# U.S. Department of Agriculture

# Sustainability Report and Implementation Plan 2020

**Submitted:** June 30, 2020

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# Executive Summary

## 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.

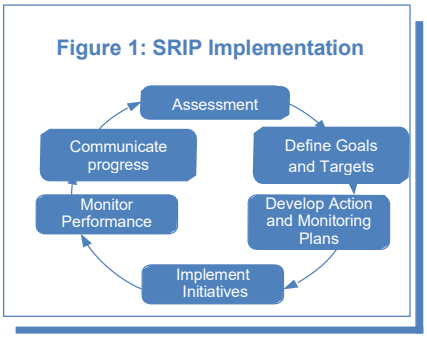
## SCOPE OF OPERATIONS

USDA owns and leases over 23,000 buildings and 37,000 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 2020 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.




## SUSTAINABLILITY STRATEGIES

Strategies critical to USDA success with integrating sustainability goals include to:

- **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, and sustainable operations;
- **Utilize sustainable building practices** including for energy and water efficiency, in the programming stage and throughout all phases of construction and renovation projects. The cost benefits are greatest when these concepts are integrated early on and throughout the project's lifecycle, and continue through the building's lifecycle;
- **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;
- **Issue energy/sustainability scorecards** to sub-agencies to better track performance, delegate responsibility, and improve accountability;

- **Integrate goals into policy, directives, and guidance documents.** Goal integration helps to 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) 2019. A summary of the accomplishments and improved performance measures includes:

- Earned "green" scores on 4 of the 7 goals on the White House Office of Management and Budget (OMB) Scorecard for Efficient Federal Operations/Management for FY 2019;
- Reduced greenhouse gas (GHG) emissions by 28.7% compared to the 2008 base year;
- Purchased or generated 97,700 megawatt-hours of renewable electricity, which is equivalent to 22.3% of USDA's electricity use in FY 2019;
- Invested $4.3 million in facility efficiency improvements in FY 2019;
- Exceeded the goal for 75% of covered light-duty vehicles acquired to be alternatively fueled and/or electric vehicles, with an emphasis on the purchase of low GHG emissions vehicles, plug-in hybrid and dedicated electric vehicles (EV), and expansion of the EV charging infrastructure at the local level;
- Continued providing oversight of agency fleet reductions effort to identify optimum fleet inventory of 36,517 vehicles. Addressed management challenges posed by the furlough and the pandemic where the unplanned office closures affected utilization rates, or accommodating social distancing standards and conducting the COVID-19 response required additional vehicles. Provided appropriate decision space to the agencies by allowing flexibility to fleet management planning and reductions target deadlines in moving forward. The increased collaboration resulted in expanded awareness of oversight intent, field-level needs, and overall improvements in efficiency during an unprecedented time;
- Assessed 87.9% of owned buildings over 10,000 GSF in size and validated 46.7% of GSF and 45.6% of individual buildings as High-Performance Sustainable Buildings in FY 2019; and
- Exceeded key mandates and the FY 2019 USDA goal for 38% sustainable buildings measured by 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 with representatives across USDA via the Facilities Workgroup;
- Conduct evaluations of facilities with the highest energy/water use intensity;
- Continue to make progress towards assessing 100% of the real property portfolio assets over 10,000 GSF for sustainability;
- 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 consolidation;
- Perform annual survey of all fleet vehicle inventories to identify opportunities to eliminate vehicles, right-size them for their mission, and deploy alternative fuel vehicles (AFVs) and EVs effectively; and
- Reduce the number of data centers, in partnership with the General Services Administration (GSA) Centers of Excellence, in which teams are embedded on-site to quickly drive results.

# Implementation Summary: Facility Management

## 1. FACILITY ENERGY EFFICIENCY

**FY 2019 Energy Intensity Progress (Btu/GSF):**

39.7% reduction from FY 2003
2.5% reduction from FY 2018

**FY 2020-FY 2021 Plan:**

1% reduction in FY 2020 from FY 2019
1% reduction in FY 2021 from FY2020

USDA develops directives for efficient use of energy; establishes targets and objectives to meet those directives; makes data available at all levels to make better decisions about energy use; measures energy management performance; and continually improves energy management at its facilities.

### Implementation Status

USDA performed energy evaluations and re/retro-commissioning at approximately 25% of covered facilities. USDA issued energy/sustainability scorecards to sub-agencies to better track performance within USDA. In 2019, USDA invested $4.3 million in capital improvement projects, as part of its facilities modernization, repair, and maintenance activities, and saved 43 billion British thermal units (BTUs) on facility energy efficiency. As an example, USDA completed the installation of the Primary Switchgear Power Monitoring System Dashboard for the Headquarters Complex. The system provides the ability to identify abnormally high or low energy use and helps to determine the actual building power performance and better manage energy use and costs. USDA maintained and operated advanced metering systems at nearly 300 sites. A significant portion of facilities with advanced meters were benchmarked using ENERGY STAR® Portfolio Manager. USDA implemented the automatic and ongoing benchmarking of over 150 high-energy use buildings in ENERGY STAR® Portfolio Manager.

### Priority Strategies & Planned Actions

In FY 2020 and FY 2021, USDA anticipates annual savings of more than 45 billion BTUs from the strategies and actions listed below:

- Continue to install and utilize advanced meters [ongoing];
- Conduct energy evaluations of 25% of covered facilities and benchmark 100% of conservation projects annually;
- Provide energy efficiency and conservation training and awareness to 10% USDA employees annually;
- Complete ISO 50001 Ready Training Series (enrolling two facilities) by December 2020;
- Develop USDA energy management dashboard by March 2021;
- Identify operations and maintenance (O&M) best practices for operational efficiency and control of equipment by March 2021; and
- Update USDA and sub-agencies' Metering Plans by May 2021.

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

**FY 2019 Performance Contracting – Investment value and number of new projects awarded:**

$0 / 0 projects in FY 2019

**FY 2020-FY 2021 Plan:**

$700,000 / 2 projects in FY 2020
$8.5 million / 1 project in FY 2021

USDA leverages data from energy audits, commissioning efforts, and data calls for utilizing performance contracting to achieve the Department's energy, water, building modernization, and infrastructure goals.

### Implementation Status

USDA realized energy and cost savings from EPCs awarded in previous years. These EPCs were used to upgrade lighting systems; heating, ventilation, and air conditioning systems and controls; transformers; building envelopes; chiller systems; and water appliances and equipment. In FY 2019 and FY 2020, USDA focused on Energy Savings Performance Contract (ESPC) ENABLE contracts versus traditional ESPCs. ENABLE contracts are more suited for USDA which has many small facilities sparsely located across the country. The USDA Forest Service (FS) Pacific Southwest Region's Off-Grid ENABLE Project reached final commissioning and acceptance in October 2019. The project spans five sites across five National Forests and includes mobile solar photovoltaic systems and lighting upgrades. Energy savings are estimated at 3.023 billion BTUs annually and cost-savings are estimated at $136,000 per year. In FY 2019, USDA's Agricultural Research Service (ARS) awarded a task order under a Utility Energy Service Contract (UESC) with Florida Power and Light to install an upgraded energy control system and other energy conservation measures.

### Priority Strategies & Planned Actions

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. Using the SolarARS business model, which is an ESPC Energy Sales Agreement (ESA), ARS plans to award two, 20-year ESPC ESAs. One ESA will be implemented at the Beltsville Agricultural Research Center (BARC) in Maryland, and one in Salinas, California. The BARC ESA is valued at $8.5 million and the Salinas ESA is valued at $500,000. The Salinas ESA is associated with a facility modernization project that will be Leadership in Energy and Environmental Design (LEED) certified. Additionally, ARS plans to award a UESC at Fort Pierce, Florida valued at $200,000. USDA plans to implement the strategies and actions listed below in FY 2020 and beyond:

- Evaluate 25% of covered and smaller facilities for use with EPCs and ENABLE contracts annually;
- Facilitate EPC training offered by Federal Energy Management Program (FEMP) for 25% of energy/water, procurement, financial, and legal staff annually;
- Submit proposals for funding opportunities through the Assisting Federal Facilities with Energy Conservation Technologies (AFFECT) grant, to FEMP annually;
- Award at least $700,000 in EPCs in FY 2020 and $8.5 million in EPCs in FY 2021; and
- Establish a team to explore options for allowing the facilities responsible for energy savings to retain the related funds which are saved by December 2020.

## 3. RENEWABLE ENERGY

**FY 2019 Renewable Electricity Use:**

22.3% of total electricity in FY 2019

**FY 2020-FY 2021 Plan:**

22.5% of total electricity in FY 2020

23.0% of total electricity in FY 2021

USDA supports the development, production, and consumption of renewable energy; and seeks to generate and purchase renewable energy that reduces costs and improves resilience at its facilities. USDA considers several localized factors for installing on-site generation at its facilities, including: (1) remoteness, (2) energy-intensity, (3) energy rates, (4) amount of renewable energy resources, and (5) viability for a demonstration project. USDA purchases green power and renewable energy certificates (RECs) to promote rural development. USDA targets agricultural/biomass products when procuring RECs.

### Implementation Status

In FY 2019, USDA purchased more than 85 million kilowatt-hours of renewable energy and generated more than 5 million kilowatt-hours of energy from on-site projects. In FY 2019, the George Washington Carver Center (GWCC) in Beltsville, Maryland, installed two high efficiency central solar photovoltaic (PV) inverters which will enable the facility to decrease the amount of utility-supplied energy by one million kilowatt-hours annually. In FY 2020, five remote sites in the Pacific Southwest Region of the FS were converted from dependence on propane/diesel generators to mobile solar systems with battery back-up. USDA continued to assess renewable energy options at its facilities based the Renewable Energy Planning and Optimization (REopt) tool.

### Priority Strategies & Planned Actions

Using the SolarARS model, ARS will implement plans to award ESPC ESAs at several facilities across the nation, including the two facilities discussed above in Section 2. The GWCC will install an additional 500 kilowatts of solar PV panels which will enable the facility to function off-grid on sunny days. GWCC is evaluating the installation of a solar carport to increase renewable energy generation at the facility. USDA will continue to work with Lawrence Berkeley National Lab to develop a PV O&M contract template. USDA will continue to explore the use of ENABLE contracts to install off-grid solar PV systems at various remote facilities to mitigate impacts from future storms. In FY 2020 and FY 2021, USDA plans to continue the implementation of the strategies and actions listed below:

- Utilize EPCs for financing renewable energy projects;
- Utilize Energy Independence and Security Act of 2007 (EISA) Section 432 evaluations and REopt to identify and prioritize potential renewable energy projects;
- Annually install new onsite renewable energy systems and generate energy from those systems equivalent to at least 1% of USDA's annual energy consumption; and
- Employ green power purchasing agreements and other mechanisms for purchasing green power and RECs equivalent to at least 20% of USDA's annual energy consumption.

## 4. WATER EFFICIENCY

**FY 2019 Water Intensity Progress (Gal/GSF):**

25.9% reduction from FY 2007

1.0% reduction from FY 2018

**FY 2020-FY 2021 Plan:**

1.0% reduction in FY 2020 from FY 2019

1.0% reduction in FY 2021 from FY 2020

USDA's develops directives for efficient use and management of water; establishes targets and objectives to meet those directives; makes data available at all levels to make better decisions about water management; measures water management performance; and continually improves water management at its facilities.

### Implementation Status

In FY 2019 and FY 2020, USDA conducted water evaluations, installed/monitored meters and sub-meters, conducted lifecycle cost analyses, and issued scorecards to sub-agencies to better track performance within USDA. A USDA Animal and Plant Health Inspection Service (APHIS) facility in Fort Collins, Colorado, replaced a faulty water meter which increased the accuracy of water consumption data and water invoicing. The Fort Collins facility also purchased two new chillers, which do not require water to operate. The APHIS facility at Moore Air Force Base in Texas began installing an irrigation system which uses non-potable water. At the Manti-La Sal National Forest, weedy turf was replaced with native plants, rocks, and sections of bio-turf, with interpretive panels for the public. This yielded a 40% reduction in water use and improved fire resilience. At the

Colville National Forest, a native plant garden was installed with the help of Job Corps Center students. This garden projects provided valuable job skill training and will help reduce summer water use by over 30%.

### Priority Strategies & Planned Actions

In FY 2020 and FY 2021, USDA anticipates annual savings of more than 7.5 million gallons of potable water from the strategies and actions listed below:

- Continue to install and utilize advanced meters [ongoing];
- Conduct water evaluations of 25% of covered facilities annually;
- Provide water efficiency/conservation training and awareness to 10% USDA employees annually;
- Identify viable harvesting systems for USDA facilities by December 2020;
- Develop USDA water management dashboard by March 2021;
- Identify O&M best practices for operational efficiency and control of equipment by March 2021; and
- Update USDA and sub-agencies' Metering Plans by May 2021.

## 5. HIGH PERFORMANCE SUSTAINABLE BUILDINGS

**FY 2019 Sustainable Buildings Progress:**

262 sustainable Federal buildings
45.6% of buildings / 46.7% of GSF

**FY 2020-FY 2021 Plan:**

46.8% of GSF in FY 2020
47.0% of GSF in FY 2021

USDA advances strategies to meet and exceed sustainable buildings sustainability goals in FY 2020 and FY 2021, measuring performance via the Guiding Principles for Sustainable Federal Buildings (Guiding Principles) as well as third-party building certification. USDA land-holding agencies, such as APHIS, ARS, FS, and Office of Operations (OO), plan, construct, and operate all new buildings and major modernizations sustainably. USDA uses sustainable resilient technologies, and continually raises levels of energy and water efficiency, indoor environmental quality, and occupant safety and health.

### Implementation Status

- The USDA land-holding agencies use third party certification systems such as LEED and Green Globes to measure sustainability; the FS requires a LEED Silver or Two Green Globes for new construction and major renovations. OO renovates facilities to meet LEED criteria at certified or Silver levels, including the GWCC and the South Building wing seven projects;
- In FY 2019, the ARS completed 18 Builder surveys, comprehensive condition and life expectancy evaluations of buildings and equipment. ARS achieves 30% better than ASHRAE 90.1 – 2013, meeting current building energy efficiency requirements in all design for construction after November 6, 2016;
- Through USDA's OneNeighborhood Initiative renovation, OO is consolidating space at GWCC and applying a new workplace model to increase capacity by a factor of 2.3 and avoid $9.34 million in annual costs;
- OO increased existing building electrical and mechanical equipment efficiencies by 5 to 10%, reducing environmental impacts, monitoring performance, and conserving energy and water;
- OO relocated the central data center, featuring direct digital controls, thermal aisle design, emergency power, and redundant cooling for continuity, lower operating costs, and higher capacity;
- The FS utilizes stakeholder engagement in writing the sustainable buildings policy, incorporating E.O. 13834 – *Efficient Federal Operations*, implementing instructions while aligning with industry standards; and

- APHIS increases sustainability levels, meeting LEED Silver criteria and installing ENERGY STAR® rated equipment in all new construction. APHIS achieves greater energy efficiency by constructing a maintenance building in Beltsville, Maryland, featuring ENERGY STAR® equipment and R-15 insulation, and by installing a building automation system to monitor functioning in three critical buildings at Moore Airbase in Mission, Texas.

### Priority Strategies & Planned Actions

USDA initiatives include:

- USDA plans to increase sustainability in FY 2020-FY 2021 through multiple facility and portfolio-wide approaches. USDA agencies are raising the level of sustainability as capital improvements are completed, and increasing the sustainable buildings percentage by enhancing energy and water efficiency through the portfolio. Consolidations also help to reduce the environmental footprint;
- USDA agencies continue to require sustainability in all new construction and major renovations, and to utilize the Guiding Principles and LEED to assess sustainability;
- USDA agencies prefer wood as a construction material for characteristics that include energy efficiency, construction speed, reduced risk of wildfire, and carbon sequestration potential;
- APHIS on behalf of the entire Marketing and Regulatory Programs mission area, incorporates energy and water efficiency lease provisions when entering new leases, and extending, or renegotiating existing leases;
- OO supports USDA agencies in both cost avoidance and space reductions, including the Food and Nutrition Service in saving over $1.2 million by consolidating the 23,920 square foot lease in Alexandria, Virginia; and
- ARS will continue to strive for higher levels of energy efficiency, for example, replacing T-12 lamps and completing recommissioning deficiency lists.

## 6. WASTE MANAGEMENT AND DIVERSION

**FY 2019 Non-hazardous Waste Management and Diversion:**

6,191.0 metric tons of non-hazardous solid waste generated*
27.3% diverted and 71.9% sent to treatment and disposal facilities

**FY 2020-FY 2021 Plan:**

0.04% reduction in non-hazardous solid waste generated in FY 2020 from FY 2019
27.8% diverted and 71.4% sent to treatment and disposal facilities in FY 2020

0.07% reduction in non-hazardous solid waste generated in FY 2021 from FY 2020
28.3% diverted and 70.9% sent to treatment and disposal facilities in FY 2021

*not including construction and demolition waste

USDA agencies continue to implement initiatives to reduce waste generation and increase waste diversion by proactively tracking recycling; focusing purchasing on materials that can be recycled in the future; and maximizing purchase of materials with high recycled content.

### Implementation Status

In FY 2019, USDA agencies reported recycling 1,503 metric tons, composting 278 metric tons, and sending 50 metric tons of waste to energy recovery facilities.

USDA is improving the solid waste data collection process, which has resulted in an increased number of facilities reporting the data used to estimate USDA's overall waste generation for FY 2019. Continued improvements in the process and increases in the number of facilities reporting data in FY 2020 and FY 2021 will

result in fluctuations in waste amounts reported and diversion rates, making it difficult to set waste generation and diversion targets.

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 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:

- Practicing waste reduction in the following order of priority: source reduction, reuse, recycling, and composting;
- Further improvements in data collection through the dissemination of best practices and waste tracking tools. Modifications to waste data collection may result in fluctuations in the data reported and targets in the next few years but will result in a more accurate view of the solid waste program; and
- Looking for and sharing novel strategies and policies to reduce waste, focusing on critical control points in processes, procedures, and materials.

## Implementation Summary: Fleet Management

### 1. TRANSPORTATION / FLEET MANAGEMENT

**FY 2019 Petroleum Reduction Progress (Gal):**

6.9% reduction in petroleum fuel since 2005

5.6% reduction in petroleum fuel since FY 2018

**FY 2019 Alternative Fuel Use Progress (Gal):**

203% increase in alt fuel since 2005

21% reduction in alt fuel since FY 2018

**FY 2020-FY 2021 Plan:**

5% reduction in FY 2020 from FY 2019

5% reduction in FY 2021 from FY 2020

**FY 2020-FY 2021 Plan:**

10% reduction in FY 2020 from FY 2019

10% reduction in FY 2021 from FY 2020

USDA develops policy, procedures, and guidance for maintaining a safe, optimum fleet of vehicles and equipment; establishes targets and objectives to meet those requirements; and makes data available at all levels through the FedFMS database of record and the USDA CXO Dashboard to enable agencies to operate within their management decision space and meet mission requirements.

### Implementation Status

USDA has met annual targets to reduce GHG emissions and is addressing challenges toward increasing the use of alternative fuels where available, increasing GHG ratings for all vehicle acquisitions, and expanding the use of EVs, plug-in hybrid vehicles, and electric charging stations. USDA reduced the use of petroleum fuel by 5.6% from FY 2018 to FY 2019. USDA showed a 21% reduction in the use of alternative fuels from FY 2018 to FY 2019 mainly due to lack of availability particularly in remote non-urban areas where much of USDA activities occur. Vehicle manufacturers are focusing on EV technology and are moving away from AFVs such as E85, and USDA plans to follow suit.

### Priority Strategies & Planned Actions

- Perform annual vehicle allocation methodology (VAM) analysis, and the agency VAM and Total Cost of Ownership/Lifecycle Model analyses to improve fleet efficiency by monitoring vehicle utilization, identifying the most efficient vehicle to meet the mission and to assist in streamlining and consolidating underutilized vehicle assets;

- Continue with the strategy of right sizing the fleet through reduction of underutilized or unneeded vehicles to obtain a USDA optimum fleet of 36,517 FAST-reportable vehicles. The Department will continue efforts to meet the agency goal to reduce its total fleet inventory of 38,970 Federal Automotive Statistical Tool (FAST)-reportable vehicles in FY 2019 by 6% to an optimal inventory of 36,517 vehicles;
- Maximize mileage per gallon, minimize GHG production, identify where various AFVs can be used, and identify opportunities to share vehicles. FY 2020 and FY 2021 targets are modeled to meet or exceed E.O. 13834 and EISA requirements for fueling goals.;
- Require use of alternative fuel for 100% of AFVs where alternative fuel is available within 3 miles/15 minutes of the garage location. Capture missed opportunities where alternative fuel could have been purchased to help encourage drivers to change behavior;
- Encourage Mission Areas to pursue installation of alternative fuel and electric charging station infrastructure;
- Reduce vehicle miles traveled where appropriate; increase fleet fuel efficiency via use of FleetDASH and FAST vehicle level data;
- Improve accuracy of vehicle level data reported for FAST FY 2020; and
- Further develop the Fleet Dashboard to analyze locational data on vehicle-to-employee ratios and office locations for opportunities to improve fleet efficiency.

## Implementation Summary: Cross-Cutting Operations

### 1. SUSTAINABLE ACQUISITION / PROCUREMENT

**FY 2019 Sustainable Acquisition Progress:**

24.5% of contract actions and 10.0% of obligations, for a total of $719.2 million in contract actions with statutory environmental requirements

**FY 2020-FY 2021 Plan:**

25.0% of contract actions and 10.5% of obligations in FY 2020

25.5% of contract actions and 11.0% of obligations in FY 2021

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. General awareness of sustainable acquisitions is also improved through AgLearn online training.

#### Implementation Status

USDA consistently identified and implemented corrective actions to address barriers to increasing sustainable acquisitions. USDA agencies continue to incorporate sustainable acquisition criteria in quarterly reviews of purchase card transactions over $10,000.

#### Priority Strategies & Planned Actions

USDA initiatives include:

- Revising online training and expanding training on AgLearn;
- Focusing on the use of sustainable acquisition criteria for laboratory equipment and operations and maintenance contracts;
- Incorporating contractor compliance with contract sustainability requirements into performance monitoring procedures and performance reviews; and
- Meeting the FY 2020, USDA biobased-only contract target of 450 contracts with an estimated dollar value of $600,000.

## 2. ELECTRONICS STEWARDSHIP

**FY 2019 Electronics Stewardship Progress:**

100.0% of newly purchased or leased equipment met energy efficiency requirements
100.0% of electronic equipment disposed using environmentally sound methods*
*Reuse, donation, recycling, transfer, sale, or demanufacturing.

USDA monitors reporting systems for the acquisition, usage, and disposition phases for electronics.

### Implementation Status

USDA continues to use blanket purchase agreements which only provide EPEAT-registered equipment, and the GSAXcess website to report on all excess and surplus electronics. Purchasing EPEAT-registered equipment enables compliance with statutory energy efficiency requirements. It is estimated that purchasing EPEAT-registered equipment reduces the lifetime cost of those products by an estimated $1.7 million, in addition to reducing energy usage, hazardous waste, and water pollutant releases. 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. As part of the GSA Centers of Excellence, USDA has reduced to four data centers after closing six data centers.

### 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, maintain, and report compliance with power management on all eligible electronics; and
- Ensure environmentally sound disposition of all agency excess and surplus electronics through Computers for Learning, donations to research institutions, sales of surplus equipment, and disposal through certified recyclers.

## 3. GREENHOUSE GAS EMISSIONS

**FY 2019 Scope 1&2 Greenhouse Gas (GHG) Emissions:**

28.7% reduction from FY 2008
6.9% reduction from FY 2018

USDA maintains an accurate inventory of Scope 1 and 2 GHG emissions to identify the sources and quantities of GHG emissions from its operations; establish an emissions baseline against which to measure progress towards meeting emissions reductions targets; better understand the scale of emissions from various sources; and identify specific areas where emission reductions will have the biggest impact. USDA's quality assurance focuses on emissions from the two largest sources of GHGs in USDA inventory, which are facilities energy (58%) and fleet vehicles (35%).

### Implementation Status

In FY 2019, USDA achieved a notable reduction in GHG emissions compared to FY 2018. A significant portion of the reductions in FY 2019 relate to the six-week government shutdown which occurred in FY 2019. USDA issued GHG scorecards to sub-agencies to better track the reduction of GHG emissions within the Department. 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 owns approximately 20,650

facilities and leases about 3,150 from the GSA and the private sector. USDA operated and purchased fuel for its inventory of 38,970 vehicles in FY 2019.

### Priority Strategies & Planned Actions

USDA's 2018 and 2019 comprehensive GHG inventories will better inform the decision-making and implementation process to reduce its GHG emissions. It is anticipated that synergies will be achieved between reducing GHG emissions and achieving the targets for energy efficiency, renewable energy, water efficiency, and transportation due to the similar implementation strategies that USDA will employ in attaining these respective targets. USDA's strategies and actions for reducing Scope 1 and 2 GHG emissions in FY 2020 and FY 2021 are listed below:

- Encourage purchase of vehicles with high GHG ratings or electric technology, and installation of AFV fueling and charging stations [ongoing];
- Provide GHG and sustainability training and awareness to 10% USDA employees annually;
- Develop GHG management dashboard by March 2021;
  Identify O&M best practices for operational efficiency and control of equipment by March 2021; and
- Implement at least three specific actions to mitigate high GHG emissions sources by September 2021.

## Agency Priorities and Highlights

### AGENCY IDENTIFIED PRIORITIES

- **BioPreferred Program** - In FY 2020 and FY 2021, USDA will continue to increase biobased product awareness using education and outreach via webinars, exhibitions, speaking in person, fact sheets and other publications. USDA will also continue efforts to develop recommended methodologies for agencies to establish yearly biobased-only contract targets in consultation with the GSA, and continue work with the Department of Commerce, as required by Agricultural Improvement Act of 2018, to develop North American Industry Classification System (NAICS) codes for renewable chemicals and biobased product manufacturers.

### NOTABLE PROJECTS AND HIGHLIGHTS

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

- **BioPreferred Program** - In FY 2019, USDA designated 30 additional biobased product categories for procurement preference by Federal agencies and contractors. These 30 product categories contain finished products that are made, in large part, from intermediate ingredients that had been designated previously.
- **ARS Jornada Range Solar** – In 2019 ARS received a Federal Energy and Water Management Award for the solar PV project at the Jornada Experimental Range (JER) in Las Cruces, New Mexico. The project was implemented as part of the SolarARS program and enables JER to be a net-zero electricity facility. This project also incorporates a plugin hybrid EV and charging station powered by the solar panels. The JER contract template is being used for other projects at ARS facilities in California (2), Colorado, and Minnesota;
- **FS Sustainable Construction** - In FY 2020, the FS initiated a Capital Investment Project selection process with sustainability factors, in keeping with its new Comprehensive Capital Improvement Plan. The agency scores facilities projects by the number of metrics attained under the Guiding Principles as one of multiple factors. This integrates energy and sustainability benefits with facility project prioritization for proposed projects in FY 2021 through FY 2025, with approximately $40 million for FY 2021 alone;

- **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 2019, the FS achieved over 40% of obligations (in dollars) through contracts with sustainable acquisitions clauses;
- **FS On-site Incident Recycling Blanket Purchase Agreement** - In FY 2019, the FS Fire and Aviation Management program, through its Greening Fire initiative, tracked waste for nine wildland fire incidents in Arizona, California, New Mexico, and Washington. During those incidents, 230 tons of solid waste were sent to the landfill and 81 tons were recycled, resulting in a waste diversion rate of 26%; and
- **FS Region 5 EV Charging Program** – Region 5 Regional Office and Sequoia National Forest/Kern River Ranger District - In May 2019, a National EV Charging Working Group established a process – applicable agency-wide – to collect personal EV charging payment. In recognition that public users of government furnished EV charging stations may desire to charge before or after standard business hours, publicly accessible charging stations use a secondary "lock box" system for collecting payment.