



Sustainability Report and Implementation Plan



**United States
Department of Transportation**

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Contents

Executive Summary	1
Implementation Summary	3
Facility Management	3
1. Facility Energy Efficiency.....	3
2. Efficiency Measures, Investment, and Performance Contracting	4
3. Renewable Energy	5
4. Water Efficiency	6
5. High Performance Sustainable Buildings	7
6. Waste Management and Diversion	8
Transportation/Fleet Management	9
1. Transportation/Vehicle Management	9
Cross-cutting Operations.....	10
1. Sustainable Acquisition/Procurement	10
2. Electronics Stewardship.....	11
3. Greenhouse Gas Emissions	11
Acronyms and Abbreviations	12

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Cover image: Multiple modes of transportation

Executive Summary

Overview

The United States (U.S.) Department of Transportation (DOT or Department) ensures our Nation has the safest, most efficient and modern transportation system in the world, which improves the quality of life for all American people and communities, from rural to urban, and increases 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 (E.O.) 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 Years (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 2018-2022 Strategic Plan.

Performance Highlights

The Department owns or leases 30.9 million square feet of facilities and air traffic control assets. DOT has made significant progress in saving taxpayer dollars by reducing energy and water use, and minimizing environmental impacts across its buildings, operations, and fleet. For example, the Federal Aviation Administration (FAA) and Federal Highway Administration (FHWA) awarded over \$15 million in performance-based contracts at multiple Federal sites for energy efficiency improvements in FY 2018. Over the life of these contracts, DOT estimates \$31 million in energy savings will be reinvested into new infrastructure. Many DOT facilities have also improved the efficiency of their mechanical systems, avoiding over \$320,000 in energy expenses during FY 2018. In addition, the Department avoided over \$18 million in costs through its data center consolidation efforts. Across the fleet of nearly 6,000 owned and leased vehicles used primarily by safety inspectors, DOT has achieved a 30 percent reduction of petroleum fuel, compared to its FY 2005 baseline.

Strategic Priorities

The Department’s accomplishments represent the hard work and commitment of employees across the Nation. The Department’s sustainability priorities for FY 2020 build upon past success to achieve the goals of E.O. 13834.

- Performance-Based Contracts (PBCs). Implement the \$15 million in new projects awarded in 2018, develop procedures to institutionalize performance contracting as a cost-effective approach to meet statutory energy efficiency requirements, and award PBCs in the pipeline.
- Comprehensive Building Efficiency Evaluations. Prioritize evaluations for buildings that consume the most energy and use the data to inform economical improvements.

- Fleet Management. Continue to make annual progress to reduce petroleum consumption: optimize fleet composition, eliminate underutilized vehicles, and purchase fuel efficient and/or alternative fuel vehicles (AFVs).
- Data Center Consolidation. Continue to implement the Federal Data Center Optimization Initiative to significantly decrease data center footprints, reduce annual energy use and costs, and enhance resiliency.

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 work closely with Operating Administrations (OAs) to track performance metrics and ensure compliance with Federal requirements. DOT will also update its policies and programs to align with E.O. 13834.

The above summary provides a snapshot of the Department's progress and strategies for several key initiatives. The next section of the Plan follows the template provided to Federal agencies by the White House Council on Environmental Quality and contains more information about strategies and performance milestones across the energy and environmental goals in E.O. 13834.

Implementation Summary

This section provides an overview of progress on energy and environmental goals, along with priority strategies to meet statutory and other goals established by E.O. 13834. Note that DOT priorities and budgets are evolving and the strategies listed in this Plan are subject to review and change. In addition, the status and strategies presented below are highlights and may reflect activities for one or more OA.

Facility Management

1. Facility Energy Efficiency

DOT plans to continue to exceed the statutory energy use intensity reduction goal by prioritizing cost-effective building energy efficiency improvements as described in the table below. In FY 2018, DOT energy use intensity was higher than FY 2017 due to warmer summer and colder winter temperatures. Nonetheless, DOT performance is similar to the 1.7 percent government wide increase in FY 2018.

FY 2018 Energy Intensity Progress (Btu/GSF):

30.4% reduction from FY 2003

1.5% increase from FY 2017

FY 2019 – FY 2020 Plan:

2% reduction in FY 2019 from FY 2018

1% reduction in FY 2020 from FY 2019

Implementation Status	Priority Strategies and Planned Actions
<p>A. Invested in energy efficient building technology:</p> <ul style="list-style-type: none"> • Four OAs upgraded aging equipment: FAA installed harmonic filters on 105 variable frequency drives for an estimated annual savings of 1,500 megawatt hours (MWh), or \$90,000, at the Mike Monroney Aeronautical Center (MMAC). • FHWA retuned a cooling tower system and air-sealed all major building envelope components for an estimated annual cost avoidance of \$7,600. • Four OAs installed LED lighting and other lighting system upgrades for an estimated annual cost avoidance of over \$26,000. <p>B. Used facility data to optimize building energy use:</p> <ul style="list-style-type: none"> • The Saint Lawrence Seaway Development Corporation (SLSDC) and the Maritime Administration (MARAD) installed remote building management systems to monitor and maximize energy efficiency. • FAA continued to install building level meters to improve energy data and initiated a project to evaluate and repair gas meters at MMAC to support decision making. 	<p>A. Upgrade building systems to improve energy efficiency and reduce utility costs:</p> <ul style="list-style-type: none"> • FAA will complete two centrifugal chiller replacements by FY 2021 at William J. Hughes Technical Center (WJHTC) for a total estimated annual savings of 1,800 MWh (\$166,000). • FAA will implement eight energy savings projects in FY 2020 and ten in FY 2021 at Air Traffic Organization (ATO) facilities. • FAA will continue recommissioning and implement projects to reduce annual heating and cooling energy usage by 10 percent at MMAC. • Volpe¹ will replace steam traps in FY 2020 for a lifetime cost avoidance of \$20,000. <p>B. Evaluate utility data to reduce facility energy intensity:</p> <ul style="list-style-type: none"> • FAA will implement hourly electric energy management at WJHTC. • FAA and SLSDC will continue to install utility meters and monitor usage to maximize efficiency. • MARAD will complete installation of building-level sub-meters at the U.S. Merchant Marine Academy (USMMA) and upgrade their electrical grid infrastructure campus-wide by FY 2020.

¹ The John A. Volpe National Transportation Systems Center (Volpe) located in Cambridge, MA is part of the OST.

2. Efficiency Measures, Investment, and Performance Contracting

The Department will continue to use performance contracts to implement building energy and water conservation measures. In FY 2018, DOT awarded \$15.2M in new projects. However, future opportunities are constrained: only FAA and MARAD own 10 or more buildings, whereas several other OAs don't own any buildings. In addition, many FAA buildings contain energy-intensive, essential infrastructure that cannot be modified, further limiting opportunities for performance contracting. The Department is also exploring cost-effective approaches to meet EISA 2007 Section 432 requirements, such as integrating evaluations into business processes. DOT progress is tempered by limited availability of resources and staff with relevant expertise, as well as not being cost-effective to do periodic evaluations at DOT's many remote sites.

FY 2018 Performance Contracting – Investment value and number of new projects awarded: \$15.2M and 3 projects in FY 2018

FY 2019 – FY 2020 Plan:

\$2M / 1 project in FY 2019

\$1.5M / 1 project in FY 2020

Implementation Status	Priority Strategies and Planned Actions
<p>A. Awarded over \$15.2 million in performance based contracts (PBCs):</p> <ul style="list-style-type: none"> • FAA started a \$1.4 million Energy Savings Performance Contract (ESPC) ENABLE project at Corpus Christi, Texas with estimated annual energy savings of 17 percent. • FAA awarded a \$13.6 million Western Service Area (WSA) ESPC with guaranteed annual savings of 2,400 MWh of electricity. • FHWA Turner – Fairbank Highway Research Center (TFHRC) awarded a \$240,000 Utility Energy Services Contract (UESC) to recommission the energy management system for an annual cost avoidance of \$96,000. <p>B. FAA is integrating performance contracting into standard capital improvement processes.</p> <p>C. Used PBC assessments to help meet energy and water efficiency targets:</p> <ul style="list-style-type: none"> • FAA ATO committed nearly \$1.9M in facilities and equipment funds to implement cost effective Energy Conservation Measures (ECMs) identified in energy and water evaluations. • FAA assessed unimplemented ECMs to identify opportunities for future projects. <p>D. Leveraged agency resources and PBC processes to complete energy and water evaluations:</p> <ul style="list-style-type: none"> • FAA completed 16 Energy Independence and Security Act (EISA) evaluations and identified measures that could save over 1.2 million BTU (British thermal units) and avoid over \$500,000 in annual utility costs. 	<p>A. Award additional PBCs:</p> <ul style="list-style-type: none"> • FAA is evaluating an estimated \$2 million PBC in late FY 2019. • FHWA is evaluating an estimated \$1.5 million UESC in FY 2020 if funding is available. <p>B. Continue implementation of ECMs in previously awarded PBCs:</p> <ul style="list-style-type: none"> • FAA will install efficiency upgrades and onsite renewable energy at multiple sites with guaranteed annual energy savings of 8.5 million BTU and 1 MWh of renewable energy generation. • FHWA Western Federal Lands Highway Division (WFLHD) will refurbish roof insulation, windows, and doors for cost avoidance of up to 15 percent of annual site energy costs by FY 2021. <p>C. Incorporate PBCs into planning to meet energy and water efficiency targets:</p> <ul style="list-style-type: none"> • MARAD will evaluate new PBCs after the current ESPC at USMMA ends in 2021 as a cost-effective way to complete energy evaluations. • FAA will use existing and past PBCs to inform future sustainment and modernization projects. <p>D. Complete energy efficiency evaluations to identify cost effective projects.</p> <ul style="list-style-type: none"> • FAA will explore options to conduct energy and water evaluations at leased facilities where they pay directly for utilities in FY 2020. • FHWA will develop long-term master plans to integrate energy efficient capital improvements.

3. Renewable Energy

The Department will continue to look for potential facilities suitable for cost-effective on-site renewable energy generation to reduce electricity consumption, costs, enhance energy resiliency, and to meet the renewable electric energy statutory goal.

Additionally, DOT will continue to purchase renewable electricity from utility providers or through power purchase agreements, along with acquiring renewable energy certificates, as needed.

FY 2018 Renewable Electricity Use:

11.7% of total electricity in FY 2018

FY 2019 - FY 2020 Plan:

7.5%² of total electricity in FY 2019

7.5%² of total electricity in FY 2020

Implementation Status	Priority Strategies and Planned Actions
<p>A. Implemented onsite renewable energy projects using PBCs and appropriated funds:</p> <ul style="list-style-type: none"> • The FAA Corpus Christi ENABLE project, awarded in 2018, includes solar photovoltaic (PV) with guaranteed annual electricity cost avoidance of over \$27,000. <p>B. Purchased renewable energy certificates (RECs).</p> <ul style="list-style-type: none"> • Many OAs purchased bulk RECs through the Defense Logistics Agency to most cost-effectively meet statutory requirements. <p>C. Maintained renewable energy generation from previous installations.</p> <ul style="list-style-type: none"> • FAA has numerous onsite renewable energy projects which generate 7,600 MWh annually. • FHWA TFHRC’s onsite renewable energy generation powered exterior lighting and generated 5.7 MWh of electricity in FY 2018. • Three MARAD facilities have installed small onsite solar installations that power equipment or generate onsite renewable energy. 	<p>A. Reduce electricity consumption and costs by implementing onsite renewable energy:</p> <ul style="list-style-type: none"> • Four OAs will explore installing solar PV systems and wind turbines using PBCs or appropriated funds in FY 2020. • FAA will complete construction of the PV systems included in the WSA ESPC contract, with an expected annual production of over 1,000 MWh of renewable electricity in FY 2021. • FAA is evaluating development of a commercial scale solar farm at WJHTC to provide approximately 57,400 MWh of renewable electric power to the grid annually. <p>B. Purchase RECs as needed to fulfill statutory requirements.</p>

² Targets are based on current statutory requirements.

4. Water Efficiency

DOT plans to continue to meet the water use intensity reduction goal stated in the EO 13834 Implementing Instructions by prioritizing cost-effective building water efficiency improvements. However, implementation of water conservation projects remains challenging since water is inexpensive in many areas, often resulting in poor financial paybacks. The Department will explore opportunities to bundle water conservation projects with other energy conservation projects where cost-effective.

Additionally, note that FAA comprises more than 90 percent of DOT’s water use. FAA’s utility invoices are centrally managed and consumption data is not recorded in the payment system, so they estimate water consumption from expense data for most facilities. FAA is working to reduce estimation of its water use data, but doing so may require significant system investments.

FY 2018 Water Intensity Progress (Gal/GSF):

26.4% reduction from FY 2007

11% reduction from FY 2017

FY 2019-FY 2020 Plan:

1.0% reduction in FY 2019 from FY 2018

1.0% reduction in FY 2020 from FY 2019

Implementation Status	Priority Strategies and Planned Actions
<p>A. Completed low and no-cost upgrades:</p> <ul style="list-style-type: none"> • Three OAs replaced inefficient water fixtures. • SLSDC monitored daily water usage to identify and repair leaks, which reduced total water use by 4 percent (13,000 gallons annually). • MARAD installed green infrastructure at James River Reserve Fleet to capture water onsite and utilize reclaimed water. <p>B. Improved water use data:</p> <ul style="list-style-type: none"> • FAA worked to improve its data at MMAC using 53 meters installed in FY 2018. • MARAD installed new water meters at Beaumont Reserve Fleet, for an estimated 10 percent savings. <p>C. Used EISA evaluations to identify water savings:</p> <ul style="list-style-type: none"> • FAA completed ten evaluations and identified potential annual savings of 2.8 million gallons. <p>D. Utilized PBCs to implement water savings:</p> <ul style="list-style-type: none"> • FAA initiated a PBC project at Corpus Christi that will reduce annual water use by 1.8 million gallons. 	<p>A. Continue low and no-cost water fixture upgrades.</p> <p>B. Use utility, meter, and evaluation data to reduce water use:</p> <ul style="list-style-type: none"> • FAA will continue to improve water consumption utility data. • Continue EISA evaluations to identify water conservation projects. <p>C. Use PBCs to implement water saving measures.</p> <p>D. Retain storm water onsite:</p> <ul style="list-style-type: none"> • MARAD will convert an athletic field to artificial turf and install a system to return water from rain events to the aquifer by the start of FY 2020. • FHWA will implement a storm water management strategy at each owned facility by FY 2021. <p>E. Reduce outdoor water use:</p> <ul style="list-style-type: none"> • FHWA WFLHD will use xeriscaping to reduce irrigation by at least 10 percent in FY 2020. <p>F. Implement direct-funded water savings projects:</p> <ul style="list-style-type: none"> • Volpe will install a temporary utility facility that uses air instead of water in chillers to save 2 million gallons of water and \$17,000 annually.

5. High Performance Sustainable Buildings

DOT will continue to make incremental progress in this area through new building construction, and leasing sustainable building space. In FY 2018, 5 percent of eligible buildings (over 10,000 GSF) were sustainable buildings. Across the Department, resource constraints and competing priority capital improvements temper progress. At many sites, it is not cost effective to implement all the Guiding Principles on the Energy Star® Portfolio Manager checklist. As such, cost effective measures are implemented as funding becomes available and DOT is exploring options to integrate components of the Guiding Principles into performance contracts.

FY 2018 Sustainable Buildings Progress:

**17 sustainable Federal buildings
5% of buildings / 5% of GSF**

FY 2019 – FY 2020 Plan:

**6% of GSF in FY 2019
7% of GSF in FY 2020**

Implementation Status	Priority Strategies and Planned Actions
<p>A. Continued to evaluate and track sustainable building compliance:</p> <ul style="list-style-type: none"> • FAA identified two buildings at MMAC as high performance sustainable building (HPSB) compliant, and evaluated an additional building. • FHWA implemented a quarterly HPSB compliance evaluation documentation process using the Energy Star® Portfolio Manager Guiding Principles Checklist. <p>B. Optimized building system performance, where cost effective:</p> <ul style="list-style-type: none"> • FAA MMAC awarded recommissioning projects under an indefinite delivery/indefinite quantity contract to achieve/maintain HPSB certification at six buildings. <p>C. Incorporated HPSB design into future projects:</p> <ul style="list-style-type: none"> • Volpe and FAA incorporated HPSB criteria into one project each in the design phase. • FHWA assessed owned facilities to create a multi-year master plan that includes all HPSB elements to guide future capital improvements. 	<p>A. Evaluate DOT buildings for HPSB compliance:</p> <ul style="list-style-type: none"> • MARAD will complete installation of building-level energy sub-meters for USMMA buildings in FY 2020 to allow for benchmarking and HPSB compliance tracking. • Evaluate third party certified buildings for HPSB compliance. <p>B. Incorporate HPSB into design and implementation of ongoing and future projects:</p> <ul style="list-style-type: none"> • Four OAs will continue to incorporate HPSB criteria into planned construction projects, two of which will align with Leadership in Energy and Environmental Design requirements. <p>C. Increase total number of HPSB compliant buildings across DOT:</p> <ul style="list-style-type: none"> • FHWA plans to achieve HPSB compliance in 2021 for its owned facilities (WFLHD and TFHRC). • MARAD will make major building renovation designs HPSB compliant to the extent feasible, based on the Department of Defense Unified Facility Criteria or other approved criteria in FY 2020. • FAA will incorporate HPSB design criteria into future improvement projects as part of planned sustainment activities in FY 2020 and FY 2021.

6. Waste Management and Diversion

In FY 2018, the Department made significant progress in reducing waste from its buildings and operations by diverting over 50 percent of solid waste from landfills, through the innovative practices noted in table below. The Department will continue to emphasize the waste hierarchy by promoting policies to generate less waste and reduce the amount of landfilled waste. Going forward, 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 applicable waste management contracts when possible.

FY 2018 Non-hazardous Waste Management and Diversion:

18,193 metric tons of non-hazardous solid waste generated*

48% sent to treatment and disposal facilities

*not including construction and demolition waste

Implementation Status	Priority Strategies and Planned Actions
<p>A. Increased waste diversion by expanding recycling locations and materials accepted:</p> <ul style="list-style-type: none"> • FHWA used its waste stream management program to divert over 50 percent of solid waste. • SLSDC continued to utilize their zero-sort recyclable technology to monitor all waste, yielding a \$62,500, or 38 percent annual reduction in waste costs. • Volpe expanded its award-winning waste reduction program to composting for all cafeteria food scraps. • FAA improved composting and initiated a major scrap metal recycling project at MMAC, for a 15 percent increase in waste diversion. <p>B. Educated employees about recycling options:</p> <ul style="list-style-type: none"> • FAA promoted recycling at large facilities and provided recycling program start-up funds. • MARAD continued annual training on recycling, waste data, and chemical inventories, contributing to a 5 percent increase in waste diversion. • Volpe issued center-wide recycling guidance that detailed materials sorting requirements. <p>C. Improved waste tracking and data estimation:</p> <ul style="list-style-type: none"> • FAA and MARAD continued efforts to improve and track waste data and increase diversion rates. 	<p>A. Reduce waste through source reduction:</p> <ul style="list-style-type: none"> • Volpe will pilot a program to replace single use take-out containers with reusable containers in the cafeteria in FY 2020. <p>B. Increase capacity of recycling programs:</p> <ul style="list-style-type: none"> • SLSDC will continue to monitor and utilize zero sort technology in FY 2020. <p>C. Improve waste data quality in FY 2020:</p> <ul style="list-style-type: none"> • Develop more accurate processes to estimate waste amounts at sites where the waste service companies do not provide actual weight data. • FAA will continue to educate contracting officers on waste management clauses to ensure recycling data is provided by contractors where feasible. <p>D. Continue employee education programs to expand participation in waste reduction and recycling programs Department-wide.</p> <p>E. Continue to use Inventory Management Plans to reduce, substitute, or eliminate use of chemicals.</p>

Transportation/Fleet Management

1. Transportation/Vehicle Management

The Department maintains a fleet of more than 6,000 vehicles; most are used by DOT aviation, highway, railroad, and pipelines safety inspectors and law enforcement officials across all 50 U.S. states and U.S. territories. In FY 2018, DOT reduced its petroleum consumption by 30 percent and increased alternative fuel use by 245 percent (eight percent of total fuel use), since 2005.

Looking ahead, the Department will continue efforts to optimize fleet composition, and replace conventional vehicles with fuel efficient vehicles, where cost effective. However, many of DOT's fleet trucks haul mission-essential equipment to complete compliance inspections or perform maintenance in remote, off-road locations. These duty-specific vehicles must have high ground clearance, large cargo space, and at least medium towing capacity to meet mission requirements. Currently, the General Services Administration does not offer alternative fuel light duty trucks that meet these requirements, tempering DOT's ability to make further progress on fuel-related performance targets.

FY 2018 Petroleum Reduction Progress (Gal):

30% reduction in petroleum fuel since FY 2005

2% reduction in petroleum fuel since FY 2017

FY 2019 – FY 2020 Plan:

1% reduction in FY 2019 from FY 2018

2% reduction in FY 2020 from FY 2019

Implementation Status	Priority Strategies and Planned Actions
<p>A. Eliminated 35 underutilized vehicles.</p> <p>B. Increased use and acquisition of AFVs:</p> <ul style="list-style-type: none"> • The Federal Railroad Administration (FRA) purchased 12 E85 flex fuel vehicles, matching local fuel infrastructure. • FHWA added 16 AFVs; over 73 percent of FHWA's fleet of leased vehicles is now comprised of hybrid, plug-in or flex fuel vehicles in FY 2019. <p>C. Used Fleet Management Information System and other Federal systems to track monthly fuel consumption for agency vehicles.</p> <p>D. Installed more than 10 electric vehicle (EV) charging stations since 2015:</p> <ul style="list-style-type: none"> • SLSDC installed one station. • FRA installed a two station EV charging area at the Passenger Rail-Services Building. • Volpe included EV charging stations in the new building design to support plug-in vehicle use. <p>E. Improved efficiency with operational changes:</p> <ul style="list-style-type: none"> • The Federal Transit Administration (FTA) reduced miles traveled by sharing vehicles, improving routing and scheduling with telematics, eliminating trips, and using shuttles. 	<p>A. Optimize fleet composition by reducing vehicle size and eliminating underutilized vehicles.</p> <p>B. Increase use and acquisition of AFVs where cost effective:</p> <ul style="list-style-type: none"> • FAA will continue to increase alternative fuel consumption for all FAA flex-fuel vehicles. • National Highway Traffic Safety Administration (NHTSA) will ensure that all replacement vehicles are E85 flex fuel. <p>C. Use the Fleet Management Information System and other Federal systems to routinely track fuel data for agency vehicles.</p> <p>D. Pursue operational changes to improve fleet efficiency:</p> <ul style="list-style-type: none"> • Utilize telematics where cost-effective. • Pipeline and Hazardous Materials Safety Administration (PHMSA) and FTA will implement programmatic operational changes to reduce vehicle inventory, miles traveled, cost, and fuel consumption. • NHTSA will remind vehicle users to utilize the Department of Energy's alternative fuel locator and refuel with E85 when available.

Cross-cutting Operations

1. Sustainable Acquisition/Procurement

Annually, DOT awards over \$6 billion in contracts for goods and services to support the successful operation of the agency. In FY 2018, DOT improved the percent of contracts that met green acquisition requirements for products and services. The FAA operates its acquisition program under separate authority and is not subject to the Federal Acquisition Regulations or other contracting directives, which can contribute to underreporting. Going forward, the Department is committed to the cost-effective acquisition of green products and services including updating relevant Departmental acquisition practices, training for the acquisition workforce, and adopting new technology to increase efficiency. DOT is reviewing its methodology and will establish updated sustainable acquisition goals as part of the next Sustainability Report and Implementation Plan.

FY 2018 Sustainable Acquisition Progress:

17.5% of contract actions and 18.5% of obligations (in dollars), for a total of \$1,109 million in contract actions with statutory environmental requirements

Implementation Status	Priority Strategies and Planned Actions
<p>A. Promoted training for all relevant personnel and tracked sustainable acquisition awareness to improve compliance with statutory requirements:</p> <ul style="list-style-type: none"> • All OAs require sustainable acquisition training for relevant contracting personnel. • FAA’s acquisition workforce demonstrated improved awareness of environmental and sustainability requirements. <p>B. Improved compliance with sustainability requirements for all applicable contracts:</p> <ul style="list-style-type: none"> • Four OAs conducted reviews to verify that all applicable contracts included required language. <p>C. Increased use of Category Management (CM) initiatives and government-wide acquisition contracts (GWACs).</p> <ul style="list-style-type: none"> • Increased use of Best in Class (BIC) contracts from 5 percent in 2017 to 6.6 percent of all potential BIC contracts in FY 2018. <p>D. Improved quality of data and tracking through Federal Procurement Data System (FPDS).</p>	<p>A. Provide annual training for all acquisitions personnel to increase awareness of sustainability requirements and resources:</p> <ul style="list-style-type: none"> • Promote trainings on standard sustainability clauses, available GWAC contract vehicles, and Environmental Protection Agency tools and designated products. • Review and update training materials to ensure they are consistent with all requirements. <p>B. Ensure that standard sustainable acquisition language is included in all applicable contracts:</p> <ul style="list-style-type: none"> • Incorporate sustainable acquisition requirements into annual procurement management reviews for relevant contracts. • FTA and FRA will conduct a review process in FY 2020 to ensure all contracts contain the appropriate sustainable acquisitions language. <p>C. Increase use of CM Initiatives and GWAC contracts that already include sustainable acquisition criteria.</p> <p>D. Continue to improve the quality of data through FPDS in FY 2020.</p> <ul style="list-style-type: none"> • FAA will review pertinent data elements monthly and provide training to ensure compliance.

2. Electronics Stewardship

DOT continues to purchase energy-efficient information technology (IT) equipment, and ensure reuse and environmentally sound disposal. However, the Office of the Chief Information Officer has prioritized IT consolidation (DestinationsDIGITAL initiative), delaying power management activation.

FY 2018 Electronics Stewardship Progress:

100% of newly purchased or leased equipment met energy efficiency requirements

92% of equipment with power management enabled*

100% of electronic equipment disposed using environmentally sound methods

*excluding exempted equipment

Implementation Status	Priority Strategies and Planned Actions
<p>A. Met procurement and end-of-life electronics stewardship goals:</p> <ul style="list-style-type: none"> • Acquired only monitors and computers that are Electronic Product Environmental Assessment Tool registered, where applicable. • Leveraged the NASA Solution for Enterprise-Wide Procurement (SEWP) or the FAA Strategic Sourcing for the Acquisition of Various Equipment and Supplies (SAVES) contract for all laptop, desktop, and monitor purchases. • Disposed 100 percent of eligible electronics using environmentally sound methods. <p>B. Maintained print management features on all eligible electronics, Department-wide.</p> <p>C. Avoided \$18.5 million in costs in FY 2019 due to DOT-wide data center consolidation efforts.</p> <p>D. Temporarily disabled power management on some devices due to incompatibility with security measures.</p>	<p>A. Use government-wide CM contracts that include sustainable electronics criteria where applicable.</p> <p>B. Enable and maintain print management features on all eligible electronics, and report compliance.</p> <p>C. Implement “wake on LAN” solution to facilitate software patching and deployments after 2020.</p> <p>D. Ensure reuse and environmentally sound disposal of all excess and surplus information technology (IT) and report compliance in FY 2020 and FY 2021.</p> <p>E. Continue data center consolidation efforts:</p> <ul style="list-style-type: none"> • FAA will close the Headquarters Data Center and move operations to the cloud or other facilities, for a cost avoidance of over \$658,000 annually. • FHWA will move two data centers to shared service or cloud solutions in FY 2020. • Identify new data center closure targets that align with Federal guidelines and OA missions.

3. Greenhouse Gas Emissions

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

38% reduction from FY 2008

1.4% reduction from FY 2017

Implementation Status	Priority Strategies and Planned Actions
<p>A. Reduced Scope 1 and 2 GHG emissions through multiple cost-effective strategies include:</p> <ul style="list-style-type: none"> • Implemented energy conservation measures. • Improved operations and maintenance processes. • Optimized use of fuel efficient vehicles. <p>B. Worked to reduce Scope 3 GHG emissions with:</p> <ul style="list-style-type: none"> • 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. 	<p>A. Implement priority strategies and planned actions for energy conservation, operations and maintenance, fleet management, performance contracting, and renewable energy to continue reducing Scope 1 and 2 GHG emissions.</p> <p>B. Continue to monitor and track GHG emissions.</p> <p>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.</p> <p>D. Continue to reduce business travel and encourage virtual meetings, when cost-effective and consistent with the mission.</p>

Acronyms and Abbreviations

Abbreviation	Term
AFV	Alternative fuel vehicle
ATO	Air Traffic Organization
BIC	Best in Class
BTU	British thermal units
CM	Category Management
DOT or Department	U.S. Department of Transportation
E.O.	Executive Order
ECM	Energy conservation measure
EISA	Energy Independence and Security Act
ESPC	Energy Savings Performance Contract
EV	Electric vehicle
FAA	Federal Aviation Administration
FHWA	Federal Highway Administration
FPDS	Federal Procurement Data System
FRA	Federal Railroad Administration
FTA	Federal Transit Administration
FY	Fiscal Year
GHG	Greenhouse gas
GSF	Gross square feet
GWAC	Government-wide acquisition contract
HPSB	High Performance Sustainable Building
IT	Information technology
MARAD	Maritime Administration
MMAC	Mike Monroney Aeronautical Center
MWh	Megawatt hour
NHTSA	National Highway Traffic Safety Administration
OA	Operating Administration
OST	Office of the Secretary of Transportation
PBC	Performance-based contract
PHMSA	Pipeline and Hazardous Materials Safety Administration
Plan	Sustainability Report and Implementation Plan
PV	Photovoltaic
REC	Renewable energy certificate
SAVES	Strategic Sourcing for the Acquisition of Various Equipment and Supplies
SEWP	Solution for Enterprise-Wide Procurement
SLSDC	Saint Lawrence Seaway Development Corporation
TFHRC	Turner – Fairbank Highway Research Center
UESC	Utility Energy Services Contract
U.S.	United States
USMMA	U.S. Merchant Marine Academy
WFLHD	Western Federal Lands Highway Division
WJHTC	William J. Hughes Technical Center
WSA	Western Service Area