# U.S. Office of Personnel Management
# 2018 Sustainability Report and Implementation Plan

## Executive Summary

The U.S. Office of Personnel Management (OPM) is the Federal Government's chief human resources agency and personnel policy manager. OPM achieves its mission to Recruit, Retain and Honor a World-Class Workforce to Serve the American People by directing human resources and employee management, administering retirement, healthcare and insurance programs, overseeing merit-based and inclusive hiring into the civil service, and providing secure employment processes. It is the policy of OPM that all Agency business and operations are conducted in a manner that supports our mission while minimizing our environmental impacts in accordance with all Federal statutes, regulations, policies and Executive Orders. OPM is committed to fulfilling the Presidents vision of managing our buildings, vehicles, and overall operations to optimize energy and environmental performance, reduce waste and cut costs as outlined in Executive Order (EO) 13834, *Efficient Federal Operations.*

To support the President's vision, we will reinforce our efforts by implementing the strategies outlined in this Sustainability Plan (SP). OPM is committed to accomplishing these goals by integrating sustainability into agency policies, operations, including improving the efficiency of its buildings, using renewable energy, managing its fleet to reduce petroleum consumption in agency vehicles, promoting the purchase of environmentally-preferable products and services, and managing electronic assets in an environmentally-sensitive manner. In addition to setting and achieving annual sustainability targets, OPM recognizes that weather related occurrences can have an impact on facility operations as well as the ability to achieve its mission; therefore, we will continue to build resilience and adaptive capacity to address these risks and vulnerabilities.

Managing our buildings and fleet in an efficient manner is a key focus for lowering our greenhouse gas emissions and reducing energy, water, and waste. OPM employees occupy facilities in several locations throughout the United States, but our current approaches are to improve building efficiencies to the three facilities where OPM has responsibility for building operations and maintenance. The Agency manages two facilities owned by the General Services Administration (GSA): the Theodore Roosevelt Building (TRB), OPM's headquarters office in Washington, DC and the Federal Executive Institute (FEI) campus located in Charlottesville, Virginia. OPM also manages the building operations at a commercially-owned leased facility in Macon, Georgia which houses a data center as well as additional information technology services.

During the past 4 years, the agency has made significant progress towards reducing greenhouse gas emissions scopes 1&2 and scopes 3, consumed 52% less water, 20% of annual electricity consumption was clean & renewable energy, spent 15% less for utilities, awarded approximately $21M of performance contracting at two of our facilities, and improved efficiencies in our vehicle fleet by right – sizing & acquired 150 low GHG and 665 hybrid vehicles. But some of these gains have been offset due to expansion in our mission. These results are clearly revealed in the areas of fleet management and facilities building intensity.

## Implementation Summary

### 1. Facility Management:

**FACILITY ENERGY EFFICIENCY**
FY 2017 Status: 11 % reduction (Btu/GSF) from baseline

| Implementation Status | Operational Context | Priority Strategies & Planned Actions |
|---|---|---|
| (1)Collect and utilize building and facility energy use data to improve building energy management and performance.<br>(2)OPM will continue to use EISA comprehensive energy and water evaluations to identify Energy Conservation Measures (ECMs) in an effort to reduce energy and water intensity.<br>(3)Use Performance Contracting to implement cost effective ECMs at OPM facilities in an effort to reduce average cost of energy and improve efficiencies.<br>(4)Complete Phase 2 ESPC ECMs at the TRB in FY2019. The project is expected to produce the following benefits: reduce total energy consumption by an additional 18 %( compared to 2016), reduce grid electricity by 914 thousand kWh/yr, reduce annual electricity spend by ~$785,188; eliminate HOTD steam usage with the installation of natural gas boilers onsite.<br>(5) Continue to participate in demand response and management programs. | (1) OPM will continue to implement and/or utilize energy management systems (EMSs) at OPM operated – delegated leased facilities to collect and utilize data to improve building energy management and performance.<br>(2)Comprehensive energy and water evaluations including retro-commissioning has been very effective. This has uncovered deficiencies in our building HVAC systems. Most notable, significant increase in steam consumption as a result of work that was performed under the ARRA project at the TRB in FY2014.<br>(3) OPM will continue to make energy efficiency investments in our facilities.<br>(4)OPM's strategy for sustainable buildings focuses on reducing energy use in the three facilities where it manages operations. OPM has reduced energy intensity by 11% compared to the FY 2003 baseline. Energy | (1)OPM will continue to use its annual DOE Energy/Water report, OMB Scorecard, the OPM/E3 Monthly Energy and Water Tracking System database, to monitor energy and water use, cost and efficiencies in FY2019 –FY2020.<br>(2)Perform and complete comprehensive energy and water evaluations in FY2020.<br>(3)OPM will continue to make energy efficiency investments in agency buildings.<br>(4) Implement phase 2 energy conservation measures (ECM). ECMs includes: replace HOTD steam system with onsite hot water boilers, lighting upgrades to lower level at the TRB and retro-commissioning of HVAC system that were not commissioned during the ARRA funded project.<br>(3) In FY2019 – FY2020, we will continue to use Performance Contracting to implement cost effective ECMs in an effort to reduce average cost of energy and improve efficiencies.<br>(4)Upon completion of Phase 2 ESPC ECMs at the TRB by FY2020, the project is expected to produce the following benefits: reduce total energy consumption by an additional 18 %( compared to 2016), reduce grid electricity by 914 thousand kWh/yr., reduce annual electricity spend by |

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| | use in one category has reduced significantly at TRB, OPM's largest facility, by 23% since FY 2010. While this is partially due to reduced use of electricity and mild winters, the greater part is the result of improved efficiency at TRB as a result of building renovation funded under the American Recovery and Reinvestment Act (ARRA) completed in FY2015 and improvement project under phase 1 ESPC. The ARRA multi-year project includes upgrades to the heating, ventilation and cooling (HVAC) system, added window insulation, and installation of high efficiency lighting and occupancy sensors. Further savings were achieved from phase 1 ESPC project completed in 2017. We expect to achieve further energy reductions based on energy models and upon of phase 2 ESPC. While we have also implemented various improvements at Macon, and at FEI, our long term performance toward the 30% reduction goal has been severely impacted by increased energy use at these locations, which have expanded operations since 2003. This is particularly the case at | ~$785,188; install natural gas fired hot water boilers in lieu of purchased steam from GSAs Heating Operations Transmission Distribution plant.<br>(5) Review and assess annual demand response performance; make adjustments as necessary in order to further reduce electricity consumption during peak demand. |

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| | Macon, which houses one of OPM's data centers.<br>(5) Since FY2013, OPM has earned approximately $250K from participating in demand response program. | |

**EFFICIENCY MEASURES, INVESTMENT, AND PERFORMANCE CONTRACTING**
ESPC and UESC investment / number of projects FY 2017: $0.00

| *Implementation Status* | *Operational Context* | *Priority Strategies & Planned Actions* |
|---|---|---|
| (1) OPM will continue to utilize performance contracting and incorporate use of ESPCs and UESCs into planning activities to implement identified life-cycle cost effective energy & water efficiency projects including clean energy.<br>(2) Identify potential onsite renewable energy projects in a specified percentage of performance contracts.<br>(3) OPM will continue to invest annually approximately 15% of the amount spent for utility in efficiency improvement project at our facilities. | (1)In FY2014, OPM awarded phase 1 ESPC for $5.7M in energy efficiency and water savings project at the TRB and FEI campus. In FY2018, phase 2 ESPC was awarded for $14.8M for additional improvements at the TRB. One of the most significant ECM is replacing district purchased steam with onsite hot water boilers.<br>(2) OPM installed a 100Kw onsite solar voltaic array at the TRB. We will continue to explore further opportunities.<br>(3) Some efficiency improvement may not rise to the minimum where UESC or ESPC may be utilized; hence, appropriated money is used upon availability. Will continue to employ this strategy since it has been effective. | (1) OPM will continue to utilize performance contracting (ESPCs and UESC) to implement identified cost-effective ECMs.<br>(2) Ensure clean energy requirements are included in future comprehensive energy and water assessments.<br>(3) Continue to invest in efficiency improvement project using a combination of ESPC, UESC and appropriated funding. |

**RENEWABLE ENERGY**

FY 2017 Status: 20.6 % renewable electricity

| *Implementation Status* | *Operational Context* | *Priority Strategies & Planned Actions* |
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| (1)OPM is well beyond the renewable electricity goal of 10%. This is as a result of combined onsite generation, green power purchase and reduction of electricity consumption at our largest facility.<br>(2) Install agency-funded renewable electricity on-site and retain corresponding renewable energy certificates (RECs).<br>(3) Purchase of energy that includes installation of renewable energy on-site at a federal facility or off-site from a federal facility.<br>(4)OPM will continue to use its annual DOE Energy/Water report, OMB Scorecard, the OPM/E3 Monthly Energy and Water Tracking System database, to monitor energy use, cost and efficiencies. | (1) During the past 4 consecutive years, OPM exceeded the renewable electricity requirement by approximately 10%.<br>(2) OPM will continue to explore cost-effective onsite renewable energy project as a requirement of our EISA comprehensive assessment.<br>(3)OPM facilities purchases green power through our area wide agreement to complement current onsite PV generation. This approach has been successful for the agency. | (1)OPM will continue using this strategy in FY2019 and FY2020 since it is effective.<br>(2)Implement cost effective renewable energy project onsite and retain the renewable certificates.<br>(3) We will continue to purchase green power that is equivalent to 7.5% at the TRB, 10% at FEI and Macon of energy consume at each location.<br>(4) Employ operations and management (O&M) best practices to track energy consumption and cost. |

**WATER EFFICIENCY**

FY 2017 Status: 51.1% reduction in potable water (Gal/GSF)

| *Implementation Status* | *Operational Context* | *Priority Strategies & Planned Actions* |
|---|---|---|
| (1)OPM is well beyond the goal for potable water intensity reduction, with reductions achieved thus far of 51.1% above the FY2007 baseline.<br>(2) Utilize ESPC/UESCs to reduce water consumption and ensure all ESPC/UESCs consider water reduction strategies.<br>(3) Minimize outdoor water use and use alternative water sources as much as possible.<br>(4) Ensure that planned energy efficiency improvements consider associated opportunities for water conservation.<br>(5) Assess the interconnections and dependencies of energy and water on agency operations, particularly climate change's effects on water which may impact energy use. | (2) OPM is currently implementing phase 2 ESPC. We expect additional water savings upon completion.<br>(3) We use indigenous plants in our landscaping to conserve water.<br>(4) OPM will ensure all energy and water assessment at its facilities include opportunities for water conservation. Implementation of recommended efficiency improvements will follow.<br>(5) As part of risk analysis and impacts and other emergencies that may impair the agency's ability to achieve its mission, OPM is exploring alternatives and continuously working with GSA in order to minimize such impacts. | In FY 2019, OPM will continue to use its annual DOE Energy/Water report, OMB Scorecard, the OPM/E3 Monthly Energy and Water Tracking System database, internal Baseline Performance reviews to track water use. Additional water savings is expected upon completion of the energy and water conservation measures under the Phase 2 ESPC at the TRB facility.<br>(2) OPM will continue to use comprehensive energy and water assessments at our facilities for additional water conservation measures.<br>(3)Plant vegetation with low water requirements; use weather sensing irrigation; review process annually and update as needed.<br>(4) We will continue to perform annual water assessments.<br>(5) OPM will reassess annually. |

## HIGH PERFORMANCE SUSTAINABLE BUILDINGS

FY 2017 Status: 0 % buildings and by GSF

**Please note:** *OPM has been exempted from the High Performance Sustainable Building category due to non-ownership of facilities and all leasing solicitations are done through GSA.*

| *Implementation Status* | *Operational Context* | *Priority Strategies & Planned Actions* |
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| (1)OPM will continue to incorporate the five guiding principles as a requirement during major renovations and alteration of existing buildings since the agency does not have the authority to construct new buildings.<br>(2) We will continue to incorporate green building specifications into all new construction and major renovation projects.<br>(3)OPM will 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.<br>(4) Redesign or lease interior space to reduce energy use by implementing daylighting, space optimization, sensors/control system installation, etc.<br>(5) 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. | (1)OPM will continue to integrating the five guiding principle in our operations have been successful. As such, we will continue to integrate these principles.<br>(2) While no new construction is planned, sustainability requirements are incorporated into current renovations and office alternations.<br>(3)OPM does not have the authority to construct new Federal buildings; however, in the event of new Federal building construction that would house the agency, OPM will work with GSA (the lead Agency) to ensure this goal is met.<br>(4)OPM applies space optimization whenever it redesigns or alters office space. Space planning software acquired in FY2014 is assisting with optimization and consolidation projects. Occupancy sensors have been employed to reduce energy use at TRB and FEI under the Phase 1 ESPC. Daylighting will be fully deployed at the TRB upon | (1) In FY 2020 and beyond, we will review and update design standards in accordance with current specifications and ensure sustainable design standards are incorporated in major renovations and office alterations as appropriate.<br>(2) In FY 2020 and beyond, we will review and update design standards in accordance with current green building specifications annually and ensure they are incorporated in office alterations as appropriate.<br>(3) OPM will work with GSA (the lead Agency) to ensure this goal is met<br>(4) Annual review of measurement and verification (M&V) of occupancy optimization. Recommission every 4 years.<br>(5) Review and ensure all lease solicitations over 10,000 rentable square feet contain efficiency criteria prior to final agreement. |

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| | completion of Phase 2 ESPC.<br>(5) OPM does not have the authority to lease space. OPMs leasing is coordinated through GSA, and as such GSA would have responsibility for this goal. OPM will work with GSA to ensure this is considered for lease solicitations over 10,000 rentable square feet. | |

## WASTE MANAGEMENT AND DIVERSION

FY 2017 Status: 37% waste diverted

| *Implementation Status* | *Operational Context* | *Priority Strategies & Planned Actions* |
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| (1) Reduce waste generation through elimination, source reduction, and recycling.<br><br>(2) Develop or revise Agency waste and Chemicals Inventory Plans and identify and deploy elimination, substitution, and/or management opportunities.<br>(3) 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.<br>(4) OPM has explored the concept of replacing current recycling disposal method with a single stream. | (1)Continue to monitor solid waste and recycling generated. We will continue to educate new employees on the 3 R's of waste management. All of our solid waste has been going to a waste to energy facility for incineration.<br>(3) OPM will continue to inventory toxic and hazardous chemicals in an effort to reduce, eliminate or replace with environmentally acceptable ones as appropriate.<br>(4) Based on feasibility study performed, this would increase our diversion rate. | (1)Monthly review of solid waste and recycling generated.<br>(2) We will review solid waste policy & Chemical Inventory Plans annually. Updates will be made appropriately.<br>(3) We will review waste policy and inventory annually. Updates will be made as appropriate.<br>(4) Implement single stream collection recycling method in FY2020. |

## 2. Fleet Management:

**TRANSPORTATION / FLEET MANAGEMENT**
FY 2017 Status: 44.7 % petroleum increase & 264% increase in alt fuel consumed from baseline.

| *Implementation Status* | *Operational Context* | *Priority Strategies & Planned Actions* |
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| (1) Collect and utilize agency fleet operational data through deployment of vehicle telematics.<br>(2) Ensure that agency annual asset-level fleet data is properly and accurately accounted for in a formal Fleet Management Information 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.<br>(3)OPM will continue to use the GSAs leased fleet program to acquire vehicles since it has proven to be lifecycle cost effective compared to commercially leased vehicle programs.<br>(4) Optimize and right-size fleet composition, by reducing vehicle size, eliminating underutilized vehicles, and acquiring and locating vehicles to match local fuel infrastructure.<br>(5) Increase utilization of alternative fuel in dual-fuel vehicles.<br>(6) Issue agency policy and a plan to install appropriate charging or refueling infrastructure for zero emission or plug-in hybrid vehicles and opportunities for ancillary services to support vehicle-to-grid technology. | (1)OPM fleet manager will continue to make the case to invest in this efficiency management tool to collect and record vehicle operational data.<br>(2) This strategy by properly maintaining fleet data within GSA FAST system, GSA Fleet Drive-thru, and FLEETDASH systems.<br>(3) GSA's lease fleet program has proven to be efficient and cost effective.<br>(4) In FY17 OPM replaced E85 fuel vehicles with 544 low-GHG fuel, hybrid, and zero emission vehicles. This allowed the agency to better control fuel consumption and to match the local fuel infrastructures. FY19 we will add two zero emission vehicles to the fleet to support the right size, right fit at our HQ.<br>(5)In FY17 OPM acquired 303 hybrid vehicles 241 low-GHG and one zero emission vehicle. In FY18 we anticipate acquiring 162 alternate fuel vehicles. FY19 we project adding 340 alternate fuel vehicles. | (1)Funding for Telematics was requested in the FY2019 & FY 2020 budget.<br>(2) We will continue to utilize this strategy, assessment of collected fleet data will be reviewed monthly and annually to ensure accurate account. This strategy will be assessed annually for effectiveness.<br>(3) OPM will continue to utilize this strategy and the resources provided by GSA in order to improve management of our fleet and improve efficiencies.<br>(4) OPM utilizes right-size fleet composition each FY to ensure vehicles are the right size for each mission location, proper utilization and match the local fuel infrastructure.<br>(5) The agency continues to place high interest on utilization of alternate fuel for dual fuel vehicles. Vehicles are placed strategically in areas where alt fuel is more available.<br>(6) Add more EV stations at our Agency Headquarters and other OPM locations in FY2019 –FY2020. |

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| | (6) We continue to discuss and evaluate ways to acquire acquisitions of zero emission, plug-in hybrid vehicles, and infrastructures where applicable. We will continue to calculate ways to implement in our future budget. | |

**3. Cross-Cutting:**

**SUSTAINABLE ACQUISITION / PROCUREMENT**

FY 2017 Status: ≥5% contracts of contract dollars with environmental clauses were reviewed

| *Implementation Status* | *Operational Context* | *Priority Strategies & Planned Actions* |
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| (1) As part of OPM's strategy to strengthen sustainable acquisition goals, the OPM Office of Procurement Operations (OPO) has reviewed ≥5% of contract actions for compliance with sustainability contract requirements. Of those contracts sampled, OPM achieved 100% biobased compliance and 97% in overall sustainability compliance in FY2017. In FY2018, FY2019 and beyond OPM will continue to review contract actions on a quarterly basis for compliance to support its sustainable acquisition strategies.<br>(2)OPM will continue to ensure contract compliance to meet the statutory mandates by including the applicable FAR clauses and ensure the relevant agency specifications include information on the EPA's Comprehensive Procurement Guidelines. We will also review and update the green | (1) As new formation is released to agencies on sustainable acquisition policies, tools, and guidance, OPO will disseminate this information to contracting officers, contract specialists, contracting officer representatives, and other program officials for consideration as requirements and evaluation criteria are developed, and contracts awarded and administered.<br>(2)We intend to purchase products in designated product categories with the highest content of recovered material. We will utilize EPA's Comprehensive Procurement Guidelines (CPG), which provides | (1) In FY 2019, OPO will complete its development of sustainable acquisition training and update its green procurement plan to further strengthen its sustainable acquisition goals. Training will focus on Federal Acquisition Regulation (FAR) clauses, biobased reporting requirements, proper Federal Procurement Data System (FPDS) coding as it relates to sustainability, sustainable acquisition tools availability (such as the Acquisition Gateway), and changes to acquisition policies and goals as a result of Executive Order 13834 (and any revisions hereafter).<br>(2) Establish and implement policies to meet statutory mandates requiring purchasing preference for recycled content products, ENERGY STAR qualified and FEMP-designated products, and BioPreferred and biobased products designated by USDA. |

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| procurement plan to address these purchasing preferences.<br>(3) Continue to conduct training for acquisition staff, including purchase card holders, regarding these initiatives and acquisition vehicles available for use, and the applicable sustainable acquisition requirements. It is our intent to utilize these category management initiatives and government-wide acquisition vehicles when feasible.<br>(4) OPM will continue to verify contractor reporting compliance within the System for Award Management in accordance with FAR 52.223-2. We will monitor compliance via quarterly contract compliance reviews.<br>(5) We will also review existing training modules, develop a training plan, and conduct training by January 2019. Training will be completed via existing training modules via FAI as well as internal OPM-specific training.<br>(6) Based on the findings of the FPDS V&V reviews, we will conduct training for the acquisition staff and supervisors, targeting the sustainable acquisition data categories within FPDS to ensure improved reporting quality in FY19.<br>(7) After the relevant specifications are reviewed and updated, and the requirements are incorporated into the green procurement plan, we will conduct training for acquisition staff on the updated green procurement plan by January 2019. | detailed specifications, definitions and required percentages of recovered material for designated product categories.<br>We also intend to purchase electronic equipment with a standby power level of 1 watt or less (including ENERGY STAR and FEMP-designated electronics), if the lower-wattage product is life cycle cost effective and if the performance of the product is not compromised.<br>(3) We intend to utilize Category Management Initiatives and government-wide acquisition vehicles that already include sustainable acquisition criteria. For example, this includes, but is not limited to category management initiatives for laptop and desktop purchases (OMB Memo M-16-02) and utilization of Federal Strategic Sourcing Initiative (FSSI) contracts for print management, wireless services and office supplies. In addition, we will utilize the IT hardware sustainability content tags on the GSA Acquisition Gateway to identify contract vehicles that meet or exceed all current sustainability requirements. | (3) Use Category Management Initiatives and government-wide acquisition vehicles that already include sustainable acquisition criteria.<br>(4) Ensure contractors submit timely annual reports of their BioPreferred and biobased purchases.<br>(5) Identify and implement corrective actions to address barriers to increasing sustainable acquisitions.<br>(6) Improve quality of data and tracking of sustainable acquisition through the Federal Procurement Data System (FPDS).<br>(7) Review and update agency specifications to include and encourage products that meet sustainable acquisition criteria. |

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| | (4) We will ensure that contractors meet this reporting requirement to facilitate agency efforts to accurately track and increase biobased purchasing<br>(5) We will identify specific corrective actions based on the results of quarterly contract reviews. In addition to annual sustainable acquisition training for acquisition staff, we will develop additional training to address specific barriers when needed. Biobased purchasing will be emphasized by including at least 50% of all new applicable service contracts in the quarterly contract reviews (applicability based on the OMB recommendations of Product Service Codes to focus reviews on acquisitions likely to have sustainability requirements).<br>(6) OPM will identify specific actions to improve the quality of data and tracking of sustainable acquisition through the Federal Procurement Data System (FPDS) based on the results of FPDS verification and validation (V&V) reviews.<br>(7) We will review and update the relevant agency specifications to include and encourage biobased and other | |

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| | designated green products. We will review and update the green procurement plan to ensure these product categories are included within the agency plan. | |

**ELECTRONICS STEWARDSHIP**

FY 2017 Status: 100 % equipment acquisition meeting EPEAT requirements, 100 % equipment with power management, & 100 % compliance with disposal guidelines

| *Implementation Status* | *Operational Context* | *Priority Strategies & Planned Actions* |
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| (1)In FY2017, 100% of procurements have met mandatory sustainable electronics requirements. This is the projected target for FY2018, FY 2019 and beyond.<br>(2) OPM will continue to centralized procurement of network managed printers. This enforces the use of the enterprise management of printing capabilities to ensure 100% compliance.<br>(3) Adherence to the policy has been implemented and followed. To Ensure environmentally sound disposition of electronic assets OPM will continue to utilize existing tools to manage and report electronic assets lifecycle. As well as looking for better processes or tools.<br>(4) OPMs OCIO plan to complete consolidation of all data centers by the end of FY19. At which time OPM resources will be in two main data center with managed power, | (1) CIO ensures all EIT procurements include all sustainable as mandatory requirements. Increased utilization of future procurement through BPA under GSA schedule.<br>(2) Power management is enabled through centrally through Group Policy; adherence manages centrally through the network. CIO will continue to enforce duplexing printers as the default printers purchased by agency. Old printers are replaced with duplexing printers. Additional printer capabilities include print management features controlled at the enterprise level.<br>(3) In accordance with GSA BULLETIN FMR B-34 Disposal of Federal Electronic Assets. OPM | (1) OPM will continue to use government-wide category management vehicles to ensure procurement of equipment that meets sustainable electronics criteria.<br>(2) Enable and maintain power management on all eligible electronics; implement automatic duplexing and other print management features on all eligible agency computers and imaging equipment measure and report compliance.<br>(3) OPM will ensure environmentally sound disposition of all agency excess and surplus electronics, consistent with Federal policies on recycling & disposal of electronic assets, measure and report compliance. Work with CIO counterparts to improve tracking and reporting systems for electronics stewardship requirements throughout lifecycle.<br>(4) Continue to develop, issue and implement policies, procedures |

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| and low PUE. | CIO uses Remedy CMDB to manage IT assets. | and guidance for data center energy optimization, efficiency, and performance while minimizing total cost of ownership in data center and cloud computing. Install and monitor advanced energy meters in all data centers (by FY18) and actively manage energy and power usage effectiveness. |

**GREENHOUSE GAS EMISSIONS**

FY 2017 Status: 35 % reduction in Scope 1 & 2 emissions

| *Implementation Status* | *Operational Context* | *Priority Strategies & Planned Actions* |
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| (1) Use the Federal Energy Management Program (FEMP) GHG emission report to identify/target high emission categories and implement specific actions to address high emission areas identified.<br>(2) Employ operations and management (O&M) best practices for emission generating and energy consuming equipment.<br>(3) OPM will develop and or revise agency's Chemicals Inventory Plans and identify and deploy chemical elimination, substitution, and/or management opportunities.<br>(4) Reduce source and transmission emissions by installing onsite hot water boilers in lieu of purchased steam.<br>(5) Reduce Fleet Per-Mile Greenhouse Gas (GHG) Emissions in vehicles. | OPM reduced Scope 1&2 greenhouse gas (GHG) emissions and achieved a 35.0% reduction compared to the FY 2008 baseline, surpassing expectation. The reductions are due primarily to increased building efficiency, with emissions from building energy use down 53% and from vehicles are down 23% since FY 2008. The large part of the remainder of the emission reduction is attributable to the purchase of green energy and renewable energy credits (RECs).<br>We continue to work toward further increasing building efficiency and reducing petroleum use in our vehicles, which will result in further progress on GHG reductions.<br>(2) Complete Phase 2 ESPC, and continue to implement identified cost- | (1) Review GHG report annually. Implement specific actions based on high emission categories.<br>(2) Complete implementation of remaining ECMs; acquire better data through efforts of internal working groups and continue to perform comprehensive assessment of monthly utility data for anomalies.<br>(3) OPM will Revise Agency Chemicals Inventory Plan annually and update as appropriate.<br>(4) Complete implementation of boiler energy conservation measure by FY2020.<br>(5) OPM will continue to replace inefficient vehicles with low GHG, hybrids and PHEVS where appropriate. |

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| | effective energy conservation measures (ECMs), maintain and execute operational plans where proven effective.<br>(3) We will continue to use best management practices in conjunction existing chemical inventory plan in order to reduce inventory.<br>(4) In FY2020 and beyond, we anticipate significant source emissions reduction due to purchased steam replacement with onsite hot water boilers at the TRB.<br>(5) OPM will continue to review, right- size fleet composition, locating vehicle to match local fuel infrastructure and eliminate underutilized vehicles when possible. | |