

# **U.S. Department of Agriculture**

## **Sustainability Report and Implementation Plan 2019**

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2019 Sustainability Report and Implementation Plan

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## Executive Summary

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### MISSION

The U.S. Department of Agriculture’s (USDA’s) leadership in food, agriculture, natural resources, rural development, and nutrition is based on available science, public policy, and effective management. USDA promotes efficiency and a clean energy economy and strives to exceed environmental statutory and regulatory requirements through sustainable operations.

USDA’s vision is to provide economic opportunity through innovation, helping rural America to thrive; to promote agriculture production that better nourishes Americans while feeding others worldwide; and to preserve our Nation's natural resources through conservation, restored forests, improved watersheds, and healthy private working lands.

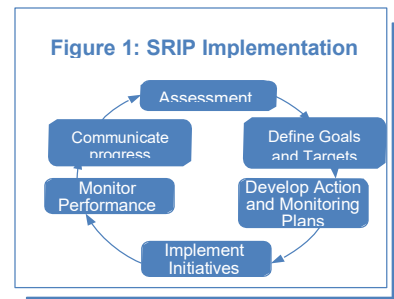
### SCOPE OF OPERATIONS

USDA owns and leases over 23,000 buildings and 39,000 fleet vehicles and has over 100,000 employees in all 50 states and several U.S. territories. USDA facilities range in size from very small rural structures of less than 100 gross square feet (GSF), such as outhouse facilities located at campgrounds, to very large office buildings exceeding 2,000,000 GSF.

### LEADERSHIP

The USDA Deputy Assistant Secretary for Administration serves as USDA’s Chief Sustainability Officer (CSO). USDA’s CSO and senior managers provide executive leadership in developing and executing this 2019 USDA Sustainability Report and Implementation Plan (SRIP). This SRIP establishes clear goals and objectives for USDA to achieve even greater results in sustainable, energy-efficient, economically-sound operations.

USDA approaches sustainability in a “plan-do-check-act” manner, providing for leadership involvement while creating opportunities for USDA employee participation in continuous improvement. See Figure 1.



### SUSTAINABILITY STRATEGIES

Strategies critical to USDA successfully integrating sustainability goals include:

- **Attain support of senior leadership.** USDA’s CSO and other senior managers provide leadership to USDA agencies in conducting their environmental, energy, and transportation-related activities for affordable, integrated, continuously improving sustainable operations;
- **Include energy efficient/sustainable practice concepts in the earliest possible phases of construction and renovation projects.** The cost benefits are greatest when these concepts are integrated early on, throughout the project’s life-cycle, and continue through the building’s life-cycle;
- **Facilitate communication across USDA agencies and competencies.** Effective communication and teamwork facilitate sound problem solving and decision making, minimize misunderstandings, and help to leverage available resources across USDA;
- **Integrate goals into policy, directives, and guidance documents.** Goal integration helps to

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better document sustainability requirements and ensures alignment and consistency with leadership's priorities; and

- **Compile, track and analyze data for improvement.** USDA compiles data needed to measure progress, evaluates results, and improves performance by making the best use of available resources.

## **PERFORMANCE SUMMARY**

USDA sustainability goals and strategies yielded many achievements in fiscal year (FY) 2018. A summary of the accomplishments and improved performance measures includes:

- Earned “green” scores on 14 of the 15 metrics on the White House Office of Management and Budget (OMB) Scorecard for Efficient Federal Operations/Management for FY 2018;
- Reduced greenhouse gas (GHG) emissions by 23.4% compared to the 2008 base year;
- Purchased and generated 89,597 megawatt-hours of renewable electricity, which is equivalent to 18.6% of USDA’s electricity uses in FY 2018;
- Invested \$6.6 million in facility efficiency improvements in FY 2018;
- Achieved the goal for 75% of covered light-duty vehicles acquired to be alternatively-fueled vehicles;
- Performed underutilized Vehicle Allocation Methodology (VAM) study, resulting in a forecast savings of \$26 million by disposing of over 4,000 vehicles, and anticipation of further fleet reductions in FY 2019;
- Doubled the percentage of acquisition actions that include sustainability requirements from 10.4% in FY 2017 to 20.9% in FY 2018 and increased the dollars obligated by \$190 million.
- Received an Electronic Product Environmental Assessment Tool (EPEAT) Award for purchasing sustainable IT products, saving an estimated \$1.7 million;
- Assessed 94.9% of owned buildings over 10,000 GSF in size and validated 42.9% of GSF and 30.9% of individual buildings as High-Performance Sustainable Buildings in FY 2018; and
- Exceeded key mandates, including both the government-wide goal for 15% sustainable buildings and the FY 2018 USDA’s goal for 23% sustainable buildings and 33% sustainable square footage.

## **STRATEGIC PRIORITIES**

Provided below are USDA’s top strategic priorities to facilitate compliance with energy, environmental, and sustainability statutes, and to help USDA to achieve and maintain a net-zero environmental footprint:

- Raise awareness, share information on challenges and success stories, support progress measures, and share cost saving strategies via the Facilities Workgroup convening with representatives across USDA quarterly each year;
- Conduct annual evaluations of facilities with the highest energy/water use intensity;
- Utilize Energy Performance Contracts (EPCs) to meet energy reduction, renewable energy and water management goals;
- In the real property portfolio, raise environmental performance levels and reduce the footprint through effective disposal and on-going consolidation;

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- Perform annual survey of all fleet vehicles to identify opportunities to eliminate vehicles, right-size them for their mission, and deploy alternative fuel vehicles effectively; and
- Reduce the number of data centers from 39 in March 2018 to 4 by December 2019 as part of a multi-year effort with the General Services Administration (GSA) Centers of Excellence.

In addition to the efforts listed above to improve internal performance, USDA is also assisting all Federal Government agencies to achieve sustainable acquisition goals by developing recommended methodologies to establish yearly biobased-only contract targets in consultation with the GSA.

## **Implementation Summary: Facility Management**

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### **1. FACILITY ENERGY EFFICIENCY**

#### **FY 2018 Energy Intensity Progress (Btu/GSF):**

38.2% reduction from FY 2003

4.9% reduction from FY 2017

#### **FY 2019-FY 2020 Plan:**

1% reduction in FY 2019 from FY 2018

1% reduction in FY 2020 from FY 2019

#### **Implementation Status:**

In FY 2018 and FY 2019, USDA continued to promote building energy conservation by implementing various strategies and energy conservation measures (ECMs). Specific strategies included conducting energy evaluations, project benchmarking, installing/monitoring energy meters and sub-meters, and conducting life-cycle cost analyses (where feasible). Specific ECMs included replacing legacy lighting systems with LED-lighting; installing occupancy sensors; and retrofitting and retro-commissioning heating, ventilation, and air conditioning (HVAC) systems. Other ECMs included installing condensing boilers; installing and upgrading emergency generators; upgrading roof membranes; improving sealing around buildings envelope; and installing building automation systems that allow for remote control of buildings functions.

#### **Priority Strategies & Planned Actions**

USDA will continue to implement life-cycle cost-effective ECMs identified from Section 432 of the Energy Independence and Security Act (EISA 432) facility evaluations. Additionally, as part of the Department's ongoing facilities modernization, repair and maintenance activities, USDA will continue to implement building energy efficiency and capital improvement projects (CAP) in FY 2020. Specific ECMs from the EISA 432 evaluations and CAP projects include:

- Perform building commissioning, retro-commissioning, and re-commissioning;
- Redesign interior space to reduce energy use through daylighting, space optimization, and sensors and control systems (when life-cycle cost effective);
- Install and monitoring energy meters and sub-meters;
- Replace legacy lighting systems with LED-lighting;

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- Install occupancy sensors;
- Retrofit and retro-commissioning HVAC and related systems;
- Install condensing boilers;
- Install and upgrading emergency generators;
- Upgrade roof membranes;
- Improve sealing around buildings envelope;
- Install fiberglass liner on water storage tanks;
- Renovate cafeteria and kitchen equipment, including fryer and oven upgrades;
- Upgrade elevators; and
- Install building automation systems that allow for remote control of buildings functions.

FY 2020, USDA anticipates saving more than 36,000 million BTUs and \$360,000 (direct agency obligations) from the ECMs listed above. USDA will use data from facility evaluations, CAP projects, the EISA 432 Compliance Tracking System (CTS), and EPA portfolio manager to develop strategies, plans, and priorities for future implementation.

## **2. EFFICIENCY MEASURES, INVESTMENT, AND PERFORMANCE CONTRACTING**

### **FY 2018 Performance Contracting – Investment value and number of new projects awarded:**

\$3.1 M / 1 project in FY 2018

### **FY 2019-FY 2020 Plan:**

\$1.0 M / 1 project in FY 2019

\$9.7 M / 5 project(s) in FY 2020

### **Implementation Status**

USDA facilities are typically small and sparsely dispersed across large geographical areas. Accordingly, USDA has adopted the use of ENABLE EPCs to implement energy and water conservations measures at many of its smaller facilities. In FY 2018 and FY 2019, USDA employed EPCs to implement various ECMs including upgrading lighting systems, transformers, HVAC systems and controls, and building envelopes.

### **Priority Strategies & Planned Actions**

In FY 2020 and FY 2021, USDA will implement plans to award the SolarARS. SolarARS is an EPC Energy Sales Agreement which USDA plans to implement at 14 USDA facilities across the country. Under SolarARS, a private developer builds, operates, and maintains solar arrays at USDA facilities and sells the electricity to the facilities at a lower rate than the rate offered by the current electricity provider. The first facility where a SolarARS system will be installed is the Agricultural Research Center in Beltsville, Maryland, where it is estimated that the solar array will save an average of \$1 million annually.

USDA anticipates savings from EPCs awarded in previous years. For example, the Off-Grid ENABLE EPC in the Pacific Southwest Region is projected to save over three billion BTUs in FY 2020. Details for other EPC projects that will provide savings in FY 2020 and beyond are provided in the Notable Projects and Highlights section of this SRIP.

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USDA will review data from EISA 432 site energy and water evaluations to determine if it will be cost effective to employ the use of EPCs as a follow-up to the site evaluations.

### **3. RENEWABLE ENERGY**

#### **FY 2018 Renewable Electricity Use:**

18.6% of total electricity in FY 2018

#### **FY 2019-FY 2020 Plan:**

20% of total electricity in FY 2019

22% of total electricity in FY 2020

#### **Implementation Status**

In FY 2018 and FY 2019, USDA employed a variety of renewable energy initiatives, including onsite generation, power purchase agreements, area-wide agreements, and renewable energy credit (REC) purchases. As a renewable energy portfolio-wide strategy, USDA starts with a subset of its facilities and then expands once the benefits of renewable energy are demonstrated. Several onsite renewable energy projects/contracts were implemented or awarded in 2018, including:

- The installation of a solar photovoltaic (PV) canopy at the Pacific Southwest Regional Office. The project was financed by a power purchase agreement as part of the Federal Aggregated Solar Procurement Pilot. The system has a capacity of 790 kilowatt (KW) and is projected to save USDA \$5 million in energy costs while producing more than 120 gigawatt-hours (GWH) of renewable energy over the 20-year contract term;
- Construction of an 80-KW solar PV array at the Jornada Experimental Range in Las Cruces, New Mexico was completed in mid-2018, making the range a net-zero electricity facility; and
- A task order for the Off-Grid ENABLE EPC in the Pacific Southwest Region was awarded and implementation initiated. This project includes mobile solar PV installations with battery back-up plus lighting upgrades. This project was supported by a Department of Energy (DOE) Assisting Federal Facilities with Energy Conservation Technologies (AFFECT) grant.

USDA continued to purchase green power and RECs. Some examples include:

- Within the National Capital Region (NCR), 15% of the electricity supplied to USDA facilities came from renewable energy sources as part of a GSA area-wide contract;
- In the New England region, a contract was awarded to supply electricity containing 20% green power to USDA facilities;
- A USDA facility in New York state purchases renewable chilled water originating as lake water from Cornell University; and
- Throughout USDA, RECs from agricultural by-products and wind turbines were purchased through DLA and GSA contract vehicles.

#### **Priority Strategies & Planned Actions**

In FY 2020 and FY 2021, USDA plans to award the SolarARS at 14 USDA facilities. Additionally, USDA plans to continue the implementation of various solar PV projects, including:

- Off-Grid ENABLE EPC in the Pacific Southwest Region. This project includes mobile solar PV installations with battery back-up plus lighting upgrades. A lithium-ion and lead-acid battery testing and comparison study integrated into this project is being conducted in

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partnership between USDA and the National Renewable Energy Laboratory. Results can guide further applications of mobile solar PV installations, especially for land management agencies operating in remote and dispersed locations; and

- 33-KW solar PV rooftop array for a laboratory in Davis, California.

To mitigate impacts from future hurricanes, USDA will explore the use of an ENABLE EPC to install off-grid photovoltaic systems at various facilities in Puerto Rico and St. Croix. Additionally, USDA is evaluating the installation of a solar car port at the George Washington Carver Center in Beltsville, Maryland.

#### **4. WATER EFFICIENCY**

##### **FY 2018 Water Intensity Progress (Gal/GSF):**

- 25.1% reduction from FY 2007
- 3.2% reduction from FY 2017

##### **FY 2019-FY 2020 Plan:**

- 2% reduction in FY 2019 from FY 2018
- 2% reduction in FY 2020 from FY 2019

##### **Implementation Status**

In FY 2018 and FY 2019, USDA continued to promote water use efficiency and conservation by implementing various strategies and water conservation measures (WCMs). Specific strategies included conducting water evaluations, project benchmarking, installing/monitoring energy meters and sub-meters, and conducting life-cycle cost analyses (where feasible). Reductions of non-potable water consumption are challenging for USDA because its mission involves using voluminous amounts of water for irrigation, aquaculture, animal watering, and research. Although confronted with these challenges, USDA implemented various WCMs, including detecting and repairing leaks, installing faucet sensors, low-flow flush devices, and aerators in lavatories; operating variable speed well-water pumps; and reducing landscaping projects. Other WCMs included re-using experimental saline waters for irrigation of landscape; treating contaminated water and using for irrigation; and reducing water loss and keeping soil cool with inorganic mulch. Additional WCMs entailed implementing drip irrigation; installing rain sensors on landscape irrigation systems; minimizing or eliminating landscape irrigation; and changing landscaping from drought tolerant to xeriscape vegetation.

##### **Priority Strategies & Planned Actions**

USDA will continue to implement life-cycle cost-effective ECMs identified from EISA 432 facility evaluations. Additionally, as part of the Department's ongoing facilities modernization, repair and maintenance activities, USDA will continue to implement building water efficiency and CAP projects in FY 2020. Specific water conservation measures (WCMs) from the EISA 432 evaluations and CAP projects include:

- Implement leak detection and repair;
- Install facet sensors, low-flow flush devices, and aerators in lavatories;
- Operate variable speed well-water pumps;
- Reduce landscaping projects;
- Re-utilize experimental saline waters for irrigation of landscape;



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- Treat contaminated water and using for irrigation;
- Add inorganic mulch to reduce loss through evaporation and keep soil cooler;
- Implement drip irrigation in field and greenhouses, as practicable;
- Install rain sensors on landscape irrigation systems;
- Minimize or eliminating landscape irrigation; and
- Change landscaping from drought tolerant to xeriscape vegetation.

In FY 2020, USDA anticipates saving more than 16 million gallons of potable water and nearly \$100,000 from the WCMs listed above. USDA will use data from facility evaluations, CAP projects, the EISA 432 CTS, and EPA portfolio manager to develop strategies, plans, and priorities for future implementation.

## **5. HIGH PERFORMANCE SUSTAINABLE BUILDINGS**

### **FY 2018 Sustainable Buildings Progress:**

FY 2018 145 sustainable Federal buildings  
30.9% of buildings and 42.9% of gross square footage (GSF)

### **FY 2019-FY 2020 Plan:**

37.5% of GSF in FY 2019  
38.5% of GSF in FY 2020

#### **Implementation Status**

- USDA land-holding agencies, such as Agricultural Research Service (ARS), Forest Service (FS), Animal Plant Health Inspection Service, and Natural Resources Conservation Service (NRCS) of the Farm Production and Conservation mission area, utilize policies and practices to plan, design, construct, and operate all new buildings and major modernizations sustainably, in addition to conducting portfolio-wide existing buildings assessments;
- In FY 2018, USDA ARS designed and constructed six Laboratory and Research Buildings in Athens GA, Ames IA, Salinas CA, Tucson AZ, Beltsville MD, and Kerrville TX, each designed for sustainability and for energy conservation operation at least 30% below the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) 90.1 versions 2010 and 2013. The ARS anticipates achieving 3<sup>rd</sup> party certification for the CA and TX facilities;
- USDA ARS completed comprehensive condition and life expectancy evaluations of buildings and equipment, “Builder evaluations” at 22 locations; and
- USDA benchmarked sustainability performance with Energy Star Portfolio Manager at locations in the Northeast, Southeast, and Midwest.

USDA’s overarching strategy to advance Sustainable Buildings progress is communication and outreach, combined with ongoing assessment and attention to sustainable building initiatives, throughout the headquarters, engineering, and field offices level. The Facilities Workgroup, under the Sustainable Operations Council, is a departmental forum for learning and sharing information. The USDA excels in Sustainable Buildings progress because one of mission areas in USDA is natural resources conservation.

### **Priority Strategies & Planned Actions**

USDA initiatives include:

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- Collaboratively set strategies and future sustainability initiatives for FY 2020 and FY 2021, and incentivize sustainable buildings accomplishments, for example, in energy and water conservation, and in human health and wellness;
- Focus on synergies between sustainable and resilient technologies, for example, low impact development measures and extreme weather resilience;
- Use performance specifications with energy efficiency criteria as source selection factors to conserve energy and water, and to foster occupant safety and health;
- Select sustainable sites and execute new construction projects to meet the *Guiding Principles for High Performance Sustainable Buildings* requirements; and
- Use wood as the preferred construction material for its many benefits, including energy efficiency, speed of construction, the ability to reduce wildfire risk and wood's carbon sequestration characteristics.

Projected progress is based on USDA agencies assessing real property for sustainability and completing multiple ongoing sustainable building projects and initiatives.

## **6. WASTE MANAGEMENT AND DIVERSION**

### **FY 2018 Non-hazardous Waste Management and Diversion:**

5,117 metric tons of non-hazardous solid waste generated\*

69% sent to treatment and disposal facilities

\*not including construction and demolition waste

### **Implementation Status**

USDA agencies continue implementing initiatives to reduce waste generation and increase waste diversion by proactively tracking recycling; focusing purchasing on materials that will be able to be recycled in the future; and maximizing purchase of materials with high recycled content. USDA facilities continue to reduce the volume of hazardous chemicals used and hazardous waste generated in addition to acquiring non-toxic alternatives.

Operational challenges to reducing solid waste and increasing waste diversion include changes in global markets for recycled material and changes in materials capable of being recycled. Many USDA facilities are also largely focused on laboratory operations, where waste reduction or recycling initiatives are limited by other concerns such as an inability to recycle in laboratory environments due to biosafety or chemical safety concerns. In addition, some USDA facilities have volunteer-run recycling programs where waste diversion is optional.

### **Priority Strategies & Planned Actions**

USDA initiatives include:

- Practice waste reduction in the following order of priority: source reduction, reuse, recycling, and composting;
- Disseminate to agencies best practices for accomplishing waste reduction and measuring progress through a significant sampling of facilities with contracted solid waste removal;
- Look for novel strategies and policies to reduce waste, focusing on critical control points in processes, procedures, and materials; and

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- For FY 2019, target a 2% reduction in solid waste and 67% of waste sent to treatment and disposal facilities. For FY 2020, target a 4% reduction in solid waste and 65% of waste sent to treatment and disposal facilities.

## **Implementation Summary: Fleet Management**

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### **1. TRANSPORTATION / FLEET MANAGEMENT**

#### **FY 2018 Petroleum Reduction Progress (Gal):**

4.63% decrease in petroleum fuel from FY 2014 baseline

5.32% reduction in petroleum fuel from FY 2017

#### **FY 2019-FY 2020 Plan:**

3% reduction in FY 2019 from FY 2018

3% reduction in FY 2020 from FY 2019

#### **Implementation Status**

USDA has achieved a 4.7% increase of alternative fuel consumption for FY 2018. USDA also met its goals to reduce the total reportable fleet inventory from 44,662 vehicles in FY 2016 to 39,108 vehicles in FY 2018, and plans to reduce the inventory by an additional 3 percent to 37,693 in FY 2019. USDA efforts to further reduce the inventory and operating costs in FY 2020 are ongoing, with progress reported quarterly to the Deputy Secretary level.

#### **Priority Strategies & Planned Actions**

- Promote the acquisition of low GHG and hybrid electric technologies in FY 2020, per GSA's expanded model offerings for alternative fueled light and mid-sized vehicles. This effort will help to reduce petroleum use and decrease dependency on the availability of fossil based alternative fuels at remote field sites;
- Perform annual Vehicle Allocation Methodology (VAM) on each vehicle asset to:
  - Improve fleet efficiency by reducing the number of underutilized vehicles from FY 2017 to FY 2020 (approximate 4,200 vehicle reduction and an estimated aggregate savings of \$57 mil); and
  - Reduce fleet costs by determining the most cost-efficient procurement method (own vs. lease) and lifecycle costs of each vehicle asset.
- Develop USDA annual minimum mileage and days in use criteria to help identify underutilized vehicle assets for sharing or disposal;
- Develop VAM summary tool that creates a baseline end of year inventory for each fleet sub compartment and monitors quarterly actual and planned acquisitions and disposals;
- Establish optimal fleet size for FY 2020 (approximately 36,500 vehicles) that will serve as a cap for the number of vehicles in the USDA fleet;
- Install telematics on newly acquired home-to-work GSA leased vehicles in FY 2020;
- Centralize vehicle acquisition process at mission area levels. Agency subcomponents with fleet management/operations under their purview will be responsible for meeting quarterly planned acquisition and disposal goals, and maintaining the FY 2020 size cap; and
- Develop vehicle sharing/reservation modules for FS and the Farm Production and Conservation fleets, which constitute approximately 75% of the total USDA Fleet.

## **Implementation Summary: Cross-Cutting Operations**

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### **1. SUSTAINABLE ACQUISITION / PROCUREMENT**

#### **FY 2018 Sustainable Acquisition Progress:**

23.0% of contract actions and 14.8% of obligations (in dollars), for a total of \$874.3 M in contract actions with statutory environmental requirements

#### **Implementation Status**

USDA agencies implement policies and practices to purchase recycled content, energy efficient, and USDA-designated biobased products in compliance with statutory requirements by consistently increasing the use of category management initiatives and government-wide acquisition vehicles with sustainability criteria. USDA also raises biobased product awareness using education and outreach via webinars, exhibitions, speaking in person, fact sheets and other publications. General awareness of sustainable acquisitions is also improved through AgLearn online training. USDA consistently identified and implemented corrective actions to address barriers to increasing sustainable acquisitions.

#### **Priority Strategies & Planned Actions**

USDA initiatives include:

- Revise online training and expanding training on AgLearn;
- Focus on the use of sustainable acquisition criteria for laboratory equipment and operations and maintenance contracts; and
- Incorporate contractor compliance with contract sustainability requirements into performance monitoring procedures and performance reviews.

For FY 2019, USDA projects 25% of contracts and 17% of obligations (in dollars) will comply with statutory environmental requirements. For FY 2020, USDA projects 27% of contracts and 19% of obligations (in dollars) will comply with statutory environmental requirements. Also, for FY 2020, USDA biobased-only contract targets are 450 contracts with an estimated dollar value of \$600,000.

### **2. ELECTRONICS STEWARDSHIP**

#### **FY 2018 Electronics Stewardship Progress:**

100.0% of newly purchased or leased equipment met energy efficiency requirements

100.0% of equipment with power management enabled\*

100.0% of electronic equipment disposed using environmentally sound methods

\*excluding exempted equipment

#### **Implementation Status**

USDA has monitoring and reporting systems for the acquisition, usage, and disposition phases for electronics. USDA continues to use blanket purchase agreements that only provide EPEAT-registered equipment, enable and maintain power management on all eligible electronics, and utilize the GSAXcess website to report on all excess and surplus electronics. Purchasing EPEAT-registered equipment enables compliance with statutory energy efficiency requirements. USDA received an EPEAT Purchaser Award from the Green Electronics Council for 2018 performance in purchasing

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sustainable IT products, which reduces the lifetime cost of those products by an estimated \$1.7 million, in addition to reducing energy usage, hazardous waste, and water pollutant emissions.

USDA has issued and implemented policy for data center energy optimization, efficiency, and performance. All USDA tiered data centers have advanced metering installed. USDA has Tier Four Data Centers, which provide 99.99% uptime, full redundancy, and error tolerance. Tier one through three data centers provide lesser levels of service. Advanced metering infrastructure is an integrated system of smart meters, communications networks, and data management systems that enables two-way communication between utilities and customers.

### **Priority Strategies & Planned Actions**

USDA initiatives include:

- Use government-wide category management vehicles to ensure procurement of equipment that meets EPEAT and sustainable electronics criteria;
- Enable, maintaining, and reporting compliance with power management on all eligible electronics;
- Ensure environmentally sound disposition of all agency excess and surplus electronics;
- Actively manage energy and power usage effectiveness in all data centers; and
- As part of the GSA Centers of Excellence, in FY 2019, close at least six data centers to reduce them to the final number of four data centers.

## **3. GREENHOUSE GAS EMISSIONS**

### **FY 2018 Scope 1&2 Greenhouse Gas (GHG) Emissions:**

23.4% reduction from FY 2008

0.2% reduction from FY 2017

### **Implementation Status**

USDA's Scope 1 GHG emissions are direct GHG emissions from sources that are owned or controlled by USDA (e.g., facilities and fleet vehicles). USDA Scope 2 GHG emissions are indirect emissions associated with USDA's consumption of purchased or acquired electricity, steam, heating, or cooling. USDA continued to integrate its strategic plans and policies with the services provided by FEMP to create effective management tools and initiatives to reduce GHG emissions. Additionally, USDA relied on the organizational structure and resources of various workgroups and green teams at the regional and field levels to promote operations that reduce USDA's GHG emissions.

### **Priority Strategies & Planned Actions**

USDA's 2018 and 2019 comprehensive GHG inventories will better inform the decision-making and implementation process to reduce GHG emissions. It is anticipated that synergies will be achieved between reducing GHG emissions and attaining the goals for energy efficiency, EPCs, renewable energy, and water efficiency, due to the similar implementation strategies that USDA will continue to employ in attaining these respective targets.

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USDA will continue to implement the following strategies to pursue further reductions in Scope 1 and Scope 2 GHG emissions:

- Analyze USDA’s 2018 Energy/Sustainability Data Report to identify high emission sources and implement recommended actions to mitigate emissions from those sources;
- Employ operations and management best practices for GHG emission generating equipment;
- Identify additional sources of data or analysis with the potential to support GHG reduction goals; and
- Develop and deploy GHG and sustainability training and awareness for all facility/energy managers and other employees.

## **Agency Priorities and Highlights**

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### **1. AGENCY IDENTIFIED PRIORITIES**

- Reduce vehicle fleet – USDA will reduce fleet size by 3% to 37,683 vehicles in FY 2019.
- Reduce real property space – The USDA One Neighborhood initiative will eliminate GSA-assigned leased space in Washington, DC. This includes disposing a total of 430,656 square feet for all office spaces.

### **2. NOTABLE PROJECTS AND HIGHLIGHTS**

USDA notable projects related to Renewable Energy and Performance Contracting, Sustainable Buildings, Sustainable Acquisition, Transportation and Fleet Management, and Waste Management include:

- **Jornada Range Solar** – The ARS awarded a contract to install an 80-KW of solar PV array at Jornada Experimental Range in Las Cruces, New Mexico, enabling the facility to be a net-zero electricity facility. The solar array produced 121,526 KW-hours of energy during its first three months of production. This is its first net zero electricity facility; its contract template is now being used for other projects.
- **Pacific Northwest Regional ENABLE Contract** –The FS Pacific Northwest Region executed the largest ESPC ENABLE contract to date, spanning three states, 14 National Forests, 46 sites and about 360 buildings. With this project, the FS reduces energy consumption and increases renewable energy use. Energy conservation measures include retrofitting 9,500 light fixtures with LED lamps, upgrading HVAC equipment, and installing 760 KW of solar PV systems. Total anticipated annual cost savings is \$270,000, which corresponded to 9,209 million BTUs per year of energy savings. The estimated annual solar PV production is 3,982 million BTUs.
- **FS Public Engagement on Sustainability** – The FS continued public engagement on sustainability in FY 2018, for example, at the Dixie National Forest where the FS and its partners created a sustainable teaching garden and outdoor learning laboratory at a local elementary school.
- **FS Sustainable Acquisition** – Tracking and evaluating sustainable acquisitions metrics and providing graphical dashboards have driven significant accomplishments and consistently resulted in exceeding sustainable acquisitions goals at the FS. For FY 2018, the FS achieved over 40% of obligations (in dollars) through contracts with sustainable acquisitions clauses.

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- **FS Gallatin National Forest Alternative Fuel and Photovoltaic-Offset Vehicle Charging Stations** – In FY 2018 and FY 2019, the FS expands its fleet of plug-in hybrid and electric vehicles at Gallatin National Forest, in support of alternative fuel/charging use by utilizing an on-site 18 panel PV array.
- **FS On-site Incident Recycling Blanket Purchase Agreement** - In FY 2019, the FS Fire and Aviation Management program expects to have a recycling contract to increase the efficiency of waste diversion efforts. By using a contracted vendor, the waste diversion rate is expected to range from 40-50% based on a previous pilot study.

In addition to the efforts listed above to improve internal performance, USDA is also assisting all Federal Government agencies to achieve sustainable acquisition goals by developing recommended methodologies to establish yearly biobased-only contract targets in consultation with the GSA.