

National Archives and Records Administration
2011 Strategic Sustainability Performance Plan

Section 1: Agency Policy and Strategy

I. Agency Policy Statement

The National Archives and Records Administration (NARA) is committed to compliance with all statutes, regulations and Executive Orders (EOs) related to environmental, energy and sustainability matters. With respect to energy in particular, and the associated reduction in greenhouse gases (GHG), NARA has gone beyond all requirements. The agency was one of four government agencies to win a FY2008 Presidential Award for Leadership in Federal Energy Management for its support, leadership, and effort in promoting and improving energy use in facilities and operations. Subsequently, NARA was one of eight federal agencies to win the FY2010 GreenGov Presidential Award for outstanding achievement in building energy efficiency and renewable energy development and deployment. NARA has also surpassed its goals for water conservation and established green building requirements for all new construction projects. The first new building to be constructed under these requirements (Clinton Library) achieved the highest rating—Platinum—under the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) rating system. The George W. Bush Library is being designed to LEED Platinum as well.

In FY2010, NARA achieved a 31% energy intensity (Btu/GSF) reduction as compared to the FY2003 baseline. Currently, NARA is one of the leaders in energy intensity reduction within the federal government. Building on these successes, this Strategic Sustainability Performance Plan (Sustainability Plan) outlines a new and expanded set of sustainability goals for NARA. Through the targets and actions outlined herein, NARA will renew its focus on GHG reduction, water conservation and green building. In addition, the agency will expand the scope of its sustainability goals to include regional and local planning, pollution prevention and waste elimination, sustainable acquisition, and electronic stewardship and data centers.

In order to implement this plan, NARA intends to undertake the following major projects during the 2012 financial year:

- Continue and expand efforts to conserve energy at all facilities.
- Expand energy generation via renewable and other on-site sources.
- Expand existing internal energy audit procedures to cover all sustainability goals.
- With a newly hired Environmental Manager, NARA will start developing an agency-wide environmental plan and directives to pursue new goals and challenges.

These projects will require a new level of commitment from NARA, reflected in the actions and need for staff time described within the plan. These investments are necessary to meet the intent of Executive Order 13514. In addition, they will help improve the agency's operations and, if leveraged appropriately, could help attract additional visitors and further strengthen NARA's reputation as a leader in sustainability.

This plan is an opportunity for continuing dialogue about how NARA and other federal agencies can progress toward sustainable operations. We look forward to input and feedback on NARA's Sustainability Plan and the goals that it represents.



Mark Sprouse
Agency Senior Sustainability Officer
Director, Facilities & Personal Property Management Division

I. Agency Policy Statement (optional image)

II. Sustainability and the Agency Mission

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NARA's Strategic Plan (2009 revision) includes the following mission statement for the agency:

The National Archives and Records Administration serves American democracy by safeguarding and preserving the records of our Government, ensuring that the people can discover, use, and learn from this documentary heritage. We ensure continuing access to the essential documentation of the rights of American citizens and the actions of their government. We support democracy, promote civic education, and facilitate historical understanding of our national experience.

In service of this mission, NARA owns and operates sixteen separate facilities, all dedicated to the preservation, storage, display, and use of historical documents and artifacts. These sixteen facilities are listed below:

National Archives I (Washington, DC)

National Archives II at College Park (College Park, Maryland)

Herbert Hoover Presidential Library (West Branch, Iowa)

Franklin D. Roosevelt Presidential Library (Hyde Park, New York)

Harry S. Truman Presidential Library (Independence, Missouri)

Dwight D. Eisenhower Presidential Library (Abilene, Kansas)

John F. Kennedy Presidential Library (Boston, Massachusetts)

Lyndon B. Johnson Presidential Library (Austin, Texas)

Richard Nixon Presidential Library (Yorba Linda, California)

Gerald R. Ford Presidential Library (Ann Arbor, Michigan)

Gerald R. Ford Presidential Museum (Grand Rapids, Michigan)

Jimmy Carter Presidential Library (Atlanta, Georgia)

Ronald Reagan Presidential Library (Simi Valley, California)

George Bush Presidential Library (College Station, Texas)

William J. Clinton Presidential Library (Little Rock, Arkansas)

Southeast Regional Archives (Morrow, Georgia)

NARA also leases 44 additional spaces. Most, but not all, of these leased facilities are owned by the U.S. General Services Administration (GSA). This plan focuses primarily on sustainability goals and objectives for NARA-owned facilities, as those are the only facilities under the agency's direct control. Where relevant and feasible, these goals will be extended to cover NARA's leased operations as well.

As stated above, NARA's primary mission is to preserve the archives in its trust. This mission is generally compatible with NARA's sustainability goals as stated in this plan. However, archival requirements pose a challenge to energy conservation efforts and associated reductions in agency greenhouse gas (GHG) emissions.

NARA's documents and artifacts must be maintained in a controlled environment (temperature, humidity and air quality) 24 hours per day, 365 days per year. Due to the stringent requirements for storage and display (found in 36CFR, 1234), all sixteen NARA-owned facilities are excluded from the energy reduction requirements of the National Energy Conservation Policy Act (NECPA), as amended by the Energy Policy Act of 2005. Conventional performance measures are rendered meaningless by the overwhelming proportion of process-dedicated energy required for NARA's "stack" space, which represents a large percentage of the agency's gross square footage.

As stated in NARA Directive 1571, Architecture and Design Standards for Presidential Libraries (NARA design standards) :

NARA requires that maintaining appropriate environmental conditions for its holdings takes precedence over short-term energy savings. While NARA understands the need for energy efficient buildings and compliance with energy savings requirements, energy efficiency alone must not be the guiding principle to system or building design. Preservation of holdings in perpetuity must always be the core precept for building design.

Despite the exempt status of these facilities, NARA has continued to:

Complete and file all necessary energy management reports annually. Comply with all energy efficiency requirements. Aggressively pursue energy and water conservation projects.

Many NARA facilities, such as Archives II, are located on university campuses, which provide important cultural support for environmental initiatives. While NARA facilities benefit from these progressive locations, the agency has shown leadership in energy conservation/generation beyond expectations. In recognition of its successes in energy and water conservation, recycling and sustainable landscaping practices at the Archives II building, the City of College Park, Maryland presented NARA with the College Park Green Award in 2008.

However, despite NARA’s significant progress and recognition to date in the energy arena, there are some challenges associated with implementing the goals in this plan. Energy has been the central sustainability issue to date, emphasized in federal regulations and by NARA often to the exclusion of other sustainability objectives. It will take a shift in perspective and emphasis, and significant additional internal collaboration and planning, to widen the scope of what sustainability means for this agency. This will require new skills not currently represented on staff, and additional staff time. However, NARA’s Facilities staff and Energy Team are nearly fully occupied handling current operational and energy-specific concerns. NARA’s newly hired Environmental Specialist is now onboard and has the skills and capacity to help expand the program and ensure that NARA achieves the goals in this plan.

Size and Scope of Operations

Size and Scope of Operations	Number	Comment
Total # Employees	3611	
Total Acres Land Managed	169	
Total # Facilities Owned	16	
Total # Facilities Leased (GSA lease)	44	
Total # Facilities Leased (Non-GSA)	8	
Total Facility Gross Square Feet (GSF)	4262955	
Operates in # of Locations throughout U.S.	65	
Operates in # of Locations outside of U.S.	0	
Total # Fleet Vehicles Owned	0	
Total # Fleet Vehicles Leased	74	
Total # Exempted-Fleet Vehicles (Tactical, Emergency, etc.)	2	
Total Operating Budget FY 2010 (\$MIL)	339.8	
Total # Contracts Awarded FY 2010	1671	
Total Amount Contracts Awarded FY 2010 (\$MIL)	270.0	
Total Amount Spent on Energy Consumption FY 2010 (\$MIL)	13.202	
Total BTU Consumed per GSF	125.033	
Total Gallons of Water Consumed per GSF	21.6	FY10
Total Scope 1 & 2 GHG Emissions (Comprehensive) FY 2008 Baseline MMTCO _{2e}	75.517	
Total Scope 1 & 2 GHG Emissions (Subject to Agency Scope 1 & 2 Reduction Target) FY 2008 Baseline MMTCO _{2e}	61.739	1000MMTCO _{2e}

Size and Scope of Operations	Number	Comment
Total Scope 3 GHG Emissions (Comprehensive) FY 2008 Baseline MMTCO _{2e}	15.309	
Total Scope 3 GHG Emissions (Subject to Agency Scope 3 Reduction Target) FY 2008 Baseline MMTCO _{2e}	14.557	1000MTCO _{2e}

II. Sustainability and the Agency Mission (optional image)

III. Greenhouse Gas Reduction Goals

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NARA has set the following targets with respect to reducing GHG:

- **Scope 1&2** : By FY2015, NARA plans to achieve a 7% reduction in Scope 1&2 greenhouse (GHG) emissions, with a 10% reduction by FY2020 (compared to FY2008 baseline). NARA plans to meet these goals by continuing to reduce building energy usage, increase on-site energy production, and manage fleet vehicle usage within mission-related constraints.

- **Scope 3** : By FY2020, NARA plans to reduce its Scope 3 GHG emissions by 10% (compared to FY2008 baseline). This will be achieved by a 10% reduction in each of the following three emission categories: transmission and distribution losses from purchased energy; contracted waste disposal (solid waste and wastewater); and employee travel (business air travel, business ground travel and employee commuting).

NARA did not request ARRA funding. Accordingly, reduction targets and goals for GHG scopes 1, 2 and 3 will not be impacted by that funding source in FY2011 and FY2012. However, NARA will face a huge challenge to reduce employee travel, especially in federal employee commuting. NARA commits to promote using car/van pools, mass transit, and bicycling for commuting and business travel. NARA will work with other agencies to develop and enforce a better tracking tool and survey current employee travel best practices, and implement those practices when practicable.

III. Greenhouse Gas Reduction Goals (optional image)

IV. Plan Implementation

IV. Plan Implementation

a. Internal Coordination and Communication

Sustainability initiatives at NARA are generally led by the Agency Energy Team (members listed below under “Leadership and Accountability”), with direction from Charles Piercy, Executive for Business Support Services.

Due to the small size of the agency and relatively centralized operations, sustainability (energy)-related projects have historically been executed effectively by this small leadership team, without the involvement of large numbers of additional staff. However, employee participation in sustainability (energy) initiatives has slowly grown over the past few years as a result of the successes of the program, aided by macroeconomic trends such as rising energy prices.

NARA sees Executive Order 13514, and this Strategic Sustainability Plan, as an opportunity to expand its current scope of sustainable activities and processes for internal coordination. As part of this expansion, the agency hopes to foster more internal communication, collaboration and goal-setting. At a minimum, this increased internal collaboration will need to focus on the agency planning activities. NARA intends to develop this process further during 2011, and include it as part of the second annual update to this plan.

b. Coordination and Dissemination of the Plan to the Field

NARA typically communicates with its field locations (Presidential Library facilities) via NARA Notices which are transmitted by email and posted on boards at facility locations. In order to implement the expanded sustainability program described in this plan, NARA will incorporate discussion of this Sustainability Plan in NARA's annual Presidential Library Director's conference, the annual Administrative Officer's conference, the Record Center's Regional Administrator's conference and the bi-annual Facility Manager's conferences.

c. Leadership & Accountability

Leadership for the programs described within this plan will be provided by the NARA Energy Team, the members of which are listed below. NARA also added a newly hired environmental manager to the list. This person would share leadership and accountability for achieving the targets established in this plan.

Senior Agency Official

Mr. Charles Piercy, Executive for Business Support Services. In concert with the Agency's Strategic Plan, Mr. Piercy provides senior management level direction and guidance for the agency's strategic energy goals and incentives.

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Agency Energy Team

Washington DC area:

Mark Sprouse – Director, Facilities and Personal Property Management Division

Donald Overfelt – Chief, Facilities Management Branch

Tim Edwards – Assistant Chief, Facilities Management Branch (Archives I)

Ngan Pham – General Engineer/Agency Energy Manager

Kevin Anderson – Agency Environmental Manager

Gary Simmons – General Engineer

Linda Tapscott – Budget Analyst

Allen Edgar – Director, Acquisition Services Division

Mario Barroga – Director, IT Services Division

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Outside the Washington, DC area:

Richard Judson – Director, Space & Security Management Division

Ronald Noll – Chief, Real Property Management Branch

David Spohn – General Engineer

Frank Quigley – General Engineer

Marty McGann – Director, Physical Infrastructure and Collections Support, Office of Presidential Libraries

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Accountability: Management Tools

NARA employs the following management tools to ensure implementation and accountability of its sustainability objectives:

Performance Evaluation : To help ensure accountability, all agency personnel directly connected with the implementation of NARA's energy program have had their position descriptions and performance evaluations altered to reflect and measure their involvement in activities related to reducing energy use. Going forward, NARA will widen the scope of this performance evaluation to incorporate all personnel associated with the implementation of this Sustainability Plan.

Awards : In concert with the overall agency awards plan, employees may be granted awards (monetary and non-monetary) for exceptional performance in any category, including implementing initiatives associated with E.O. 13423 and E.O. 13514. In coming years, outstanding achievements associated with the implementation of this plan will also be eligible for recognition during the annual Archivist's Awards Ceremony.

Training and Education : To date, sustainability training and education at NARA has focused on energy. NARA conducts an Energy Awareness Month every October. Each year, NARA issues an associated NARA Notice to all staff explaining the agency's progress to date and providing tips about energy conservation practices both at work and at home. Several members of the Agency Energy Team have also attended the annual GovEnergy conference. In addition, members of the energy team attended a Certified Energy Manager class, and have applied for certification. NARA plans to expand its use of training and education to help implement the goals in this plan.

d. Agency Policy and Planning Integration

Integration of sustainability objectives with NARA policy and planning is generally handled by the senior leadership of the Energy Team, particularly Mark Sprouse, Director of Facilities and Personal Property Management, who works closely with the Executive for Business Support Services. As noted above, NARA expects that this Sustainability Plan will provide a vehicle for additional internal conversations within division leadership, to help integrate sustainability objectives more thoroughly into the agency's various planning mechanisms (as detailed in Table 1).

e. Agency Budget Integration

Mr. Piercy, Executive for Business Support Services, is primarily responsible for ensuring that sustainability goals are incorporated into the budget process, and that adequate funds are available for implementation.

There are two areas of NARA's budget that are relevant to sustainability projects:

1. Repair and Restoration funds in the five-year plan. These are occasionally used to fund energy savings projects at the Presidential Libraries.
2. Operational budget money associated with each fiscal year. Mr. Piercy works closely with Mark Sprouse to determine appropriate and feasible amounts of spending for energy-related projects out of the O&M line items.

To date, NARA has funded energy and water projects with available/leftover funds, with priority funding for energy conservation projects. Over the next few years, NARA expects to continue funding sustainability projects within the existing agency budget. To facilitate internal priority-setting and budgetary tracking relevant to sustainability, NARA will develop appropriate line items and tracking mechanisms for related expenditures.

f. Methods for Evaluation of Progress

NARA has historically employed three primary mechanisms for evaluating progress on sustainability projects, with an emphasis on energy-related matters:

1. Measurement and verification procedures embedded within Energy Saving Performance Contracts (ESPCs), conducted jointly by NARA staff and the ESPC contractor.
2. Percent savings tracked on energy bills for all sixteen facilities.

3. Internal energy audit. The purpose of these audits is to identify low cost/no cost O&M problems that could easily be corrected on-site, and to look for cost-effective infrastructure improvements that could be incorporated into future renovation or capital improvement projects. Two NARA engineers travel to all facilities within a four-year cycle, visiting four of NARA’s sixteen facilities every year. All 16 facilities have both standard and advanced meters to track electricity usage, and all of this data is available online. This allows staff to measure consumption and diagnose problems related to both energy savings and the extension of equipment life.

Going forward, NARA staff will expand the internal energy audit procedure to cover the other goals set forth in this plan. To the extent feasible, NARA will also work with GSA to expand the audit procedure to cover leased facilities in addition to the 16 facilities under NARA’s direct control. This work may include initiatives such as installing electricity sub-meters at leased facilities in order to get an energy baseline and begin tracking and improving progress.

In keeping with the requirements of EO 13514, NARA will report annually on its progress toward the goals stated in this plan. This will provide an annual mechanism for evaluating and reporting on progress, which will supplement NARA’s expanded sustainability audit program (as described above), as well as the existing OMB Scorecard procedure.

IV. Plan Implementation (optional image)

Table 1: Critical Planning Coordination

Originating Report / Plan	Scope 1 & 2 GHG Reduction	Scope 3 GHG Reduction	Develop and Maintain Agency Comprehensive GHG Inventory	High-Performance Sustainable Design/Green Buildings	Regional and Local Planning	Water Use Efficiency and Management	Pollution Prevention and Waste Elimination	Sustainable Acquisition	Electronic Stewardship and Data Centers	Agency Specific Innovation
GPRA Strategic Plan	N/A	N/A	N/A	Yes	N/A	N/A	N/A	N/A	No	N/A
Agency Capital Plan	Yes	Yes	N/A	No	N/A	N/A	N/A	N/A	Yes	Yes
A-11 300s	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	No	N/A

Originating Report / Plan	Scope 1 & 2 GHG Reduction	Scope 3 GHG Reduction	Develop and Maintain Agency Comprehensive GHG Inventory	High-Performance Sustainable Design/Green Buildings	Regional and Local Planning	Water Use Efficiency and Management	Pollution Prevention and Waste Elimination	Sustainable Acquisition	Electronic Stewardship and Data Centers	Agency Specific Innovation
Annual GHG Inventory and Energy Data Report	Yes	Yes	Yes	Yes	N/A	Yes	Yes	Yes	Yes	Yes
EISA Section 432 Facility Evaluations/Project Reporting/Benchmarking	Yes	N/A	N/A	N/A	N/A	Yes	N/A	N/A	N/A	N/A
Budget	No	No	No	No	No	No	No	No	No	No
Asset Management Plan / 3 Year Timeline	No	No	No	No	No	No	No	No	No	No
Circular A-11 Exhibit 53s	Yes	Yes	N/A	No	N/A	Yes	Yes	Yes	Yes	Yes
OMB Scorecards	Yes	Yes	Yes	Yes	N/A	Yes	N/A	N/A	N/A	N/A
DOE's Annual Federal Fleet Report to Congress and the President	N/A	Yes	Yes	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Data Center Consolidation Plan	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Environmental Management System	No	No	No	No	No	No	No	No	No	No

Originating Report / Plan	Scope 1 & 2 GHG Reduction	Scope 3 GHG Reduction	Develop and Maintain Agency Comprehensive GHG Inventory	High-Performance Sustainable Design/Green Buildings	Regional and Local Planning	Water Use Efficiency and Management	Pollution Prevention and Waste Elimination	Sustainable Acquisition	Electronic Stewardship and Data Centers	Agency Specific Innovation
Instructions for Implementing Climate Change Adaptation Planning	Yes	Yes	Yes	Yes	Yes	Yes	N/A	N/A	N/A	Yes
Other (reports, policies, plans, etc.)	Yes	Yes	Yes	N/A	N/A	N/A	N/A	Yes	Yes	Yes

V. Evaluating Return on Investment

V. Evaluating Return on Investment

NARA's costs and benefits focus for sustainability-related programs has been focused nearly exclusively on economic factors, within the constraints of mission-specific requirements. The agency's first priority must always be their archival mission. Under no circumstances can NARA undertake a program or initiative that would compromise the longevity of records (temperature and humidity conditions).

Working within this overarching limit, NARA has used a basic financial planning lens to prioritize energy conservation projects over energy infrastructure projects, due to their faster return on investment. NARA generally applies a ten-year payback window to proposed projects. For ESPCs, the threshold is even lower, with payback between seven and eight years. To date, the agency has not explicitly considered lifecycle cost as a criterion for justifying investments. This criterion will become increasingly important, especially when considering on-site renewable energy projects which typically have longer payback periods.

A secondary motivation for NARA in conducting its award-winning energy program has been the social benefits of its actions. NARA has a large public presence, and therefore, an opportunity to enhance its reputation and educate the public about best practices in facilities management and sustainability.

Other environmental costs and benefits are most relevant to NARA's large capital projects. When constructing new libraries, NARA adheres to all environmental regulations, many of which are referenced in the Agency's

“Architectural and Design Standards for Presidential Libraries” (NARA design standards). These design standards further specify that all new NARA construction projects must be certified through the Leadership in Energy and Environmental Design (LEED) Green Building Rating System of the U.S. Green Building Council (USGBC), achieving the LEED “Silver” Level at a minimum. This goal has both environmental and social value. If executed properly, achieving the LEED standard poses no threat to NARA’s mission or its economic (budgetary) criteria.

In addition to NARA’s comprehensive four-year cycle energy audit, the agency employs a contractor to conduct a comprehensive building condition report for all facilities every five years. This report identifies projects for deferred maintenance, and focuses on energy considerations as part of the O&M survey. NARA makes decisions about O&M funding on a return-on-investment basis. Going forward, the agency intends to expand this decision framework by finding additional points of intersection between the energy audit, building condition report, and goals stated in this sustainability plan.

To date, NARA has not explicitly focused on potential risk to its operations associated with climate change. Agency facilities appear to be at minimal risk of damage from potential sea level rise with the exception of the Kennedy Library which is located on a harbor and is protected by a seawall. Other facilities may be vulnerable to increases in disaster-related events; for example, NARA is concerned about flood vulnerability associated with the Hoover Library, and is thus planning to provide an additional physical barrier to protect the library in the event of a 100-year storm event. Going forward, NARA will incorporate climate and disaster considerations more aggressively when locating and designing future Presidential Libraries.

In keeping with the requirements of EO 13423 and EO 13514, NARA will develop a more nuanced cost-benefit analysis that prioritizes their archival mission along with sustainability objectives such as energy conservation, initial cost, payback period, lifecycle cost, and other benefits (both monetary and non-monetary). This type of analysis will become more important as NARA expands the scope of its sustainability projects. It will also be critical to helping the agency balance its evolving priorities. For example, NARA’s mission for the future includes increasing electronic data storage and access to data. In order for the agency to continue meeting its energy conservation targets, it will be increasingly important for NARA to develop systems to accommodate data storage and access in an efficient way, balancing financial, energy and mission priorities.

V. Evaluating Return on Investment (optional image)

VI. Transparency

VI. Transparency

The agency will distribute an internal NARA Notice about this plan via email and post to office boards to notify all staff of its provisions. Following this distribution, the NARA Energy Team (led by Mark Sprouse) will conduct a series of focused meetings with key groups and individuals responsible for implementation. The agency will update all staff regarding progress and performance at regular intervals, including during October Energy Awareness Month and after submitting annual updates to this plan.

This plan, along with future annual updates, will be considered public information and will be posted accordingly. NARA will publish this Sustainability Plan in electronic form on its website, which is consistent with the transparency initiative:

<http://www.archives.gov/about/plans-reports/sustainability/2011-sustainability-plan.pdf>

VI. Transparency (optional image)

Section 2: Performance Review & Annual Update (Update and Submit Annually)

I. Summary of Accomplishments

I. Summary of Accomplishments:

Reduction in Energy Consumption (Facilities): Since 2006, NARA has implemented several major energy conservation initiatives at its facilities. The results of these initiatives can be seen in the FY2006 through FY2010 Energy Reports (and the summary table below) which show significant reductions in energy use. NARA has an agency-wide goal to operate its buildings as efficiently as possible, with the intent to exceed energy reduction goals established in EPACT 2005, E.O. 13423 and E.O. 13514, while still maintaining stringent environmental conditions required for preservation and safe storage of the nation's archival documents and historical artifacts.

NARA has aggressively pursued energy audits of all its facilities, and has carried out practical energy and water conservation projects with payback periods of less than 10 years. Between fiscal years 2006 and 2010, NARA invested several million dollars via direct appropriations and Energy Savings Performance Contracts (ESPCs) for energy efficiency projects. The agency has realized a 31% reduction in energy consumption compared to the 2003 baseline.

The agency was one of four Government agencies to win a FY2008 Presidential Award for Leadership in Federal Energy Management for its support, leadership, and effort in promoting and improving energy use in facilities and operation. In 2010, NARA was one of eight federal agencies to win the GreenGov Presidential Award for outstanding achievement in building energy efficiency and renewable energy development and deployment.

Advanced Metering: Besides reducing its energy consumption, NARA has exceeded targets to install advanced meters in its facilities to track electricity usage. Currently all sixteen (100%) of NARA facilities have standard meters and advanced electrical metering installed. A project to install advanced metering for other utilities (gas, chilled water, and water) at sixteen facilities was awarded in FY2010 and will be completed by the end of FY2012. This program will provide extensive real-time data that will allow NARA to track and further reduce its energy use and extend equipment life.

Renewable Energy: NARA is utilizing and increasing renewable energy generated at its facilities, as detailed below:

The existing 5,247 square feet of photovoltaic solar panels at the Clinton Library has produced 400 megawatt hours since FY2008.

The existing 4,200 square feet of solar-thermal panels at the Eisenhower Library generates an average of 15,000 Btu/day for the facility hot water system.

All electricity and chilled water at the Reagan Library is generated by an on-site natural gas cogeneration system, with waste heat operating absorption chillers for the air handling system.

The new 103 kilowatt photovoltaic panels at Archives II produced 55.7 megawatt hours in FY2009 and 121.5 megawatt hours in FY2010.

An additional 35 kilowatt expansion is planned for this fiscal year as part of a new white reflective roof replacement project.

In addition to generating renewable energy on-site, NARA currently purchases approximately 5% renewable energy credits through the GSA area-wide contract. Each year, dependant on available funding, NARA will increase on-site generated renewable energy projects and reduce purchased renewable energy credits.

High-Performance Design: NARA Directive 1571, Architecture and Design Standards for Presidential Libraries (NARA design standards), outlines building requirements for storage and safekeeping of archival material. All new facilities are built at least to this standard (currently LEED-NC Silver, Version 3). This guideline is currently being edited to comply with the requirements of EPACT 2005, EISA 2007, E.O. 13423 and E.O. 13514. Documents and artifacts at NARA facilities must be maintained in a controlled environment (temperature, humidity and air quality), 24 hours per day, 365 days per year. For new buildings, NARA strives to design systems to be 30% more efficient than the American Society of Heating, Refrigerating and Air Conditioning Engineers/Illuminating Engineering Society (ASHRAE/IES) Standard 90.1-2004. This intent is codified in NARA's design standards. However, it is not typically effective on a lifecycle-cost basis for NARA to meet this criterion for mechanical systems, given the sensitive nature of the agency's holdings and requisite energy use.

Water Conservation: Aggressive water conservation measures are employed at NARA. In FY2008, water consumption (25.4 gallons per gross square foot (GSF)) was down 4.6% compared to the FY2007 baseline (26.6 gallons per GSF). This reduction was more than double the 2% annual reduction target. In FY2009, NARA's overall water consumption was, again, down significantly—14.8%—in comparison to the FY2007 baseline. In FY2010, NARA water consumption of 21.6 gallon per GSF was down 18.8% compared to the FY2007 baseline.

In FY 2009, water conservation efforts focused on NARA's largest building, Archives II. As part of the Archives II Super ESPC, all plumbing fixtures in the building were replaced with low-flow devices. A reverse osmosis de-ionized water system was installed that consumes less water and energy. In addition, a 6000 gallon tank to collect and store rain water and air handler condensate was installed for irrigation use. In FY2010, a similar ESPC project was implemented at Archives I. Consequently, NARA water reduction for FY2010 (-18.8%) was more than 3 times the FY2010 goal target reduction (-6.0%).

Goal 1: Scope 1 & 2 Greenhouse Gas Reduction (Basic Performance Discussion, A - H)

II. Goal Performance Review:

1. GOAL 1: Scope 1 & 2 Greenhouse Gas Reduction

Agency goal: By FY2015, achieve a 7% reduction in Scope 1&2 greenhouse (GHG) emissions, with a 10% reduction by FY2020 (compared to FY2008 baseline).

Other relevant NARA documents: 1) National Archives Energy Plan; 2) NARA Energy Report FY2010; 3) Scope 1&2 report: “Executive Order 13514 Greenhouse Gas Reduction Targeting Report” and “NARA GHG Target Tool”; 4) NARA Directive 704-1: NARA Fleet Management Program

Agency lead: Mark Sprouse

Implementation methods and agency status: As described above under “Summary of Accomplishments,” NARA has already achieved significant reductions in its Scope 1&2 GHG emissions. The agency details its progress to date and specific projects planned for FY2011 in the documents referenced above. The following is a summary of steps that NARA plans to take to help meet its Scope 1&2 goals.

Buildings : energy conservation/optimize O&M.

- Continue implementing low/no cost conservation measures and projects with less than 10 years return-on-investment.
- Continue awarding ESPCs.
- Continue replacing end-of-life equipment with more efficient models.
- Continue altering O&M contracts and procedures to standardize and improve preventive maintenance at all facilities.
- Continue with current energy audit of all facilities (four-year cycle); expand this audit procedure to gather data needed to track/meet the other goals in this plan.
- Utilize recently-completed inventory (database) of NARA equipment at all facilities to verify maintenance schedules/completion and assist field locations in working with their O&M contractors.
- Continue with current Energy Awareness Program (anchored on October Energy Awareness Month); expand program to educate staff regarding the other aspects of sustainability in this plan.

Buildings: on-site energy.

In order to meet the requirements of E.O. 13514, the agency needs to generate more energy on-site. This will be especially critical over time if Renewable Energy Credits (RECs) become less available and/or are deemed insufficient to meet renewable requirements. Only 30% of NARA facilities can feasibly implement any renewable technology other than solar, due to constraints associated with urban locations and historical sites. Within that 30%, technologies such as cogeneration, wind, water-flow and geothermal may be feasible.

NARA plans to:

- Complete targeted wind and water-flow feasibility studies.
- Augment existing facilities to put solar arrays on every roof of 16 facilities, using the latest solar technologies as they evolve.
- Expand cogeneration to other facilities. While cogeneration still utilizes natural gas, it has two primary benefits over purchasing off-site energy: 1) no loss of energy in transmission, and 2) cogeneration byproduct (heat) is then used to heat or chill water.
- In the long term: undertake a broader feasibility study to consider other mechanisms for generating on-site power at all NARA facilities, such as geothermal.

Fleet:

NARA currently has a small fleet of vehicles leased from GSA. These vehicles are mainly used for pick-up and delivery of documents and artifacts between NARA facilities and other Federal Agencies such as the White House, U.S. Capitol, and U.S. Supreme Court. As the holder of the Nation's archival documents and historical artifacts, this mission increases yearly. The agency is handling more data requests and processing items more efficiently, which leads to more frequent requests to transport items between facilities. NARA will strive to meet the intent of reducing use of fossil fuel requirements, but given the sensitive nature of our holdings and the increasing scope of its mission, this may not be possible.

Nonetheless, NARA is taking steps to reduce fuel usage by "right-sizing" its fleet and tracking vehicle performance and fuel efficiency. A recently issued NARA directive (704-1) to all facilities established the NARA Fleet Management Program, identifying responsibilities for its implementation and administration, and introducing some of the components of the program.

Most of NARA's leased vehicles are equipped as flex-fuel; however, it is often infeasible to travel to the few fuel stations that can provide alternative fuel. Going forward, NARA will continue to follow GSA guidelines regarding fleet fuels, with the hope that alternative fuels will become easier to access over time. NARA is currently negotiating with GSA for two electric vehicle and one hybrid vehicle to replace the existing conventional fuel senior executive fleet.

Positions: The primary staff person responsible for implementing this program is Ngan Pham, NARA Energy Manager. Approximately 70% of his time goes to the energy program, which has expanded to cover GHG tracking and reduction. Other staff engineers (listed above under "Agency Energy Team" under "Plan Implementation")

contribute up to 30% of their time per person to energy- and GHG-related initiatives. This amount of collective staff capacity is deemed sufficient to manage the additional demands of Goal 1 going forward.

Goal 1: Scope 1 & 2 Greenhouse Gas Reduction (Planning Table)

.	SCOPE 1&2 GHG TARGET	Unit	FY10	FY11	FY12	FY13	FY14	FY15	...	FY20
Buildings										
Buildings										
Buildings	Energy Intensity Reduction Goals (BTU/SF reduced from FY03 base year)	%	15	18	21	24	27	30		
Buildings	Planned Energy Intensity Reduction (BTU/SF reduced from FY03 base year)	%							...	
Buildings	Renewable Electricity Goals (Percent of electricity from renewable sources)	%	5	5	5	7.5				
Buildings	Planned Renewable Electricity Use (Percent of electricity from renewable sources)	%							...	
Fleet	Petroleum Use Reduction Targets (Percent reduction from FY05 base year)	%	10	12	14	16	18	20		30
Fleet	Planned Petroleum Use Reduction (Percent reduction from FY05 base year)	%							...	
Fleet	Alternative Fuel Use in Fleet AFV Target (Percent increase from FY05 base year)	%	61	77	95	114	136	159		
Fleet	Planned Alternative Fuel Use in Fleet AFV (Percent increase from FY05 base year)	%							...	
Fleet	Senior Executive Fleet Replaced with Low-GHG, High Efficiency	%							...	

	SCOPE 1&2 GHG TARGET	Unit	FY10	FY11	FY12	FY13	FY14	FY15	...	FY20
	Vehicles (Percent replaced from FY08 base year)									
	Other as defined by agency								...	
	Total Scope 1 & 2 GHG Emissions (Comprehensive)	MMTCO2e							...	
	Total Scope 1 & 2 GHG Emissions (Subject to Agency Scope 1 & 2 GHG Reduction Target)	MMTCO2e							...	
	Overall Agency Scope 1 & 2 Reduction (reduced from FY08 base year)	%							...	

Goal 1: Scope 1 & 2 Greenhouse Gas Reduction (Goal-Specific Items)

As described above in Section 2-I “Summary of Accomplishments,” NARA has already achieved significant reductions in energy intensity and water consumption. This is attributable to aggressive conservation measures and successful implementation of the ESPC projects at Archives II and Archives I. As a result, the total utility costs for all sixteen NARA owned facilities have reduced in FY2009 and FY2010 (compared to FY2008). *NARA expects to continue funding sustainability projects within the existing agency budget.*

Goal 1 (optional image)

Goal 2: Scope 3 Greenhouse Gas Reduction & Develop and Maintain Agency Comprehensive Greenhouse Gas Inventory (Basic Performance Discussion, A - H)

1. GOAL 2: Scope 3 Greenhouse Gas Reduction & Develop and Maintain Agency Comprehensive Greenhouse Gas Inventory

Agency goal: By FY2020, reduce NARA Scope 3 GHG emissions by 10% (compared to FY2008 baseline).

Agency lead: Mark Sprouse

Other relevant NARA documents: Scope 3 report: “Executive Order 13514 Greenhouse Gas Reduction Targeting Report, Scope 3 Narrative Section” and “NARA Scope 3 Target Tool”

Implementation methods and agency status: As described in the Scope 3 narrative report referenced above, NARA will work toward reducing its Scope 3 emissions in each of the categories listed in the planning table below. Specific strategies will include:

- Employee travel:
 - * Business: increase the utilization of conference calls, video-conferences, webinars, and web conferences. Encourage use of mass transit, when feasible while on travel.
 - * Commuting: continue to promote the use of public transit, teleworking, alternative work schedules and car/van pooling.
- Contracted waste disposal
 - * Recycling: continue improving existing (successful) program; work with contractors to encourage additional material reuse and recycling during new construction.
 - * Composting: implement a waste composting program to capture cafeteria food, bioplastics, and paper waste. If feasible, harvest heat energy from composting for agency use.
 - * Wastewater: incorporate water conservation measures into current and future ESPCs.
- Transmission and distribution losses from purchased energy: continue implementing energy conservation measures and promoting onsite energy generation.
- NARA calculated its scope 3 GHG using the “Scope 3 Target Tool” and the “Federal Employee Commuter Survey” provided by CEQ in April 2010 and the EO 13514, section-9 report tool “GHG Sustainability Data Report” version 1-6 dated December 17, 2010 provided by CEQ/DoE-FEMP. NARA does not use 2 nd or 3 rd party verification of its GHG data.
- As indicated in the Scope 3 narrative, NARA’s largest Scope 3 emission is related to employee commuting. The agency faces a particular challenge here. The greatest concentration of NARA employees is at the College Park facility and some Presidential Libraries. There are few public transportation options from the outlying suburbs. Employees connecting to an existing commuter system would more than double their commute time, which is not a productive alternative. There may be options: e.g. park and ride; agency or multiagency shared shuttle from specified locations (both to and from work and during work hours); bicycle initiative; purchasing hybrid/electric shuttles, etc.
- NARA has already completed a baseline GHG inventory covering Scopes 1, 2 and 3. Going forward, the agency will refine and expand their analyses to include more specific methodologies and other categories as appropriate. Over time, NARA plans to improve its Scopes 1, 2 and 3 GHG analyses by refining with area-specific factors (vs. national factors) to reflect regional and local variations. NARA will also add other categories of emissions over time, such as those related to new facility construction. Agency staff will then use this information to alter design guidelines and construction practices for new facilities.

Positions: NARA’s current staff capacity as represented by the Energy Team, along with a new environmental staff person (see Goal 5), will be sufficient to handle this goal.

Goal 2: Scope 3 Greenhouse Gas Reduction & Develop and Maintain Agency Comprehensive Greenhouse Gas Inventory (Planning Table)

SCOPE 3 GHG TARGET	Units	FY10	FY11	FY12	FY13	FY14	FY15	...	FY20
Total Scope 3 GHG Emissions (Comprehensive)	MMTCO2e						13.8	...	14.5
Total Scope 3 GHG Emissions (Subject to Agency Scope 3 GHG Reduction Target)	MMTCO2e						13.1	...	13.8
Overall Agency Scope 3 Reduction (reduced from FY08 base year)	%						5	...	10
Other, as defined by agency	%							...	

Goal 2: Scope 3 Greenhouse Gas Reduction & Develop and Maintain Agency Comprehensive Greenhouse Gas Inventory (Goal-Specific Items)

Goal 2 (optional image)

Goal 3: High-Performance Sustainable Design/Green Buildings & Regional and Local Planning (Basic Performance Discussion, A - H)

1. GOAL 3: High-Performance Sustainable Design / Green Buildings & Regional and Local Planning

High-Performance Sustainable Design / Green Buildings

Agency goal: Aggressively pursue high-performance building for new facilities, and continue applying these principles as feasible to existing buildings.

Agency lead: Ronald Noll and Mark Sprouse

Other relevant NARA documents: Architectural and Design Standards for Presidential Libraries (NARA design standard)

Implementation methods and agency status:

New Construction (Presidential Libraries): To incorporate sustainable practices into agency policy and planning for new federal facilities, NARA is currently updating its design standard (NARA 1571 - Architectural and Design Standards for Presidential Libraries) to include all applicable requirements of the EPACT 2005, EISA 2007, EO

13423 and EO 13514. All future Presidential Libraries must achieve at least the Silver level in the LEED for New Construction standard. This widely used rating system covers a variety of high-performance design objectives including site considerations, water efficiency, energy and atmosphere, materials and resources and indoor environmental quality. The LEED rating system encourages a rigorous, integrated design process and is generally congruent with the “Guiding Principles for Federal Leadership in High Performance and Sustainable Buildings” (Guiding Principles). This requirement is supplemented by NARA’s design guidelines, which include detailed instructions for how to design efficient building systems and create indoor conditions that meet both environmental and archival criteria.

In addition, NARA’s design standards require a specialized energy analysis to be completed early in the design process of each new construction project. This energy analysis helps determine the energy budget for a new facility, which reports the cost of energy uses in dollar value per square foot and BTU per square foot, and by major building use (e.g., lighting, power, heating and ventilation equipment, etc.). NARA’s seeks to design Presidential libraries to operate efficiently on an energy budget of less than 100,000 BTU/square foot.

To ensure proper implementation of NARA’s green building design criteria, specification documents for new Presidential Libraries (such as the George W. Bush Library, scheduled for completion in 2012) include a section on sustainable design. This section enumerates the specific plans, spreadsheets and materials documentation that NARA requires to ensure compliance with LEED and the agency’s design guidelines.

As stated above, NARA seeks to meet and exceed all relevant regulations and targets for energy consumption. However, given its archival mission and associated building design requirements, new NARA archival facilities will not be able to achieve zero-net energy by FY2030. Similarly, as noted above, the target to design to 30% better than ASHRAE standard 90.1-2004 is not generally lifecycle-cost feasible for Presidential Libraries.

To date, NARA has constructed one new facility to high-performance building standards: the Clinton Library, which surpassed the agency’s goal of LEED Silver to achieve a Platinum rating from USGBC.

Existing facilities: NARA’s existing facility square footage under direct control can be broadly divided into two types, with differing progress to date and future potential for high-performance design:

- Archival space including Presidential Libraries (60% of NARA-owned square footage): As described above under “Summary of Accomplishments,” the NARA energy team has made significant progress toward updating NARA’s existing major facilities (Archives I and II) to be as energy-efficient as possible, while incorporating innovative strategies to minimize energy, water and materials consumption. NARA will continue working to incorporate energy efficiency and other green building goals into existing archival facilities, as feasible.
- Office space (40% of NARA-owned square footage): NARA will work toward 100% conformance with the Guiding Principles for its owned and leased office space square footage, as feasible.

Over the coming year, the NARA Energy Team plans to pursue additional energy conservation measures to include more of NARA’s existing square footage (both archival and office). This will require them to work with facilities

staff in library locations to obtain additional information about current building performance and formulate plans to “green” them progressively over time.

In a future report, NARA will outline specific strategies for progressively managing all of its existing square footage in a high-performance manner.

Positions: *NARA’s Energy Team, led by Ngan Pham, Agency Energy Manager, has sufficient capacity to manage the expansion of NARA’s energy conservation program, as described above. However, in order to begin incorporating other green building principles into the management of existing facilities, NARA will need additional staff capacity. As detailed more fully under Goal 5, NARA newly hired Environmental Manager - Kevin Anderson will be tasked with implementing several of the goals in this plan. Responsibilities include developing more detailed plans for moving toward the Guiding Principles for NARA owned office space, archival facilities, and leased facilities.*

Regional and Local Planning

Agency goal:

- 1. New facilities: To the extent possible, incorporate regional and local planning objectives in the siting of future facilities.***
- 2. Existing facilities: Improve access to existing facilities by investigating additional options for linkages with regional and local transportation networks.***

Agency lead: Mark Sprouse

Implementation methods and agency status:

New facilities : NARA does not control location selection for new Presidential Libraries; the location is chosen by the former President or, in some cases, by the foundation managing the project. In most cases, urban areas or college campuses are chosen as Presidential Library locations. These locations are often suitable for large institutional land use, and typically integrate well with local and regional transportation planning.

Once the location is selected, NARA’s design guidelines influence site-specific sustainability considerations through reference to the LEED for New Construction Standard. These considerations include: development density and community connectivity; alternative transportation; on-site habitat and open space; and storm-water design—all of which help ensure congruence with local planning objectives. NARA will further augment its design standards with a requirement to review and consider local land use, transportation, energy and ecosystem plans (in addition to all relevant environmental regulations).

Existing facilities : NARA staff will conduct a review of the 16 agency-owned facilities to determine compatibility with local and regional transportation networks, improve/provide linkages where possible, and update policies and procedures as necessary. In a future report, NARA may request a modest investment associated with providing additional bus/shuttle service to help meet the above criteria.

Positions: As detailed more fully under Goal 5, NARA’s newly hired Environmental Manager will be tasked with implementing several of the goals in this plan, including this one.

Goal 3: High-Performance Sustainable Design/Green Buildings & Regional and Local Planning (Planning Table)

GOAL 3 Targets	Units	FY10	FY11	FY12	FY13	FY14	FY15	...	FY20
Owned Buildings	%						12	...	
FRPP-Reported Leased Buildings	%							...	
Total Buildings	%						12	...	
Other (Buildings), as defined by agency								...	
Other (Reg/Local Planning), as defined by agency								...	

Goal 3: High-Performance Sustainable Design/Green Buildings & Regional and Local Planning (Goal-Specific Items)

Goal 3 (optional image)

GOAL 4: Water Use Efficiency and Management (Basic Performance Discussion, A - H)

1. GOAL 4: Water Use Efficiency and Management

Agency goal: Build on strong water conservation efforts and progress to date to achieve a 20% reduction by FY2015 (vs. FY2007 base year) and 26% by FY2020.

Agency lead: Mark Sprouse

Implementation methods and agency status: To date, NARA has exceeded its targets for water conservation through a combination of initiatives in Archives I&II, its two largest facilities, including installation of new low-flow fixtures and a new reverse osmosis water system. In addition, irrigation at Archives II is now accomplished using rainwater stored in a 6000 gallon tank, which is also fed by air handler condensate. This is essentially a closed loop; Archives II is irrigated without adding fresh water to the system. The total NARA water consumption for FY2010 (21.6 gallons/GSF) was reduced by 18.8% from FY2007 baseline (26.6 gallons/GSF).

Not all NARA facilities are as well-positioned as Archives I & II to conserve water. Certain Presidential Libraries (e.g., the Reagan Library) are located in the desert and are lushly landscaped—an aesthetic requirement not under NARA control.

Going forward, NARA intends to upgrade additional irrigation systems with timers, storm-water capture and grey-water reuse where feasible. This may include installing storm-water tanks similar to the one used at Archives II.

Positions: To date, water conservation has been managed by the NARA Energy Team., NARA now will expand its water conservation program, supported by additional staff capacity (environmental staff person, see Goal 5).

GOAL 4: Water Use Efficiency and Management (Planning Table)

Water Use Efficiency & MGMT	Units	FY10	FY11	FY12	FY13	FY14	FY15	...	FY20
Potable Water Reduction Targets (gal/SF reduced from FY07 base year)	%	6	8	10	12	14	16	...	26
Planned Potable Water Reduction (gal/SF reduced from FY07 base year)	%	18					20	...	26
Industrial, Landscaping, and Agricultural Water Reduction Targets (gal reduced from FY10 base year)	%		2	4	6	8	10	...	20
Planned Industrial, Landscaping, and Agricultural Water Reduction (gal reduced from FY10 base year)	%		2	4	6	8	10	...	20
Other, as defined by agency								...	

GOAL 4: Water Use Efficiency and Management (Goal-Specific Items)

Goal 4 (optional image)

GOAL 5: Pollution Prevention and Waste Reduction (Basic Performance Discussion, A - H)

1. GOAL 5: Pollution Prevention and Waste Reduction

Agency goal: NARA does not yet have all baseline data needed to formulate a goal for this area of the plan.

Agency lead: Mark Sprouse

Implementation methods and agency status: NARA has taken the following actions to reduce municipal solid waste associated with its operations:

- Gathered waste information for NARA’s largest facilities, Archives I and II. Using this data, extrapolated on a square foot basis to develop a rough waste baseline for all NARA facilities (used in Scope 3 analysis).

- Reduced printing paper usage by educating staff of double-sided printing options (via Energy Awareness Month and a related NARA Notice). Purchasing all in one network printers, copiers, fax machines, with scanning and double sided printing ability to reduce paper use.
- Update existing recycling program to handle all paper types, aluminum cans, glass and plastic; altered maintenance contracts to ensure implementation.
- Convert cafeteria to go containers and utensils to biobased/biodegradable plastic and paper products.
- Required construction contractors to recycle metal and all other recyclable materials.
- Investigating composting options to reduce cafeteria, landscape and bathroom waste as well as reduce use of inorganic soil amendments and allow for heat energy capture.

Going forward, NARA intends to:

Gather additional data from other NARA facilities to develop a more detailed and accurate baseline of waste/recycling data. Develop a plan and targets for reducing landfill waste at all facilities. Develop a Compliance Management Plan to reduce NARA impact associated with hazardous chemicals, as required by E.O. 13423.

Positions: To meet this goal. The agency has hired an Environmental Manager (using funds in the existing budget). This new position's duties include:

Work with Energy Team to expand existing energy audit procedure to cover other goals in this plan (Goal 1).

Work with Energy Team to expand current energy-related training and education program to include other sustainability issues (Goal 1).

Support Energy Team in reducing Scope 3 GHG emissions through existing and new reduction initiatives (e.g., reducing construction-related emissions) (Goal 2).

Maintain and improve NARA's comprehensive GHG inventory (Goal 2).

Develop and implement detailed plans for moving toward the federal green building Guiding Principles for all NARA office space, archival facilities, and leased facilities (Goal 3).

Update existing policies and procedures to incorporate local land use, transportation, energy and ecosystem plans (Goal 3).

Review NARA procedures and practices regarding hazardous waste handling and disposal; develop and manage implementation of a Compliance Management Plan to reduce any associated environmental impact (Goal 5).

Gather additional waste data; develop and implement a plan to reduce waste disposal at all facilities (Goal 5).

Implement the Facility Division’s responsibilities under the NARA Directive 503: Environmental Stewardship Program (Goal 6).

Develop and implement detail plans for Electronic Stewardship Program (Goal 7). Identify additional pilot projects to help foster innovation in sustainability (Goal 8).

GOAL 5: Pollution Prevention and Waste Reduction (Planning Table)

Pollution Prevention & Waste Reduction	Units	FY10	FY11	FY12	FY13	FY14	FY15	...	FY20
Non-Hazardous Solid Waste Diversion Targets (Non-C & D)	%	10	30	40	45	50	50	...	65
C & D Material & Debris Diversion Targets	%	10	30	35	40	45	50	...	60
If agency uses on-site or off-site waste-to-energy, estimated total weight of materials managed through waste-to-energy	Tons or Pounds							...	
Number of sites or facilities with on-site composting programs	#							...	
Number of sites or facilities recycling through off-site composting programs	#							...	
If agency has on-site or off-site composting programs, estimated total weight of materials diverted to composting	Tons or pounds							...	
% of agency-operated offices/sites with a recycling program	%	100	100	100	100	100	100	...	100
If agency offices located in multi-tenant buildings, % of those buildings with a recycling program	%							...	
% of agency-operated residential housing with recycling programs	%							...	
Other, as defined by agency								...	

GOAL 5: Pollution Prevention and Waste Reduction (Goal-Specific Items)

Goal 5 (optional image)

GOAL 6: Sustainable Acquisitions (Basic Performance Discussion, A - H)

1. GOAL 6: Sustainable Acquisition

Agency goal: Implement new procedures for sustainable acquisition according to a new NARA policy directive.

Other relevant NARA documents: NARA Interim Guidance 503-1: Sustainable Practices Program.

Agency lead: Mark Sprouse and LaVerne Fields

Implementation methods and agency status: , NARA has made some changes in its procurement practices in keeping with sustainability; for example, all office paper purchased by the agency contains 30% recycled content. NARA recently issued an internal directive (NARA 503) communicating a new policy on this topic: the NARA Sustainable Practices Program. This directive establishes the NARA program for green procurement and electronics stewardship and provides guidance on (1) Purchasing bio-based, environmentally preferable, energy-efficient, water-efficient, and recycled-content products; and (2) Managing obsolete electronics in an environmentally safe manner. This directive applies to all NARA employees and contractors, especially those involved in the procurement process. The new program that it describes makes sustainable acquisition the requirement (default); any exceptions for not procuring a green product must be approved by Mr. Richard Judson, the Acting Assistant Archivist for Administration.

NARA's objectives under the new Sustainable Practices Program are to:

1. Purchase green products and services to the maximum extent practicable.
2. Enhance and sustain mission readiness through cost effective acquisitions that achieve regulatory compliance while reducing resource consumption and solid and hazardous waste generation.
3. Demonstrate environmental and energy consciousness in the selection and use of products and services.
4. Contribute to the sound management of NARA's valuable financial and natural resources and energy.
5. Reduce the environmental and energy impacts of electronic products through a continuous improvement of the three lifecycle phrases—acquisition, operations and maintenance, and disposition.

NARA Directive 503 outlines the purpose, objectives, and authority for this program, along with specific implementation responsibilities for each division within NARA. NARA's Facilities Division (led by Mark Sprouse) will be responsible for the majority of program implementation. This division's responsibilities include:

- Setting specific targets
- Educating staff about the program
- Transmitting necessary NARA guidance/directives

- Advising management personnel across all offices on implementation
- Evaluating performance
- Sharing best practices
- Applying for relevant awards

Positions: The new Environmental Manager will work with NARA's Facilities Director to implement the division's responsibilities for sustainable acquisition. This person will develop the baseline information necessary to quantitatively determine NARA's current progress toward sustainable acquisition, and set targets for coming years.

GOAL 6: Sustainable Acquisitions (Planning Table)

Sustainable Acquisition	Units	FY10	FY11	FY12	FY13	FY14	FY15	...	FY20
New Contract Actions Meeting Sustainable Acquisition Requirements	%		95	96	96	97	97	...	98
Energy Efficient Products (Energy Star, FEMP-designated, and low standby power devices)	%		95	96	96	97	97	...	97
Water Efficient Products	%		95	96	96	97	97	...	97
Biobased Products	%		95	96	96	97	97	...	97
Recycled Content Products	%		95	96	96	97	97	...	97
Environmentally Preferable Products/Services (excluding EPEAT - EPEAT is included in Goal 7)	%		95	96	96	97	97	...	97
SNAP/non-ozone depleting substances	%		95	96	96	97	97	...	97
Other, as defined by agency								...	

GOAL 6: Sustainable Acquisition Contract Review

SUSTAINABLE ACQUISITION CONTRACT REVIEW	1st QTR FY 11	2nd QTR FY 11	3rd QTR FY 11 (planned)	4th QTR FY 11 (planned)
Total # Agency Contracts				
Total # Contracts Eligible for Review	194	273	235	250

SUSTAINABLE ACQUISITION CONTRACT REVIEW	1st QTR FY 11	2nd QTR FY 11	3rd QTR FY 11 (planned)	4th QTR FY 11 (planned)
Total Contracts Eligible Contract Reviewed (i.e., 5% or more eligible based on previous OMB guidance)	95	70	80	85
# of Compliant Contracts	5	4	5	5
Total % of Compliant Contracts	5	4	5	5

GOAL 6: Sustainable Acquisitions Contract Review

Randomly selected from all eligible contracts.

GOAL 6: Sustainable Acquisitions (Goal-Specific Items)

Goal 6 (optional image)

GOAL 7: Electronic Stewardship and Data Centers (Basic Performance Discussion, A - H)

1. GOAL 7: Electronic Stewardship and Data Centers

Agency goal: 1) To comply with the electronics management/disposal aspects of NARA Policy Directive 503: Environmental Stewardship Program (currently under development). 2) To meet the performance targets in the planning table below.

Agency lead: Mario Barroga and Mark Sprouse

Implementation methods and agency status: All of NARA’s electronic equipment is acquired through the GSA schedule contracts, and NARA currently utilizes one small data center, which is located in Archives II. The agency has taken steps to reduce its environmental impacts associated with computing; for example, staff education via NARA Notices and Energy Awareness Month encourages employees to turn off their computers at the end of the workday. NARA has installed a software program that powers down PC’s during non-business hours and “wakes them up” just before the start of business. When it is time to replace electronic devices, NARA recycles those devices through the GSA Xcess program.

Going forward, the E-Government Electronic Records Management Initiative , for which NARA is the managing partner, will be increasing NARA’s electronic storage needs. To help minimize the environmental impacts associated with this increasing demand, NARA will comply with the electronics management/disposal aspects of NARA` Interim Guidance 503-1: Sustainable Practices Program. NARA has recently installed a Storage Area Network (SAN) to provide a scalable and manageable enterprise-wide storage system that will replace a number of separately deployed systems and greatly reduce energy consumption while facilitating data and recovery capabilities.

In addition, NARA commits to the following regarding its data centers:

- a. Establish and implement policy and guidance to ensure effective use of power management, and other energy efficient or environmentally preferred options and features on all eligible agency NARA IT devices.
- b. Provide Information Technology Security Guidelines and policies to reflect environmentally sound and secure practices for disposition of all excess or surplus electronic storage devices.
- c. Update agency policy to strive for implementation of best management practices for energy efficient management of servers and Federal data centers.
- d. Seek the optimal temperature settings of its data center to find the balance between hardware reliability and reduced HVAC output.
- e. Explore the use of emerging technologies, such as virtual servers and blade servers, to reduce power and cooling requirements of IT devices at all NARA facilities.
- f. Increase the quantity of electronic assets disposed through sound disposition practices. NARA will use a destruction company for data sensitive items and recycle by products. NARA will also look for opportunities to contribute donation through GSA's Computer for Learning (CFL) or other non-profit organizations, and/or recycling through a private recycler certified under the Responsible Recyclers (R2) guidance or equivalent.

Positions: Current staff capacity is sufficient to meet these goals.

GOAL 7: Electronic Stewardship and Data Centers (Planning Table)

ELECTRONIC STEWARDHIP & DATA CENTERS	Units	FY10	FY11	FY12	FY13	FY14	FY15
% of electronic product acquisition covered by current Energy Star specifications that must be energy-star qualified			75	85	95	95	100
% of covered electronic product acquisitions that are EPEAT-registered			75	85	95	95	100
% of covered electronic product acquisitions that are FEMP-designated			75	85	95	95	100
% of agency, eligible PC, Laptops, and Monitors with power management actively implemented and in use			100	100	100	100	100
% of agency, eligible electronic printing products with duplexing features in use			30	50	70	90	100
% of electronic assets covered by sound disposition practices			100	100	100	100	100

ELECTRONIC STEWARDHIP & DATA CENTERS	Units	FY10	FY11	FY12	FY13	FY14	FY15
% of agency data centers independently metered, advanced metered, or sub-metered to determine monthly (or more frequently) Power Utilization Effectiveness (PUE)				100			
Reduction in the number of agency data centers							
% of agency data centers operating with an average CPU utilization greater than 65%			65	75			
Maximum annual weighted average Power Utilization Effectiveness (PUE) for agency.			1.8	1.7	1.6	1.5	1.4

GOAL 7: Electronic Stewardship and Data Centers (Goal-Specific Items)

Goal 7 (optional image)

GOAL 8: (New) Agency Innovation & Government-Wide Support (Basic Performance Discussion, A - H)

1. GOAL 8: Agency Innovation & Government-Wide Support

Agency goal: Maintain and enhance NARA’s status as a leader in sustainability by piloting new systems and technologies.

Agency lead: Mark Sprouse

Implementation methods and agency status: NARA is currently implementing (or planning to implement) the following pilot projects as part of this goal:

1. Technologies to generate energy on-site, including:
 - a. New solar technologies: pilot cutting-edge technologies as part of future solar installations on all NARA-owned facilities (also see Goal 1).
 - b. Cogeneration: 100% of the electricity and chilled water consumed at the Reagan library is generated by an on-site natural gas cogeneration system and absorption chillers (waste heat from the system is used for the absorption chillers). Recently installed five 75 KW cogeneration units at Archives I & II which will utilize a similar principle (waste heat is used to generate hot water).
 - c. Install a new composting system at Archives II to reduce waste stream and greenhouse gas emissions.
2. Technologies to save energy in buildings, such as:

- a. Kathabar system: pilot project at Archives II to capture conditioned air as it leaves the building, and use this preheated/pre-cooled air to help condition incoming fresh air. If successful, NARA will incorporate this system into its design standard for future Presidential Libraries.
- 3. Systems to reuse grey-water and capture storm-water and condensate for irrigation, expanding on the success of the storm-water/condensate tank at Archives II.
- 4. Technologies for environmentally efficient information management, such as:
 - a. Storage and server consolidation
 - b. Energy-efficient Storage Area Network (SAN) switches and directors
 - c. Tiered storage infrastructures
 - d. Consolidation of several agency-wide storage and backup assets
 - e. Cloud computing

Positions: Current staff capacity (Energy Team and IT staff) plus additional support from the new environmental staff person (see Goal 5) will be sufficient to undertake this goal.

Note: NARA is currently piloting these innovative projects using funds within the existing budget. If successful, NARA will scale up these projects in the future.

GOAL 8: (New) Agency Innovation & Government-Wide Support (Planning Table)

AGENCY INNOVATION & Government-Wide Support	Units	FY10	FY11	FY12	FY13	FY14	FY15	...	FY20
Programs, Projects, Initiatives that support Gov-wide efforts									
Other, as defined by agency									

GOAL 8: (New) Agency Innovation & Government-Wide Support (Goal-Specific Items)

Goal 8 (optional image)

Section 3: Agency Self Evaluation

Agency Self Evaluation

Agency Self Evaluation	Answer
Does your Sustainability Plan incorporate and align sustainability goals, GHG targets and overarching objectives for sustainability with the Agency Strategic Plan?	Yes
Does it provide annual targets, strategies and approaches for achieving the 2015 and 2020 goals?	Yes
Is the Sustainability Plan consistent with the FY2012 President's Budget?	Yes
Does the Sustainability Plan integrate all statutory and Executive Order requirements into a single implementation framework for advancing sustainability goals along with existing mission and management goals, making the best use of existing and available resources?	Yes
Does your plan include methods for obtaining data needed to measure progress, evaluate results, and improve performance?	Yes

Explanations & Other Key Questions for 2011

Other Key Questions for 2011:

1. Currently, all of NARA's electronic equipment is acquired through the GSA schedule contracts. All electronic equipment is EPEAT Silver or better. NARA currently utilizes one small data center, which is located in Archives II. The agency has taken some steps to date to reduce its environmental impacts associated with computing; for example, staff education via NARA Notices and Energy Awareness Month encourages employees to turn off their computers at the end of the workday. When it is time to replace electronic devices, NARA currently donates still-working devices to local schools under GSA's CFL program or through the GSA Xcess program.

2. Recently, NARA made changes in its procurement practices with the recent issuance of NARA Interim Guidance 503-1 Sustainable Practices Program. The newly hired Environmental Manager will work with NARA's Acquisitions Services Division to develop appropriate metrics and implement the division's responsibilities for sustainable acquisition. NARA commits to develop the baseline information necessary to quantitatively determine NARA's current progress toward sustainable acquisition, and demonstrate the required targets by FY2012.

3. As part of the Energy Independence and Security Act (EISA) section 432 requirement, NARA had completed the energy evaluation for all sixteen facilities (100%) in FY2009. NARA engineers travel to all facilities on a four-year cycle, visiting four of NARA owned facilities each year.

4. NARA has exceeded targets for installing advanced meters in its facilities to track electricity usage. Currently all sixteen (100%) of NARA facilities have standard utility meters (electrical, gas and water) and advanced electrical

metering installed. A project to install advanced metering for other utilities (gas, chilled water, and water) at sixteen facilities was awarded in FY2010 and will be completed by Fy2012.

5. NARA is currently at 4% and is revising metrics to better position the agency to meet these goals. NARA has several older historic Presidential Libraries within our inventory which are problematic to incorporate 21 st century building principles to yet retain historic viability.

Resource/Investment Allocation by Goal