEMP designated electronics; and, implementing best management practices for data center operations.

Figure 7-1: Agency Progress toward EPEAT, Power Management and End of Life Goals

EPEAT	Power Management	End-Of-Life	Comments
			• EPEAT (96%) • Power Management (92%) • End-of-Life (98%)

EPEAT

	95% or more Monitors and PCs/Laptops purchased in FY 2014 was EPEAT Compliant Agency-wide
	85-94% or more Monitors and PCs/Laptops purchased in FY 2014 was EPEAT Compliant Agency-wide
	84% or less Monitors and PCs/Laptops purchased in FY 2014 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, USPS Recycling Program or Certified Recycler (R2, E-Stewards). *Submitted annual report to GSA for Federal Electronics Assets furnished to non-Federal recipients.*
	100% of Electronics at end-of-life disposed through GSA Xcess, CFL, Unicor, USPS Recycling Program and/or non-Certified Recycler. *Submitted annual report to GSA for Federal Electronics Assets furnished to non-Federal recipients.*

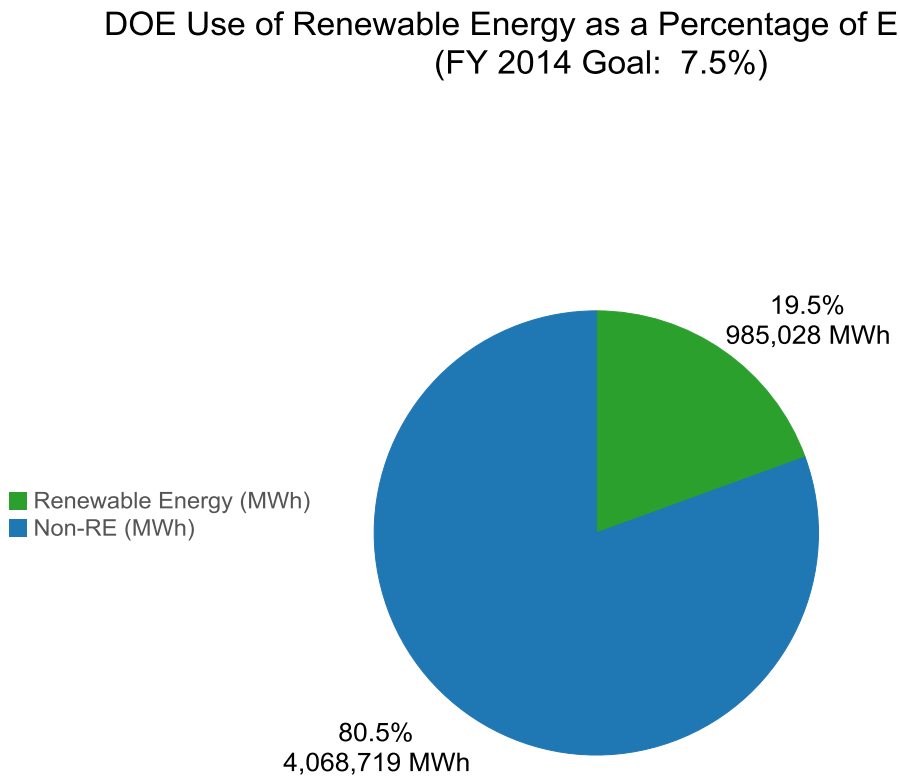
	Less than 100% of Electronics at end-of-life disposed through GSA Xcess, CFL, Unicor, USPS Recycling Program or non-Certified Recycler. *No annual report submitted to GSA for Federal Electronics Assets furnished to non-Federal recipients.*

Goal 8: Renewable Energy

Agency Renewable Energy Percentage of Total Electricity Usage

E.O. 13514 requires that agencies increase use of renewable energy. Further, EPACT 2005 requires agencies to increase renewable energy use such that 7.5 percent of the agency's total electricity consumption is generated by renewable energy sources for FY 2014 and beyond. For FY 2012, the required target was 5 percent of an agency's total electricity consumption. In 2013, a Presidential Memorandum entitled *Federal Leadership on Energy Management* revised the Federal agency target for agency renewable energy percentage of total electricity usage to reflect a goal of 20% by 2020.

Figure 8-1: Agency Renewable Energy Percentage of Total Electricity Usage



Goal 9: Climate Change Resilience

Agency Climate Change Resilience

E.O. 13514 required each agency to evaluate agency climate change risks and vulnerabilities to identify and manage the effects of climate change on the agency's operations and mission in both the short and long term.

This goal is addressed through qualitative commitments on the part of each agency and a summary of progress may be found in the Executive Summary at the beginning of this document.

Goal 10: Energy Performance Contracts

Agency Progress in Meeting President's Performance Contracting Challenge (PPCC) Goal

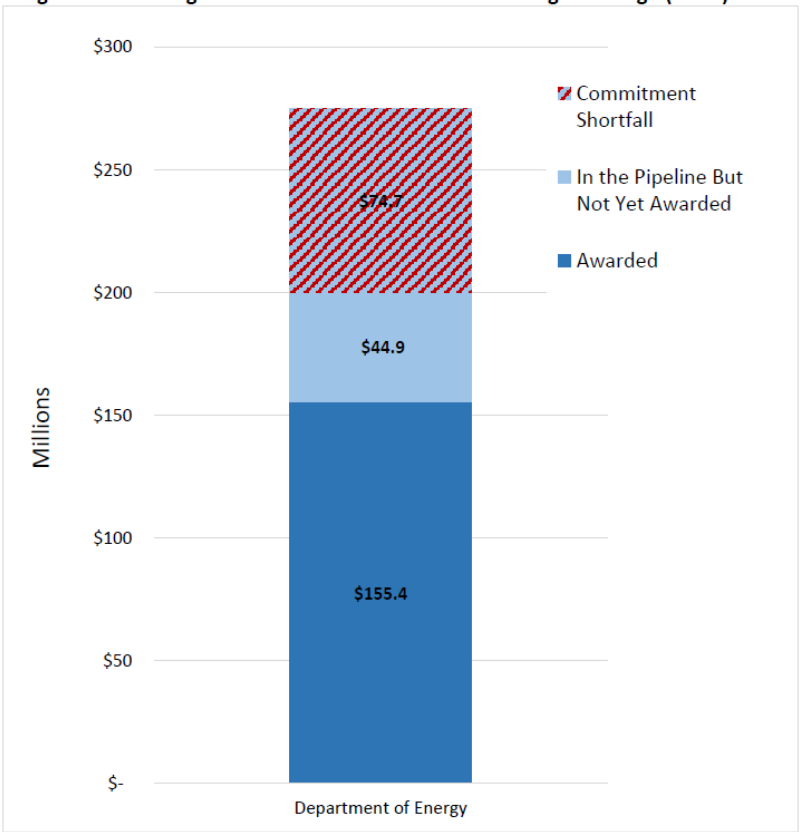
Energy Performance Contracts, including both Energy Savings Performance Contracts (ESPCs) and Utility Energy Service Contracts (UESC), enable agencies to obtain energy efficiency investments in buildings and deploy on-site renewable energy through long-term contracts with the private sector, which are in turn paid through savings derived from those investments.

Figure 10-1: Agency Progress in Meeting President's Performance Contracting Challenge (PPCC) Goal

The chart below represents the agency's performance contracting commitment and progress toward that commitment as reported through April 15, 2015 (for agencies subject to the 2011 President's Performance Contracting Challenge). The bar graph shows the total dollar value (in millions) of (1) already awarded projects, (2) projects in the pipeline but not yet awarded, and (3) the pipeline shortfall or surplus depending on whether the agency has reached their commitment goal.

Note: All agencies were expected to meet or exceed their initial target no later than June 30, 2014.

Figure 10-1: Department of Energy
Progress in Meeting President's Performance Contracting Challenge (PPCC) Goal



Note: This chart indicates agency progress toward the 2016 Performance Contracting goal as of April 15, 2015.

Agency Strategies to Meet Goals of E.O. 13693

To facilitate agency planning and reporting, the majority of the goals for E.O. 13693 take effect in the beginning of fiscal year 2016 (October 1, 2015) and are therefore appropriate for inclusion in this document. As noted previously many of the goals that agencies pursued under the previous executive orders have been carried over into E.O. 13693.

This section provides certain goal areas where "Required Strategies" are identified. Where an agency does not adopt those required strategies as an FY 2016 priority, the agency should explain the rationale for that decision in the strategy narrative. Also included are recommended strategies that represent strategies that have been successfully implemented by the Federal community and may also be adopted as priority strategies.

Goal 1: Greenhouse Gas (GHG) Reduction

Table 1-1: Goal 1 Strategies – Scope 1 & 2 GHG Reductions

(A) Strategy	(B) Top Five? Yes/No/NA	(C) Strategy Narrative (100 word limit)	(D) Specific targets/metrics to measure success including milestones in next 12 months
(A) Required Strategy under E.O. 13693			
Use the FEMP GHG emission report to identify/target high emission categories and implement specific actions to resolve high emission areas identified.	Yes	DOE utilizes the FEMP tool and multiple internal analyses to identify areas for prioritization. In addition, DOE is developing an enterprise sustainability reporting tool to consolidate analyses, and provide for overarching strategy prioritization by programs and sites.	(1) Continue to utilize FEMP GHG emissions report for strategy prioritization across the DOE complex. (2) Refine and continue to deploy internal analyses, including the sustainability reporting tool, to accompany FEMP tool.
Identify alternative sources of data or alternative methods of analysis not set forth in E.O. 13693, but with the potential to support its goals.	Yes	In September 2014, DOE launched an enterprise-wide online tool for collecting and managing Departmental sustainability data. This system provides streamlined analytics to DOE program and site personnel.	(1) DOE will continue to improve and expand upon the capabilities of the sustainability online system. In early 2016, DOE will incorporate additional content and analytical tools based on lessons learned from 2015.

(A) Strategy	(B) Top Five? Yes/No/NA	(C) Strategy Narrative (100 word limit)	(D) Specific targets/metrics to measure success including milestones in next 12 months
Identify and support management practices or training programs that encourage employee sustainability and greenhouse gas consideration.	Yes	DOE, through FEMP and other organizations, develops and provides training on a broad range of sustainability topics. DOE staff regularly attends FEMP and other vendor training opportunities. DOE is hosting a training event on climate change adaptation and will continue to identify opportunities for additional sustainability training.	(1) In June 2015, DOE will hold a Climate Adaptation and Vulnerability Assessment Training. (2) The SPO will continue to disseminate information about internal and external sustainability training opportunities on a monthly basis.
Conceptualize the goals of E.O. 13693 within a projected cost-benefit framework to identify low-hanging fruit.	No	While not a top five strategy, DOE will evaluate E.O 13693 goals and prioritize investments based on the highest return on investment.	
Isolate successful measures applied toward the goals of E.O. 13514 that could be expanded to meet the goals of E.O. 13693.	Yes	DOE will continue policies and programs that were successful in meeting E.O. 13514 goals where they can be applied to the updated requirements of E.O. 13693.	(1) DOE will identify successful measures and the ways in which they can be expanded to meet the goals of E.O. 13693. DOE will collect measures on how extensively and effectively it uses Environmental Management Systems (EMS).
Determine unsuccessful programs or measures to be discontinued to better allocate agency resources, human and otherwise.	No	While not a top five strategy, DOE continuously evaluates projects and programs to ensure resources are appropriately used to serve Departmental missions.	
Determine which goals set forth in E.O. 13693 represent unambitious targets given past agency performance, identify by how much they could be exceeded, and establish new within-agency target.	No	While not a top five strategy, DOE will strive to achieve highest performance possible against E.O. 13693 goals, regardless of interim or end goal targets.	

(A) Strategy	(B) Top Five? Yes/No/NA	(C) Strategy Narrative (100 word limit)	(D) Specific targets/metrics to measure success including milestones in next 12 months
Employ operations and management best practices for energy consuming and emission generating equipment.	Yes	DOE maintains a tailored set of working groups which were specifically designed to address the challenges shared across the complex, as well as to find solutions for unique situations that may arise. These working groups provide support to reduce emissions and share operating experience, lessons learned, and best practices implemented in other parts of the Department. DOE continually evaluates the performance of working groups and strives to find areas where they can be streamlined, as well as explore additional areas where efforts could be increased.	(1) Continue to share operational best practices through established DOE working groups. (2) Continue to evaluate established working groups to ensure they best meet the needs of DOE sites.

Table 1-2: Goal 1 Strategies – Scope 3 GHG Reductions

(A) Strategy	(B) Top Five? Yes/No/NA	(C) Strategy Narrative (100 word limit)	(D) Specific targets/metrics to measure success including milestones in next 12 months
(A) Required Strategy under E.O. 13693			
Reduce employee business ground travel.	No	While not a top five strategy, DOE will actively promote alternatives to employee business ground travel, including video teleconferencing (VTC).	

(A) Strategy	(B) Top Five? Yes/No/NA	(C) Strategy Narrative (100 word limit)	(D) Specific targets/metrics to measure success including milestones in next 12 months
Reduce employee business air travel.	Yes	DOE will promote the use of VTC and limit business air travel as possible, except where missions dictate otherwise. DOE will rely on established travel and conference management protocols to ensure business travel meets business requirements.	(1) Reduce business air travel miles by 10 percent. (2) Investigate solutions for DOE National Laboratory personnel from different laboratories (and networks) to connect via VTC for meetings and other business-related events.
Develop and deploy employee commuter reduction plan.	Yes	In FY 2014, employee commuting-related emissions comprised 55% of DOE's total scope 3 emissions. DOE will develop a strategy to improve commuting options at DOE National Laboratories and sites.	(1) Develop and disseminate DOE Employee Commuting Strategy.
Use employee commuting survey to identify opportunities and strategies for reducing commuter emissions.	Yes	As part of the DOE Employee Commuting Strategy, the Department will issue a survey gathering data from its National Laboratories to assess successful programs and obstacles to employee commuting.	(1) Issue employee commuting survey to DOE National Laboratories. (2) Collect and analyze results and incorporate strategies in DOE Employee Commuting Strategy.
Increase number of employees eligible for telework and/or the total number of days teleworked.	Yes	DOE is currently evaluating existing telework programs at 4 DOE sites. This project will look for commonalities—both successful and unsuccessful—and develop a unified strategy.	(1) Complete telework program evaluations. (2) Develop telework toolkit for DOE sites and DOE National Laboratories.

(A) Strategy	(B) Top Five? Yes/No/NA	(C) Strategy Narrative (100 word limit)	(D) Specific targets/metrics to measure success including milestones in next 12 months
Develop and implement bicycle commuter program.	No	While not a top five strategy, many DOE sites have a large bicycle commuting contingent. The Department will look to expand the availability of bicycle racks, lockers, and shower facilities to increase participation.	
Provide bicycle commuting infrastructure.	No	While not a top five strategy, many DOE sites have a large bicycle commuting contingent. The Department will look to expand the availability of bicycle racks, lockers, and shower facilities to increase participation.	
Plan to begin FY 2016: Report scope 3 greenhouse gas emissions for leases over 10,000 E.O. 3(h)(v) rentable square feet	Yes	DOE will identify planned new leases over 10,000 rentable square feet and begin collecting data on energy use and scope 3 GHG emissions.	(1) Incorporate this requirement into the FY 2016 data collection and reporting process and issue related guidance no later than August 2016.

Goal 2: Sustainable Buildings

Building Energy Conservation, Efficiency, and Management

Section 3(a) of E.O. 13693 states that agencies will promote building energy conservation, efficiency, and management. Section 3(a)(i) requires agencies to reduce building energy intensity by 2.5% annually through the end of FY 2025 (measured in British thermal units per square foot), relative to a FY 2015 baseline and taking into account agency progress to date, except where revised pursuant to section 9(f) of E.O. 13693.

Building Efficiency Performance, and Management

Section 3(h) of E.O. 13693 states that agencies will improve building efficiency, performance, and management.

Section 3(h)(iii) requires that agencies identify, as a part of the planning requirements of section 14 of this order, a percentage of the agency's existing buildings above 5,000 gross square feet intended to be

energy, waste, or water net-zero buildings by FY 2025 and implementing actions that will allow those buildings to meet that target.

CEQ recognizes that any FY 2016 agency projections for this goal are rudimentary estimates. Agencies will be only expected to share lessons learned in implementing this goal and will not be scored or graded on outcomes towards the target established for FY 2016.

Please input the percentage here [5%].

Table 2-1: Goal 2 Strategies – Sustainable Buildings

(A) Strategy	(B) Top Five? Yes/No/NA	(C) Strategy Narrative (100 word limit)	(D) Specific targets/metrics to measure success including milestones in next 12 months
(A) Required Strategy under E.O. 13693			
Use remote building energy performance assessment auditing technology 3(a)(A)	No	Not a top five strategy for FY 2016. DOE will incorporate this strategy to the extent that it is cost-effective and practicable.	
Participate in demand management programs 3(a)(B)	Yes	This is a new requirement for DOE, and the SPO will work with FEMP to explore opportunities and track existing participation by DOE sites in demand management programs.	(1) By June 2016, DOE will assess the extent to which DOE sites take part in demand management programs. DOE will also assess opportunities to participate in demand management programs offered by serving utilities where DOE customers are not currently participating.
Ensure that monthly performance data is entered into the Environmental Protection Agency (EPA) ENERGY STAR Portfolio Manager 3(a)(C)	Yes	DOE requires monthly performance data to be entered into Portfolio Manager as part of the annual reporting cycle under EISA 432. Starting in March 2015, benchmarking data must be released from Portfolio Manager into the EISA 432 Compliance Tracking System annually.	(1) In March 2016, all buildings that were benchmarked in a previous year must be updated with monthly data for FY 2015. DOE is targeting an additional 300 buildings to be added to Portfolio Manager by that time.
Where feasible: Incorporate Green Button data access system into reporting, data analytics, and automation processes 3(a)(D)	No	Not a top five strategy for FY 2016. DOE will incorporate this strategy to the extent that it is cost-effective and practicable.	

(A) Strategy	(B) Top Five? Yes/No/NA	(C) Strategy Narrative (100 word limit)	(D) Specific targets/metrics to measure success including milestones in next 12 months
Implement space utilization and optimization practices and policies 3(a)(E)	No	DOE is implementing space utilization and optimization practices and policies under the Reduce the Footprint planning process.	
Identify opportunities to transition test-bed technologies to achieve the goals of this section 3(a)(F)	No	Not a top five strategy for FY 2016. DOE will incorporate this strategy to the extent that it is cost-effective and practicable.	
Where feasible: Conform to city energy performance benchmarking and reporting requirements 3(a)(G)	No	Not a top five strategy for FY 2016. DOE will incorporate this strategy to the extent that it is cost-effective and practicable.	
Begin planning for FY 2020 requirement: Ensure all new construction of Federal buildings greater than 5,000 gross square feet that enters the planning process be designed to achieve energy net-zero and, where feasible, water or waste net-zero by FY 2030 3(h)(i)	No	DOE will incorporate this strategy to the extent that it is cost-effective and practicable.	
In all new agency lease solicitations over 10,000 rentable square feet, include criteria for energy efficiency as a performance specification or source selection evaluation factor 3(h)(iv)	Yes	When acquiring new leased space, including build-to-suit lease solicitations, DOE will meet the requirements for leased facilities included in E.O. 13693 and include a preference for buildings certified as ENERGY STAR per EISA 2007 Section 435, LEED Gold or higher certified, and/or those that use renewable energy to the maximum extent practicable.	(1) In FY 2016, all new agency lease solicitations over 10,000 rentable square feet shall include criteria for energy efficiency as a performance specification or source selection evaluation factor.

(A) Strategy	(B) Top Five? Yes/No/NA	(C) Strategy Narrative (100 word limit)	(D) Specific targets/metrics to measure success including milestones in next 12 months
In all new agency lease solicitations over 10,000 rentable square feet, include requirements for building lessor disclosure of carbon emission or energy consumption data for leased portion of building 3(h)(iv)	No	This strategy is included as a top five strategy for the scope 3 GHG goal. As noted in the scope 3 GHG section, DOE will identify planned new leases over 10,000 rentable square feet and begin collecting data on energy use and scope 3 GHG emissions.	
In planning new facilities or leases, include cost-effective strategies to optimize sustainable space utilization and consideration of existing community transportation planning and infrastructure, including access to public transit 3(h)(vi)	Yes	As new buildings are constructed on existing DOE sites, DOE will focus on strengthening regional transportation partnerships. DOE will also implement cost-effective strategies for space optimization as part of ongoing adoption of Reduce the Footprint standards and requirements.	(1) In FY 2016, all new facilities or leases will include consideration of existing transportation infrastructure in the planning process. DOE will continue to incorporate space optimization strategies in the Reduce the Footprint initiative.
Ensure that all new construction, major renovation, repair, and alteration of agency buildings includes appropriate design and deployment of fleet charging infrastructure 3(h)(vii)	No	Not a top five strategy for FY 2016. DOE will incorporate this strategy to the extent that it is cost-effective and practicable.	
Include climate resilient design and management into the operation, repair, and renovation of existing agency buildings and the design of new buildings 3(h)(viii)	Yes	DOE continues to incorporate adaptation into a multitude of planning efforts consistent with our 2014 Adaptation Plan. DOE will conduct a review of Orders, Guides and Technical Standards scheduled for update and work to ensure adaptation and resilience are incorporated as appropriate.	(1) In FY 2016, DOE will identify a process for including climate resilient design and management into the operation, repair, and renovation of existing agency buildings and the design of new buildings.
(A) Recommended Strategy			
Install and monitor energy meters and sub-meters as soon as practicable.	No		

(A) Strategy	(B) Top Five? Yes/No/NA	(C) Strategy Narrative (100 word limit)	(D) Specific targets/metrics to measure success including milestones in next 12 months
Collect and utilize building and facility energy use data to improve building energy management and performance.	No		
Incorporate green building specifications into all new construction and major renovation projects.	No		
Redesign or lease interior space to reduce energy use by implementing daylighting, space optimization, sensors/control system installation, etc.	No		
Develop and deploy energy and sustainability training for all facility and energy managers.	No		
Include in every construction contract all applicable sustainable acquisition requirements for recycled, biobased, energy efficient, and environmentally preferable products.	No		

Table 2-2: Goal 2 Strategies – Data Center Efficiency

Section 3(a)(ii) of E.O. 13693 states that agencies must improve data center efficiency at agency facilities. Section 3(a)(ii)(C) requires that agencies establish a power usage effectiveness target in the range of 1.2-1.4 for new data centers and less than 1.5 for existing data centers.

(A) Strategy	(B) Top Five? Yes/No/NA	(C) Strategy Narrative (100 word limit)	(D) Specific targets/metrics to measure success including milestones in next 12 months
(A) Required Strategy under E.O. 13693			
Ensure the agency chief information officer promotes data center energy optimization, efficiency, and performance 3(a)(ii)(A)	Yes	The DOE Office of the Chief Information Officer (OCIO) works in collaboration with other Departmental elements to establish, promote, and implement data center energy efficiency best practices, including the use of energy savings performance based contracting to implement energy conservation measures.	(1) Over the next 12 months, the OCIO will continue the development of its planning process to meet the objectives of the Federal Information Technology Acquisition Reform Act (FITARA). The OCIO will also continue to lead the IT Sustainability Working Group (ITSWG), a department-wide working group dedicated to promoting IT Sustainability best practices. The ITSWG meets on a monthly basis.

(A) Strategy	(B) Top Five? Yes/No/NA	(C) Strategy Narrative (100 word limit)	(D) Specific targets/metrics to measure success including milestones in next 12 months
Install and monitor advanced energy meters in all data centers by fiscal year 2018 3(a)(ii)(B)	Yes	DOE Sites will inventory all data centers and develop a plan to install the necessary Data Center Infrastructure Management (DCIM) systems to actively monitor PUE and manage IT systems and facility infrastructure energy consumption.	(1) By June 2016, DOE Sites will submit their DCIM plans to the OCIO for review and inclusion in the Department's PortfolioStat reporting.
(A) Recommended Strategy			
Assign DCEP to each data center and conduct DC-Pro assessment.	Yes	In partnership with the SPO, the OCIO developed the DOE Green IT Dashboard (DOEGRIT), a web-based self-assessment tool based on DC-Pro that facilitates the analysis and documentation of DOE data centers. It provides a standardized set of best practices and energy efficiency assessment tools for data centers and supports the objectives of FITARA.	(1) DOE will promote and expand the use of DOEGRIT and help ensure that all major data centers have an assigned DCEP.
Conduct Site data center inventory	No		
Develop Site Data Center Consolidation & Optimization Plan	Yes	In accordance with the Federal Information Technology Acquisition Reform Act (FITARA), DOE will develop a multi-year Data Center Consolidation and Optimization Strategic Plan, beginning in FY 2016.	(1) Each site will develop a data center optimization and consolidation plan and submit to the DOE OCIO by September 30, 2015.
Optimize agency Data Centers across total cost of ownership metrics.	No		
Improve data center temperature and air-flow management.	No		

(A) Strategy	(B) Top Five? Yes/No/NA	(C) Strategy Narrative (100 word limit)	(D) Specific targets/metrics to measure success including milestones in next 12 months
Identify and consolidate obsolete and underutilized agency computer servers into energy efficient data centers.	Yes	DOE Sites will conduct a cost assessment of each data center to determine best value for consolidation vs optimization.	(1) The Department will submit a complete data center inventory and FDCCI plan and submit to OMB by November 30, 2015.

Goal 3: Clean & Renewable Energy

Agency Clean Energy Share of Total Electric and Thermal Energy Goal

E.O. 13693 3(b) requires that, at a minimum, the percentage of an agency's total electric and thermal energy accounted for by renewable and alternative energy shall be not less than: 10% in FY 2016-17; 13% in FY 2018-19; 16% in FY 2020-21; 20% in FY 2022-23; and 25% by FY 2025.

Agency Renewable Energy Share of Total Electricity Consumption Goal

E.O. 13693 3(c) sets a second schedule that addresses specifically renewable energy. It requires that renewable energy account for not less than 10% of total electric energy consumed by an agency in FY 2016-17; 15% in FY 2018-19; 20% in FY 2020-21; 25% in FY 2022-23; and 30% by 2025.

Table 3: Goal 3 Strategies – Clean and Renewable Energy

(A) Strategy	(B) Top Five? Yes/No/NA	(C) Strategy Narrative (100 word limit)	(D) Specific targets/metrics to measure success including milestones in next 12 months
(A) Required Strategy under E.O. 13693			
DoD only: Include in DoD accounting, fulfillment of the requirements of DoD goals under section 2852 of the National Defense Authorization Act of 2007 3(e)(vi)	N/A	DoD only	
(A) Recommended Strategy			
Install agency-funded renewable on-site and retain corresponding renewable energy certificates (RECs) or obtaining replacement RECs 3(d)(i)	Yes	DOE will continue to pursue on-site renewable energy systems where possible. At the moment DOE has nearly 400 on-site renewable energy systems, with several large systems to come on line in the near future.	(1) DOE will update its internal scoping study evaluating the feasibility of renewable energy on DOE land based on current technologies and economic environment. (2) DOE will ensure that all on-site renewable energy projects installed in FY 2016 and thereafter will retain the corresponding RECs or the appropriate replacement.

(A) Strategy	(B) Top Five? Yes/No/NA	(C) Strategy Narrative (100 word limit)	(D) Specific targets/metrics to measure success including milestones in next 12 months
Contract for the purchase of energy that includes installation of renewable energy on or off-site and retain RECs or replacement RECs for the term of the contract 3(d)(ii)	Yes	DOE will continue to evaluate opportunities to contract for the purchase of renewable energy and ensure that appropriate RECs are held by the government	(1) In FY 2016, a 3 MW solar photovoltaic array will be constructed at Lawrence Livermore National Laboratory. The 20-year Power Purchase Agreement (PPA) between Western Area Power Administration (WAPA) and the solar developer was finalized in January 2015.
Purchase electricity and corresponding RECs or obtaining equal value replacement RECs 3(d)(iii)	No		
Purchase RECs 3(d)(iv)	Yes	DOE will continue to purchase RECs to supplement on-site renewable energy generation to meet renewable energy and greenhouse gas goals. Whenever possible, RECs will be purchased through third party bundlers to achieve the greatest cost savings and provide verification.	(1) DOE will continue to use RECs and green energy purchases to help exceed renewable energy goals. DOE will also continue to encourage sites to purchase RECs through third party groups to pool resources and minimize costs. The primary third party purchasers utilized by DOE sites are WAPA and Defense Logistics Agency Energy.
Install thermal renewable energy on-site at Federal facilities and retain corresponding renewable attributes or obtain equal value replacement RECs 3(e)(i)	Yes	DOE will continue to pursue on-site renewable energy systems, including thermal, where possible	(1) DOE will update its internal scoping study evaluating the feasibility of thermal renewable energy on DOE land based on current technologies and economic environment. (2) DOE will ensure that all on-site renewable energy projects installed in FY 2016 and thereafter will retain the corresponding RECs or the appropriate replacement.
Install combined heat and power processes on-site at Federal facilities 3(e)(ii)	Yes	DOE used an Energy Savings Performance Contract (ESPC) to install a combined heat and power (CHP) plant and will continue to look for opportunities for on-site CHP processes.	(1) Argonne National Laboratory's CHP plant will begin operation in FY 2016. (2) DOE will continue to evaluate the potential for CHP at other sites.

(A) Strategy	(B) Top Five? Yes/No/NA	(C) Strategy Narrative (100 word limit)	(D) Specific targets/metrics to measure success including milestones in next 12 months
Identify opportunities to install fuel cell energy systems on-site at Federal facilities 3(e)(iii)	No		
Identify opportunities to utilize energy from small modular nuclear reactor technologies 3(e)(iv)	No		
Identify opportunities to utilize energy from a new project that includes the active capture and storage of carbon dioxide emissions associated with energy generation 3(e)(v)	No		
Implement other alternative energy approaches that advance the policy set forth in section 1 and achieve the goals of section 2 of E.O. 13693 3(e)(vii)	No		
Consider opportunities to install or contract for energy installed on current or formerly contaminated lands, landfills, and mine sites.	No		

Goal 4: Water Use Efficiency & Management

Potable Water Consumption Intensity Reduction Goal

E.O. 13693 section 3(f) states that agencies must improve water use efficiency and management, including stormwater management. E.O. 13693 section 3(f)(i) requires agencies to reduce potable water consumption intensity by 2% annually through FY 2025 relative to an FY 2007 baseline (measured in gallons). A 36% reduction is required by FY 2025.

ILA Water Consumption Reduction Goal

E.O. 13693 section 3(f)(iii) also requires that agencies reduce their industrial, landscaping and agricultural (ILA) water consumption measured in gallons by 2% annually through FY 2025 relative to a FY 2010 baseline.

Table 4: Goal 4 Strategies – Water Use Efficiency & Management

(A) Strategy	(B) Top Five? Yes/No/NA	(C) Strategy Narrative (100 word limit)	(D) Specific targets/metrics to measure success including milestones in next 12 months
(A) Required Strategy under E.O. 13693			
Install appropriate green infrastructure features to help with storm- and wastewater management (such as rain gardens, rain barrels, green roofs, or pervious pavement) 3(f)(iv)	Yes	DOE recognizes the importance of sound storm and wastewater management. The Department will develop a DOE Water Management Strategies report that will include plans for managing undeveloped landscapes and existing, built environments. The plans will be tailored to site/local/regional needs and specifications.	(1) Develop and disseminate DOE Water Management Strategies Report. (2) Conduct follow-on webinar and training events.
Install and monitor water meters; collect and utilize building and facility water data for conservation and management 3(f)(ii)	Yes	DOE will promote the use of water meters to perform water balance analyses, assess water use, and plan water conservation. At present, DOE has 507 total water meters (standard and advanced) across the complex.	(1) Install 25 total water meters across the DOE complex.
(A) Recommended Strategy			
Install high efficiency technologies (e.g., WaterSense).	No		

(A) Strategy	(B) Top Five? Yes/No/NA	(C) Strategy Narrative (100 word limit)	(D) Specific targets/metrics to measure success including milestones in next 12 months
Prepare and implement a water asset management plan to maintain desired level of service at lowest life cycle cost (for best practices from the EPA, go to http://go.usa.gov/KvbF).	Yes	DOE will develop a Water Management Strategies report that examines common uses of water across the complex and strategies for reducing use.	(1) Develop and disseminate DOE Water Management Strategies Report. (2) Conduct follow-on webinar and training events.
Minimize outdoor water use and use alternative water sources as much as possible.	No	Although not a top-five strategy, many DOE sites are affected by severe drought conditions, including sites in California. DOE will look to leverage conservation efforts completed at these sites, including landscaping and water use reduction strategies, and share broadly with the DOE complex.	(1) Review water conservation strategies completed at DOE sites and follow up for more information, as necessary. (2) Integrate findings and best practices in DOE Water Management Strategies Report.
Design and deploy water closed-loop, capture, recharge, and/or reclamation systems.	Yes	DOE will continue to pursue water recycling and reuse options to reduce potable water use. To support this approach the Department is converting once-through cooling systems to closed loop and reusing process water or gray water and/or storm water runoff to displace potable water use, when cost effective and allowable by local regulation.	Determine transferability of successful technology and approaches. For instance, PPPL installed a closed loop system that is expected to reduce water consumption by 600,000 gallons annually while also adjusting elevated water tower valve testing methodology to conserve an additional 300,000 gallons each year.
Install advanced meters to measure and monitor (1) potable and (2) industrial, landscaping and agricultural water use.	No		
Develop and implement programs to educate employees about methods to minimize water use.	No		
Assess the interconnections and dependencies of energy and water on agency operations, particularly climate change's effects on water which may impact energy use.	No		

(A) Strategy	(B) Top Five? Yes/No/NA	(C) Strategy Narrative (100 word limit)	(D) Specific targets/metrics to measure success including milestones in next 12 months
Consistent with State law, maximize use of grey-water and water reuse systems that reduce potable and ILA water consumption.	No		
Consistent with State law, identify opportunities for aquifer storage and recovery to ensure consistent water supply availability.	No		
Ensure that planned energy efficiency improvements consider associated opportunities for water conservation.	No		
Where appropriate, identify and implement regional and local drought management and preparedness strategies that reduce agency water consumption including recommendations developed by Regional Federal Executive Boards.	Yes	Many DOE sites are affected by severe drought conditions, including several sites in California. DOE will look to leverage conservation efforts completed at these sites, as well as proven regional and local practices, to address drought management.	(1) Review water conservation strategies completed at DOE sites and follow up for more information, as necessary. (2) Integrate findings and best practices in DOE Water Management Strategies Report. (3) Link regional planning efforts on water conservation to related sustainability goals such as Climate Adaptation planning.

Goal 5: Fleet Management

Agency Progress toward Fleet Per-Mile Greenhouse Gas Emissions Goal

E.O. 13693 section 3(g) states that agencies with a fleet of at least 20 motor vehicles will improve fleet and vehicle efficiency and management. E.O. 13693 section 3(g)(ii) requires agencies to take actions that reduce fleet-wide per-mile greenhouse gas emissions from agency fleet vehicles relative to a new, FY 2014 baseline and sets new goals for percentage reductions: not less than 4% by the end of FY 2017; not less than 15 % by the end of FY 2020; and not less than 30% by then end of FY 2025.

E.O. 13693 section 3(g)(i) requires that, as a part of the Sustainability Planning process agencies should determine the optimum fleet inventory, emphasizing eliminating unnecessary or non-essential vehicles. This information is generally available from the agency Vehicle Allocation Methodology (VAM) process that is completed each year. To satisfy this requirement for 2015, please include the VAM results and the appropriate agency fleet management plan to the appendix of this document. Future versions of this plan will require similar submissions by agencies.

Table 5: Goal 5 Strategies – Fleet Management

(A) Strategy	(B) Top Five? Yes/No/NA	(C) Strategy Narrative (100 word limit)	(D) Specific targets/metrics to measure success including milestones in next 12 months
(A) Required Strategy under E.O. 13693			
Collect and utilize agency fleet operational data through deployment of vehicle telematics – as soon as is practicable, but not later than two years after date of order 3(g)(iii)	Yes	DOE currently deploys vehicle telematics at several DOE sites, including on approximately 300 vehicles at one site. DOE will evaluate existing programs and develop a strategy for wider adoption across the complex.	(1) Review use of telematics at one DOE site. (2) Develop and disseminate case study to promote adoption of vehicle telematics across the DOE complex.
Ensure that agency annual asset-level fleet data is properly and accurately accounted for in a formal Fleet Management System as well as submitted to the Federal Automotive Statistical Tool reporting database, the Federal Motor Vehicle Registration System, and the Fleet Sustainability Dashboard (FLEETDASH) system 3(g)(iv)	Yes	DOE has approximately 14,002 active status vehicle assets (100% of total fleet) cataloged in a Fleet Management System (FMS). DOE will look to expand use and improve data accuracy of FMS across the complex through targeted training and outreach to DOE fleet managers.	(1) Conduct webinars and training for fleet managers to raise awareness of Fleet FMS capabilities. (2) Increase DOE-wide utilization of FMS by 15 percent by FY 2016.
Plan for agency fleet composition such that 20% of passenger vehicle acquisitions are zero emission or plug-in hybrid vehicles by 2020, and 50% by 2025. Vehicles acquired in other vehicle classes count double toward this target 3(g)(v)	Yes	DOE will continue to promote the acquisition of zero emission and plug-in hybrids where appropriate. At present, 2% (88 of 4,626) of DOE's passenger vehicle fleet is comprised of zero emission vehicles.	(1) Increase acquisition of zero emission passenger vehicles to 5 percent of total acquisitions by FY 2017.
Plan for appropriate charging or refueling infrastructure for zero emission or plug-in hybrid vehicles and opportunities for ancillary services to support vehicle-to-grid technology 3(g)(vi)	No	In recent years, DOE sites have been successful in expanding on-site electric vehicle charging infrastructure. More than a dozen DOE sites have EV charging stations for fleet vehicles. DOE will look to expand infrastructure as appropriate.	

(A) Strategy	(B) Top Five? Yes/No/NA	(C) Strategy Narrative (100 word limit)	(D) Specific targets/metrics to measure success including milestones in next 12 months
(A) Recommended Strategy			
Optimize/Right-size the composition of the fleet (e.g., reduce vehicle size, eliminate underutilized vehicles, acquire and locate vehicles to match local fuel infrastructure).	Yes	DOE will continue to practice vehicle right-sizing whenever possible. For example, DOE's NNSA right-sized their entire fleet in FY 2014. Future right-sizing will be performed with each annual acquisition cycle.	(1) Update DOE-wide Vehicle Allocation Methodology by FY 2016.
Increase utilization of alternative fuel in dual-fuel vehicles.	No		
Use a Fleet Management Information System to track fuel consumption throughout the year for agency-owned, GSA-leased, and commercially-leased vehicles.	No		
Increase GSA leased vehicles and decrease agency-owned fleet vehicles, when cost effective.	Yes	DOE is currently working with GSA to convert fleet vehicles from DOE-owned to GSA-leased. The Department will continue to pursue this technique as a means to control vehicle costs.	(1) Convert 400 DOE-owned vehicles to GSA leased by May 2016.
Implement vehicle idle mitigation technologies.	No		
Minimize the use of "law enforcement" vehicle exemption and implementing the GSA Bulletin FMR B-33, *Motor Vehicle Management, Alternative Fuel Vehicle Guidance for Law Enforcement and Emergency Vehicle Fleets* of November 15, 2011.	No		
Where State vehicle or fleet technology or fueling infrastructure policies are in place, conform with the minimum requirements of those policies.	No		
Reduce miles traveled (e.g., share vehicles, improve routing with telematics, eliminate trips, improve scheduling, use shuttles, etc.).	No		

Goal 6: Sustainable Acquisition

Sustainable Acquisition Goal - Biobased

E.O. 13693 section 3(i) requires agencies to promote sustainable acquisition by ensuring that environmental performance and sustainability factors are considered to the maximum extent practicable for all applicable procurements in the planning, award and execution phases of acquisition.

Sections 3(iv) and 3(iv)(A) also require that agencies act, as a part of the implementation and planning requirements of section 14 of E.O. 13693, until agencies have achieved at least 95 percent compliance with the BioPreferred and biobased purchasing requirement, to establish an annual target for the number of contracts to be awarded with BioPreferred and biobased criteria and dollar value of BioPreferred and biobased products to be delivered and reported under those contracts in the following fiscal year.

To establish this target, agencies shall consider the dollar value of designated BioPreferred and biobased products reported in previous years, the specifications reviewed and revised for inclusion of BioPreferred and biobased products, and the number of applicable product and service contracts to be awarded, including construction, operations and maintenance, food services, vehicle maintenance, and janitorial services.

Please input the number of contracts targeted for FY 2016 here [125] and dollar value here [$50 million].

Table 6: Goal 6 Strategies – Sustainable Acquisition

(A) Strategy	(B) Top Five? Yes/No/NA	(C) Strategy Narrative (100 word limit)	(D) Specific targets/metrics to measure success including milestones in next 12 months
(A) Required Strategy under E.O. 13693			
Meet statutory mandates that require purchase preference for recycled content products designated by EPA 3(i)(i)(A)	No	Since 2010, DOE has maintained performance for sustainable purchasing in excess of 95 percent, ensuring applicable contracts contain clauses and provisions. DOE will continue to emphasize a preference for sustainable purchasing.	

(A) Strategy	(B) Top Five? Yes/No/NA	(C) Strategy Narrative (100 word limit)	(D) Specific targets/metrics to measure success including milestones in next 12 months
Meet statutory mandates that require purchase preference for energy and water efficient products and services, such as ENERGY STAR qualified and FEMP-designated products, identified by EPA and DOE 3(i)(i)(B)	No	Since 2010, DOE has maintained performance for sustainable purchasing in excess of 95 percent, ensuring applicable contracts contain clauses and provisions. DOE will continue to emphasize a preference for sustainable purchasing.	
Meet statutory mandates that require purchase preference for Biopreferred and biobased designated products designated by the USDA 3(i)(i)(C)	Yes	DOE will continue to increase efforts to promote biobased purchasing whenever possible or appropriate. Through review of contract actions, DOE will evaluate and target areas of weakness for improvement.	(1) Update and publish Sustainable Acquisition Guide chapter to include additional guidance on biobased purchasing. (2) Perform quarterly review of contract actions to assess performance against statutory mandates. (3) Perform corrective actions as necessary. (4) Continue to expand participation in DOE GreenBuy Award Program to incentivize purchase of sustainability products and services.
Purchase sustainable or products and services identified by EPA programs such as the ones outlined in 3(i)(ii)	No	Since 2010, DOE has maintained performance for sustainable purchasing in excess of 95 percent, ensuring applicable contracts contain clauses and provisions. DOE will continue to emphasize a preference for sustainable purchasing.	
Purchase Significant New Alternative Policy (SNAP) chemicals or other alternatives to ozone-depleting substances and high global warming potential hydrofluorocarbons, where feasible 3(i)(ii)(A)	No	Since 2010, DOE has maintained performance for sustainable purchasing in excess of 95 percent, ensuring applicable contracts contain clauses and provisions. DOE will continue to emphasize a preference for sustainable purchasing.	

(A) Strategy	(B) Top Five? Yes/No/NA	(C) Strategy Narrative (100 word limit)	(D) Specific targets/metrics to measure success including milestones in next 12 months
Purchase WaterSense certifie4d products and services (water efficient products) 3(i)(ii)(B)	No	Since 2010, DOE has maintained performance for sustainable purchasing in excess of 95 percent, ensuring applicable contracts contain clauses and provisions. DOE will continue to emphasize a preference for sustainable purchasing.	
Purchase Safer Choice labeled products (chemically intensive products that contain safer ingredients) 3(i)(ii)(C)	No	Since 2010, DOE has maintained performance for sustainable purchasing in excess of 95 percent, ensuring applicable contracts contain clauses and provisions. DOE will continue to emphasize a preference for sustainable purchasing.	
Purchase SmartWay Transport partners and Smartway products (fuel efficient products and services) 3(i)(ii)(D)	No	While not a top five strategy for this year's SSPP, DOE will investigate the benefits of the SmartWay program as a means to expand supply chain efficiency.	
Purchase environmentally preferable products and services that meet or exceed specifications, standards, or labels recomme4nded by EPA that have been determined to assist agencies in meeting their needs and further advance sustainable procurement goals of this order 3(i)(iii)(A)	No	Since 2010, DOE has maintained performance for sustainable purchasing in excess of 95 percent, ensuring applicable contracts contain clauses and provisions. DOE will continue to emphasize a preference for sustainable purchasing.	
Meet environmental performance criteria developed or adopted by voluntary consensus standards bodies consistent with section 12(d) of the National Technology Transfer and Advancement Act of 1995 3(i)(iii)(B)	No	DOE will expand the use of contract performance criteria when initiating procurements and evaluating contractors.	

(A) Strategy	(B) Top Five? Yes/No/NA	(C) Strategy Narrative (100 word limit)	(D) Specific targets/metrics to measure success including milestones in next 12 months
Ensure contractors submit timely annual reports of their BioPreferred and biobased purchases 3(i)(iv)(B)	No	While not a top five strategy, DOE will expand contractor reporting of biobased and sustainable purchasing through additional contract requirements. Guidance for Contracting Officers will be issued through the updated Acquisition Guide.	
Reduce copier and printing paper use and acquiring uncoated printing and writing paper containing at least 30 percent postconsumer recycled content or higher as designated by future instruction under section 4(e) of E.O. 13693 3(i)(v)	No	Since 2010, DOE has maintained performance for sustainable purchasing in excess of 95 percent, ensuring applicable contracts contain clauses and provisions. DOE will continue to emphasize a preference for sustainable purchasing.	
(A) Recommended Strategy			
Update and deploy agency procurement policies and programs to ensure that federally- mandated designated sustainable products are included in all relevant procurements and services.	Yes	The DOE Acquisition Guide serves to identify and disseminate DOE-specific procedures and best practices for adhering to FAR, DEAR, and federal purchasing requirements. DOE will update the Sustainable Acquisition chapter to reflect the new requirements of E.O. 13693.	(1) Update and publish Sustainable Acquisition guide chapter by December 2015.
Deploy corrective actions to address identified barriers to increasing sustainable procurements with special emphasis on biobased purchasing.	Yes	DOE will continue to evaluate findings from quarterly sustainable acquisition contract reviews to increase procurement of sustainable goods and services.	(1) Evaluate findings from FY 15 Q1+Q2 contract reviews to identify common areas of weakness. (2) Draft corrective plan of action targeted at areas of weakness based on contract review analysis by September 2015.

(A) Strategy	(B) Top Five? Yes/No/NA	(C) Strategy Narrative (100 word limit)	(D) Specific targets/metrics to measure success including milestones in next 12 months
Include biobased and other FAR sustainability clauses in all applicable construction and other relevant service contracts.	Yes	In 2014, DOE established the construction contracts goal of 75% by FY15; 100% by FY20. During the 2014 sustainable acquisition reviews, DOE noted that 100% of construction contracts review contained sustainable clauses. DOE will continue to strive for 100% compliance.	(1) Update sustainable Acquisition Guide with additional guidance on construction contracts by December 2015. (2) Perform quarterly contract reviews to assess performance and perform corrective actions as necessary.
Review and update agency specifications to include and encourage biobased and other designated green products to enable meeting sustainable acquisition goals.	No		
Use Federal Strategic Sourcing Initiatives, such as Blanket Purchase Agreements (BPAs) for office products and imaging equipment, which include sustainable acquisition requirements.	Yes	DOE views Federal Strategic Sourcing Initiatives, including BPAs, as important tools to reduce procurement costs and promote sustainable acquisition requirements. DOE will look to expand use of these measures as appropriate.	(1) Investigate potential for and barriers to strategic sourcing, including blanket purchase agreements. (2) Incorporate instruction in Acquisition Guide for expanding use of BPAs by December 2015.
Report on sustainability compliance in contractor performance reviews.	No		
Ensure that agency purchase-card holder policies direct the exclusive use of the GSA Green Procurement Compilation where desired products are listed in the Compilation.	No		
Employ environmentally sound disposal practices with respect to agency disposition of excess or surplus electronics.	No		

Goal 7: Pollution Prevention & Waste Reduction

Agency Progress toward Pollution Prevention & Waste Reduction

E.O. 13693 section 3(j) requires that Federal agencies advance waste prevention and pollution prevention. E.O. 13693 section 3(j)(iii) requires agencies to annually divert at least 50% of non-hazardous construction and demolition debris and section 3(j)(ii) requires agencies to divert at least 50% of non-hazardous solid waste, including food and compostable material, and to pursue opportunities for net-zero waste or additional diversion.

Table 7: Goal 7 Strategies – Pollution Prevention & Waste Reduction

(A) Strategy	(B) Top Five? Yes/No/NA	(C) Strategy Narrative (100 word limit)	(D) Specific targets/metrics to measure success including milestones in next 12 months
(A) Required Strategy under E.O. 13693			
Report in accordance with the requirements of sections 301 through 313 of the Emergency Planning and Community Right-to-Know Act of 1986 (42 U.S.C 11001-11023) 3(j)(i)	Yes	DOE sites independently report under EPCRA. Reporting under section 313 is tracked through EPA's Toxic Release Inventory (TRI) web-based reporting program (TRI-MEweb). Reporting under Sections 304, 311, and 312 is to local and state emergency planning authorities. The Department will reinstitute the monthly EPCRA Focus Group teleconference to share best practices on EPCRA, including chemical inventory, threshold determinations, and tracking/reporting methods.	(1) Share lessons learned and best practices for EPCRA compliance and reporting programs at DOE sites during monthly EPCRA teleconferences. (2) Continue site level reporting of TRI chemicals, accidental chemical releases, and hazardous chemical storage.

(A) Strategy	(B) Top Five? Yes/No/NA	(C) Strategy Narrative (100 word limit)	(D) Specific targets/metrics to measure success including milestones in next 12 months
Reduce or minimize the quantity of toxic and hazardous chemicals acquired, used, or disposed of, particularly where such reduction will assist the agency in pursuing agency greenhouse gas reduction targets established in section 2 of E.O. 13693 3(j)(iv)	Yes	Fugitive emissions are one of the largest emissions sources in DOE's scope 1&2 GHG inventory. In FY 2014, DOE fugitive emissions comprised approximately 12 percent of DOE's Scope 1&2 GHG inventory, down from nearly 17 percent in FY 2008. Reductions in this area remain a key component of DOE's strategy to meet overarching GHG goals. DOE will promote alternative and less toxic materials, as applicable.	(1) Continue to track acquisition and use of hazardous materials at the site-level and promote sound end-of-life disposition. (2) Continue regular meetings of the Fugitive Emissions Working Group to share best practices and lessons learned, and assess opportunities for further reducing GHG emissions from chemical uses.
(A) Recommended Strategy			
Eliminate, reduce, or recover refrigerants and other fugitive emissions.	Yes	SF_6 is used for a variety of purposes at DOE sites and comprises nearly 90 percent of all DOE fugitive GHG emissions. DOE tracks usage at the site-level and strives to reduce use and limit accidental releases, where possible. In 2014, 13 of DOE's largest SF_6 consuming sites maintained SF_6 capture programs. DOE will continue to share best practices among sites to improve fugitive emissions management.	(1) Study existing programs and implemented measures—including SF_6 reclaimers—and share lessons learned among applicable DOE sites (2) Continue to promote fugitive emissions management best practices through established DOE fugitive emissions work group (3) Identify alternatives to displace refrigerants and other high global warming potential substances to support Federal commitment to phase down HFC use

(A) Strategy	(B) Top Five? Yes/No/NA	(C) Strategy Narrative (100 word limit)	(D) Specific targets/metrics to measure success including milestones in next 12 months
Reduce waste generation through elimination, source reduction, and recycling.	Yes	In FY 2014, DOE diverted 50 percent of municipal solid waste from landfills. DOE will give preference to contracts which allow the greatest range of products to be recycled.	(1) Increase waste diversion rate by assessing waste diversion data and providing targeted assistance to sites with opportunities to improve performance. (2) Share lessons learned and best practices from successful and innovative recycling programs at DOE sites. (3) Assess existing strategies and begin planning to achieve E.O. 13693 net-zero waste goal.
Implement integrated pest management and improved landscape management practices to reduce and eliminate the use of toxic and hazardous chemicals/materials.	No		
Establish a tracking and reporting system for construction and demolition debris elimination.	No		
Develop/revise Agency Chemicals Inventory Plans and identify and deploy chemical elimination, substitution, and/or management opportunities.	No		
Inventory of current HFC use and purchases.	Yes	DOE's annual sustainability reporting process tracks HFC purchases and use at the site level.	(1) Continue site-level reporting of HFC purchase and use. (2) Streamline and clarify reporting as applicable.
Require high-level waiver or contract approval for any agency use of HFCs.	No		
Ensure HFC management training and recycling equipment are available.	No		

Goal 8: Energy Performance Contracts

Agency Progress on Energy Performance Contracting

E.O. 13693 section 3(k) requires that agencies implement performance contracts for Federal buildings. E.O. 13693 section 3(k)(iii) also requires that agencies provide annual agency targets for performance contracting to be implemented in FY 2017 and annually thereafter as part of the planning of section 14 of this order.

Table 8: Goal 8 Strategies – Energy Performance Contracting

(A) Strategy	(B) Top Five? Yes/No/NA	(C) Strategy Narrative (100 word limit)	(D) Specific targets/metrics to measure success including milestones in next 12 months
(A) Required Strategy under E.O. 13693			
Utilize performance contracting to meet identified energy efficiency and management goals while deploying life-cycle cost effective energy and clean energy technology and water conservation measures 3(k)(i)	Yes	Performance contracting remains a top priority for DOE in meeting the energy and water efficiency and renewable energy use goals. DOE has been using ESPC since 1999 and continues to pursue new opportunities to implement ESPCs and UESCs.	(1) DOE plans to issue 2 new ESPC Notices of Opportunity by December 2015.
Fulfill existing agency performance contracting commitments towards the $4 billion by the end of calendar year 2016 goal established as part of the GPRA Modernization Act of 2010, Climate Change Cross Agency Priority process 3(k)(ii)	Yes	DOE met the Phase 1 Agency Progress in Meeting President's Performance Contracting Challenge (PPCC) commitment of $100 million and is working toward fulfilling the Phase 2 PPCC commitment of $175 million.	(1) By June 2016, DOE plans to award two UESC projects.
(A) Recommended Strategy			
Evaluate 25% of agency's most energy intensive buildings for use with energy performance contracts	Yes	DOE guidance on EISA 432 directs sites to prioritize covered facility selection in order of energy-intensiveness. All covered facilities are evaluated on a four-year cycle.	(1) Facility evaluations will be conducted in accordance with the EISA 432 audit cycle and will be reported in EISA Section 432 Compliance Tracking System (CTS).

(A) Strategy	(B) Top Five? Yes/No/NA	(C) Strategy Narrative (100 word limit)	(D) Specific targets/metrics to measure success including milestones in next 12 months
Prioritize top ten projects which will provide greatest energy savings potential	No		
Cut cycle time of performance contracting process by at least 25%	No		
Assign agency lead to participate in strategic sourcing initiatives	No		
Devote 2% of new commitments to small buildings (<20k sq. ft.)	Yes	DOE has many small buildings that are potential candidates for ESPC ENABLE. ENABLE is part of the overall strategy for maximizing the use of performance-based contracts.	(1) The SPO and FEMP will continue to collaborate to help DOE sites prioritize and initiate ENABLE projects.
Identify and commit to include 3-5 onsite renewable energy projects in energy performance contracts	No		
Ensure relevant legal and procurement staff are trained by FEMP ESPC/ UESC course curriculum	No		
Provide measurement and verification data for all awarded projects	Yes	The SPO provides life of contract services to all DOE sites with ESPC projects in the performance period. This includes reviews of the measurement and verification (M&V) reports prior to their finalization to help ensure data quality and resolution of any issues.	(1) By the end of 2015, third party reviews of annual M&V reports will be completed for all ESPC projects across the Department.
Enter all reported energy savings data for operational projects into MAX COLLECT (max.gov)	No		

Goal 9: Electronic Stewardship

Agency Progress on Electronic Stewardship

E.O. 13693 section 3(l) requires that agencies promote electronics stewardship and requires ensuring procurement preference for environmentally sustainable electronic products as established in section 3(i);
(ii) establishing and implementing policies to enable power management, duplex printing, and other energy-efficient or environmentally sustainable features on all eligible agency electronic products; and
(iii) employing environmentally sound practices with respect to the agency's disposition of all agency excess or surplus electronic products.

Table 9: Goal 9 Strategies – Electronic Stewardship

(A) Strategy	(B) Top Five? Yes/No/NA	(C) Strategy Narrative (100 word limit)	(D) Specific targets/metrics to measure success including milestones in next 12 months
(A) Required Strategy under E.O. 13693			
Establish, measure, and report procurement preference for environmentally sustainable electronic products 3(l)(i)	Yes	DOE procurement contracts (including IT contracts) must comply with the Federal Acquisition Regulation (FAR), the DOE Acquisition Regulation (DEAR), DOE Order 436.1 (Departmental Sustainability) and DOE's Strategic Sustainability Performance Plan (SSPP), all of which require acquisition of environmentally sustainable electronic products.	(1) DOE will update existing documentation of procurement preference for environmentally sustainable electronic products where necessary.

(A) Strategy	(B) Top Five? Yes/No/NA	(C) Strategy Narrative (100 word limit)	(D) Specific targets/metrics to measure success including milestones in next 12 months
Establish, measure, and report policies to enable power management, duplex printing, and other energy-efficient or environmentally sustainable features on all eligible agency electronic products 3(l)(ii)	Yes	DOE sites continue to implement cost-effective software applications for advanced power management and strive to maintain 100 percent compliance. DOE is currently providing technical assistance to sites not meeting the goal to identify issues and work to achieve compliance. Under the leadership of the OCIO, a team of stakeholders from the ITSWG developed a draft print management guidance document.	(1) Departmental guidance on print management will be issued by the end of FY 2015. (2) One-on-one technical assistance will continue to be provided to DOE sites not currently in compliance with the requirements for computer power management.
Establish, measure, and report sound practices with respect to the agency's disposition of excess or surplus electronic products 3(l)(iii)	Yes	DOE is committed to continuing disposal of electronic assets through sound disposition practices through GSA Xcess, recycling through Unicor, donation through GSA's Computer for Learning (CFL) and other non-profit organizations, and/or recycling through a private recycler certified under the R2 or eStewards. The Department also partnered with the United States Postal Service's (USPS) electronic recycling program, which offers a free-of-charge service for recycling outdated and unused electronics.	(1) DOE will continue to look for opportunities to dispose of electronic products in a sound manner and share best practices across the Department through the ITSWG.

(A) Strategy	(B) Top Five? Yes/No/NA	(C) Strategy Narrative (100 word limit)	(D) Specific targets/metrics to measure success including milestones in next 12 months
(A) Recommended Strategy			
Update and deploy policies to use environmentally sound practices for disposition of all agency excess or surplus electronic products and monitor compliance.	Yes	DOE requires that excess products are disposed of in an environmentally sound manner, and compliance is monitored through the annual sustainability reporting cycle.	(1) In the next 12 months, DOE will update and deploy policies, where necessary, to reflect existing best disposition practices.
Ensure that power management, duplex printing, and other energy efficiency or environmentally preferable options and features are enabled on all eligible electronics and monitor compliance.	Yes	Issue Departmental guidance on power management	(1) Issue guidance no later than January 2016.

Goal 10: Climate Change Resilience

Table 10: Goal 10 Strategies – Climate Change Resilience

(A) Strategy	(B) Top Five? Yes/No/NA	(C) Strategy Narrative (100 word limit)	(D) Specific targets/metrics to measure success including milestones in next 12 months
(A) Required Strategy under E.O. 13693			
Update agency external programs and policies (including grants, loans, technical assistance, etc.) to incentivize planning for, and addressing the impacts of, climate change. (In column C, identify names of agency programs or policies)	Yes	DOE's study of the climate change vulnerabilities of the U.S. energy sector was publicly released in FY 2013. This report serves as an example of DOE external technical assistance regarding the impact of climate change on the energy sector. DOE will continue to incorporate climate change adaptation considerations into external policies, guidance, and programs.	(1) DOE will assess appropriate external programs and policies to incentivize addressing the impacts of climate change. This process will work in concert with DOE's effort to address barriers to climate change investment included in the 2014 Adaptation Plan.

(A) Strategy	(B) Top Five? Yes/No/NA	(C) Strategy Narrative (100 word limit)	(D) Specific targets/metrics to measure success including milestones in next 12 months
(A) Recommended Strategy			
Update agency emergency response procedures and protocols to account for projected climate change, including extreme weather events.	Yes	As outlined in DOE's 2014 Adaptation Plan, the Department is updating agency emergency response procedures and protocols to prepare for the potential effects of climate change, including extreme weather events. DOE included climate change language in its update of the Departmental Order 150.1A *Continuity of Operations Planning*. Through groups, such as the DOE Emergency Management Issues Special Interest Group (EMI SIG), DOE is conducting dialogue regarding communication and education of climate adaptation in emergency response. Led by the Office of Electricity Delivery and Energy Reliability (OE), DOE will continue to leverage lessons learned from responses to extreme weather disasters.	(1) Continue to review and update Emergency Response planning mechanisms for climate change, as appropriate, in accordance with updated DOE orders, guides and technical standards. (2) DOE will look to expand its site vulnerability assessments in order to provide sites with appropriate information to update emergency response procedures and protocols.
Ensure workforce protocols and policies reflect projected human health and safety impacts of climate change.	Yes	The 2014 DOE Adaptation Plan specifically identifies human health as vulnerability for the Department. Current workforce protocols call for natural hazard assessments and DOE will look specifically at climate change as part of this process.	(1) Continue to review and update workforce protocols, policies, and planning mechanisms for climate change, as appropriate, in accordance with updated DOE orders, guides and technical standards.

(A) Strategy	(B) Top Five? Yes/No/NA	(C) Strategy Narrative (100 word limit)	(D) Specific targets/metrics to measure success including milestones in next 12 months
Update agency external programs and policies (including grants, loans, technical assistance, etc.) to incentivize planning for, and addressing the impacts of, climate change.	No		
Ensure agency principals demonstrate commitment to adaptation efforts through internal communications and policies.	Yes	DOE developed an internal agency adaptation working group to share strategies and best practices throughout the Department. DOE sites and programs are required to report on adaptation activities at the site and programmatic levels through an annual internal plan. This structure ensures Departmental awareness and commitment to climate change efforts. DOE has adapted its internal Occurrence Reporting and Processing System (ORPS) to identify and track site-level issues that may be related to climate change. ORPS is an on-line reporting system used to collect data on incident occurrences for the purpose of analyzing and improving procedures.	(1) Continue the multitude of efforts already in place, including maintaining the DOE Adaptation Working Group and requiring reporting on program and site level climate change adaptation. (2) DOE is developing a guide for sites to assess vulnerabilities associated with climate change. It will be released in December 2015. (3) Continue monthly dissemination of climate-related ORPS notices, and begin to aggregate occurrence information for generic implications and operational improvements.
Identify vulnerable communities that are served by agency mission and are potentially impacted by climate change and identify measures to address those vulnerabilities where possible.	No		

(A) Strategy	(B) Top Five? Yes/No/NA	(C) Strategy Narrative (100 word limit)	(D) Specific targets/metrics to measure success including milestones in next 12 months
Ensure that agency climate adaptation and resilience policies and programs reflect best available current climate change science, updated as necessary.	Yes	DOE participates in the U.S. Global Change Research Program's Adaptation Science Working Group to access the best available resources, ensuring that policies and programs are up to date. DOE's scientific research mission brings expertise to the National Laboratories.	(1) Continue to participate in interagency working groups related to climate science and work with in-house experts in updating policies. (2) Continued to engage internal stakeholders who have developed forward-looking policies, programs, and practices on climate adaptation and resilience.
Design and construct new or modify/manage existing agency facilities and/or infrastructure to account for the potential impacts of projected climate change.	No		
Incorporate climate preparedness and resilience into planning and implementation guidelines for agency-implemented projects.	No		
Ensure climate change adaptation is integrated into both agency-wide and regional planning efforts, in coordination with other Federal agencies as well as state and local partners, Tribal governments, and private stakeholders.	No		

Appendices

1) FY 2015 Fleet Management Plan and Budget Narrative

2) Procurement Strategy

3) Climate Preparedness and Resilience Strategy

U.S. Department of Energy

Appendix to the 2015 Strategic Sustainability Performance Plan

FY 2015 Fleet Management Plan and Budget Narrative

(A) Introduction that describes the agency mission, organization, and overview of the role of the fleet in serving agency missions.

(1) Briefly, what is the agency's primary/core mission and how is the fleet configured to support it?

The Department of Energy's (DOE) mission is to ensure America's security and prosperity by addressing its energy, environmental and nuclear challenges through transformative science and technology solutions. DOE's mission is performed by a Federal and contractor staff of over 109,000 in 47 major sites and locations, including federally owned, GSA and commercially leased facilities, as well as university campuses. Each fleet site, working with its Program Element, DOE HQ and GSA determines the most appropriately sized and fuel efficient fleet to support its mission.

(2) Please describe the organizational structure and geographic dispersion of your fleet.

DOE's Program Elements and their fleet sites manage, as is appropriate, their respective fleets, with DOE Headquarters providing policy guidance, advocacy, and liaison with GSA and other federal agencies.

DOE's sites and National Laboratories are distributed throughout the country and, in many cases, in remote locations not situated near metropolitan or heavily-populated areas. As a result, DOE sites are posed with unique challenges to integrate public transportation, ride-sharing, and fleet consolidation across a wide geographical area.

(3) What are the ancillary missions, such as administrative functions, and how are they supported?

Ancillary missions at DOE sites include Emergency Response, administrative and Law Enforcement. These functions are supported by agency-owned and GSA leased vehicles.

(4) How are vehicles primarily used, and how do mission requirements translate into the need for particular vehicle quantities and types?

DOE policy contained in 41 CFR 109, DOE Property Management Regulations (DOE PMR), states that Government motor vehicles operated by DOE employees are to be used only for official Government purposes or for incidental purposes as prescribed in this section.

The DOE Program Elements determine vehicle types and quantities based on mission requirements, terrain and the environment in which the vehicles are operated. Fuel efficiency, low greenhouse gas emission, and safety are primary considerations when determining the specific type of vehicles. Alternative fuel vehicles, hybrid electric vehicles (HEV), plug-in hybrid electric (PHEV), electric vehicles (EV), and flex-fuel vehicles (FFV) are evaluated and acquired as appropriate for mission.

(B) Criteria for justifying and assigning vehicles (including home-to-work vehicle assignments).

(1)What are the factors and considerations used for assigning vehicles?

The Department determines vehicle types and quantities based on specific mission requirements. The composition and size of the DOE fleet is under constant scrutiny for additional efficiency gains. Utilization controls and practices used by DOE organizations and contractors include:

(a) The maintenance of individual motor equipment use records, such as trip tickets or vehicle logs, showing the date used, name of the operator, destination, times of departure and return, and mileage or hours of use, as appropriate.
(b) The rotation of motor vehicles between high and low mileage assignments to maintain the fleet in the best overall replacement age and mileage balance and operating economy.
(c) Exploring the use of low speed vehicles (LSVs) and low speed electric vehicles (LSEVs) as possible replacements of conventional vehicles, where applicable, such as campus environments.

(2) Are vehicles assigned to individuals, offices, job classifications?

DOE emphasizes the minimum assignment of motor vehicles to individuals, groups, or specific organizational components. When feasible, the user organization is charged for the direct and indirect cost of operating and maintaining motor vehicles assigned to groups or organizational components.

(3) What alternatives are considered to meet mission requirements before adding a vehicle or vehicles to the fleet?

As alternatives to acquiring additional vehicles, the following best practices are implemented, where practical, at DOE fleet sites:

(a) The maximum use of motor equipment pools, taxicabs, shuttle buses, or other common service arrangements.
(b) The use of dual-purpose motor vehicles capable of hauling both personnel and light cargo to avoid the need for two motor vehicles when one can serve both purposes.
(c) The sharing of motor vehicle with other services and staff offices when possible. Organizations in close proximity to each other should share motor vehicles, when feasible.

(4) How are home-to-work vehicles justified, assigned, and what steps are taken to limit HTW use?

31 U.S.C. 1344 and Federal Management Regulation (FMR) Part 102-5 (41 CFR Part 102-5) allow heads of Federal agencies in certain limited situations to authorize employees to use Government passenger carriers for transportation between their residences and their places of work, known as HTW transportation.

Based on the provisions of 41 CFR 102-5, HTW transportation shall only be authorized when such transportation will substantially increase the efficiency and economy of the Department of Energy. Unauthorized or willful misuse of a HTW motor vehicle shall be cause for disciplinary action as described in 41 CFR Chapter 109, paragraphs 109-6.450(a) and (b).

(C) Vehicle Allocation Methodology (VAM) target development and explanation for reported fleet size and cost changes or not meeting agency VAM targets.

(1) Provide information on the methods used to produce your agency's VAM targets. (Recommendation #2 from GAO report: GAO-13-659. See FMR Bulletin B-30 for guidance on conducting a VAM study and developing VAM targets)

(a) From your most recent VAM study, what was the specific utilization criteria used to determine whether to retain or dispose of a vehicle? Provide the miles, hours, vehicle age or other means used to

make this determination. If a different criterion was used in different bureaus or program areas, provide the criteria for each.

The Department uses the following criteria to justify vehicle retention, replacement or disposal without replacement:

- Mission criticality
- Utilization by mileage, trip, or hours
- Personnel-to-vehicle ratios
- Terrain
- Climate
- Fleet condition/down-time

The Department does note that in terms of VAM plan implementation, 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. When operating circumstances prevent the motor vehicle utilization standards from being met, local use objectives must be established and met in concurrence with the DOE organizational fleet manager. Utilization standards regarding amount of use by Days per Year, Hours of Use per Day, and Number of Trips per Week are currently undefined by the CFR, and to be determined. Currently, DOE's local utilization standard determinations are made on an ad-hoc basis by sub-agency and local fleet managers, and most sites require at least an annual review.

(b) From your most recent VAM study, what were the questions used to conduct the VAM survey? If different questions were used in different bureaus or program areas, provide the questions for each.

The Department utilized the VAM Compliance and Results Reporting questionnaire in FAST, which was completed by all fleet sites in February 2012. The following questions were used across the Agency:

1. At what level was the VAM analysis performed? Check as appropriate.
   - ☑ Entire Agency
   - ☑ Single Bureau
   - ☐ Region
   - ☑ Single Location
   - ☑ Other - Explain below

     VAM analysis was monitored at the Agency level, but reviews were conducted at the site level.

2. On what general basis is the VAM constructed? Check any that apply.
   - ☑ One VAM per office or facility
   - ☑ One VAM per program area
   - ☐ One VAM per occupation or occupational group
   - ☐ Other - Explain below

3. If any non-exempt vehicles are not covered by the VAM, what is the reason?

4. The VAM affected which of the following? Check all that apply.
   - ☑ Vehicle retention

- ☑ Acquisition of replacement vehicles
- ☑ Acquisition of additional vehicles
- ☑ Disposal/non-replacement of unneeded vehicles
- ☑ Decisions regarding sourcing of acquisition of vehicles
- ☐ Other - Explain below

5. What criteria does the VAM use to justify vehicle retention/acquisition? Check all that apply.
   - ☑ Personnel-to-vehicle ratios
   - ☑ Mileage utilization (miles per vehicle per week, month, or year)
   - ☑ Trip utilization (trips per vehicle per week, month, or year)
   - ☑ Hours utilized (hours per vehicle per week, month, or year)
   - ☑ Mission criticality
   - ☑ Terrain
   - ☑ Climate
   - ☑ Fleet condition/down-time
   - ☐ Other - Explain below

6. Where does the VAM acquire data? Check all that apply.
   - ☑ One or more automated source
   - ☑ Fleet management information system
   - ☑ Vehicle registry or vehicle inventory
   - ☑ In-person interviews with end users
   - ☑ Surveys/questionnaires (paper, email, web-based, etc.)
   - ☐ Telematics
   - ☐ Other - Explain below

7. Does the VAM perform any of the following? Check all that apply.
   - ☐ Highlights candidates for general or specific AFV configurations (dual-fuel, E-85, plug-in electric, etc.)
   - ☑ Recommends specific vehicle sizes
   - ☐ Recommends rotating high- and low-mileage vehicles
   - ☑ Recommends optimal vehicle sourcing (purchase, lease, GSA lease, POV, fleet-on-demand services, public transit, etc.)
   - ☐ Recommends inter-agency sharing
   - ☐ None of the above

8. What factors does the VAM use in making vehicle recommendations? Check all that apply.
   - ☐ Availability of public transit or other transportation options
   - ☑ Availability of alternative fuel infrastructure
   - ☑ Lifecycle cost, including acquisition, fuel, warranty, operational, maintenance, and disposal cost
   - ☑ Other - Explain below

     Recent changes to 41 CFR 102-34 that increased the GSA short-term rental period to 120 continuous days, especially at locations with seasonal needs.

(2) Provide an explanation for any measurable change in fleet size and/or cost or if you are not meeting your annual VAM targets. What are the plans to correct any deficiencies, and indicate factors that hinder attainment of your annual VAM targets (e.g., budgetary, other resource issues, mission changes, etc.)?

On January 27, 2011, the DOE Secretary signed an agency memorandum on Management of Fleet Inventory that challenged the Department to reduce fleet inventory by 35 percent within three years, without sacrificing either mission critical elements or the Department's commitment to operate in a safe, secure and environmentally sound manner. The Secretary's initiative also called for the fleet to be mission-appropriate and cost-effective across all sites and field offices. DOE Agency Fleet Management had already launched plans to meet this challenge prior to President Obama issuing the May 24, 2011 Memorandum on Federal Fleet Performance. To address the Presidential Memorandum and GSA FMR Bulletin B-30, DOE Agency Fleet Management aligned its Vehicle Allocation Methodology (VAM) with the Secretary's 35 percent fleet reduction challenge beginning in fiscal year (FY) 2012.

While some Program Elements and fleet sites met or exceeded the reduction goal, other major fleets that were already optimally streamlined or did not accurately identify their mission-critical vehicles to be excluded from the reduction effort, could not meet the 35 percent reduction goal. Furthermore, evolving mission requirements required the retention of vehicles that were previously planned for disposal without replacement, while some sites needed addition to the fleet. For instance, in FY 2014 the Office of Environmental Management added 175 vehicles to support a new mission at the Paducah Gaseous Diffusion Plant Deactivation Project; further, EM must retain 413 vehicles at Hanford to support changes in the clean-up project completion date.

To assist fleet right-sizing efforts, the Department worked with GSA to implement the Federal Fleet Management System (FedFMS) in 2014 for its agency-owned and commercially-leased vehicles. The system, which attained full operating capability on September 30, 2014, provides the necessary visibility to better enable the Department to make informed management decisions regarding the DOE fleet inventory. FedFMS provides accurate inventory, cost, and use data at the enterprise level, and timely recording and reporting of lifecycle events at the vehicle asset level. As such, DOE expects to achieve increased efficiencies in the management of their owned and commercial leased fleet, as well as increased responsiveness to leadership and external stakeholders.

The theoretical, optimal DOE fleet that resulted from the original VAM no longer reflects the present day mission critical requirements; therefore, the Department will employ the services of an independent consultant to perform an agency-wide VAM survey in FY 2015.

(D) Description of efforts to control fleet size and cost.

(1) How and why have the size, composition, and cost of your agency's fleet changed, and how are they projected to change in the future?

The Department's FAST-reported fleet size decreased by 1.4 percent (192 vehicles) from FY 2013 to FY 2014. During the same period, miles traveled decreased by 6.4 percent (5.8 million miles), fuel consumption decreased by 5.3 percent (460,000 GGEs), and goal subject petroleum consumption decreased by 3.2 percent (198,000 GGEs). Total operating costs decreased by 16.7 percent ($21,870,000) from FY 2013 to FY 2015. DOE projects continued reductions in fleet size, although less

than quantities planned in the VAM. Petroleum use, miles traveled and operating costs are also projected to decrease over the next few years.

DOE's fleet size and composition, as reported in FAST, are shown below:

Figure I: **DOE Inventory Trend**

Vehicle Type	FY 2012	FY 2013	FY 2014
Sedans/Station Wagons	750	777	853
LSEVs	95	85	83
Ambulances	64	66	62
Buses	174	167	168
LD Trucks	6,944	6,538	6,658
MD Vehicles	4,251	4,364	4,104
HD Vehicles	2,179	2,197	2,074
Total	**14,457**	**14,194**	**14,002**

To assist fleet planning efforts and ensure DOE's fleet sustainability goals are achieved, DOE sites included Fleet Management Plans with their annual Site Sustainability Plans. The Fleet Management Plans, along with the DOE Fleet Management Handbook which is being revised in FY 2015, focus on ways each site/organization will increase acquisition and use of alternative fuel vehicles, reduce fleet petroleum use, and right-size their respective fleet inventories to fulfill mission requirements.

At the fleet site level, many DOE sites and National Laboratories have taken steps to control fleet size and operating costs. Through the use of telematics, Idaho National Laboratory was able to reduce its fleet inventory by 65 vehicles, achieving total annual cost savings of $393,000 in lease and operating costs. Bonneville Power Administration which operates one of DOE's largest fleets plans to employ telematics in 2015. At the Nevada National Security Site (NNSS), the Fleet Commander electronic vehicle dispatch system is being utilized to analyze vehicle utilization trends and maintenance requirements. In 2014, Nevada Field Office, NNSS received a Federal Energy and Water Management Award for the Alternative Fuel Vehicle Management Program.

(2) Does the agency ever acquire vehicles from other than the most cost-effective source and, if so, explain why?

As prescribed by 41 CFR Part 101-26.501, DOE acquires its vehicles through the GSA's Fleet and Automotive organization, which offers an average of 17 percent cost savings below the manufacturers' invoice prices. In very rare instances in which GSA cannot offer the mission-specific special purpose vehicles that the Department requires, we will work with GSA to obtain the necessary approval to purchase or lease from commercial vendors.

(3) Discuss any trends toward larger, less fuel-efficient vehicles and the justifications for such moves.

From FY 2013 to FY 2014, the number of heavy duty vehicles decreased by 123 vehicles and medium duty vehicles decreased by 260. The trend toward smaller vehicles is expected to continue as DOE Headquarters and Program Element fleet management staff partner with GSA Office of Motor Vehicle Management to ensure that only the smallest, most fuel-efficient and least greenhouse gas emitting vehicles that suit mission needs are acquired.

(4) Discuss the basis used for your reported future cost projections (published inflation estimates, historical trends, flat across-the-board percentage increases, mission changes, etc.)

DOE future cost projections are based on mission critical requirements estimates, changes in GSA lease rates, and may be supplemented by percentage increases indexed to inflation estimates.

(E) Explanation of how law enforcement vehicles are categorized within the agency (See FMR Bulletin B-33).

(1) Does your agency use the law enforcement (LE) vehicle classification system described in GSA Bulletin FMR B-33?

Yes.

(2) Does your agency exempt only Level 1 LE vehicles from Energy Policy Act and VAM reporting?

No.

(3) If your agency does not use the LE vehicle classification system, explain how LE vehicles are categorized and which are exempted from Energy Policy Act and VAM requirements.

DOE utilizes the Law Enforcement (LE) vehicle classification system as prescribed by GSA FMR Bulletin B-33.

(F) Justification for restricted vehicles.

(1) If your agency uses larger than class III (midsize) vehicles, is the justification for each one documented?

In 2014, DOE had 15 remaining older full size LE sedans that were acquired from 2003 through 2011. These vehicles are being turned-in without replacement or replaced with mission-needed light duty trucks as they meet replacement eligibility. All requests to purchase passenger automobiles larger than class IA, IB, or II (small, subcompact, or compact) are forwarded with justification to HQ for approval and certification for compliance with the fuel economy objectives listed in 41 CFR 102-34. Requests to exempt light-duty trucks from the fleet average fuel economy calculations are forwarded with justification to HQ for approval.

(2) Are executive fleet vehicles posted on your agency's website as required by the Presidential Memorandum of May 2011?

DOE Executive fleet vehicles are posted on the following site:
http://energy.gov/management/downloads/executive-fleet-vehicles-report

(3) If your agency reports limousines in its inventory, do they comply with the definition in GSA Bulletin FMR B-29?

DOE did not have limousines in its inventory in FY 2014.

(4) For armored vehicles, do you use the ballistic resistance classification system of National Institute of Justice (NIJ) Standard 0108.01, and restrict armor to the defined types?

Yes.

(5) Are armored vehicles authorized by appropriation?

Yes.

(G) Description of vehicle replacement strategy and results.

(1) Describe the schedule the agency will follow to achieve its optimal fleet inventory, including plans for acquiring all light duty Alternative Fueled Vehicles (AFVs) by December 31, 2015.

As stated in paragraph (C)(2), the optimal DOE fleet that resulted from the original VAM no longer reflects the present day mission critical requirements; therefore, a new VAM survey will be conducted in FY 2015.

While the Department is not currently meeting its overall inventory targets identified in the FY 2012 VAM, some progress was achieved. Since 2012, DOE reduced the number of conventional fuel vehicles (by 23% percent – 1,738 vehicles) and increased the proportion of alternative fuel vehicles of the overall fleet from 46 percent to 57 percent. During the same period, DOE alternative fuel consumption increased by 18.2%, while petroleum consumption decreased by 11.3%, placing DOE on track to meet the statutory and Executive Order requirements.

In FY 2014, 57 percent of DOE's VAM-covered Light Duty Vehicle inventory consisted of Alternative Fueled Vehicles. By the end of calendar year 2015, DOE's optimal inventory goal is for 100 percent of all LDV acquisitions to be AFVs, as prescribed by the President's Memorandum of May 2011.

(2) Describe agency plans and schedules for locating AFVs in proximity to AFV fueling stations.

The selection of DOE site locations were based upon public health and safety, environmental, mission requirements, and national security considerations. The motor vehicle fleets or any part thereof supporting these sites cannot be relocated without critically degrading the ability to support the sites' mission. As an alternative measure to fleet site relocations, we are continually seeking cost-effective ways of bringing alternative fuel to our AFV locations. Some of our notable efforts are described in paragraph (G)(3).

(3) What is the agency's approach in areas where alternative fuels are not available?

In cases where access to alternative fuel would be unfeasible, DOE will investigate opportunities to utilize HEVs or low GHG-emitting vehicles and install agency-owned alternative fuel infrastructure. For example, because NNSS Nevada and Savannah River sites are located in remote areas, site managers added E-85 fuel tanks to the site service station to enable convenient access to alternative fuel for its fleet AFVs. Other fleet sites, such as NETL Pittsburgh and Fermi National Laboratory, have E-85 tanks on site. Argonne National Laboratory dispenses E-85 and bio-diesel on site. In addition to its E-85 and bio-diesel fueling facility, Brookhaven National Laboratory also installed CNG infrastructure on site to serve its fleet of AFV vehicles.

(4) Are AFVs that are not dependent on infrastructure, such as electric vehicles and qualifying low greenhouse gas (LGHG) vehicles, being placed in such areas?

The most cost-effective and fuel-efficient options will be considered for areas where alternative fuels are not conveniently available, including hybrid electric vehicles (HEVs), plug-in hybrid electric vehicles (PHEVs), and conventionally-fueled low-GHG emitting vehicles. It should be noted that fulfillment of this goal will also be dependent upon GSA's ability to fulfill vehicle acquisition requests. Several DOE fleet sites have elected to participate in GSA's electric vehicle pilot program.

(5) Describe the agency's 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.

As of FY 2014, 21.9 percent of DOE's fleet vehicle inventory is agency-owned. The Department utilizes commercially leased vehicles, currently 1.5 percent of the inventory, on a short-term or seasonal basis to keep leasing costs to a minimum or when GSA-leased vehicles are not available or not appropriate to mission requirements. Where possible, DOE will reduce commercially leased acquisitions by utilizing GSA's short-term vehicle rental program.

As prescribed by 48 CFR Subpart 7.4, "Agencies should consider whether to lease or purchase equipment based on a case-by-case evaluation of comparative costs and other factors". 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.

(H) Description of the agency-wide Vehicle Management Information System (See FMR 102-34.340).

(1) Is there a vehicle management information system (MIS) at the Department or Agency level that:

(a) Identifies and collects accurate inventory, cost, and use data that covers the complete lifecycle of each motor vehicle (acquisition, operation, maintenance, and disposal); and

(b) Provides the information necessary to satisfy both internal and external reporting requirements, including:

- *Cost per mile;*
- *Fuel costs for each motor vehicle; and*
- *Data required for FAST reporting (see FMR 102-34.355.)*

(2) If the agency does not have such a system, what is being used to capture vehicle information, or is there no MIS at all?

(3) If there is no MIS, what obstacles are preventing implementation and compliance with §102-34.340, "Do we need a fleet management information system?"

The Department utilizes GSA Fleet's management information system in Drive-thru to monitor its GSA-leased vehicles. For its agency-owned and commercially-leased inventory, DOE's implemented GSA's FedFMS in 2014. Both systems are comprehensive and integrated with the Federal Motor Vehicle Registration System (FMVRS) to aid in ensuring data quality and accuracy in FAST data reporting, and are compliant with the MIS requirements of §102-34.340.

(I) Plans to increase the use of vehicle sharing.

(1) Describe efforts to share vehicles internally or with other Federal activities.

The Department will continue to promote the use of vehicle sharing and carpooling at DOE sites and National Laboratories. For example, in 2013 the taxi service at Fermi National Accelerator Laboratory transported over 14,000 passengers on site. 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.

(2) Describe pooling, car sharing, and shuttle bus consolidation initiatives.

DOE sites have made progress in consolidating shuttle and bus services. At Y-12, a taxi service replaced the existing shuttle service to improve the efficiency of the system and the Idaho National Laboratory (INL) redesigned their shuttle bus system by implementing express routes and eliminating underutilized routes. The effort at INL expanded the successful Park and Ride concept to include all INL Site bus operations. As a result of this consolidation, INL was able to reduce its bus fleet and transferred two excess diesel hybrid passenger buses to serve at the Oak Ridge National Laboratory.

(3) Describe efforts to reduce vehicles assigned to a single person.

Over the past year, DOE sites have made significant progress in promoting the consolidation and sharing of vehicle services. At many DOE sites, employees are encouraged to carpool when attending common off-site meetings and conferences. In an effort to consolidate the use of facility craft vehicles, sites such as Lawrence Berkeley National Laboratory, began offering a tool delivery service that enables multiple crafts to share one small vehicle for deliveries to job sites as needed.

(J) Impediments to optimal fleet management.

(1) What obstacles does the agency face in optimizing its fleet?

DOE's varied mission poses unique challenges to optimizing the fleet inventory and achieving fleet management goals. One example is the mission-requirement for heavy duty trucks, armored vehicles and 4X4 trucks to support the operations at many DOE sites.

(2) In what ways is it hard to make the fleet what it should be, operating at maximum efficiency?

In addition to the unique missions, the terrain and environment where some of DOE's large fleets operate require the use of heavy duty vehicles, 4X4 trucks and other off-road vehicles. For instance, a large number of 4X4 trucks and heavy duty vehicles are required at Power Marketing Administrations, National Security, Deactivation and Decommissioning and environmental remediation sites due to field conditions and the nature of work being performed. Operation of such vehicles presents a challenge in maximizing fuel efficiency and reducing maintenance costs.

(3) If additional resources are needed, have they been documented and requested?

Yes. DOE has initiated the process to acquire the services of an independent fleet management consultant to conduct an agency-wide VAM survey in FY 2015.

(4) Do you feel hampered by specific laws, Executive Orders, GSA's government-wide regulations or internal agency regulations, budget issues, or organizational obstacles? What exactly are they and how do they constrain you? Be specific and include examples. If you have a solution, describe it and indicate whether we can share the solution with other agencies as a potential best practice.

Yes. The Federal Energy Management Program (FEMP) EPAct Section 701 waiver process appears to be relevant only to fleets that operate from fixed motor pools serving relatively small geographic areas of operation, where vehicles are dispatched and returned to the same locations. For Bonneville Power Administration (BPA) and Western Area Power Administration (WAPA) whose critical missions

encompass a combined service area of over 600,000 square miles, most in remote locations from the Pacific Northwest to the Rockies and the Desert Southwest, it is not always possible to comply with the EPAct Section 701 requirement to use only alternative fuel in all dual fueled vehicles. Although, many of BPA's and WAPA's flex-fuel vehicles are administratively assigned to primary locations where alternative fuel is available within the FEMP prescribed proximity, the vehicles are routinely dispatched to distant locations that do not have alternative fuel infrastructure. Often, the vehicles and crew remain at the remote work site for considerable time while working on projects. When needed, the vehicles are refueled at the closest service station since returning to the primary locations for the sole purpose of refueling is not practical due to unnecessary added fuel costs and lost workers' productivity due to travel time. In the past few years, EPAct Section 701 waiver requests for these vehicles have been denied by FEMP. DOE recommends revaluating the criteria for granting such waivers to account for unique situations, such as the BPA and WAPA fleets.

(K) Anomalies and possible errors.

(1) Explain any real or apparent problems with agency data reported FAST.

The DOE optimal fleet needs to be redefined as the data obtained in 2012 to formulate the VAM do not reflect the present day mission-critical fleet requirements.

(2) Discuss any data fields highlighted by FAST as possible errors that you chose to override rather than correct. Examples would be extremely high annual operating costs or an abnormal change in inventory that FAST considers outside the normal range, or erroneous data in prior years causing an apparent discrepancy in the current year.

The two cost categories below that fall outside the FAST pre-defined cost limits are attributed to DOE's mission-specific HD trucks, armored and law enforcement vehicles at some fleet sites:

- The monthly operating cost per vehicle in at least one row falls outside the pre-defined reasonable cost limits (between $100 AND $1,000).
- The acquisition cost per vehicle in at least one row falls outside the pre-defined reasonable cost limits (between $10,000 AND $100,000).

(3) Any flagged, highlighted, or unusual-appearing data within FAST should be explained.

The DOE average monthly operating costs of commercially-leased vehicles and the planned acquisition costs of the agency-owned fleet fall above the FAST pre-defined limits due to a mission requirement for HD trucks, HD armored vehicles and law enforcement vehicles at our national security sites and environmental remediation projects. These HD vehicles in the DOE-owned and commercially-leased inventories incur extremely high acquisition, operation and maintenance costs.

(L) Summary and contact information.

Who should be contacted with questions about the agency fleet? Provide the name and contact information for the agency headquarters fleet manager and the budget office reviewing official. Indicate whether the budget officer participated in the VAM and A-11 processes.

Although, the DOE Budget Office does not actively participate in the VAM and A-11 processes, it provides final review of the OMB A-11 submission. Moreover, Program Elements and National Laboratories that operate fleet vehicles ensure budget personnel and property administrators at the appropriate levels actively participate in the VAM and A-11 processes.

DOE Fleet Management Program Lead: Dante Tan, (202)287-1364, dante.tan@hq.doe.gov

DOE Budget Office Reviewing Official: Mark Joseph, (202) 586-7717, mark.joseph@hq.doe.gov

U.S. Department of Energy
Appendix to the 2015 Strategic Sustainability Performance Plan
Procurement Strategy

Executive Order (E.O.) 13693, *Planning for Federal Sustainability in the Next Decade*, calls for the largest Federal procuring agencies to develop "a plan to implement at least five new procurements annually in which the agency may include, as appropriate, contract requirements for vendors or evaluation criteria that consider contractor emissions and greenhouse gas emissions management practices." These procurement plans—to be submitted with the 2016 Strategic Sustainability Performance Plan—will guide procurements towards cleaner, more environmentally friendly sources while reducing federal agencies' supply chain emissions. This Procurement Strategy serves as the initial step in establishing a Departmental framework for addressing the acquisition requirements of E.O. 13693.

Over the past 5 years, the Department of Energy (DOE) has increased utilization of contracts that incorporate sustainable clauses and provisions. In adherence to E.O. 13514, DOE maintained a compliance level of 95 percent or greater for sustainable acquisition, as determined by reviewing a 5 percent random sampling of new contract actions. In FY 2013, and subsequently updated and expanded in FY 2014, DOE set aggressive targets to increase biobased purchasing and sustainable construction contracting in all eligible contract actions. DOE set interim targets of 75 percent by FY 2015, working towards a goal of 100 percent by FY 2020. During the FY 2014 contract reviews, DOE noted that 76 percent of eligible contracts contained biobased clauses. In addition, the Department noted that 94 percent of eligible construction contracts reviewed contained sustainable clauses.

DOE will look to build on this success and the Department's established principles of procurement management to address the new requirements of E.O. 13693. Within DOE's Office of Management, the Sustainability Performance Office (SPO) and Office of Acquisition Management (OAM) will serve as co-leads for this goal. These offices will represent DOE at interagency workgroups and meetings and interface directly with DOE programs and field office procurement specialists to communicate requirements and objectives, both directly and through its long-standing Sustainable Acquisition Working Group. The Department recognizes the complexity of integrating new requirements into existing processes; therefore, DOE will revise the sustainable acquisition chapter of its internal Acquisition Guide to inform DOE procurement specialists of the new federal purchasing goals. The update will address the new requirements of E.O. 13693 and include additional resources for increasing biobased purchasing. SPO will continue distributing a monthly newsletter, the DOE SPOtlight, which provides updates on policies, features sustainability news, success stories, tips, upcoming events, and training opportunities, as well as promotes internal communication.

U.S. Department of Energy
Appendix to the 2015 Strategic Sustainability Performance Plan
Climate Preparedness and Resilience

In order to address the climate preparedness and resilience requirements of sections 13(a) and (b) of E.O. 13693, DOE has established planned actions throughout the Department for FY 2015 and beyond. Upon the foundation of the DOE Climate Adaptation Plan, the Department will continue to advance adaptation efforts to increase scientific knowledge, continue regional collaboration and interagency cooperation, and resilience activities. DOE's Chief Sustainability Officer (CSO) will oversee these efforts to attain sustainability goals and requirements and implement the SSPP.

The Sustainability Performance Office (SPO) will continue overseeing climate change adaptation efforts and providing technical assistance to sites and DOE National Laboratories. SPO will continue distributing a monthly newsletter, the DOE SPOtlight, which provides updates on policies, features sustainability news, success stories, tips, upcoming events, and training opportunities, as well as promotes internal communication.

DOE will continue involvement with working groups with climate change adaptation/preparedness objectives and will continue regional collaborations, interagency cooperation, and promoting partnerships to facilitate learning. Working groups currently active with DOE membership provide ongoing opportunities for exchanging information and best practices across DOE programs. DOE is coordinating with the Association of Climate Change Officers to host an internal training event in June 2015, which aims to increase Department-wide knowledge on climate change, resilience activities, and available tools and resources.

In the past year, three pilot vulnerability assessments were completed across the DOE complex and a fourth is planned to reach completion in FY 2015. The SPO is developing a guide to assist sites and DOE National Laboratories in completing future vulnerability assessments. Vulnerability assessments will serve to enhance decision-making and inform site management of the risks of climate change to their facilities, missions, and operations. In 2014, a vulnerability screening assessment survey was distributed to DOE sites to understand preliminary site actions on climate change preparedness and resilience. Also in FY 2014, a Department-wide effort to qualitatively assess climate impacts on DOE sites, a voluntary climate change impact survey was distributed to all sites. This survey highlights common climate change vulnerabilities between sites, as well as the impact to site operations of each climate hazard. Incorporation of these findings into site plan changes and actions will be better informed upon completion of the vulnerability assessment guide.

DOE sites and programs are already preparing for—and in some cases, addressing the damage done by—climate change. Existing programs are in place at many locations, and additional actions will be launched across the DOE complex during the next year toward achieving each of the new goals set forth by E.O. 13693. These actions will contribute to overall Departmental efforts to increase sustainability and climate change resilience efforts. DOE will continue to include climate change adaptation as part of its planning and operations processes, leveraging its modeling, climate science expertise, and engineering capabilities in collaboration with other agencies and institutions, to improve the Department's understanding of the effects of climate change to our mission.