

U.S. Department of Housing & Urban Development 2018 Sustainability Report and Implementation Plan

Executive Summary

VISION AND LEADERSHIP

The Department of Housing & Urban Development (HUD) recognizes many links between HUD's operations and the goals of Executive Order (EO) 13834: Efficient Federal Operations. Although HUD has a relatively small directly managed federal footprint, the Department envisions great opportunity to integrate energy efficiency and sustainability with the agency operations.

While HUD has offices and staff across the Nation, its Headquarters, the Robert C. Weaver Federal building, is the only facility that it operates. The remainder of HUD's offices are fully serviced leases that are operated and maintained by the General Services Administration (GSA).

In recent years HUD has made significant progress in improving the condition and operation of HUD Headquarters which is a 50-year-old facility. Examples include completing a large multi-year Energy Savings Performance Contract (ESPC), and multiple projects in coordination with the General Services Administration (GSA) such as the roof replacement project largely funded by the American Recovery and Reinvestment Act (ARRA) and several space renovations that included open space layout and energy efficient design practices. HUD also has a Memorandum of Understanding with the GSA to lease sustainable office space for HUD staff working in other locations across the Nation. These are just a few examples of HUD's efforts to meet energy and emissions reductions goals and transform HUD to a more environmentally and sustainability conscious agency.

HUD's Office of Administration plays a key leadership role in both planning and implementing energy efficiency improvements and various sustainability practices. HUD's Chief Administrative Officer has been designated as the Chief Sustainability Officer (CSO). HUD's CSO provides leadership for the accomplishment of departmental efficiency and sustainability goals. In support of the CSO, the Office of Facilities Management Services (OFMS) provides daily facility oversight, fleet management, sustainability planning, energy management, project planning, data tracking and reporting. The OFMS has multiple positions with performance elements that are linked to sustainability and efficiency related goals to help ensure successful implementation and performance oversight.

IMPLEMENTATION AND PROGRESS

1. Facility Management:
 - a. 17% energy reduction (Btu/GSF) compared to FY2015 through the successes of the Energy Savings Performance Contract (described above)
 - b. 11.1% renewable electricity use during FY2017
 - c. Awarded a new Facilities Management contract in October 2017 that strengthened energy efficiency for operational requirements
 - d. Completed final acceptance for HUD Energy Savings Performance Contract (ESPC)
 - e. Identified potential energy conservation measures for future performance contracting initiatives
2. Fleet Management:

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- a. 61.2% reduction in petroleum & over 800% increase in alternative fuel (2005 baseline) through the use of fleet right sizing and requiring the procurement of flex fuel and hybrid vehicles
 - b. Performed feasibility and cost analysis for electric vehicle charging stations at HUD Headquarters (HUD HQ)
3. Cross-Cutting:
- a. Sustainable Acquisition: 81 sustainability related contract actions with a value of \$28,447,913.19
 - b. Electronics Stewardship- HUD is fully compliant with ecolabel, power management, and disposal requirements through the use of its fully leased electronics program
 - 100% equipment acquisition meeting EPEAT requirements
 - 100% equipment with power management
 - 100% compliance with disposal guidelines
 - c. 56.3% reduction in Scope 1 & 2 emissions (2008 baseline)
 - d. 35.7% reduction in Scope 3 emissions (2008 baseline)

STRATEGIC PRIORITIES

- 1) Repairs and improvements to aging infrastructure and equipment
 - a. Replace chilled water valves
 - b. Repair cooling towers and replace heat transfer media
- 2) Performance contracting for energy efficiency improvements
 - a. Perform detailed energy survey
 - b. Develop plan to award additional energy and water conservation measures
- 3) Contract for additional renewable energy to ensure LEED-Silver certification for HUD HQ is maintained
- 4) Increase alternative fuel use for eligible vehicles

Implementation Summary

1. Facility Management:

FACILITY ENERGY EFFICIENCY

FY 2017 Status: 17% reduction (Btu/GSF) compared to FY2015

Implementation Status	Operational Context	Priority Strategies & Planned Actions
<p>Awarded a new Facilities Management contract Oct 2017 that strengthened energy efficiency for operational requirements</p> <p>Completed final acceptance for HUD Energy Savings Performance Contract (ESPC)</p>	<p>HUD has a unique portfolio as the agency has only one “goal subject” facility. Accordingly, HUD’s energy performance is subject to volatility of regional weather patterns. All other buildings are GSA leases that HUD does not control.</p>	<ul style="list-style-type: none"> - FY 2019: replace chilled water valves for all main air handling units so that HUD HQ may be operated more efficiently. - FY 2019/20: replace media in cooling tower to help save both pump energy and water. - FY 2019: perform reliability centered and predictive maintenance practices as part of

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Performed Measurement and Verification (M&V) report and verified savings performance above expectations	HUD recently performed a major ESPC on its only building, HUD HQ. HUD intends to perform additional energy savings projects as they are identified and funded.	HUD's new Facilities Management contract to identify problematic equipment or potential energy savings measures.
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EFFICIENCY MEASURES, INVESTMENT, AND PERFORMANCE CONTRACTING

ESPC and UESC investment / number of projects FY 2017: 0

HUD recently performed a major ESPC on its only building, HUD HQ. This project resulted in \$33 million of energy efficiency improvements. All of HUD's other buildings are leased through GSA and are not candidates for HUD initiated ESPC work. HUD intends to perform additional energy savings projects as they are identified and funded.

RENEWABLE ENERGY

FY 2017 Status: 11.1% renewable electricity

<i>Implementation Status</i>	<i>Operational Context</i>	<i>Priority Strategies & Planned Actions</i>
HUD participates in the GSA area wide utilities agreement which secures electricity pricing for multiple buildings in the region and includes REC purchases for the HUD Headquarters.	<p>HUD does not purchase energy for any of its other buildings which are leased and managed through GSA.</p> <p>HUD achieved LEED-Silver certification in 2016. HUD intends to attain the 37.5% renewable energy goal required for LEED-Silver by procuring Renewable Energy Certificates (RECs).</p>	<ul style="list-style-type: none"> - FY 2019/20: HUD will continue to participate in the GSA area wide utilities agreement. - FY2019/20: Complete renewable energy procurement to maintain the minimum REC purchases for LEED certification. - FY2019/20: Revisit the potential for adding solar to the HUD HQ roof top as part of the ESPC feasibility study.

WATER EFFICIENCY

FY 2017 Status: 12% reduction in potable water (Gal/GSF)

<i>Implementation Status</i>	<i>Operational Context</i>	<i>Priority Strategies & Planned Actions</i>
HUD has performed extensive water conservation measures for its only subject building as part of the ESPC program. Through the ESPC, HUD was able to complete water savings retrofits building wide. This	<p>HUD has performed multiple process water drain downs for repairs to aging mechanical systems and fire suppression systems leading to increased water use for the FY2017 performance period.</p> <p>HUD has also performed multiple drain downs for portions of its potable water</p>	<ul style="list-style-type: none"> - FY 2019: perform feasibility analysis for additional energy and water conservation measures using the existing ESPC contract. - FY 2019/20: replace media in cooling tower

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included low flow auto-faucets, flush kits, toilet and urinal retrofits.	systems to complete a large piping replacement project. This will continue to present challenges during FY 2018/19 reporting periods.	to help save both water and pump energy.
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HIGH PERFORMANCE SUSTAINABLE BUILDINGS

FY 2017 Status: N/A % buildings and by GSF

HUD does not own any buildings and does not construct new federal buildings, nor does the agency report subject data in FRPP. The agency does not make site selection decisions. HUD has requested that GSA sustainability guiding principles be incorporated into all leases entered on behalf of HUD.

WASTE MANAGEMENT AND DIVERSION

FY 2017 Status: 23.7 % waste diverted

<i>Implementation Status</i>	<i>Operational Context</i>	<i>Priority Strategies & Planned Actions</i>
HUD maximizes recycling and waste diversion using comingled material recycling containers available throughout the HUD HQ building.	<ul style="list-style-type: none"> - HUD participates in the GSA National Capital Region Recycling Program. - HUD also either sells or recycles excess furniture. 	<ul style="list-style-type: none"> - FY2019: Perform compliance review of refrigerant management practices. - FY2019: Review space management and alteration practices for opportunities to divert construction and demolition waste. - FY2019: Review contracted recycle collection practices for opportunities to increase waste diversion.

2. Fleet Management:

TRANSPORTATION / FLEET MANAGEMENT

FY 2017 Status: 61.2% reduction in petroleum & 857.9% increase in alt fuel (since 2005)

<i>Implementation Status</i>	<i>Operational Context</i>	<i>Priority Strategies & Planned Actions</i>
During the FY 2017 performance period, HUD successfully reduced petroleum use and increased alternative fuel use compared to 2005 baseline. The use of fleet right sizing and requirements for procurement of alternative fuel and hybrid vehicles since 2005 have led to HUD's success for this goal.	HUD's fleet management efforts are focused on optimizing fleet composition, by reducing vehicle sizes, eliminating underutilized vehicles, and acquiring and locating vehicles to match local fuel infrastructure.	<ul style="list-style-type: none"> - FY 2019: Increase utilization of E85 in flex-fuel vehicles by 2%. - FY2019: Perform location analysis dual-fuel vehicles. - FY2019: Complete survey of HUD HQ occupants to determine demand for Electric Vehicle Charging. - FY2019: Perform Vehicle Allocation Methodology (VAM) on eligible HUD Fleet.

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3. Cross-Cutting:

SUSTAINABLE ACQUISITION / PROCUREMENT

FY 2017 Status: 81 contracts & \$28.4M

<i>Implementation Status</i>	<i>Operational Context</i>	<i>Priority Strategies & Planned Actions</i>
<p>During FY17, HUD ensured that a minimum of 95% of applicable new contract actions were compliant with sustainable acquisition requirements. ,</p> <p>HUD OCPO has added environmental consideration to its solicitation review checklist</p>	<p>- Reviews include checks for compliance with sustainable acquisition requirements on contracts, task or delivery orders that require the supply or use of products and services that are energy efficient (Energy Star or FEMP-designated), water efficient, biobased, environmentally preferable, non-ozone depleting, contain recycled content, or are non-toxic or less toxic alternatives.</p>	<p>- FY2019: HUD will review sustainability acquisition practices when conducting quarterly compliance reviews.</p> <p>- FY2019: OCPO’s Risk Management and Compliance Unit will perform annual reviews to ensure appropriate clauses are contained in contracts requiring biobased and sustainable products.</p>

ELECTRONICS STEWARDSHIP

FY 2017 Status: 100% equipment acquisition meeting EPEAT requirements, 100% equipment with power management, & 100% compliance with disposal guidelines

Projected FY 2018: 100% equipment acquisition meeting EPEAT requirements, 100% equipment with power management, & 100% compliance with disposal guidelines

Projected for FY 2019: 100% equipment acquisition meeting EPEAT requirements, 100% equipment with power management, & 100% compliance with disposal guidelines

<i>Implementation Status</i>	<i>Operational Context</i>	<i>Priority Strategies & Planned Actions</i>
<p>100% of HUD monitors, PCs and laptops acquired by the agency met EPEAT-registry standards</p> <p>100% of HUD monitors, PCs and laptops are power management-enabled</p> <p>100% of HUD electronics disposed of using environmentally sound methods</p>	<p>- It is HUD’s policy to dispose of all excess and surplus electronics in an environmentally sound manner. HUD will ensure existing disposition policies are followed.</p> <p>- HUD’s current policy and practices require that all new purchases or leases require EPEAT-registry standards.</p>	<p>- FY2019/20: ensure that all HUD monitors, PCs and laptops are power management-enabled.</p> <p>- FY2019: Review property disposition records to verify appropriate disposition practices.</p>

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GREENHOUSE GAS EMISSIONS

FY 2017 Status: 56.3 % reduction in Scope 1 & 2 emissions (2008 baseline)

<i>Implementation Status</i>	<i>Operational Context</i>	<i>Priority Strategies & Planned Actions</i>
<p>Scope 1 & 2 HUD has successfully reduced Scope 1 & 2 GHG emissions beyond expectations due to ESPC generated energy savings.</p> <p>Scope 3 35.7% reduction in Scope 3 emissions (2008 baseline)</p> <p>Encouraged the use of alternative transportation by offering transit subsidies.</p> <p>Implemented and continue to maintain a robust telework program and provided mobile technology upgrades such as laptops and VPNs.</p>	<p>Completed the commissioning and final acceptance of the ESPC for the HUD Headquarters building. Project included the installation of condensing boiler heating system and domestic hot water connection, HVAC retrofits throughout, new Energy Management Control System (EMCS) water conservation measures and building envelope improvements.</p>	<ul style="list-style-type: none"> - FY2019/20: Ensure best management practices are implemented by O&M contractor and Energy Services Contractor to maximize efficiency. - FY2019: Perform survey of HUD HQ employees to determine demand for electric vehicle charging stations. - FY2020: Install electric vehicle charging stations at HUD HQ. - FY2020: Perform system upgrade HUD HQ Energy Management Control System (EMCS).