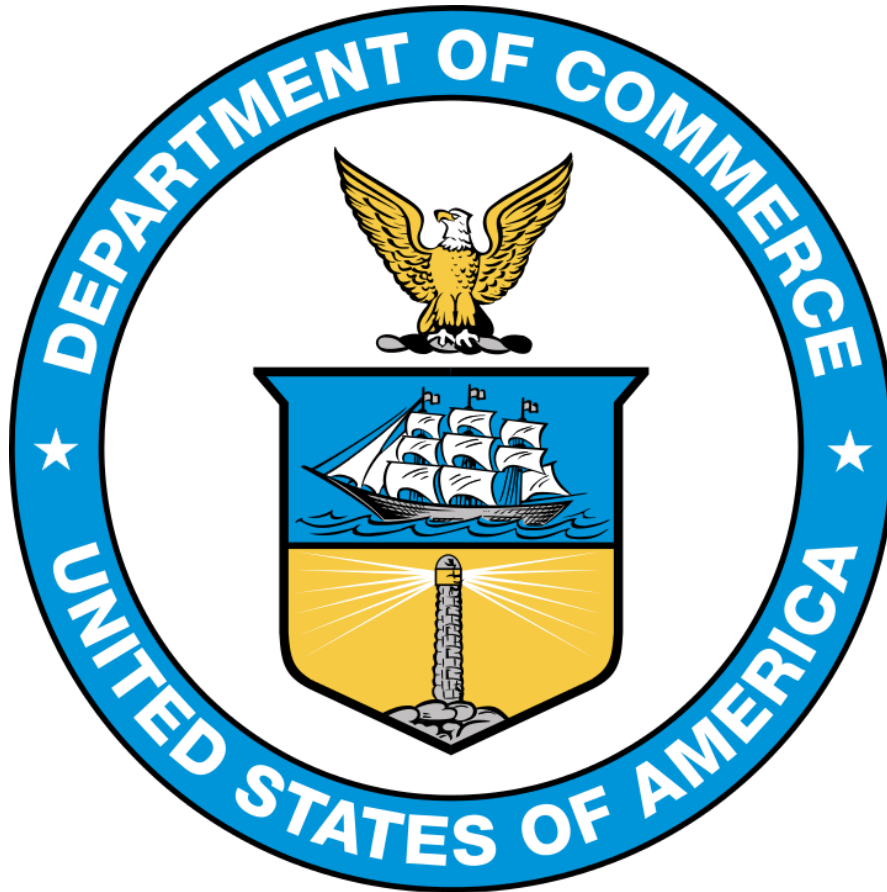


Department of Commerce
2019 Sustainability Report and Implementation Plan



Department of Commerce

Sustainability Report and Implementation Plan

2019

Submitted: June 28, 2019

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Executive Summary

The U.S. Department of Commerce (subsequently referred to as “the Department”) has approximately 47,000 employees working across every U.S. state and territory and in more than 86 countries worldwide. The Department is headquartered in Washington, D.C. and has thirteen operating units (OU), including: the Office of the Secretary (OS); Office of the Inspector General (OIG); Bureau of Industry and Security (BIS); Bureau of Economic Analysis (BEA); U.S. Economic Development Administration (EDA); U.S. Census Bureau (Census); International Trade Administration (ITA); Minority Business Development Agency (MBDA); National Institute of Standards and Technology (NIST); National Oceanic and Atmospheric Administration (NOAA); National Telecommunications and Information Administration (NTIA); National Technical Information Service (NTIS); and the U.S. Patent and Trademark Office (USPTO). The Department’s facilities have very diverse missions and operations ranging from large, complex research laboratories at NIST campuses to small NOAA weather stations. NOAA, NIST, and NTIA have all the Department’s owned facilities. Other OUs occupy General Services Administration (GSA) owned or leased facilities, some of which are delegated and operated by the OUs. In addition, NOAA occupies several direct- leased facilities. The Department currently has 13 covered facilities, per the Energy Independence and Security Act (EISA) Section 432’s definition, that constitute 75% or more of the Department’s total facility energy consumption. The Department uses the Environmental Protection Agency’s ENERGY STAR Portfolio Manager® to track energy, water, sustainable buildings, and project investment data and plans to include waste data by FY2021.

The Department is committed to fulfilling the vision set forth in Executive Order (EO) 13834, *Efficient Federal Operations*, to meet energy and environmental statutory requirements in a manner that improves performance, reduces operating costs, increases efficiency, optimizes performance, and makes its facilities more resilient and effective. The Department’s 2019 Sustainability Report and Implementation Plan (SRIP) describes how the Department will continue in FY2020 to integrate sustainability into its mission to create conditions for economic growth and prosperity. The Department’s top five strategic sustainability priorities for FY2020 include:

- Update applicable Department policy and guidance documents with requirements identified in EO 13834 and *Implementing Instructions*.
- Continue to update and improve the accuracy of the Department’s energy and water consumption data and real property portfolio through data validation and assessment.
- Continue to develop a pipeline of projects and/or energy conservation measures (ECM) with potential for performance contracting through Energy Savings Performance Contracts (ESPC) and Utility Energy Services Contracts (UESC).
- Pursue energy and water efficiency upgrades concurrently with all construction and major renovation projects.
- Research methods to improve collection and accuracy of non-hazardous solid waste quantity data and implement a centralized waste tracking system, such as ENERGY STAR Portfolio Manager®.

In FY2019, the Department has continued several successful initiatives to:

- Recognize Department employees for outstanding performance in implementing exceptional, cost-saving projects or programs that help the Department achieve its mission while improving energy and water conservation and environmental performance through the Department’s Sustainability, Energy, and Environmental Ambassadors program and the Energy and Environmental Stewardship Awards.
- Provide no-cost, engaging Department-wide training on key sustainability, energy, and environmental compliance topics to maintain a knowledgeable and effective workforce.
- Continue to build strong partnerships with leading experts at the Department of Energy (DOE) Federal Energy Management Program (FEMP), DOE National Laboratories, and other federal agencies to meet current statutory requirements, EO 13834 goals, and Office of Management and Budget Scorecard (OMB) metrics.

In FY2018, the Department met or exceeded the metrics set forth in the OMB Scorecard for Efficient Federal Operations, with the exception of the facility energy efficiency metric. Due to a particularly high number of heating degree days in FY2018, the Department had an increase in energy consumption compared to FY2017. FY2019 data is

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showing positive signs of putting the Department back on track, due in part to energy efficiency gains achieved by the new Combined Heat and Power (CHP) plant at NIST's Gaithersburg campus. The CHP plant is expected to generate 40% of the electricity and 70% of the steam consumed by the campus, representing a large portion of the total Department's energy consumption.

In FY2018, the Department also awarded two ground-breaking performance contracts, through the ESPC ENABLE program including: 1) A \$10.5 million, 5-megawatt (MW) solar cell field at the NIST Gaithersburg campus which provides 4% of the campus's total annual electricity consumption at a rate 30% below the local electric utility charge and is expected to save \$11.8 million over its 30-year useful life. It is the largest solar-cell installation on a civilian U.S. government property in which the solar-generated electricity is wholly consumed by the federal campus where the system is located; and 2) A \$750,000 contract for cost-saving energy improvements at four NOAA Office of National Marine Sanctuary (ONMS) campuses (Florida, Hawaii, Massachusetts, and Texas). This was the first ESPC and the first ENABLE project in the federal government with shared savings across facilities in multiple states.

Implementation Summary: Facility Management

1. FACILITY ENERGY EFFICIENCY

FY18 Energy Intensity Progress (Btu/GSF):

28.6% reduction from FY03

14.9% increase from FY17

FY19-FY20 Plan:

3% reduction in FY19 from FY18

3% reduction in FY20 from FY19

Implementation Status:

The Department's approach to reducing energy consumption and increasing energy efficiency includes: maximizing opportunities through current building renovation schedules; continual assessment of performance contracting feasibility and implementation where suitable; and education and awareness through robust online training programs. With a diverse portfolio of buildings within the Department ranging from small NOAA weather stations to large NIST laboratories, this approach is needed to provide comprehensive options to Department facilities and OUs.

In FY2018, OUs continued making significant strides in improving energy efficiency at Department facilities. A few examples include:

- Completion of the renovation of NIST-Boulder's oldest building, a 1950s-era research laboratory. The renovation included repurposing and expanding the existing building, including replacement of the exterior envelope, mechanical, electrical, Heating, Ventilation, and Air-Conditioning (HVAC), and plumbing systems. In addition, meters were installed for accurate tracking of utility usage, which was previously not feasible. The upgraded systems resulted in a 30% reduction in energy consumption and an energy cost savings of \$19,000 annually.
- Installation of two new, more efficient 3,500-ton chillers, variable fan drives, and pump motors for the chilled water system at the NIST-Gaithersburg campus. This project increased the campus chilled water system's free water-cooling capability by 150% and is expected to save \$460,000 in electricity costs over the life of the chillers.
- Increase in the use of demand-response programs at NOAA facilities through a centralized program that allows NOAA Line Offices to install advanced meters with funding realized through demand-response savings and rebates.
- Implementation of energy-efficient equipment at the Department's headquarters building, through the GSA Modernization Program; the renovation project is a multi-phase, multi-year project. Energy upgrades included installing energy-efficient windows and upgrading electrical and mechanical systems to maximize efficiency. In addition, the Herbert C. Hoover Building is in the process of installing cogged fan belts in unrenovated portions of

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the building in FY2019, which is expected to provide over \$10,000 in energy savings annually at less than a one-year payback.

- Initiation of a multi-year renovation project at NTIA's Table Mountain research site in Colorado, which includes installation of insulated multi-pane windows, utilization of more natural lighting, upgrading and installing LED lighting systems, and upgrading the HVAC systems to improve overall energy efficiency of the building. The renovation is expected to be complete in FY2020.
- Installation of a energy-efficient Micro Market (a self-serve kiosk with options to purchase fresh food and beverages) at USPTO's Jefferson Building replaced 18 vending machines and has an estimated savings of 39,400 kilowatt-hours per year and energy cost savings of \$2,755 per year.

In FY2018, the Department met or exceeded the metrics set forth in the OMB Scorecard for Efficient Federal Operations, with the exception of the facility energy efficiency metric. Due to a particularly high number of heating degree days in FY2018, the Department had an increase in energy consumption compared to FY2017. FY2019 data is showing positive signs of putting the Department back on track, due in part to the new Combined Heat and Power (CHP) plant at NIST's Gaithersburg campus. The CHP plant is expected to generate 40% of the electricity and 70% of the steam consumed by the campus, representing a large percentage of the total Department's energy consumption.

Priority Strategies & Planned Actions

One of the Department's top five strategic priorities for FY2020 is to assist OUs in developing pipelines for energy efficiency projects that can be utilized when either direct investment or performance contracting opportunities arise. This strategy is critical to the Department's continual improvement in this metric and provides OUs with measured, planned actions to improve energy efficiency of Department facilities and reduce costs and deferment of mission funds on higher utility bills. In addition, the following energy efficiency strategies and projects are planned for FY2020 at OUs:

- Continue to validate data entered into ENERGY STAR Portfolio Manager® and utilize data to further develop OU master plans and create project pipelines for potential investment, where it makes the best use of resources.
- Continue to utilize major renovation projects to install energy-efficient equipment and systems to reduce consumption and costs. Projects planned at both NIST campuses in Gaithersburg, MD and Boulder, CO.
- Incorporate energy-efficient clauses into delegated leases, where feasible.
- Initiate full operations of the NIST Gaithersburg campus CHP. This project is expected to provide substantial energy efficiencies to the campus and the Department, as the campus currently represents a large percentage of the Department's energy consumption.
- Seek opportunities for partnerships with other federal agencies, DOE National Laboratories, and universities to utilize grants and innovative technology studies and projects to improve energy efficiency at Department facilities.

2. EFFICIENCY MEASURES, INVESTMENT, AND PERFORMANCE CONTRACTING

FY18 Performance Contracting – Investment value and number of new projects awarded:

\$11.7M/2 projects in FY18

FY19-FY20 Plan:

\$0M/0 projects in FY19

\$2M/1 project in FY20

Implementation Status

The Department's approach to investing in energy and water efficiency measures, includes continual assessment of Department facilities and identification of potential cost-effective energy conservation measures; direct investment through building renovation and construction projects; and evaluation and implementation of performance contracting opportunities, where viable.

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In FY2018, the Department awarded two ESPC ENABLE contracts at NIST-Gaithersburg and NOAA ONMS. NIST-Gaithersburg awarded a \$10 million, 5-MW solar cell field project in May 2018. Construction was completed in 7 months, 5 months ahead of schedule and saving \$260,000 more in electric costs than originally expected at this stage in the project. The project's electricity production meets 4% of the total annual electricity consumption for the campus. The project has an estimated savings of \$3.5 million over the 20-year contract, and another \$8.3 million for years 21-30. NOAA's ONMS awarded a \$750,000 ESPC ENABLE in FY2018 for energy improvements at four Sanctuaries in four states (Florida, Hawaii, Massachusetts, and Texas). This was the first ESPC and the first ENABLE project in the federal government with shared savings across facilities in multiple states.

The Department completed 100% of its EISA-required facility energy assessments for FY2018. NOAA and NIST utilized integrated technology to conduct virtual audits of their facilities to identify potential ECMs and cost-saving opportunities. By the end of FY2019, NIST plans to finalize the award of a contract to use e-Project Builder, a secure web-based tool that standardizes the collection, tracking, and reporting of information for energy and water retrofit projects and includes modeling and other capabilities for conducting energy audits.

Priority Strategies & Planned Actions

The Department continues to seek opportunities to utilize performance contracting to implement cost-saving, energy-efficient, and water-efficient measures across its portfolio. While there are no planned performance contract awards in FY2019, the Department will continue to invest in energy-efficient and water-efficient measures through ongoing major construction and renovation projects creating a robust multi-year pipeline of projects Department-wide. NIST is currently working on potential FY2020 ESPC awards, as identified in the Department's 2020 metrics, for ECMs including: lab freezer upgrades, fume hood removals, recommissioning buildings' central HVAC units, and further lighting upgrades using the latest technology. NOAA is also seeking opportunities to use the ESPC ENABLE model used by the ONMS for other Line Offices with similar size facilities.

The Department continues to emphasize the benefits of thorough facility energy assessments and is working with the Department of Energy's National Renewable Energy Laboratory (NREL) through an interagency agreement to provide technical support to OUs in conducting EISA-required assessments using both on-site and virtual methods.

3. RENEWABLE ENERGY

FY18 Renewable Electricity Use:

26.8% of total electricity in FY18

FY19-FY20 Plan:

27% of total electricity in FY19

27% of total electricity in FY20

Implementation Status

The Department's approach to deploying and/or purchasing renewable energy includes: evaluation and prioritization of facilities identified in the REOpt study, in coordination with NREL and the DOE Federal Energy Management Program's (FEMP) technical support and guidance; assessing opportunities to utilize the ESPC ENABLE program and other performance contracting vehicles in order to implement on-site renewable energy projects where cost-effective; encouraging OUs to purchase renewable energy through utility providers where available; and purchasing RECs to offset electricity consumption and reduce greenhouse gas emissions, when other opportunities identified above are not feasible.

The installation of the 5-MW solar cell field project at NIST is a significant milestone for the Department since on-site renewable energy projects have been difficult to implement in past years at Department facilities due to few viable and cost-effective options. In addition to small-scale solar arrays at NOAA facilities in Hawaii, the Department's Headquarters at the Herbert C. Hoover Building currently has one rooftop solar photovoltaic array. The array was

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disconnected for Phase 4 of the GSA Modernization project; however, the Department plans to restore service to the array in late FY2019.

Priority Strategies & Planned Actions

The Department continues to meet the renewable electricity statutory requirements primarily through the purchase of Renewable Energy Certificates (REC). The Department plans to continue further evaluation of facilities identified in the REopt study, in coordination with NREL and the DOE Federal Energy Management Program's (FEMP) technical support and guidance. In FY2019, the Department expects to have an increase in the consumption of renewable energy due to the NIST and Herbert C. Hoover Building solar projects and a commitment to purchasing RECs to offset energy consumption at facilities where on-site renewable projects are not viable.

4. WATER EFFICIENCY

FY18 Water Intensity Progress (Gal/GSF):

32.7% reduction from FY07

21.9% reduction from FY17

FY19-FY20 Plan:

2% reduction in FY19 from FY18

2% reduction in FY20 from FY 19

Implementation Status

The Department's approach to reducing potable water consumption and increasing efficiencies includes: increasing the use of advanced meters at all facilities to acquire more accurate data; utilizing building renovation and construction projects to install more efficient fixtures and systems; and reduce unnecessary use of potable water for non-potable purposes. The Department has been successful in FY2018 in implementing water efficiency projects through major renovation projects at both NIST campuses. Projects included:

- Capturing groundwater from a de-watering system around two large (190,000 sf) subgrade research buildings at NIST's Gaithersburg campus. Approximately, 100 KGAL/day of reclaimed water is being transported over to the Central Plant's cooling towers to help serve as make-up water.
- Connecting a major water user to a closed loop cooling system at NIST's Boulder campus, thereby discontinuing the wasteful practice of using domestic water to cool the research equipment. An energy conservation measure from NIST Boulder's ESPC, currently in the Measurement and Verification phase, has reduced water consumption by 20%, or 880 KGALs annually.
- Conducting a leak detection study at NIST's Boulder campus for the stormwater and wastewater systems. The study identified three major areas requiring repair.

Priority Strategies & Planned Actions

The Department will continue to reduce potable water consumption and increase efficiency and data accuracy through the following actions in FY2019 and FY2020:

- Conduct a complete data validation process of NOAA facilities' potable water data in ENERGY STAR Portfolio Manager®, using a tool developed by NREL. This process is expected to yield more accurate data both for potable water consumption and real property data associated with facilities that use and/or pay for water.
- Install four water wells on the NIST Gaithersburg campus, through a partnership with the U.S. Army Corps of Engineers. These wells are projected to produce 14 million gallons per year and have a simple payback period of less than three years. This project is expected to provide cost savings for NIST, as well as the water utility provider, since 14 million gallons of water will not need to be treated by the utility and purchased by NIST. This project is funded through a Department Green Grant utilizing recycling proceeds.

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5. HIGH PERFORMANCE SUSTAINABLE BUILDINGS

FY18 Sustainable Buildings Progress:

101 sustainable Federal buildings

18.8% of buildings / 19.9% of gross square footage (GSF)

FY19-FY20 Plan:

20% of gross square footage in FY19

20% of gross square footage in FY20

Implementation Status

The Department's approach to advancing high performance and sustainable buildings to its portfolio includes utilizing OU master plans and building renovation schedules to identify future candidate sustainable buildings. NIST regularly consults its recently completed campus master plans during the respective campus' build-out. Master plans specifically detail sustainable design approaches – energy efficiency, water efficiency, storm water management, daylighting, adaptive reuse, landscape architecture, and renewable energy.

In addition to the sustainable buildings reported above, NIST-Boulder completed partial building renovations in one of its largest buildings, achieving a LEED-Commercial Interiors (CI) Platinum certification. This facility is the second federal laboratory to achieve a LEED-CI Platinum certification, according to the U.S. Green Building Council.

A major challenge for the Department is that a sizeable number of owned facilities, built before 2000, are aging with a potentially high renovation cost to meet high performance sustainable building criteria. Renovations to these facilities may not be life-cycle cost-effective and compete against mission-critical requirements for prioritization of resources. Securing funding for renovations and new construction often takes years, as each represents a major capital investment and requires Congressional support. Once funding is approved, design and construction may take multiple years creating an additional challenge in meeting the goal of annual increases in sustainable GSF/buildings.

Priority Strategies & Planned Actions

The Department does not anticipate adding any new construction or existing buildings to its sustainable building portfolio in FY2019 and FY2020. The following sustainable building strategies and projects are planned in FY2019 and FY2020:

- Update policy and requirement documents to reflect EO 13834 and its implementing instructions for sustainable buildings.
- Work with architectural and engineering firms and contracting staff to incorporate sustainable building specifications in new construction, modernization, and major renovation projects.
- Continue to support GSA improving building efficiency and meeting sustainable building specifications in leased buildings.
- Continue construction on the next phase of the NIST Boulder laboratory renovation with a contract award anticipated in FY2019. This renovation is expected to achieve LEED-Gold certification.

6. WASTE MANAGEMENT AND DIVERSION

FY18 Non-hazardous Waste Management and Diversion:

4,491** metric tons of non-hazardous solid waste generated*

46.4% sent to treatment and disposal facilities

*not including construction and demolition waste

** FY2018 data unavailable for all operating units. FY2016 provided, which included all operating units

Implementation Status

The Department's approach to reducing hazardous and non-hazardous waste generation and increasing waste diversion includes: implementation of a new method to track non-hazardous waste generation and diversion in

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ENERGY STAR Portfolio Manager's® Waste Module; enhancement of currently successful recycling programs, such as the Department's Green Store; and education and awareness programs to promote reuse and recycling.

The Department and its OUs make a concerted effort to divert solid waste from landfills and treatment facilities, reduce disposal costs, and save costs of purchasing new property or materials through re-use. The Department's OUs have established waste diversion programs such as: single-stream recycling, water bottle refilling stations to reduce plastic water bottle disposal; recycling and donation of excess usable property (e.g., office furniture, office supplies, electronics); double-sided printing or sharing electronic files; and used battery recycling programs. OUs that lease facilities and do not pay for their waste disposal have set up internal recycling programs and work with their lessor to institute waste diversion and recycling programs. Specific examples include:

- In FY2018, NIST recycled over 514,000 pounds of common recyclables (e.g, mixed paper, cardboard, co-mingled materials, aluminum cans, glass, and plastic), over 275,000 pounds of scrap metal, almost 3 million pounds of yard waste, over 6,800 pounds of batteries, over 243,000 pounds of electronic waste, over 2,200 pounds of light bulbs/fixtures, 1,100 gallons of motor oil, over 20 pounds of mercury, 45,000 pounds of construction debris, and 400 pounds of wood/sawdust. NIST reports recycling information to the County annually.
- In FY2018, USPTO diverted 1,252 tons (63%) from its total waste stream (e.g., recycling bottles, cans, plastic containers, paper, and toner cartridges) and transferred 4 million Trademark files from a vacated warehouse freeing up 10,000 metal shelving units for recycling. In FY2019, USPTO sponsored a used clothing, eyeglasses, food, and animal items collection drive with the Salvation Army.
- In FY2018, the Department held an America Recycles Day event at HCHB to promote recycling, collect recyclables, auctioned over 1,000 toner cartridges for re-use, and in coordination with ITA, set up a battery recycling program at the HCHB.
- HCHB provided a centralized trash collection option to offices to cut down on deskside waste. Instead of using individual deskside bins, staff in these offices share centralized trash and recycling bins. This voluntary program has reduced the burden of daily deskside trash collection and encourages more thoughtful waste and recycling habits.
- NTIS utilizes an interagency agreement with GSA to excess surplus, used or outdated electronics and furniture. This results in furniture and equipment being re-purposed or recycled.
- The Department and USPTO operate "Green Stores" that collect and redistribute used or unused office supplies/electronics at no cost to offices that need these supplies.
- NIST, USPTO, and the HCHB collect excess furniture for re-use within their respective organization, or for donation, as applicable.
- The Census Bureau's National Processing Center increased online training opportunities to educate employees on waste management practices.

Priority Strategies & Planned Actions

The Department will continue to identify opportunities to track, divert, and increase waste and recycling efforts through the following actions:

- Update policy and guidance documents to reflect EO 13834 and its implementation instructions.
- Implement new method to collect measured nonhazardous solid waste data in Energy Star Portfolio Manager® Waste Module, similar to how the Department tracks energy and water consumption and cost. The Department plans to update its Portfolio Manager Business Rules in FY2020 to include guidance on waste tracking and reporting and provide targeted training to OU personnel on how to input and use data.
- Maintain established waste diversion programs, increase single stream recycling through awareness and training, promote recycling best practices and education, research ways to expand recycling opportunities, and improve recycling operations.
- Host events such as Green Fair, Earth Day, America Recycles Day, and recycling drives to promote sustainability, waste reduction, and recycling.
- Add composting equipment to the HCHB cafeteria to increase waste diversion in FY2020.

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- Research ways to expand the types of recycling available at NIST (e.g., vendors that specialize in certain waste streams, FedBizOps bids for excess supplies/usable materials, etc.).

Implementation Summary: Fleet Management

1. TRANSPORTATION / FLEET MANAGEMENT

FY18 Petroleum Reduction Progress (Gal):

44.7% reduction in petroleum fuel since 2005

1.0% reduction in petroleum fuel since FY17

FY19-FY20 Plan:

1.0% reduction in FY19 from FY18

1.0% reduction in FY20 from FY19

Implementation Status

The Department's approach to improve fleet efficiency includes: replacing expired leased fleet vehicles with electric, hybrid electric, and flex-fuel (E85) vehicles to the greatest extent possible based on mission needs; and increased use of telematics to identify potential efficiencies and assess use and fuel consumption trends. In FY2018-2019, the Department continued the introduction of low greenhouse gas (GHG) emitting vehicles to replace some E85 fuel vehicles. The Department acquires hybrids and plug-in hybrids when appropriate and will continue to use programs such as Fleet Dash.

The Department used less alternative fuel in FY2018 compared to FY2017 (43,776 gasoline gallons equivalent [GGE]); however, it continues to exceed the FY2005 baseline (1,089 GGE) using 5.9% alternative fuel as a percentage of total covered fleet fuel use. The Department recently acquired 160 alternative fuel vehicles and 6% of the total fuel used in FY2018 was alternative fuel. Some geographical locations do not support E85 fuel, which presents a challenge to improve on efficiency, cost reduction, and increase in alternative fuel use. Fleet size has decreased 2% and miles traveled decreased 5% compared to FY2017. Fleet acquisitions are reviewed at the headquarters level to ensure compliance with all statutes, policies, directives and executive orders. The Department aggressively replaces owned vehicles with GSA-leased vehicles where possible to maintain a new, efficient fleet and support the federal government's vehicle purchase program. Vehicles are generally replaced every four to five years to ensure fleet optimization, maximize fuel efficiency, and decrease maintenance costs.

In FY2019, the Department is realigning its fleet procurement and sustainability strategies with EO 13834. To reduce the use of petroleum fuel, the Department will continue to explore procuring electric vehicles that can meet mission needs. The challenge with this approach is the increased cost of electric vehicles, associated charging station equipment, and the limited travel distance on a single electrical charge.

Priority Strategies & Planned Actions

The Department will continue to improve fleet performance and to align with EO 13834 through the following actions:

- Compare the market availability of GHG-compliant vehicles against mission requirements and make appropriate adjustments when possible.
- Monitor fuel consumption for all fleet vehicles and maximize the use of alternative fuels to the greatest extent possible.
- Perform annual internal policy reviews to ensure management oversight and fleet program control measures are enforced.
- Use the Smart Pay 3 new data components and continue efforts to interface the Smart Pay 3 level data in agency software management program (Sunflower) to better manage the fleet activity.

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- Pursue the use of telematics in the fleet vehicles to improve the ability to capture fleet data to effectively manage the transportation program.

The Department's current fleet size is optimal in meeting mission requirements. No reduction in the current fleet composition is planned; however, the Department will continue to acquire the most fuel-efficient vehicles (electric, hybrid electric, etc.) with low greenhouse gas emissions where applicable and possible to replace E85 vehicles.

Implementation Summary: Cross-Cutting Operations

1. SUSTAINABLE ACQUISITION / PROCUREMENT

FY18 Sustainable Acquisition Progress:

1.7% of contract actions and 2.3% of obligations (in dollars), for a total of **\$376M** in contract actions with statutory environmental requirements

Implementation Status

The Department continues to emphasize to the acquisition community available resources, training, award programs, and the importance of sustainable acquisitions across all categories, including 'energy-efficient,' 'recycled content,' 'bio-based,' and 'environmentally preferable products and services.'

The Department requires quarterly and annual data accuracy reviews of acquisition information entered by contracting officers into the Federal Procurement Data System (FPDS). The Department requires data element review of EPA-Designated Products and Recovered Materials/Sustainability; thus, underscoring their importance. The Department established a shared-services organization, Enterprise Services (ES), for acquiring certain common items for Department-wide use (e.g., personal computers and laptop equipment). Use of ES's Department-wide strategic sourcing acquisition vehicles facilitate category management, resulting in improved compliance with sustainability mandates and cost savings.

Priority Strategies & Planned Actions

The Department will continue to ensure contract actions and obligations meet statutory environmental requirements through the following actions:

- Upon revision of the Federal Acquisition Regulation (FAR) to implement EO 13834, the Department will revise the Commerce Acquisition Manual to issue updated guidance for requiring and acquiring sustainable products and services with an emphasis on statutory mandates for procurement of 'recycled content,' 'energy-efficient,' and 'bio-based' products.
- Partner with the Department's Office of Sustainable Energy and Environmental Programs to conduct training for acquisition and personal property personnel on statutory environmental requirements and new and emerging green procurement opportunities.

2. ELECTRONICS STEWARDSHIP

FY18 Electronics Stewardship Progress:

100% of newly purchased or leased equipment met energy efficiency requirements

100% of equipment with power management enabled*

100% of electronic equipment disposed using environmentally sound methods

**excluding exempted equipment*

Implementation Status

In FY2018 and continuing in FY2019, the Department engaged in the following methods and measurements to improve and promote electronic stewardship:

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- Established an ES organization to provide shared services, streamline, and centralize acquisition and procurement procedures for common electronics (e.g., laptops, desktops) and services (e.g., printing, copying).
- Utilized a government-wide category management vehicle to ensure procurement of equipment that meets sustainable electronics criteria.
- Established a memorandum of understanding (MOU) with the United States Postal Service to provide the Department and its OUs the ability to recycle electronic assets once assets have reached their end-of-life.
- Managed a MOU with NIST to dispose of excess personal property at the end of its useful life. NIST works closely with GSA to initiate the disposal process.
- Tracked acquisition data through *Federal Procurement Data System (FPDS)* and the Department's Sunflower database system.
- Implemented a print management solution that provides automatic print management policies such as auto duplexing and user management through personal identity verification authentication which tracks, measures and reports compliance.
- Implemented virtualized operating systems, where feasible.
- Streamlined internal screening process for disposition of excess and surplus electronics for reuse by solely using the Department's Internal Screening process.
- Published the updated Personal Property Management Manual to reflect end-of-life requirements for electronics in GSA Bulletin FMR B-34, *Disposal of Federal Electronic Assets*.

Priority Strategies & Planned Actions

In FY2020 and FY2021, the Department plans to continue efforts described above in addition to the following planned actions:

- Continue efforts to achieve 100% compliance with electronic stewardship goals as indicated in the above metrics, using collaborative training of acquisition and property personnel and assessment and tracking of all applicable electronic assets.
- Update applicable policies and requirements documents to reflect EO 13834, and EO Implementing Instructions.
- Continue to establish category portfolios for electronic stewardship leveraging government-wide acquisition vehicles to the extent they are available.
- Continue to pursue opportunities to promote energy conservation, green initiatives, cloud first, virtualization, co-location and consolidation of data centers where possible.
- Establish a single portal to purchase information technology equipment that meet EPEAT and EPA ENERGY STAR® requirements.

3. GREENHOUSE GAS EMISSIONS

FY18 Scope 1&2 Greenhouse Gas (GHG) Emissions:

41% reduction from FY 2008

4% reduction from FY 2017

Implementation Status

The Department's focus on energy intensity reductions and increasing renewable electricity have provided positive outcomes in reducing Scope 1 and 2 greenhouse gas emission. The Department's OUs that are in fully serviced lease facilities without direct influence on Scope 1 and 2 greenhouse gas emissions, continue to make significant progress in reducing Scope 3 greenhouse gas emissions through: the increase in the number of days and number employees eligible for telework; reductions to business travel and increases in combined group travel; increase in the use of video-conferencing and webinars; and providing appropriate accommodations for biking and walking commuters.

Priority Strategies & Planned Actions

The Department anticipates more reductions in greenhouse gas emissions in upcoming years due to future phases of renovations at NIST, HCHB, NTIA and USPTO facilities with planned energy efficient upgrades to existing equipment

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and building envelopes. In addition, the NIST-Gaithersburg CHP plant is expected to eliminate an estimated 82,300 tons of carbon dioxide emissions over its 20-year contract.