Social Security Administration
2018 Sustainability Report and Implementation Plan

Executive Summary

With the mission of the Social Security Administration (SSA) to provide economic security to many individuals, sustainability is an integral part of our success. It enables us to do our jobs more cost-effectively and be responsible stewards of the health of our employees, the public we serve, and the environment in which we live. We are committed to further improvements through a range of approaches, such as increasing the efficiency with which we use energy and water in our buildings, reducing solid waste disposal through recycling, and decreasing the combustion of petroleum-based fuels in our vehicles, while increasing the number of electric and hybrid vehicles in our fleet. In addition, the choices we make in acquiring products and services play a critical role in promoting sustainability, and we are committed to continuing our acquisition processes with sustainability as a priority. Our stewardship for electronics goes beyond acquisition, as we will continue to ensure our computers and monitors use minimal energy and are disposed of in an environmentally sound manner.

Top Agency Strategic Priorities
Facility Energy Efficiency
SSA, through delegated authority from the General Services Administration (GSA), reports on Federal sustainability requirements for our headquarters (HQ) campus and six other facilities across the country. SSA also participates in metering studies with GSA to evaluate the energy efficiency opportunities metering may create. In fiscal year (FY) 2017, we continued to foster strong progress in meeting our sustainability goals in our delegated facilities, achieving a 15.3 percent reduction from the FY 2015 baseline. We will continue our progress towards energy efficiency as we achieve annual reductions in building energy use and implement energy efficiency measures that reduce costs. Additionally, we will continue to perform energy audits and install resulting energy conservation measures (ECM) that will result in reducing energy usage and cost. SSA has performed metering studies with GSA to determine where additional smart meters can be installed to aid in further energy and water reduction.

Efficiency Measures, Investment, and Performance Contracting
SSA awarded $20.4 million in performance-based contracts at HQ by the end of calendar year (CY) 2016, and an additional $16.8 million in energy savings performance contracts (ESPC) at our Harold Washington Social Security Center (HWSSC) in Chicago, Illinois, totaling $37.2 million in commitments. We will continue to use ESPCs/UESCs to improve energy efficiency across our delegated facilities, when determined to be cost-effective. SSA has installed bottle-filling stations in buildings on the HQ campus to promote easier access to potable water and to reduce water waste and bottle recycling.

Transportation/Fleet Management
SSA has a fleet of four hundred forty eight (448) vehicles and our fiscal year (FY) 2017 petroleum use was 51.9 percent lower than in FY 2005. Our alternative fuel use was 1,531 percent higher in FY 2017 than in FY 2005. We will continue to increase the number of electric and plug-in hybrid vehicles (PHEV) in the fleet and have existing charging infrastructure in place. The HQ campus has four electric vehicle (EV) charging stations that are available only to fleet vehicles at this time. At our main data center, the National Support Center (NSC), the wiring has been completed for charging stations that will allow us to travel in EVs from our HQ in Baltimore to the data center, charge the vehicles while doing business, and have enough charge to return to HQ. Our Frank Hagel Federal Building in Richmond, California has

charging stations powered by PV on carports. We will also install Category II telematics in agency vehicles, continue right sizing and optimizing our fleet, and continue using the GSA Fleet Drive-Thru management system.

Sustainable Acquisition/Procurement

All applicable new contract actions reviewed met Federal mandates for acquiring products that are energy efficient, water efficient, biobased, environmentally preferable, non-ozone depleting, recycled content, or non-toxic or less toxic alternatives. These products meet performance requirements due to the rigorous system we have in place to assure sustainable acquisition and ongoing efforts at continuous improvement. In FY 2018, we continued to focus on improving the procurement of environmentally preferable products and services that meet or exceed specifications, standards, or labels recommended by the Environmental Protection Agency (EPA) by referring to EPA's Recommendations of Specifications, Standards, and Ecolabels for Federal Purchasing.

Data Center Optimization

SSA continues to strive to adhere to the Data Center Optimization Initiative (DCOI) metrics for Federal agencies and achieve the goals addressed in the Agency DCOI Strategic Plan. Pursuant to that, we continue to engineer and implement data center infrastructure management solutions that will improve airflow and efficiency, in addition to improving the data center Power Usage Effectiveness (PUE) DCOI Metric. In addition, we are currently implementing a Data Center Infrastructure Management (DCIM) Tool that will provide for a more centralized, automated collection and storage of asset inventory and energy-related data for the DCOI Metrics. We continue to virtualize 'first', from not only from a server perspective, but storage and network as well. On our Information Technology (IT) modernization roadmap, the Agency Cloud Initiative (ACI) continues to progress forward; the infrastructure now extends, with an Authority to Operate, into Amazon Web Services (AWS). We are in the process of implementing Microsoft Azure Government Cloud Services / Office365, as well as an on premise cloud, scheduled for production later this calendar year. We are also examining potential Cloud Management Platform (CMP) solutions as a complement to enabling automation across the infrastructure.

Implementation Summary

1. **Facility Management:**

FACILITY ENERGY EFFICIENCY
FY 2017 Status: 15.3% reduction (Btu/GSF) (FY15 baseline)

Implementation Status	Operational Context	Priority Strategies & Planned Actions
• Move toward installing ECM's from our Energy Audit at HQ.	• Changing from electric to natural gas fired hot water boilers at HWSSC reduces cost but increases BTU/gsf. This has affected part of FY 2018 but will affect our energy reductions in FY 2019	• Our energy audit at HQ has produced several ECMs that we are reviewing for possible implementation.

• Complete ECM's at HWSSC that includes new boilers. • Added smart meters to identify areas where we can reduce our energy and water usage. • Utilize advanced metering systems and analyze system data to develop reduction goals where feasible. • Enter monthly performance data into the EPA Energy Star Portfolio Manager System. • The Northeastern Program Service Center (NEPSC) participates in a demand management program during winter months.	and beyond. However, it will reduce energy cost for that site. • The agency has been reducing leased by undergoing space optimization of employees in headquarters buildings. As a result, we have been facing a gradual increase in energy usage for plug load, heating, ventilation and air conditioning (HVAC) load, and water usage. To reduce the densification impact, the agency has continued completing ECMs. • SSA has realized cost and energy savings through the elimination of leased space, however, this energy reduction doesn't help us when calculating our BTUs per gsf because lease space is not part of the agencies Energy Independence and Security Act (EISA) Energy Intensity Goal Subject Buildings target.	• Will request funding to perform energy audits as required and implement energy conservation measures to improve energy efficiency. • Will continue to use EPA's Energy Star Portfolio Manager to analyze building energy management data. • NEPSC will continue participating in a demand management program.

EFFICIENCY MEASURES, INVESTMENT, AND PERFORMANCE CONTRACTING
ESPC and UESC investment / number of projects FY 2017: $0

Implementation Status	Operational Context	Priority Strategies & Planned Actions
SSA has previously met our goal of $20 million in contracts, all of which was awarded prior to the end of CY 2016. SSA continues to perform energy audits as required by EISA §432, which can identify future opportunities. We use multiple procurement methods to award contracts to implement ECMs, including Performance Contracting, when feasible, and direct funding.	n/a	SSA is considering designing combined heat and power (CHP) at HQ in Baltimore. If feasible, we will consider utilizing a performance contract.

RENEWABLE ENERGY

FY 2017 Status: 24.5% renewable electricity

Implementation Status	Operational Context	Priority Strategies & Planned Actions
• As a result of an HQ energy audit, we are reviewing the feasibility of installing a CHP ECM. • Purchase electricity from renewable sources and associated renewable energy credits (REC) via GSA to meet annual renewable energy targets.	n/a	• All future energy audits for SSA-delegated facilities will evaluate the potential for renewable energy. • If feasible, the agency will seek funds for CHP design in FY2020/FY2021. • Continue purchase of electricity and associated RECs via GSA.

WATER EFFICIENCY

FY 2017 Status: 39.5% reduction in potable water (Gal/GSF) (FY07 baseline)

Implementation Status	Operational Context	Priority Strategies & Planned Actions
• Installed water metering for irrigation and potable water use. • Performed advanced metering studies with GSA and determining if additional smart meters can be beneficial. • Use water management to maintain desired level of service at lowest life cycle cost under operations and maintenance program. • Reclaim condensate water, ground water seepage, and rainwater for reuse as gray water and landscaping irrigation at our HWSSC and Western Program Service Center. • Have water sensors at HQ as part of our irrigation system and irrigate the lawns in the front of the facility. • Always consider opportunities for water conservation when planning energy efficiency improvements.	Space optimization of employee space at SSA. See Operations Context above under Facility Energy Efficiency.	SSA will procure services to update the irrigation system at HQ in Baltimore to a more efficient watering system that will include rainwater sensors.

HIGH PERFORMANCE SUSTAINABLE BUILDINGS

FY 2017 Status: GSA performs construction, modernization, and major projects on behalf of SSA.

Implementation Status	Operational Context	Priority Strategies & Planned Actions
	GSA handles any new construction, modernization, and major renovation projects performed on behalf of SSA.	We will work with GSA to incorporate green building specifications on major projects.

WASTE MANAGEMENT AND DIVERSION

FY 2017 Status: 50.5% waste diverted

Implementation Status	Operational Context	Priority Strategies & Planned Actions
• In full compliance with all Emergency Planning and Community Right-to-Know Act (EPCRA) reporting requirements. • Completed chemical inventories in all SSA HQ shops, which we now track through the SDSpro software. • Use refrigerant recovery systems at all our delegated facilities. • Inventory hydrofluorocarbons (HFC) use and purchases. • Mandated training on the use of recycling equipment for all HVAC and contract personnel, both in house and contractors.	n/a	Will continue to: • Report EPCRA as required. • Annually inventory HQ shops and excess and products not being used. • Research additional ways to increase recycling. • Have the waste minimization workgroup identify areas with excess chemicals, improve chemical purchasing, and implement minimization strategies. • Track fugitive HFC emissions and make changes and repairs as necessary. • Inventory HFC use and purchases annually in the SSA Greenhouse Gas (GHG) inventory. • Include a requirement for contractors to provide quantities of HFCs used for all new contracts that involve HFCs. • Provide training to all new HVAC employees on the use of HFC recycling equipment.

2.   Fleet Management:

TRANSPORTATION / FLEET MANAGEMENT

FY 2017 Status: 51.9% reduction in petroleum and 1,531% increase in alt fuel (FY 2005 baseline)

Implementation Status	Operational Context	Priority Strategies & Planned Actions

• Strategically placed all newly acquired vehicles in areas with supporting fuel type infrastructures.
• Continue analyzing data collected from the telematics system, such as vehicles with excessive idling time, and continue installing vehicle telematics in new acquisitions of light-duty vehicles.
• Primary Financial Management Information System (FMIS) is GSA's Fleet Drive Thru and FED FMS system, which enables us to feed data into the Federal Automotive Statistical Tool (FAST), Federal Motor Vehicle Registration System (FMVRS), as well as FLEETDASH.
• Regularly review our mission needs and vehicle utilization to right-size our fleet and will continue to do so through vehicle utilization surveys, and quarterly meetings with our Fleet Liaison's; we reduced our fleet from 534 to 438 vehicles since 2005, a 22% reduction.
• Have had huge successes with our alternative fuel use due to our agency owned E85 tank located at SSA HQ.
   o 20% of the agency's vehicles are located at HQs, where we are able to maximize the use of E85.
   o High use of E85 at our HQ has helped offset the low use of E85 at those field locations with limited access to E85.
   o Starting in FY 2017, we have taken additional steps to improve the use of E85 in our field locations. We have started publishing an Alternative Fuel Use and Missed Opportunity Report to our field offices, which identifies vehicles that had an opportunity to fuel with E85 and did not. As we continue to use this process of issuing the Missed Opportunity Report, we have seen a decrease in missed opportunities of E85 usage by 1.0 percent.
• Classified our LE vehicles as Category II vehicles. We currently have one LE vehicle with an LE exemption.
	n/a	• Continue analyzing vehicle idling data to reduce idling time.
		• Start identifying vehicles that do not meet the vehicle manufactures recommended miles per gallon within a variable of 12%.
		• Continue to procure vehicles with Automatic Start Stop systems.
		• Continue verifying that Data is properly entered into FAST, Fleet Dash, and FMVRS.
		• Procured six PHEVs in FY 2018. We intend to increase the number of PHEV's in FY 2019. Initial target is 20% of new acquisitions to be EVs or PHEVs by FY 2020.
		• Will continue to procure Category II, low GHG vehicles, and alternative fuel vehicles in FY 2019. 100% of all new acquisitions are Category II vehicles, which will reduce the number of exemptions.
		• Through use of Alternative Fueling Station Locator system, 100% of FY 2018 new vehicle acquisitions match local fuel infrastructure availability. All vehicles located within 5 miles or 15 minutes of an E85 fueling station will receive an E85 capable flex fuel vehicle. Vehicles outside of the E85 radius will receive a low GHG dedicated gasoline vehicle.

• Established a robust shuttle system between HQ facilities and for regional employees visiting HQ, which precludes unnecessary travel by government operated vehicles between facilities and the need for rental cars for visiting employees. In addition, we collaborated with the Center for Medicare and Medicaid Services to provide a ride sharing service between our offices in Baltimore and Metropolitan D.C. areas.		

3. **Cross-Cutting:**

SUSTAINABLE ACQUISITION / PROCUREMENT
FY 2017 Status: Percentage point difference of sustainable contract action from FY 2016   - 0.4%, / Percentage point difference of value of contracts with sustainable requirements from FY 2016, -0.3%

Implementation Status	Operational Context	Priority Strategies & Planned Actions

• Provide agency-specific sustainable acquisition policy in our Acquisition Handbook, Green Purchasing Plan (Plan), and Micro-purchasing manual.
  o Issued quarterly reminders
  o Held quarterly forums to educate contract-related staff about the Plan's sustainable acquisition roles and responsibilities.
  o Includes applicable Federal Acquisition Regulation (FAR) policy and clause prescriptions, verified during quarterly reviews.
• Met statutory mandates requiring purchase preference for recycled content products, Energy Star® qualified and FEMP-designated products, and BioPreferred and biobased products designated by United States Department of Agriculture
• Require purchasing preference for sustainable products and services identified by EPA programs, including SNAP and WaterSense.
	SSA awarded contracts totaling $1.564 billion in FY 2017. Of these contracts $201 million contained applicable environmental attributes. Therefore, 13% of FY 2017 awarded contract actions contained environmental attributes.	• Continue to focus on improving the procurement of environmentally preferable products and services that meet or exceed specifications, standards, or labels recommended by EPA by referring to EPA's Recommendations of Specifications, Standards, and Ecolabels for Federal Purchasing.
		• Conduct targeted training of agency contracting staff.
		• Continue to issue quarterly reminders.
		• Continue to conduct quarterly sustainable acquisition reviews, discussing corrective actions.
		• Continue to report sustainability compliance in Contractor Performance Assessment Reporting System (CPARS).

• Require contracting staff and micro-purchasers to consider sustainable office supplies from indefinite delivery indefinite quantity contracts with the Federal Strategic Sourcing Initiatives (FSSI) before procuring items from any other source. We require micro-purchasers to document their acquisition files when they do not purchase an item available from FSSIs.
• Encourage the use of IT, office management, and facilities and construction category management initiatives that include sustainable acquisition criteria. We encourage staff to use Best in Class (solutions to the maximum extent practicable.
• Issue regular CPARS reminders, including sustainability requirements evaluation, to contracting staff. We follow the FAR Part 42.1503 guidance and supplement the FAR guidance by instructing contracting staff to include sustainability requirements evaluation in our agency specific CPARS Policy Guide and acquisition policy Handbook.
		• Planned updates include:
		  ▪ Safer Choice labels and Smart Way transport partners
		  ▪ Sustainable acquisition criteria category management and strategic sourcing policy
		  ▪ Sustainability compliance as an assessment factor
		• Announce updates to the Plan.
		• Re-introduce the Plan through targeted training.

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
• Directed agency contracting staff to adhere to Office of Management and Budget's Office of Federal Procurement Policy Category Management Policy Directive, 15-1, by adopting standardized laptop and desktop configurations, mandating purchases from existing vehicles, and adopting smarter business practices. • Power management is enabled on all eligible monitors, PCs, and laptops. • Dispose of all end-life-electronics in accordance with GSA and Federal	n/a	• Continue to issue quarterly reminders. • Continue to enforce power management settings via Active Directory Group Policy Objects and are working to enhance reporting capabilities using System Center Configuration Manager. • Continue to establish and implement property management policies and guidance to SSA Property Management Officers and Custodial Officers nationwide to promote and continuously achieve environmentally

Management Regulation, through Computers for Learning (CFL), Direct Transfers to Federal Agencies, State Agency for Surplus Property, certified (R2 or e-steward) recyclers, and GSAXcess / GOV-Sales. • Continue managing the Memorandum of Understanding with the United States Postal Service for disposing of qualified electronics in remote locations and a hard drive and portable device sanitization services contract to safeguard personally identifiable information. • All end-of-life electronics are disposed through GSA Xcess, CFL, Unicor, or certified recyclers.		sound disposition of 100 percent of agency excess electronic products. • Continue to ensure the environmentally sound disposal of all excess or surplus electronic products on an ongoing basis through the policies and procedures, which only allow disposition through GSA Xcess, CFL, Unicor, or a certified recycler.

GREENHOUSE GAS EMISSIONS

FY 2017 Status: 50.3% reduction in Scope 1 & 2 emissions

Implementation Status	Operational Context	Priority Strategies & Planned Actions
• Our GHG inventory tells us that purchased electricity and on-site combustion make up nearly 95 percent of our Scopes 1 and 2 GHG emissions, so energy efficiency has been our top priority for reducing these emissions, as we do the following: o rely on energy assessments to inform our decisions on strategies to reduce energy consumption; and o utilize advanced metering systems and analyze system data to develop GHG reduction goals where feasible. • As part of our operating and maintenance practices, we adjust equipment cycling to provide efficient operation thereby reduce our annual emissions.	There were no significant changes to the number, size, or use of goal-subject facilities during FY 2017.	We will research and attend webinar training sessions to encourage employee engagement and further reduce our GHG emissions. We plan to attend the Energy Exchange training in 2019.

4. Agency Identified Priorities:

Data Center Optimization

Agency Target for FY'19: See Planned Actions

Implementation Status	Operational Context	Priority Strategies & Planned Actions

• Pioneering the use of an automated infrastructure management tool for DCIM at both our NSC and Second Support Center (SSC).
  ○ All energy data points loaded in the DCIM Tool.
  ○ Can monitor/manage energy and power usage effectiveness (PUE).
  ○ Will become our central repository for all data that produces the DCOI Metrics.
• Currently installing Smart protocol data unit at the SSC and adding these data points to the DCIM Tool as we implement each component.
• Conducting a full-scale inventory across all workloads and server infrastructures to:
  ○ Validate virtual infrastructures; and
  ○ Ensure performance monitoring is capturing production workloads.
• Executing a hybrid cloud strategy comprised of on premise and public cloud services for application systems
  ○ ACI Infrastructure Available (Q4 2017)
• Engineered and implemented data center infrastructure management solutions at the NSC and SSC that will improve PUE and return power cost savings.
• Have two certified Data Center Energy Practitioners, one assigned to our NSC data center in Urbana, MD and one at our SSC data center in Durham, NC.
	SSA is pursuing IT infrastructure modernization	• DCOI Metrics will all be reported from the DCIM Tool by Q4 2018 (OMB Reporting).
		• Continue executing cloud strategy
		  ○ On-Prem Infrastructure as a Service (IaaS) and Platform as a Service (PaaS) production capability ready (Q4 2018)
		  ○ CMP operational (Q3 2019)
		  ○ Enable AWS services in multiple regions (Q4 2019)
		• As our Office of Systems increases the amount of hardware and processing in the datacenters, they will work with the Office of Facilities and Logistics Management (OFLM) to optimize airflow management by increasing inlet temperatures and maturing SSA's convergent monitoring capabilities. Plans include:
		  ○ Cold Isle Containment retrofit at the SSC (end of FY 2018); and
		  ○ Incrementally increasing chilled water loop temperature at NSC with SSC.
		• Continue the scheduled DCOM meetings and collaborative effort with Systems, OFLM, and the Office of Security and Emergency Preparedness to meet/exceed DCOI Metrics and other mandates
		• <1.4 power usage effectiveness (PUE)
		• >65% server utilization and automated monitoring
		• >80% facility utilization