Sustainability Report and Implementation Plan

United States Department of Transportation

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Contents

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Cover image: Multiple modes of transportation

Executive Summary

Overview

The United States Department of Transportation (DOT or Department) ensures our Nation has the safest, most efficient, and modern transportation system in the world to improve the quality of life for all American people and communities, from rural to urban, and increase the productivity and competitiveness of American workers and businesses. To effectively support and manage this system, DOT consistently strives to enhance efficiency and reduce costs throughout its own operations.

This Sustainability Report and Implementation Plan (the Plan) highlights how DOT is implementing Executive Order (EO) 13834, "Efficient Federal Operations" and related laws in its operations. The Plan showcases the Department's significant energy conservation and cost saving accomplishments in Fiscal Year (FY) 2018 – FY 2019 and identifies priority strategies to manage risks and continue improvement in FY 2020 – FY 2021. Additionally, this Plan supports the Operational Efficiency strategy in DOT's FY 2018–2022 Strategic Plan.

Performance Highlights

The Department owns and/or manages more than 10,000 air traffic control assets, offices, research laboratories, and other buildings with a total floor space of over 30M square feet. DOT has made significant progress in saving taxpayer dollars by reducing energy and water use and by minimizing environmental impacts across its buildings, operations, and fleet. These achievements are primarily due to the hard work and commitment of employees across all DOT organizations. The following are a few of the Department's FY 2019 highlights:

- **Energy Efficiency:** The Federal Aviation Administration (FAA), the Federal Highway Administration (FHWA), the Maritime Administration (MARAD), and the St. Lawrence Seaway Development Corporation (SLSDC) completed numerous building energy efficiency projects saving over 5.8B British Thermal Units (Btus) and $98,000 annually.
- **Performance Contracts:** DOT implemented several new Energy Conservation Measures (ECMs) through existing performance contracts, which generated nearly $1M and 3,000 Megawatt hours (MWh) of annual savings.
- **Sustainable Acquisition:** In FY 2019, DOT obligated approximately $1.35B for Best in Class (BIC) and Government-wide contracts—Spend Under Management (SUM) vehicles that automatically incorporate applicable sustainable acquisition clauses and requirements, making progress on both departmental acquisition and sustainability goals concurrently.
- **Data Centers:** The Department saved over $23.5M this year through consolidation, installation of energy efficient equipment and related electricity savings.
- **Fleet Management:** Across the fleet of over 5,900 owned and leased vehicles used primarily by safety inspectors, DOT has achieved a 33.6 percent reduction of petroleum fuel consumption, compared to its FY 2005 baseline.

Strategic Priorities

The Department will continue to build on its sustainability accomplishments, both strategic and tactical, and move quickly to address areas that need improvement. By prioritizing strategies involving SUM contract vehicles, facility energy efficiency and utility data management, DOT is transforming into an efficient, performance driven organization while making progress on EO 13834 goals.

- **Facility Energy Efficiency:** Continue to optimize building energy by using performance data to make cost-effective investments, test innovative technologies, and identify best practices for implementation.
- **SUM Contracts:** Consistent with the President's Management Agenda and the Office of Management and Budget's Memo M-19-13, the Department will continue to actively manage the acquisition of sustainable products and services through SUM solutions . Increasing SUM will eliminate redundancies, increase efficiency, and ensure sustainable acquisition requirements are met while delivering best value and savings.
- **Sustainable Buildings:** Continue to increase square footage of sustainable federal buildings by implementing energy conservation and environmentally friendly measures consistent with the Guiding Principles for Sustainable Federal Buildings, and seek certification for buildings meeting all criteria.
- **Data Management:** Continue to improve the ability to collect and report numerous sustainability related data through the automated, electronic capture of facility utility data (e.g. consumption, spend and building location).

Conclusion

DOT is proud of its tremendous progress in optimizing its operations while responsibly protecting the environment. The Department will continue to emphasize saving taxpayer dollars through innovative and cost-effective activities to increase efficiency across all operations. The Office of the Secretary of Transportation (OST) will continue to work closely with Operating Administrations (OAs) to track performance metrics and ensure compliance with Federal requirements during these unprecedented times.

The above summary provides a snapshot of the Department's progress and strategies for several key initiatives. The next section of the Plan provides an overview of progress on energy and environmental goals, along with priority strategies to meet statutory and other goals established by EO 13834. Note that DOT's priorities and budgets are evolving and the strategies listed are subject to change. In addition, the status and strategies presented below are highlights and reflect activities for one or more OAs.

Implementation Summary
Facility Management

1. Facility Energy Efficiency

FY 2019 Energy Intensity Progress (Btu/Gross Square Foot (GSF)):
33.9% reduction from FY 2003
5.1% reduction from FY 2018

FY 2020-FY 2021 Plan:
2% reduction in FY 2020 from FY 2019
2% reduction in FY 2021 from FY 2020

For the fifth year, DOT exceeded the 30 percent statutory energy use intensity reduction goal (from FY 2003 baseline) by prioritizing cost-effective building energy efficiency improvements. In FY 2019, DOT decreased energy use intensity by 5.1 percent from FY 2018, due in part to implementing multiple building ECMs. In addition, the Department was able to take advantage of weather normalization through increased benchmarking efforts. The Department will pursue cost-effective, energy-efficient improvements across the its building inventory, where possible. However, progress may be tempered by low inventory of eligible buildings, fewer low or no-cost opportunities, and fewer viable performance contracting opportunities.

Implementation Status	Priority Strategies & Planned Actions
A. Implemented ECMs and upgraded building systems to improve energy efficiency and reduce utility costs: • Four OAs installed facility lighting upgrades, saving over 1,800 MWh and $298,000 annually. • MARAD installed new efficient HVAC equipment and insulation at two sites saving 7,266 kWh. • Three OAs updated and performed maintenance on existing HVAC equipment, resulting in estimated annual savings of over 7,400 MWh and $750,000. • FAA and FHWA completed recommissioning at seven buildings and identified efficiency measures with an estimated annual savings of $108,000. • FAA's Mike Monroney Aeronautical Center (MMAC) installed 105 harmonic filters at 22 buildings, saving approximately 1,500,000 kWh of electric energy and $82,500 in electric utility costs in FY19. B. Improved audits and utility data measurement to reduce facility energy intensity: • FAA installed 4 new meters, tested 56 existing meters, and repaired or replaced 10 meters to monitor usage and maximize energy efficiency. • Three OAs used energy management tools to prioritize energy efficiency and improve utility data. • FHWA performed utilization audits for two facilities to guide improvements over the next 5-20 years.	A. Invest in energy efficient building technology: • Three OAs will continue upgrading lighting systems with LED lights and optimized lighting controls. • MARAD will replace three air conditioning units, resulting in estimated annual savings of 6,200 kWh and $17,000 over the lifetime of the units. • FAA will complete energy savings projects at 16 Western Service Area (WSA) sites, saving an estimated 2,400 MWh and $880,000 annually. • FHWA will replace aged windows, doors, and roofs for estimated 5-10 percent building energy savings. B. Use facility data to optimize building energy use: • SLSDC will continue to monitor building HVAC systems during heat to air conditioning turnover months, for an estimated savings of $400 per year. • MARAD and FAA plan to install 68 advanced meters for benchmarking, analysis, and implementation of energy conservation measures. • FAA will recommission six buildings and perform 32 Energy Independence and Security Act (EISA) energy efficiency evaluations and a leased facility survey to identify energy efficiency opportunities.

2. Efficiency Measures, Investment, and Performance Contracting

FY 2019 Performance Contracting – Investment value and number of new projects awarded:
$0M and 0 projects in FY 2019

FY 2020-FY 2021 Plan:
$0M / 0 new projects in FY 2020
$4M / 1 new project in FY 2021

In FY 2019, the Department continued to implement cost effective energy and water conservation measures in DOT buildings, using over $2.7M in direct funding. These improvements will generate an estimated $98,000 and 5.8B Btus in annual savings. The Department also continues to utilize existing performance contracts to implement ECMs, which generated nearly $1M and 3,000 MWh of annual savings in FY 2019. Additionally, DOT uses existing and past performance contracts to inform future sustainment and modernization projects, where appropriate. However, these performance contract opportunities may be constrained by:

- DOT's low inventory of eligible buildings—Only FAA and MARAD own 10 or more buildings, and several OAs do not own any buildings.
- Limited FAA opportunities— Many FAA buildings contain energy-intensive, essential infrastructure that cannot be modified; they are leased facilities located on airport property; and in some places, inexpensive utility services do not make ECMs cost effective.

Implementation Status	Priority Strategies and Planned Actions
A. Implemented over $15.2M in ECMs through existing performance contracts awarded in FY 2018: • FAA implemented a $1.4M Energy Savings Performance Contract (ESPC) ENABLE project at Corpus Christi, Texas with estimated annual energy savings of over 500 MWh and $83,000. • FAA's WSA ESPC ($13.6M) continued installation of efficiency upgrades and 1 MWh of onsite renewable energy, saving an estimated 2,400 MWh and $880,000 annually. • FHWA's Turner-Fairbank Highway Research Center (TFHRC) completed a $240,000 recommissioning project through a Utility Energy Services Contract (UESC), saving $96,000 annually. B. Integrated performance contracting into standard capital improvement processes. C. Used performance contract assessments to help meet energy and water efficiency targets: • FAA's Air Traffic Organization (ATO) committed approximately $2.15M to implement already identified ECMs in future years. D. Leveraged direct funding and performance contract processes to complete energy and water evaluations: • FAA's ATO completed evaluations for 32 campuses; 82.4 percent of covered facilities are EISA compliant.	A. Award additional performance contracts: • FAA expects to award a $4M Boston Terminal Radar Approach Control UESC project in FY 2021. • FHWA anticipates awarding four $250,000 UESCs in FY 2021-24 to complete mission-critical efficiency upgrades. B. Continue implementation of ECMs in existing performance contracts: • FHWA's Western Federal Lands Highway Division (WFLHD) will refurbish roof insulation, windows, and doors, saving up to 15 percent of annual energy costs by FY 2021. C. Incorporate performance contracts into capital planning process: • FAA will incorporate performance contracts into planned sustainment activities when possible. • FHWA will develop long-term master plans to integrate energy efficient capital improvements. D. Complete EISA evaluations to identify ECMs: • FAA will continue to explore options to conduct energy and water evaluations at leased facilities where they pay directly for utilities. • MARAD's United States Merchant Marine Academy (USMMA) will complete a preliminary assessment evaluation in FY 2021 to scope a new performance contract for FY 2023.

3. Renewable Energy

FY 2019 Renewable Electricity Use:
10.2% of total electricity in FY 2019

FY 2020-FY 2021 Plan:
7.5%[1] of total electricity in FY 2020
7.5%[1] of total electricity in FY 2021

The Department continues to meet the statutory renewable electric energy consumption requirements. To ensure success, the Department looks for facilities to implement cost-effective on-site renewable energy generation projects to reduce electricity consumption and costs, and enhance energy resiliency. However, development and implementation of new renewable energy projects are tempered because of limited opportunities at DOT sites. For example, the majority of DOT facilities are owned and maintained by FAA which present additional obstacles, such as operational risks due to solar photovoltaic (PV) panels creating line-of-sight issues (e.g. reflectivity and glare) for pilots and wind turbines impacting radar responsivity (e.g. accuracy) and low altitude flight paths. DOT plans to continue to purchase renewable electricity from utility providers or through power purchase agreements, and acquire renewable energy certificates (RECs), as needed.

Implementation Status	Priority Strategies and Planned Actions
A. Implemented onsite renewable energy projects using performance contracts and appropriated funds: • FAA's Corpus Christi Tower completed installation of an ESPC ENABLE solar PV system for estimated annual savings of over 251 MWh and $27,000. • FAA's WSA continued construction of solar PV systems under an ESPC with estimated annual savings of over 1,000 MWh and $350,000. B. Purchased RECs: • Many OAs purchased RECs through the Defense Logistics Agency to meet statutory requirements. • FHWA contracted with local electrical supplier to purchase green power blocks of RECs monthly. C. Planned future renewable energy projects: • FAA's William J. Hughes Technical Center (WJHTC) is evaluating a utility-scale solar farm to provide 57,400 MWh per year to the grid. • MARAD's James River Reserve Fleet (JRRF) began researching options to procure and install solar power.	A. Reduce electricity consumption and costs by implementing on-site renewable energy: • FAA will complete construction of solar PV systems as part of the WSA ESPC. • FAA will pursue several solar PV projects with an estimated annual savings of $132,000 and 1,080 MWh as part of a UESC to be awarded in FY 2021. B. Explore installing on-site renewable energy using performance contracts or appropriated funds across multiple sites: • FAA's WJHTC will complete an assessment of a potential 200 MW utility-scale solar farm. • MARAD will evaluate integrating solar PV systems at its USMMA and installation of wind turbines at the SBRF. • SLSDC will continue to research on-site solar PV systems. C. Purchase RECs or green energy through power purchase agreements as needed to fulfill statutory requirements.

[1] Targets based on the requirements of 42 U.S.C. § 15852.

4. Water Efficiency

FY 2019 Water Intensity Progress (Gal/GSF):
26.3% reduction from FY 2007
0.3% increase from FY 2018

FY 2020-FY 2021 Plan:
1% reduction in FY 2020 from FY 2019
0.5% reduction in FY 2021 from FY 2020

DOT continues to reduce potable water use intensity by prioritizing cost-effective improvements identified through EISA evaluations, along with utility and benchmarking data analysis. The Department will explore opportunities to implement water efficiency measures and alternative water projects during facility construction or modernization projects to ensure effective use of funding. However, identifying cost-effective water projects remains challenging due to the low cost of water service in many areas. DOT is also pursuing stormwater management in order to reduce water demand and avoid polluting nearby watersheds.

Additionally, FAA is testing a new Utility Management Application (UMA) tool to collect accurate consumption data from water utility invoices. Consumption is currently estimated from expense data for most FAA facilities. FAA comprises more than 90 percent of DOT's water use; as such, this project is anticipated to provide more accurate consumption data for the entire Department.

Implementation Status	Priority Strategies & Planned Actions
A. Implemented low/no-cost water fixture upgrades: • Three OAs installed efficient restroom fixtures. B. Used utility, meter, and EISA evaluation data to inform water use reductions: • FAA conducted EISA evaluations to identify water projects, and began testing the UMA tool to improve the quality of water consumption data. • SLSDC monitored water meters daily to identify leaks and reduced annual usage by 4 percent. • FHWA used benchmarking data to reduce operational water usage of chillers and boilers. C. Retained stormwater onsite: • MARAD used reclaimed water from barrels and HVAC condensate for facilities and landscaping. D. Implemented direct-funded water savings projects: • FAA's MMAC water conservation program has reduced consumption by 33 percent since FY 2007. • FAA installed water conservation projects under the Corpus Christi ESPC ENABLE contract for an estimated annual savings of 1.8M gal and $20,000. E. Focused on water conservation education: • FAA's WJHTC continued water efficiency outreach through posters and electronic signage.	A. Incorporate water conservation measures into the construction of new facilities: • Volpe is reducing water use in a temporary utility plant and their new facility will feature efficient equipment and water recapture technology. B. Implement water savings projects and upgrades: • MARAD is evaluating hot water recirculating pumps to prevent wasteful water discharge at JRRF. • FAA improvements at Denver and Oakland sites will save approximately 800 kgal and $5,700 per year. C. Advance use of alternative water sources: • FHWA's TFHRC will budget for water cisterns in the FY 2022 facilities capital improvement plan. • MARAD's JRRF will continue to look for ways to use reclaimed water on site. • SLSDC will continue to limit water usage by supplementing with alternative sources. • MARAD's USMMA will install a rainwater collection system in FY 2020. C. Improve water usage data: • FAA will transition to the UMA tool to improve the quality of water consumption data. D. Reduce irrigation water usage: • FHWA WFLD is xeriscaping to decrease water use by 10 percent in FY 2022. • FAA's MMAC will award a master contract for an irrigation and landscaping optimization plan.

5. High Performance Sustainable Buildings (HPSB)

FY 2019 Sustainable Buildings Progress:
18 sustainable Federal buildings
5.2% of buildings / 5.6% of GSF

FY 2020-FY 2021 Plan:
7% of GSF in FY 2020
8% of GSF in FY 2021

Across the DOT inventory of owned buildings over 10,000 GSF, the Department is making measurable progress by certifying existing buildings, new building construction, and major renovations. In FY 2019, over 5 percent of eligible buildings were verified as Sustainable Federal Buildings. In FY 2020-2021, the Department expects to increase its number of sustainable buildings benefitting from multiple improvements over the years. However, competing priority capital improvements and challenging financial payoffs for several Guiding Principles (GPs) temper progress. Wherever OAs certify to a third-party system, they must also comply with the GPs to be considered certified.

Implementation Status	Priority Strategies and Planned Actions
A. Evaluated DOT buildings for HPSB compliance: • FAA awarded recommissioning projects to achieve or maintain certification for six buildings. • FHWA continued quarterly building evaluations. B. Incorporated HPSB design and implementation into ongoing and future projects: • MARAD's USMMA has incorporated sustainability requirements into their draft master capital improvement plan. • Three (of four) OAs incorporated sustainable building certification elements into new building designs and/or new building construction. • FAA's WJHTC awarded a contract to renovate an office building to be LEED compliant. C. Increased number of certified buildings: • FAA recertified one building and certified a new MMAC building as compliant with the 2016 GPs.	A. Continue sustainable building certifications: • FAA's MMAC will continue recommissioning projects to maintain or achieve certification. B. Integrate sustainable building criteria into all phases of projects, wherever feasible: • FAA's WJHTC will begin renovations of an office building to be LEED compliant. • FAA will assess the feasibility of incorporating sustainable metrics into two existing building renovations and two new building designs. • .MARAD's USMMA will evaluate the International Green Construction Code as a required standard for future building projects. • Volpe's new facility is designed to achieve federal HPSB standards. C. Increase total percentage of certified sustainable buildings across DOT: • FHWA plans to certify its TFHRC in FY 2020 and its WFLHD in FY 2021 as HPSB compliant. D. Develop a comprehensive, five year, Metering Plan for energy and water utilities in DOT facilities.

6. Waste Management and Diversion

FY 2019 Non-hazardous Waste Management and Diversion:
17,624 metric tons of non-hazardous solid waste generated*
47.9% diverted and 52.1% sent to treatment and disposal facilities

FY 2020-FY 2021 Plan:
1.0% reduction in non-hazardous solid waste generated in FY 2020 from FY 2019
48.3% diverted and 51.7% sent to treatment and disposal facilities in FY 2020

0.1% reduction in non-hazardous solid waste generated in FY 2021 from FY 2020
48.8% diverted and 51.2% sent to treatment and disposal facilities in FY 2021
**not including construction and demolition waste*

In FY 2019, DOT reduced solid waste from buildings and operations by 1,200 metric tons (7 percent) from FY 2018, and diverted 48 percent of solid waste from landfills through the innovative practices noted below. The Department follows the Environmental Protection Agency (EPA)'s Non-Hazardous Materials and Waste Management Hierarchy to prioritize cost-effective measures that reduce the amount of overall waste generated at the source and support material reuse where feasible, followed by recycling and composting, energy recovery, and responsible treatment and disposal as a last resort.

Additionally, DOT will continue to reduce the quantity of toxic and hazardous materials acquired, used, and disposed of to mitigate threats to human health and the environment. The Department will also work to improve the accuracy of site-level waste data where feasible, recover fugitive emissions, and incorporate or expand recycling in contracts when possible.

Implementation Status	Priority Strategies and Planned Actions
A. Reduced waste through source reduction: • Two OAs offered composting at their facilities. • Volpe implemented a reusable container pilot in August 2019 for staff to use at the cafeteria. B. Increased capacity of recycling programs: • FAA's ATO started recycling programs at 94 sites. • Three OAs continued to re-use and recycle materials such as personal electronics, crash test cars, timber, rubber, and metal. C. Improved waste data quality: • FAA standardized waste estimation across sites. • FAA developed a C&D Waste Management Plan template for construction contractors. • SLSDC participated in a zero-sort waste program which provided monthly generation and diversion performance reports. D. Continued waste reduction and recycling activities: • FHWA recycled over 330 short tons of paper and cardboard from a major office renovation. • Volpe initiated quarterly clean-outs to encourage employees to recycle unneeded items. • FAA's ATO developed facility recycling posters. • FAA began revising their EMS General Awareness Training to include waste reduction.	A. Increase waste diversion: • Volpe will expand the reusable container pilot by adding participants and container types. • FHWA's TFHRC will continue to ensure steel and concrete utilized in research are recycled after mission utilization. B. Educate employees about recycling options: • FAA's ATO will continue to promote recycling through recycling start-up funds, outreach materials, and contracting training. C. Improve waste tracking: • FAA will evaluate additional opportunities to improve waste estimation. D. Continue to use Inventory Management Plans to reduce, substitute, or eliminate use of chemicals. E. Prepare for waste management in new and upgraded facilities: • FAA will develop waste management recommendations for planned upgrades at leased facilities, where appropriate. • Volpe will continue planning and setup for waste management contracting in their new facility.

Transportation/Fleet Management

1. Transportation/Vehicle Management

FY 2019 Petroleum Reduction Progress (Gal):
33.6% reduction in petroleum fuel use since FY 2005
4.5% reduction in petroleum fuel use since FY 2018

FY 2019 Alternative Fuel Use Progress (Gal):
213% increase in alt fuel since FY 2005
9.4% decrease in alt fuel since FY 2018

FY 2020-FY 2021 Plan:
1.5% reduction in FY 2020 from FY 2019
2% reduction in FY 2021 from FY 2020

FY 2020-FY 2021 Plan:
10% increase in FY 2020 from FY 2019
12% increase in FY 2021 from FY 2020

DOT maintains a fleet of more than 5,900 vehicles; most are used by aviation, highway, railroad, and pipelines safety inspectors and law enforcement officials across all 50 United States states and territories. Since 2015, the Department has met or exceeded multiple fuel consumption, vehicle acquisition, and fleet management statutory requirements. In FY 2019, DOT reduced its petroleum consumption by 33.6 percent and increased alternative fuel (AF) use by 213 percent since FY 2005. However, DOT decreased its alternative fuel use when compared to FY 2018, due to the acquisition of more fuel efficient vehicles and limited capacity to track electricity consumed by new and existing alternative fuel vehicles (AFVs) (e.g. hybrids and plug-in vehicles).

The Department continues to encourage the use of AFVs by acquiring electric and plug-in hybrid vehicles, increasing the number of charging stations, and better tracking of electricity consumption. DOT will also continue to promote the use of the Department of Energy (DOE)'s Fleet Sustainability Dashboard (FleetDash) tools to optimize consumption and capture missed AFV refueling opportunities. Furthermore, DOT will continue to "right-size" the fleet by placing order restrictions to reduce vehicle size and eliminate underused vehicles. Currently, GSA does not offer alternative fuel light duty trucks that meet duty-specific requirements, tempering DOT's ability to make further progress on fuel-related performance targets. However, DOT intends to acquire efficient duty-specific vehicles when they are available.

Implementation Status	Priorities Strategies & Planned Actions
A. Over several years, optimized fleet size by 3 percent through the removal of underutilized vehicles. • FAA downsized 92 vehicles in FY 2019. • Reduced miles traveled by five percent in FY 2019. B. Increased use of AFVs, where cost effective: • Three OAs purchased low-greenhouse gas (GHG) emitting or E85 flex fuel vehicles (FFV). • FHWA added 58 AFVs in FY 2019, comprising over 73 percent of the leased fleet. • 54 percent of FAA vehicles replaced were AFVs. • Eight percent of total fuel consumed was AF. C. Since 2015, DOT has installed 82 electric vehicle (EV) charging stations at multiple locations across four OAs. D. Used the Fleet Management Information System and other Federal systems to routinely track and report fuel data for agency vehicles. E. Operational changes that improved fleet efficiency: • Instructed AFV drivers to use DOE's FleetDash. • The Federal Railroad Administration (FRA) provided monthly missed E85 fuel use reports to Leadership.	A. Eliminate underutilized vehicles: • Four OAs will continue to reallocate or eliminate vehicles that are no longer needed. B. Continue to increase use and acquisition of AFVs. • Add 452 AFVs via fleet acquisition replacements. C. Use Fleet Management Information System and other federal systems to track monthly fuel use. D. Install EV charging stations: • Volpe's new facility design includes 18 EV chargers and infrastructure for up to 30 EV chargers. E. Improve efficiency with operational changes: • Mandate use of DOE's FleetDash system to increase alternative fuel use when available. • FAA will continue to reallocate AFVs close to appropriate fueling stations. • The National Highway Traffic Safety Administration and FRA will evaluate the use of telematics. • The Federal Transit Administration will continue to improve business processes related to fleet management.

Cross-cutting Operations

1. Sustainable Acquisition/Procurement

FY 2019 Sustainable Acquisition Progress:
16% of contract actions and 16% of obligations (in dollars), for a total of $930M in contract actions with statutory environmental requirements

FY 2020-FY 2021 Plan:
Sustainable Acquisition:
5% of contract actions and 5% of obligations (in dollars)
5% of contract actions and 5% of obligations (in dollars)

Annually, DOT awards over $5.7B in contracts for goods and services to support its operations. In FY 2019, DOT improved purchasing efficiency of biobased products by reducing the average spend-per-contract by more than two percent from FY 2018. Moreover, the Department continues to meet sustainable acquisition requirements by procuring products and services in a cost-effective manner that advance achievement of energy and environmental performance goals. However, the Federal Procurement Data System Next Generation (FPDS-NG) was developed to track Federal Acquisition Regulation-compliant contracting actions, and FAA reporting procedures and systems do not always fully align with the FPDS-NG data fields, which can contribute to underreporting performance. Going forward, the Department is committed to the cost-effective acquisition of green products and services including prioritizing category management solutions, updating Departmental practices, training for the acquisition workforce, and adopting new technology to increase efficiency.

Implementation Status	Priority Strategies and Planned Actions
A. Promoted sustainable acquisition training for relevant personnel and tracked awareness to improve statutory requirement compliance: • All OAs required sustainable acquisition training for contracting personnel. B. Improved statutory requirement compliance for all applicable contracts: • Verified applicable contracts included required language. • Required energy and water efficient goods or services, bio-based, environmentally preferred, and recycled content products where relevant. • FHWA developed a Green Procurement Plan for preferred products and services. C. Increased use of Category Management (CM) initiatives, BIC, and government-wide acquisition contracts (GWACs) that contain required sustainability criteria, thereby promoting sustainable acquisition: • DOT met 73.4 percent of its SUM goal ($1.9B), 97.6 percent of its BIC goal ($163.3M). D. Improved quality of data and tracking through FPDS-NG: • Since 2016, DOT has increased the amount spent on sustainable acquisition by $63M (7 percent).	A. Build upon annual trainings for acquisitions personnel to increase awareness of sustainability requirements and resources including CM, BIC, GWACs, and EPA tools and designated products to meet statutory requirements. • Identify training opportunities for the Annual DOT Acquisition Conference. • At least two OAs will continue to require a Green Purchasing course for Contracting Officer's Representative certification. B. Ensure that standard sustainable acquisition language is in all applicable contracts: • Identify areas to consider sustainable acquisition in the Procurement Management Review process. C. Increase use of CM Initiatives and GWACs that include sustainable acquisition criteria. D. Increase purchase of energy and environmentally friendly products and services including biobased products where applicable. E. Continue to improve the quality of FPDS-NG data: • Finalize the Transportation Acquisition Manual update to implement Federal Acquisition Regulation 4.10 – Uniform Use of Line Items. • Three OAs will continue to conduct compliance reviews and provide FPDS-NG training. F. Award 340 biobased contracts for a total of $140M.

2. Electronics Stewardship

FY 2019 Electronics Stewardship Progress:

100% of newly purchased or leased equipment met energy efficiency requirements
100% of electronic equipment disposed using environmentally sound methods

DOT continues to meet the acquisition, usage, and disposal requirements for electronics. To be successful, DOT leverages CM solutions that meet requirements to to purchase energy efficient products that are either ENERGY STAR certified and/or Electronic Product Environmental Assessment Tool (EPEAT)-registered equipment, enable and maintain power management on eligible electronics when feasible, and utilize the GSA Xcess to dispose of excess and surplus electronics in an environmentally sound manner. In addition, DOT has achieved significant ongoing cost savings from data center and network consolidation efforts, and will continue those efforts where appropriate.

Implementation Status	Priority Strategies & Planned Actions
A. Consolidated data centers, networks, and printers: • Saved $23.5M from data center consolidation. • Consolidated server and network equipment at 26 field locations for a net annual savings of $1.3M. • FAA removed 657 printers across all sites. B. Maintained print management features across DOT. C. Implemented/maintained electronics power management across eligible equipment: • FAA ensured that computer workstations power down after 15 minutes of inactivity. • All new equipment at SLSDC is EPEAT compliant with Power Management enabled. E. Leveraged the NASA Solution for Enterprise-Wide Procurement or the FAA Strategic Sourcing for the Acquisition of Various Equipment and Supplies contract for energy efficient or otherwise compliant laptop, desktop, and monitor purchases. F. Continued to support Shared Service initiatives, such as the Common Operating Environment for electronics asset life cycle management. G. Utilized GSAXcess to dispose of excess and surplus electronics in an environmentally sound manner.	A. Continue data center and network consolidation: • Assess five DOT field locations in FY 2020 for network and server consolidation viability. • FAA will continue effort to close Headquarters Data Center in FY 2020, to save over $658,000 annually. • FHWA will move the Turner Fairbank Data Center to shared service or cloud solutions by FY 2021. B. Implement “wake on LAN” power management solution to facilitate software patching and deployments after FY 2020: • FAA is testing functionality of existing and planned software to meet requirements. C. Continue scheduled upgrades of approximately 25 percent of eligible electronic equipment with Energy Star compliant devices each year. D. Enable and maintain print management features on all eligible electronics, and report compliance. E. Ensure reuse and environmentally sound disposal of all excess and surplus information technology (IT) and report compliance in FY 2020 and FY 2021: • FAA will reduce the printer fleet by 19.5 percent from 2018 by December 2020.

3. Greenhouse Gas Emissions

FY 2019 Scope 1&2 GHG Emissions:
39.9% reduction from FY 2008
1.7% reduction from FY 2018

The Department continued to drive reductions in GHG emissions by reducing facility energy consumption, meeting renewable energy targets, minimizing waste, increasing fleet efficiency, advancing sustainable buildings, and improving overall efficiency. DOT's largest source of GHG emissions (82 percent) are Scope 2 emissions associated with the purchase of electricity for buildings, equipment, and non-standard operations such as maintaining MARAD's ready reserve ship fleet. The Department's remaining emissions are Scope 1 GHG emissions from stationary combustion of fuel, mobile emissions (both road and non-road vehicles), and fugitive emissions.

Implementation Status	Priority Strategies and Planned Actions
A. Reduced Scope 1 and 2 GHG emissions through cost-effective strategies: • Implemented energy conservation measures. • Improved operations and maintenance processes. • Optimized use of fuel-efficient vehicles. B. Implemented policies which resulted in reduced employee travel and commuting and the associated emissions : • Technology solutions to support telework. • Virtual meetings and web-based trainings. • Alternative work schedule opportunities when feasible, cost effective, and consistent with mission-critical duty requirements.	A. Implement priorities for energy conservation, operations and maintenance, fleet management, and renewable energy to reduce Scope 1 and 2 GHG emissions. B. Continue to monitor and track GHG emissions. C. Continue to promote telework policies and alternative work schedules, when cost effective and consistent with mission-critical duty requirements, as required by the 2010 Telework Enhancement Act and to maintain continuity of operations. D. Continue to reduce business travel and encourage virtual meetings, when cost-effective and consistent with the mission.

Acronyms and Abbreviations

Abbreviation	Term
AF	Alternative fuel
AFV	Alternative fuel vehicle
ATO	Air Traffic Organization
BIC	Best in Class
Btu	British thermal unit
CM	Category Management
DOE	Department of Energy
DOT or Department	U.S. Department of Transportation
ECM	Energy conservation measure
EISA	Energy Independence and Security Act
EO	Executive Order
EPA	Environmental Protection Agency
EPEAT	Electronic Product Environmental Assessment Tool
ESPC	Energy Savings Performance Contract
EV	Electric vehicle
FAA	Federal Aviation Administration
FFV	Flex fuel vehicle
FHWA	Federal Highway Administration
FPDS-NG	Federal Procurement Data System, Next Generation
FRA	Federal Railroad Administration
FY	Fiscal Year
GHG	Greenhouse Gas
GP	Guiding Principle
GSA	General Service Administration
GSF	Gross Square Foot
GWAC	Government-wide acquisition contract
HPSB	High Performance Sustainable Building
IT	Information technology
JRRF	James River Reserve Fleet
MARAD	Maritime Administration
MMAC	Mike Monroney Aeronautical Center
MWh	Megawatt hour
OA	Operating Administration
OST	Office of the Secretary of Transportation
Plan	Sustainability Report and Implementation Plan
PV	Photovoltaic
REC	Renewable energy certificate
SBRF	Suisun Bay Reserve Fleet
SLSDC	Saint Lawrence Seaway Development Corporation
SUM	Spend Under Management
TFHRC	Turner-Fairbank Highway Research Center
UESC	Utility Energy Services Contract
UMA	Utility Management Application
USMMA	U.S. Merchant Marine Academy
WFLHD	Western Federal Lands Highway Division
WJHTC	William J. Hughes Technical Center
WSA	Western Service Area