

# National Archives and Records Administration (NARA) 2018 Sustainability Report and Implementation Plan

## Executive Summary

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The National Archives and Records Administration (NARA) safeguards and preserves Government records and artifacts, so citizens can discover, use, and learn from our heritage. By preserving and safeguarding records and artifacts, we support democracy, promote civic education, and facilitate historical understanding of our nation. NARA owns and operates many facilities across the United States. These facilities are open to the public, and include: Archives locations, and Presidential Libraries and Museums. Additionally, NARA leases space at other locations: Federal Record Centers, Military Records Centers, etc., containing prior years' taxes, and other important records. In all, NARA maintains these government records in >4M square feet of space.

Documents and artifacts are maintained in a controlled environment (temperature, humidity and air quality) 24 hours per day, 365 days per year. Due to strict archival storage and display requirements (found in 36CFR, Chapter XII, Part 1234), NARA facilities are technically excluded from energy reduction requirements of the National Energy Conservation Policy Act, and Energy Policy Act (EPACT) of 2005, although NARA does make a concerted effort to meet or exceed those requirements. Since conventional performance measures are rendered meaningless by the overriding process-dedicated energy required for NARA "stack" space, representing most of the agency's gross square footage, NARA has adopted many common sense measures to sharply reduce energy, water, and GHG emissions from its buildings, thus promoting sustainability, and participation in the Energy Policy Act 1992 (EPACT).

Although we are a limited-resource, small agency, with an energy intensive mission, senior management understands, and promotes the need for reducing energy, water, GHG, and thus meeting sustainability challenges... and NARA has excelled in this arena. NARA sustainability and resiliency goals are measured by requirements of Executive Order 13834, EPACT, Energy Independence and Security Act 2007 (EISA), agency standards, and LEED, and NARA has made exceptional progress to date. By meeting all of these standards early, NARA focuses on future challenges and is positioned to take advantage of new technologies and opportunities. NARA is ahead of schedule to meet sustainability, energy, GHG, and water goals described and outlined in EOs and other Federal requirements. The sustainable practices used at NARA also save millions of tax payer dollars each year, as evidenced by decreased energy, waste, and water costs. The NARA team is moving beyond energy and water reduction, and now exceeds waste reduction requirements by implementing an on-site compost system, complementing our aggressive recycling, and acquisition strategies. Compost system compost is used on site, thus reducing the need for purchasing mulch and hauling a large portion of solid waste offsite.

Between FY 2006 and FY 2017, NARA invested ~33 million dollars in energy efficiency projects. Two early, successful projects were the \$5.7M Energy Savings Performance Contract (ESPC) project at Archives II and the \$5.8M ESPC project at Archives I. NARA worked directly with the Energy Services Company to develop and implement energy conservation measures at each facility. These successes led to other ESPC projects for the remaining NARA-owned facilities, such as \$7.3M (A2 Phase 2), \$4.3M (Presidential Libraries Group 1), \$6.8M (Presidential Libraries Group2), \$3M (Presidential Libraries Solar Project). These projects resulted in major cost savings, GHG emissions reductions, and better sustainability summarized below.

NARA consistently demonstrates long-range sustainable strategies through FY 2017; producing significant energy (40.6%), water (30.9%), and GHG (39.8%) reductions. These aggressive efforts resulted in Federal awards in 2008, 2010, 2013, and 2015, for water, energy and GHG reduction leadership among Federal

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agencies. NARA uses new technologies whenever practical, and increases renewable energy use at every opportunity.

NARA has maximized using self-generated energy. Photovoltaic systems at Clinton Library, Carter Library, Ford Museum, G. W. Bush Library, Archives II, Archives I, and Atlanta Archives now produce 2% of all energy used by NARA. Additionally, NARA purchased renewable energy credits, so 14.6% of total energy used in FY 2017, was renewable energy.

As part of the EISA section 432 requirements, NARA continues to perform energy audits and building condition reports at NARA-owned facilities. The audits identify many low cost/no cost Operations and Maintenance problems easily corrected, and recommend cost effective infrastructure improvements to be incorporated into future renovation or capital improvement projects. Many low cost/no cost measures e.g. “sequence of operation” errors were identified and corrected immediately by on-site personnel. Other measures were incorporated into additional ESPC projects at all remaining NARA owned facilities. Most NARA-owned facilities now have up-to-date or adequate HVAC equipment. Additional ECMs may be implemented as technology advances and needs arise to achieve greater energy and water reductions in the future. However, NARA still keeps an eye on return on investment as a big part of economic feasibility, another aspect of sustainability.

To help meet our future goals, NARA is undertaking the following measures for FY2018 and FY2019:

- Continue to improve energy and water conservation at all facilities, based on lessons learned and latest technologies.
- Expand on-site renewable energy generation when funding is available.
- Improve internal energy audit procedures to address sustainability goals.

These measures demonstrate sustained commitment by NARA, and reflect the dedication of significant staff time. These investments will help NARA meet the intent of Executive Order 13834, save taxpayer dollars, and improve our carbon footprint, further strengthening NARA’s reputation as a sustainability leader.

**Implementation Summary**

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**1. Facility Management:**

**FACILITY ENERGY EFFICIENCY**

FY 2017 Status: 40.6 % reduction (Btu/GSF)

<b>Implementation Status</b>	<b>Operational Context</b>	<b>Priority Strategies &amp; Planned Actions</b>
Between fiscal years 2006 and 2017, NARA invested ~33 million dollars in energy efficiency projects. NARA worked directly with the Energy Services Companies (ESCO) to develop and implement the following energy conservation measures (ECM) at	NARA invests in energy efficiency projects, simultaneously improving operations and management (O&M) best practices for emission generation and energy	Continuously monitor industry advances and incorporate whenever practical (SEL and LED lighting, etc.).  Regularly work with CFM contractors to improve building O&M practices.

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<p>multiple facilities. As a result, NARA was recognized with the following awards and certification: 2008 Presidential award, 2010 Presidential award, 2013 EPA Energy Star award, 2015 DOE Federal Energy and Water Management award, 2015 LEED Gold certification for Archives II building, and LEED Platinum certification/recertification at Bush Presidential Library, and Clinton Presidential Library.</p>	<p>consuming equipment at all NARA’s facilities.</p>	<p>Continue to monitor and fine tune building load operations and participate in demand response and energy curtailment programs.</p> <p>Continually meet or exceed energy intensity reduction goals to save tax payer dollars.</p>
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**EFFICIENCY MEASURES, INVESTMENT, AND PERFORMANCE CONTRACTING**

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

<i>Implementation Status</i>	<i>Operational Context</i>	<i>Priority Strategies &amp; Planned Actions</i>
<p>NARA’s <b>exceeded</b> agency goals from 2006-2017; therefore, agency has no commitment for the next two fiscal years.</p>	<p>From 2013-2014, NARA invested \$18.4M in ESPC projects (177%) of the agency annual utility costs (\$10.4M). There are no more economically feasible ECMs at this time.</p>	<p>NARA has implemented ESPC projects for all agency-owned facilities. We will continue ongoing commissioning processes and closely monitor M&amp;V procedures, and invest possible year end operating expenses funds on identified ECM’s. Therefore, agency has no commitment for the next two fiscal years.</p>

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**RENEWABLE ENERGY**

FY 2017 Status: 14.6% renewable electricity

<i>Implementation Status</i>	<i>Operational Context</i>	<i>Priority Strategies &amp; Planned Actions</i>
Between 2014 and 2017, NARA installed 1245 KW solar/PV at Archives II - College Park Maryland, Archives at Atlanta - Morrow Georgia, Carter Library - Atlanta Georgia, and Ford Museum - Grand Rapids Michigan through agency funds and ESPC projects.	NARA will incrementally increase renewable energy consumption each year.  Continuously install agency-funded renewable on-site and retain the REC.	NARA will increase on-site renewable energy systems at all NARA sites as funds become available.  Agency will continue working with GSA to purchase electricity and additional corresponding REC.

**WATER EFFICIENCY**

FY 2017 Status: 30.9% reduction in potable water (Gal/GSF)

<i>Implementation Status</i>	<i>Operational Context</i>	<i>Priority Strategies &amp; Planned Actions</i>
NARA had been utilizing agency-funded and ESPC projects to reduce water consumption and ensure all ESPC projects consider water saving ECM such as: Retrofit of restroom and kitchen fixtures and upgrade landscaping water and control system at most facilities. The National Archives at College Park, Maryland has a small green roof and a 6000-gallon storage tank to catch rain water from the roof for irrigation system.	NARA will continue improving water efficiency at all facilities. Minimize outdoor water use by upgrading irrigation and control systems. Also use alternative water sources such as rain catcher systems.	Install water efficiency technologies and fixtures via agency-funded and /or ESPC contracts.  Installing appropriate green infrastructure features throughout NARA owned facilities when funds become available, and via ESPC projects.  Continue using water meter data to improve water efficiency.

**HIGH PERFORMANCE SUSTAINABLE BUILDINGS**

FY 2017 Status: 47.0% by GSF

<i>Implementation Status</i>	<i>Operational Context</i>	<i>Priority Strategies &amp; Planned Actions</i>
NARA is currently updating policies to include climate resilient design and management into the operation, repair, renovation, and design of new buildings. NARA currently requires new buildings to be designed for LEED Platinum.	Current Presidential Library Design Guide incorporates the guiding principles. All major renovation must be designed at least to LEED Silver.	Continuously incorporate green building requirement into all new construction and major renovation projects.

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**WASTE MANAGEMENT AND DIVERSION**

FY 2017 Status: 52% waste diverted

<i>Implementation Status</i>	<i>Operational Context</i>	<i>Priority Strategies &amp; Planned Actions</i>
NARA requires all O&M contractors to submit monthly reports that include all chemicals used and waste generated. Agency continually monitors recycling and when feasible, replaces toxic chemicals, when a viable alternative exists.	NARA's goal was to reduce waste generated by at least 50% by 2020. Agency will continuously meet or exceed waste reduction goal.	NARA will continuously reduce waste generation through elimination, source reduction, and recycling. Recycling is required in all O&M contracts.  NARA requires all contractors to establish a tracking and reporting system for construction and demolition debris elimination.

**2. Fleet Management:**

**TRANSPORTATION / FLEET MANAGEMENT**

FY 2017 Status: 32% reduction in petroleum & 2% increase in alt fuel

<i>Implementation Status</i>	<i>Operational Context</i>	<i>Priority Strategies &amp; Planned Actions</i>
Since 2009, NARA has been increasing agency alternative fuel use and reduced the fleet by greater than 40%. Agency optimizes and right-size fleet composition, by reducing vehicle size, eliminating underutilized vehicles, and acquiring and locating vehicles to match local fuel infrastructure.	NARA's fleet is currently 59 vehicles. NARA has been collecting and utilizing agency fleet operational data through deployment of vehicle telematics. Agency uses GSA GPS tracking systems to track fuel use and driving habits.	NARA's Fleet Manager sends out monthly reports to encourage better driving habits and reduce idle times, thus maximizing mpg.  NARA will continue working with GSA to improve E85 availability nationwide.  NARA will continue monitoring newly installed vehicle GPS systems to increase efficiencies. Most E-85 stations have stopped carrying, or have limited availability of E85 fuel. Presently the closest E85 station is >25 miles away, rendering it impractical to refuel NARA's vehicles. Therefore, it will be a major challenge to meet both a reduction

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		in petroleum and increase in alternative fuel requirements.
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**3. Cross-Cutting:**

**SUSTAINABLE ACQUISITION / PROCUREMENT**

FY 2017 Status: 100% contracts & 100% contract dollars with environmental clauses\*

<i>Implementation Status</i>	<i>Operational Context</i>	<i>Priority Strategies &amp; Planned Actions</i>
<p>NARA has been implementing all mandated sustainable products in its revision to the procurement guide. Agency has met 100% compliance.</p> <p>NARA utilizes federal strategic sourcing initiatives to improve sustainable acquisition requirements.</p>	<p>NARA will continue to maximize savings to effectively accomplish its strategic initiatives concerning sustainable acquisition requirements by leveraging requirements between blanket purchase agreement (BPA), GSA federal schedule (FSS), and government-wide purchase cards (GWPC).</p>	<p>NARA will continue to include and mandate contract sustainability requirements as well as monitoring contractor performances and reports.</p> <p>NARA will continue to ensure contractors submit timely annual reports of their Bio-preferred and Bio-based purchases.</p> <p>*Agency will continue to maintain 100% compliance. However, NARA cannot control allocated funding, so in spite of 100% compliance on contract actions and contracts awarded, dollar amounts will fluctuate between years.</p>

**ELECTRONICS STEWARDSHIP**

FY 2017 Status: 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 &amp; Planned Actions</i>
<p>NARA currently measures and reports procurement preference on all contracts specifying environmentally preferable electronic products. Agency met goals for power management, duplex printing, and other sustainable features on all new electronic products. NARA disposed 100% of its electronic waste products through GSA</p>	<p>NARA will continue to meet goals for electronics stewardship.</p>	<p>NARA will continue to update policies supporting power management, duplex printing, and other sustainable features on all new electronic products.</p> <p>Continue implementing the Data Center Consolidation Plan to improve data center energy and cost and moving to the cloud initiatives.</p>

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surplus and recycling programs. NARA has only one Data center located at Archives II, College Park, Maryland. Agency is continually reducing number of servers to improve data center energy consumption and total cost.		
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**GREENHOUSE GAS EMISSIONS**

FY 2017 Status: 39.8% reduction in Scope 1 & 2 emissions

<i>Implementation Status</i>	<i>Operational Context</i>	<i>Priority Strategies &amp; Planned Actions</i>
<p>NARA has been using the FEMP Annual Energy Data report as the basis for metrics. NARA exceeded all agency energy and GHG reduction targets.</p> <p>NARA facility and energy managers conduct energy and sustainability training annually.</p> <p>O&amp;M best practices are included in all NARA's contracts.</p>	<p>NARA will continue to meet or exceed our agency goals for energy and GHG reductions.</p>	<p>Regularly work with the contractors in each facility to improve building O&amp;M practices.</p> <p>NARA's new policy requires employee business travel to be approved by senior management on a case by case basis.</p> <p>Supervisors encourage and approve (based on feasibility) employee telework agreements and AWS. NARA's Telework and AWS have increased.</p>

- Agency Identified Priorities:** NARA intends to continue seeking opportunities to lower energy consumption and greenhouse gas emissions, while maintaining archival storage standards and the time weighted preservation index. One of our key priorities is to continue seeking LEED certification at several of our newer facilities.

**Notable Projects and Highlights**

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NARA was one of the first federal agencies to incorporate an in-vessel composter system into agency operations to reduce waste going to the landfill. Several agencies have expressed interest in the system and have visited our facility to observe operations. The Smithsonian Institution just installed two similar systems at the National Zoo.

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We recently completed a large solar PV project at our Atlanta facility which is already producing an average of 51,000 Kwh per month. We have also recently installed smaller solar PV systems at the Ford Museum and the Carter Library and will continue to seek other opportunities as funding permits.