

Armed Forces Retirement Home

# 2016 Strategic Sustainability Performance Plan



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## **Armed Forces Retirement Home 2016 Strategic Sustainability Performance Plan Policy Statement**

Tracking and reducing energy, water, waste, greenhouse gas (GHG) emissions and other environmental impacts has become a core component of federal agency operations. Under Executive Order 13693, federal agencies are required to develop, implement, and annually update a Strategic Sustainability Performance Plan (SSPP) that describes how each agency will achieve the environmental, economic, and energy goals mandated in the Executive Order. In preparing this SSPP, the Armed Forces Retirement Home (AFRH) has integrated our commitments to meet sustainability goals and reduce our environmental footprint through core agency programs, including strategic planning, capital investment, and daily operations and management.

AFRH has made significant strides in incorporating sustainability into many aspects of agency operations to achieve reductions in energy, water, and waste, all while maintaining our commitment to person-centered care. Our commitment to sustainability is exemplified through the incorporation of sustainable principles into new construction and operations, as demonstrated by the new Scott building on the Washington, DC campus. Completed in 2013, the Scott building was engineered “green” from the ground up to reduce its environmental footprint and includes dozens of features to save energy, conserve water, and reduce waste, and is a LEED Platinum certified building.

AFRH will continue to integrate sustainability as a core consideration in our agency’s mission and operations by increasing energy efficiency agency-wide, reducing consumption and waste, and engaging our residents and employees on environmental stewardship. We will continue to track energy and environmental data, report on our progress towards meeting the targets set by Executive Order 13693, and implement mitigation opportunities as feasible to drive future reductions.

Signed,

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# Armed Forces Retirement Home

## 2016 Strategic Sustainability Performance Plan

### Executive Summary

#### Vision

The Armed Forces Retirement Home (AFRH) is a small, independent agency with the mission: “To fulfill our nation's commitment to its Veterans by providing a premier retirement community with exceptional residential care and extensive support services.” AFRH operates two campuses located in Gulfport, Mississippi and Washington, DC that are model retirement centers with facilities and services designed with residents in mind. These facilities provide outstanding services and amenities that rival the best examples of those found throughout the United States. AFRH seeks to accomplish our mission through the core philosophy of “person-centered care,” which is defined as the careful manner in which resident needs are considered while developing proactive plans of care and delivering meaningful services.

Over the past several years, AFRH has made significant strides to incorporate sustainability into many aspects of agency operations to address federal energy and sustainability mandates and to achieve targeted reductions in energy consumption, water use, and waste, while maintaining our commitment to person-centered care. This Strategic Sustainability Performance Plan (SSPP) highlights the most significant of these advancements over the past year.

#### Leadership

AFRH's Corporate Facilities Manager coordinates and delegates the implementation of the strategies presented in the SSPP and environmental initiatives within the agency. The Corporate Facilities Manager is responsible for supervising facilities, operations, and maintenance at both the Washington and Gulfport campuses, including rolling out energy and water efficiency measures, monitoring energy and water cost and consumption data to track progress towards sustainability goals, and working with staff and contractors to take appropriate actions to meet these goals.

#### Performance Review

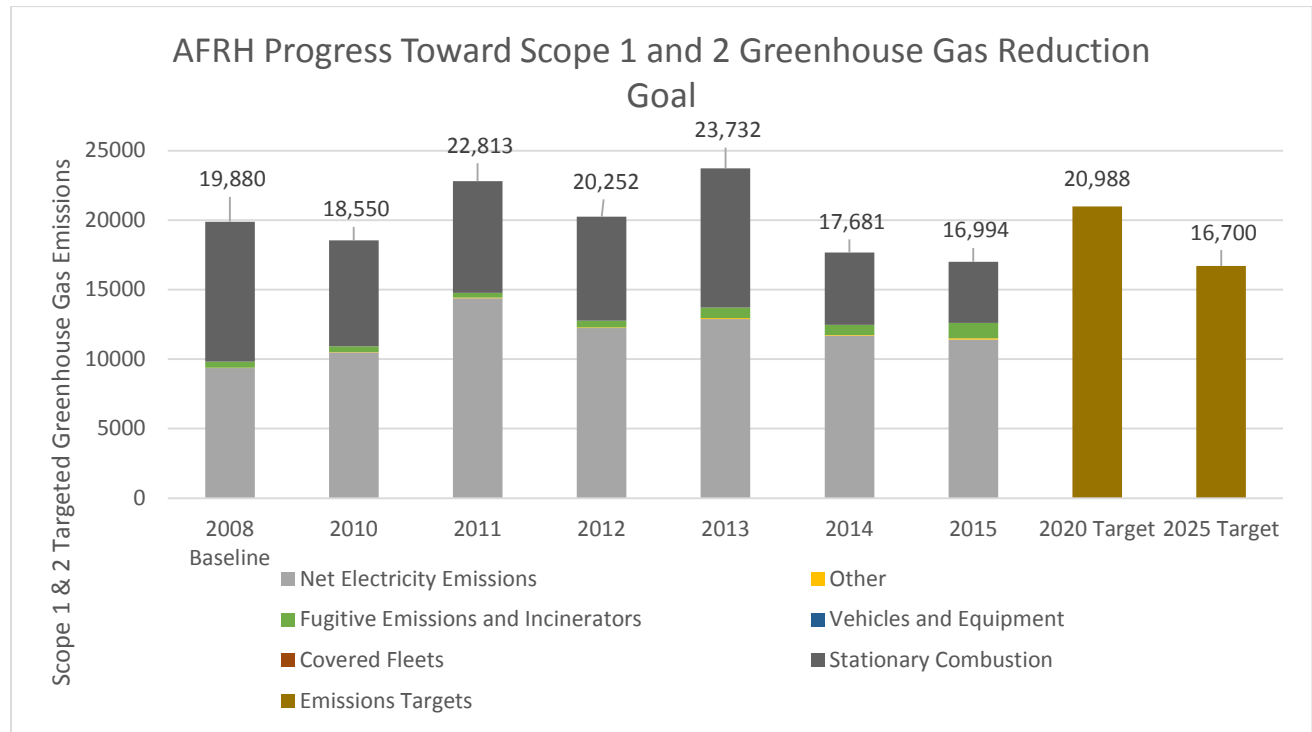
This section provides an overview of progress over the past year in meeting the agency's sustainability goals, including key performance metrics, challenges, successes, and strategies.

##### Goal 1: Greenhouse Gas (GHG) Reduction

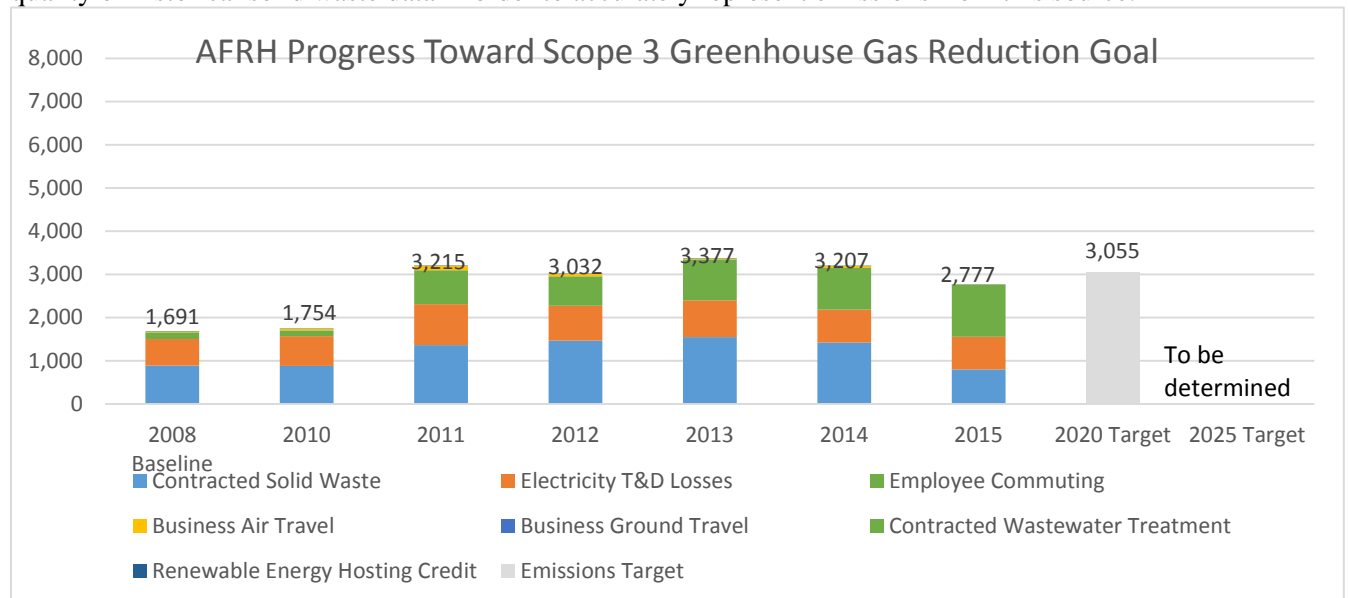
**Progress:** AFRH conducts an annual inventory of the agency's GHG emissions. In FY 2015, AFRH emitted 19,729 metric tons of carbon dioxide equivalent (MTCO<sub>2e</sub>), an 8 percent reduction from the 2008 baseline. AFRH's overall emissions intensity (GHG emissions per gross square foot [GSF]) has decreased by about 40 percent since 2008.

AFRH has set a preliminary Scope 1 and 2 reduction target of 16 percent below 2008 emissions by 2025. This target requires the agency to offset the entire additional emissions of the Gulfport campus, which became fully operational in 2011. AFRH's combined Scope 1 and 2 emissions decreased by 15 percent from 2008 to 2015 (a 26 percent decrease from 2011). The Scope 1 and 2 decrease is due primarily to the consolidation of operations into more efficient space, closure of the steam plant on the Washington, DC

campus, and construction of two LEED-certified buildings in 2011 and 2013. Due to the scope and impact of actions taken to date, it is not anticipated that AFRH will be able to achieve additional significant reductions beyond FY 2015.



AFRH is in the process of developing a feasible Scope 3 emission reduction target under Executive Order 13693. Scope 3 emissions have increased by 62 percent since 2008, but decreased 15 percent since 2011. The increase in Scope 3 emissions since 2008 is due to the addition of the Gulfport facility to AFRH’s portfolio in 2011, and is driven largely by solid waste disposal. Solid waste data for the Gulfport campus are not measured empirically, but rather are estimated, and therefore efforts are underway to improve the quality of historical solid waste data in order to accurately represent emissions from this source.



**Challenges:**

- As part of its core operations, AFRH operates residential facilities that are occupied at all hours and year-round. Unlike offices or other government buildings that only operate during business hours, these dormitories have a higher energy use and generate “residential” waste including consumer goods and food waste not typically generated at office buildings.
- As a retirement home, residents tend to spend more time in the dormitories and are more sensitive to their environment, which leads to increased HVAC operations during the summer and winter months.
- Many buildings are designated National Landmarks which limits AFRH to using single pane windows and wood insulation, leading to increased HVAC operations.

**Planned Actions:** AFRH plans to continue efforts to reduce GHG emissions by implementing cost-effective, low-risk mitigation strategies and right-sizing buildings for their intended use. In the next year, AFRH will:

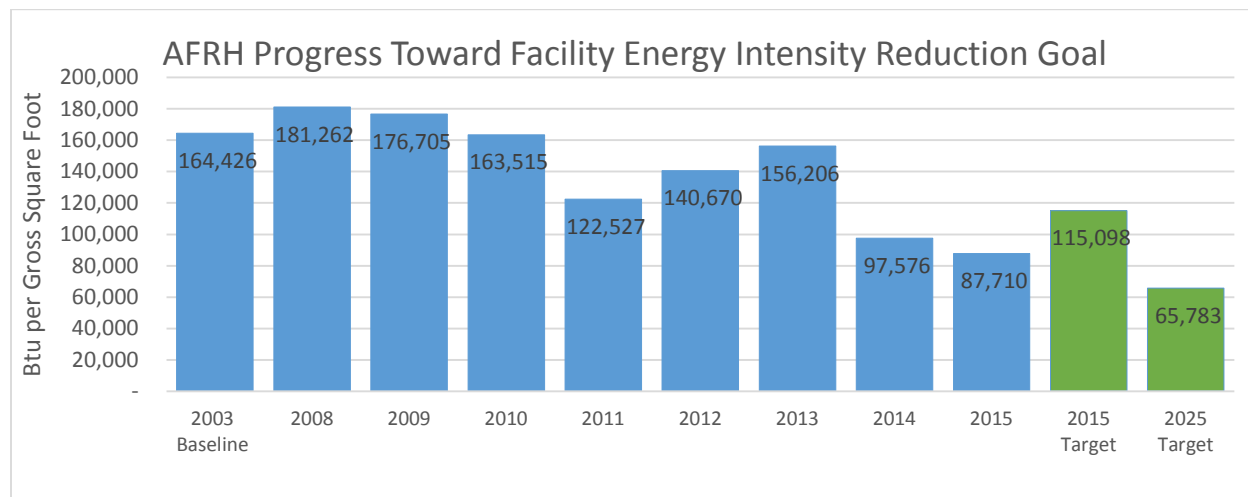
- Prepare an annual GHG inventory and review our emissions profile to identify priorities and develop strategies for the coming year;
- Review energy and emissions data to identify low-cost efficiency improvements with a rapid payback period;
- Investigate data collection improvements for contracted solid waste data to establish feasible Scope 3 emission reduction targets;
- Continue to observe the LEED requirement for project managers of facility maintenance projects;
- Evaluate additional opportunities to reduce on-site fossil fuel consumption as appropriate;
- Install meters in all major campus buildings, as feasible;
- Continue to use web conferencing technology to reduce business travel;
- Conduct a periodic employee commuter survey to identify trends and opportunities to reduce emissions; and
- Consider priority parking for electric and hybrid vehicles and allow bikes to share the road and pathways with vehicles to encourage lower-emission employee commuting.

**Goal 2: Sustainable Buildings**

**Progress:** In FY 2015, AFRH's energy intensity was 47 percent lower than the 2003 baseline. AFRH exceeded the federal energy intensity reduction target of a 30 percent reduction by FY 2015 as compared the 2003 baseline, as mandated by the Energy Independence and Security Act of 2007 (EISA). The decline in energy intensity continued in FY 2015 due to updates to programming building automated systems and milder weather. In accordance with Executive Order 13693, AFRH will continue to implement measures to reduce agency building energy intensity through FY 2025.

AFRH has made a commitment to sustainable design principles in new construction and major renovation. AFRH operates 15 facilities over 5,000 square feet, two of which constitute 15 percent subject to the *Guiding Principles for High Performance and Sustainable Buildings*. The Gulfport facility renovation (completed in early 2010) achieved a LEED Gold certification, and the new Scott building on the Washington, DC campus (completed in spring 2013) achieved a LEED Platinum certification. In FY 2014, AFRH completed assessments of these two facilities with respect to the original *Guiding Principles*. As a result of these assessments, it was determined that the Scott Building met 59 percent of the original *Guiding Principles*, and the Gulfport facility met 56 percent of the original *Guiding Principles*, with 19 and 25 percent to be met through improvements currently underway, respectively. AFRH has used the results from the completed *Guiding Principles* assessments to identify priority actions and implement strategies to make progress towards the sustainable buildings target in the past year.

AFRH has set a FY 2025 target of 15 percent compliance with the new *Guiding Principles for Sustainable Federal Buildings* by total GSF, in accordance with Section 3(h) of Executive Order 13693. AFRH does not anticipate being able to achieve net-zero energy, water, or waste for any building by FY 2025 due to the 24/7 nature of operations of the retirement residences, financial constraints for implementing on-site renewable energy, and restrictions on retrofits to National Landmark designated buildings.



#### Challenges:

- Due to the nature of core agency operations providing retirement housing, many of AFRH's buildings operate 24 hours a day every day of the year, resulting in a higher energy demand relative to typical federal buildings.
- AFRH has implemented several high-impact energy efficiency measures, but is limited by the historic nature of several buildings and cost-effectiveness of additional measures.
- Based on the results of renewable energy assessments conducted by DOE, it is not currently financially feasible to implement on-site renewable energy at either campus.

**Planned Actions:** Moving forward, AFRH will comply with new targets and requirements set forth in Executive Order 13693. Additionally, AFRH will enter monthly performance data into EPA's ENERGY STAR® Portfolio Manager for applicable buildings and meters. AFRH will continue to take actions to reduce energy use intensity by implementing cost-effective strategies, such as:

- Evaluate compliance with the updated *Guiding Principles* and identify opportunities for AFRH to implement new actions to achieve compliance;
- Enter monthly performance data at each campus in ENERGY STAR® Portfolio Manager;
- Continue to identify opportunities to consolidate operations and optimize building space;
- Implement projects and infrastructure upgrades identified in the agency's Capital Improvement Plan as financially feasible, such as installing meters in all major campus buildings; and
- Continue to monitor and review building energy use.

### Goal 3: Clean & Renewable Energy

**Progress:** Under Executive Order 13693, agencies are required to consume a percentage of their total annual energy consumption from clean and renewable energy sources. The clean energy goals outlines that not less than 25 percent by FY 2025 and each year thereafter of the total amount of building electric energy and thermal energy shall be clean energy, accounted for by renewable electric energy and alternative energy. Agencies are also required to ensure that the percentage of total building electric



energy consumed by the agency that is renewable electric energy is not less than 30 percent by fiscal year 2025 and each year thereafter.

AFRH does not currently generate renewable energy on-site. AFRH coordinated with the Department of Energy in 2015 to conduct a feasibility assessment of renewable energy potential on the Washington, DC campus and determined that the installation of renewable energy on-site is not life-cycle cost effective at this time. AFRH does retain the RECs associated with a percentage of electricity purchased through a GSA contract for the Washington, DC campus. In the past year, AFRH-Washington evaluated opportunities to purchase renewable energy credits for the Scott Building but did not identify financially feasible options at this time.

**Challenges:**

- AFRH is not funded through Congressional Appropriations and relies on the AFRH Trust Fund to support operations and activities. Through this unique funding structure, AFRH faces two unique challenges related to implementing clean and renewable energy:
  - While AFRH has conducted feasibility assessment for incorporating renewable energy technologies, the financing design of ESPCs does not align with the funding mechanisms behind the AFRH Trust Fund.
  - AFRH will consider purchasing RECs depending on the market, but can only make purchase RECs if financially feasible.

**Planned Actions:** In the next year, AFRH will:

- Continue to investigate the feasibility of alternative strategies to contribute to federal renewable energy goals, such as the use of power purchase agreements.

## Goal 4: Water Use Efficiency & Management

**Progress:** AFRH has reduced water use intensity by 11 percent from the 2007 baseline. This reduction has been driven by improvements in AFRH's water infrastructure and the consolidation of operations into more efficient buildings. The Washington, DC campus has implemented several water conservation measures, including a stormwater runoff pond on-site, several acres of non-impervious surfaces on the campus, use of electric fountains in the retention pond, and a cistern at the Scott Building that captures rainwater for use in irrigation and landscaping of the facility's green roof. These measures have reduced both stormwater runoff and potable water consumption for landscaping purposes.

Under Executive Order 13693, AFRH will work towards a goal of reducing agency potable water consumption intensity measured in gallons per GSF by 36 percent by FY 2025, or 2 percent annual reductions through FY 2025 relative to the FY 2007 baseline. AFRH is considering a number of innovative strategies to continue to reduce water consumption, including a comprehensive replacement of the Washington, DC campus's water piping infrastructure, when financially feasible. AFRH also plans to install water meters at all facilities to track building-level water consumption.

**Challenges:**

- In addition to working with employees to implement water efficiency strategies, AFRH must also work with residents to conserve potable water use and properly use low-flow water fixtures.

**Planned Actions:** Moving forward, AFRH will take measures to continue to reduce water use intensity by 2 percent annually through FY 2025 relative to FY 2007 and set a target to reduce industrial, landscape, and agricultural water use by 2 percent annually through FY 2025 relative to FY 2010. Additionally, AFRH will:

- Identify additional opportunities to reduce potable water consumption used for landscaping;
- Install water submeters in major campus buildings, as feasible;
- Evaluate the feasibility and effectiveness of constructing an additional retaining pond;
- Continue to use landscaping best practices to reduce water use;
- Continue to ensure consistent water supply availability through well contingencies; and
- Investigate opportunities for planned energy efficiency improvements to consider associated opportunities for water conservation.

## Goal 5: Fleet Management

**Progress:** Since AFRH is a relatively small federal agency, it does not own, operate, or lease 20 vehicles and is therefore excluded from the federal reduction targets associated with fleet fuel consumption. However, AFRH requests hybrid vehicles from GSA when possible to reduce fuel consumption, and currently operates several solar-powered/electric golf carts to transport employees and residents within the campus. As planned in last year's SSPP, AFRH removed an excess box truck from the agency's fleet. At the Washington, DC campus, AFRH also installed signs to reduce vehicle idling.

### Challenges:

- Expansion of services in support of the agency's person-centered care mission, such as providing hospital shuttle transportation for residents, has led to an overall increase in gasoline consumption in recent years.
- The Gulfport, MS campus is located in a smaller community and care for some residents requires long distance transportation to cities with more resources (e.g., New Orleans).

**Planned Actions:** In the next year, AFRH will

- Continue to use solar-powered/electric golf carts to transport staff and residents on campus; and
- Continue to request low-emission vehicles from GSA, as available.

## Goal 6: Sustainable Acquisition

**Progress:** AFRH continues to incorporate language on energy efficiency, water efficiency, and waste reduction into the performance work statements (PWS) that establish requirements for on-site contractors, as well as other documents. AFRH includes requirements for custodial PWS that contractors reduce energy consumption by turning off unnecessary lighting and adjusting HVAC controls. Additionally, custodial operations use green cleaning products in lieu of more toxic alternatives; Contracting Officer Representatives comply with federal procurement requirements as set forth by GSA; and AFRH continues to require LEED accreditation for project managers in facility maintenance contracts.

Executive Order 13693 Section 3(iv) requires agencies to establish an annual target for increasing the number of contracts to be awarded with BioPreferred and biobased criteria and the dollar value of BioPreferred and biobased products to be delivered and reported under those contracts in the following fiscal year. AFRH plans to conduct more research and evaluate biobased purchasing options in the upcoming year will establish a target for FY 2017 contracts and dollars in products to be delivered.

### Challenges:

- AFRH has limited options for green and biobased products at competitive rates.
- For many products that are needed quickly and procured through micro-purchases, products are typically limited to those that are immediately available and the most cost-effective.

**Planned Actions:** Moving forward, AFRH will continue to strive towards achieving sustainable acquisition goals outlined in Executive Order 13693, for example by evaluating options to further the use



of sustainability clauses in new facility service and operations contracts, and to improve tracking of sustainable contracts actions. In the next year, AFRH will:

- Continue to procure environmentally preferable products;
- Implement strategies including use of environmental clauses in procurement and service contracts on an ongoing basis;
- Continue to incorporate standard sustainability language into agency specifications, as necessary;
- Consider methods to identify and implement opportunities to reduce supply chain emissions and incorporate criteria or contractor requirements into procurements;
- Continue to use and consider using new Category Management Initiatives and government-wide acquisition vehicles that already include sustainable acquisition criteria;
- Continue to incorporate standard environmental clauses in performance work statements and subsequent contract actions for relevant contracts; and
- Continue to coordinate with GSA to dispose of electronic equipment through GSA Xcess.

## Goal 7: Pollution Prevention & Waste Reduction

**Progress:** AFRH has a number of initiatives in place to increase diversion of solid waste through recycling programs at both campuses. At the beginning of FY 2014, the Washington, DC campus implemented a one-line recycling contract to increase recycling and reduce landfilled waste, and has achieved a diversion rate exceeding 50 percent in FY 2015. Also on the Washington, DC campus, the new Scott Building (completed in 2013) was designed to reduce waste from the ground up—approximately 90 percent of its foundation was composed of recycled materials from the demolition of the former Scott building. AFRH-Gulfport has a memorandum of agreement with Keesler Air Force Base to recycle cardboard, and additional vendors recycle paper, bottles, and cans from the AFRH-Gulfport campus.

### Challenges:

- Empirical data are not currently available for the Gulfport campus, due to the nature of waste collection operations dictated by the design of the campus. Improvements in the data collection process are needed to improve the accuracy of solid waste disposal data.

**Planned Actions:** Moving forward, AFRH will continue to strive towards 50 percent annual diversion of municipal solid waste and construction and demolition waste from landfills annually, consistent with the requirements of Executive Order 13693. In the next year, AFRH will:

- Continue to implement the one-line recycling program at the Washington, DC campus;
- Track recycling rates at the Washington, DC and Gulfport campuses; and
- Continue to collect data on HFC use and purchases for the GHG inventory.

## Goal 8: Energy Performance Contracts

**Progress:** In 2015, AFRH coordinated with the Department of Energy to pursue a potential Energy Savings Performance Contract (ESPC). Through the pre-assessment phase of the project, AFRH identified a number of additional energy conservation measures and water conservation measures at both campuses. AFRH is also considering other contracting options, including power purchase agreements.

### Challenges:

- Due to the design of energy performance contract financing and the AFRH Trust Fund structure, traditional energy performance contracts are not viable. The information collected under the ESPC pre-assessment is being reviewed and considered for incorporation under the agency's Capital Improvement Plan.

**Planned Actions:** In the next year, AFRH will:

- Identify projects that will provide the greatest energy savings potential for the agency as identified through the ESPC preliminary assessment.

## Goal 9: Electronic Stewardship & Data Centers

**Progress:** Agencies are required to promote electronics stewardship by: ensuring procurement preference for EPEAT-registered products; implementing policies to enable power management, duplex printing, and other energy-efficient features; employing environmentally sound practices with respect to the disposition of electronic products; procuring ENERGY STAR® and FEMP-designated electronics; and implementing best management practices for data center operations. AFRH does not operate any data centers.

*Procurement Goal: At least 95% of monitors, PCs, and laptops acquired meets environmentally sustainable electronics criteria (EPEAT registered).* FY 2015 Progress: AFRH does not have agency-wide systems in place to track performance for this goal, but does purchase electronic equipment in accordance with GSA requirements. AFRH has taken steps to ensure that acquired products are energy-efficient and adhere to all federal requirements. Within the past year, AFRH continued to follow EPEAT and ENERGY STAR® guidelines while procuring new appliances and electronic equipment as needed.

*Power Management Goal: 100% of computers, laptops, and monitors has power management features enabled.* FY 2015 Progress: AFRH does not have agency-wide systems in place to track performance for this goal, but implements power management features on computer monitors and other equipment as appropriate. AFRH has implemented strategies to improve computer power management settings and procedures. AFRH is currently migrating medical and business records to electronic storage and is piloting a program for a cloud-based inventory system for all equipment. As part of AFRH's pilot program for a cloud-based inventory system, AFRH will evaluate Executive Order goals and next steps to implement a tracking system. AFRH also continued to evaluate its daily practices to identify new opportunities to improve energy performance.

*End-of-Life Goal: 100% of electronics disposed using environmentally sound methods, including GSA Xcess, Computers for Learning, Unicor, US Postal Service Blue Earth Recycling Program, or Certified Recycler (R2 or E-Stewards).* FY 2015 Progress: All equipment is disposed through GSA Xcess.

### Challenges:

- Since AFRH does not own data centers and uses DOI servers, AFRH is dependent on DOI for maintaining and managing energy use of their servers. AFRH must also comply with DOI processes, such as the installation of software updates overnight, in implementing power management settings.

**Planned Actions:** Moving forward, AFRH will continue to identify strategic ways to improve energy operations and follow GSA guidelines to ensure the environmentally sound purchase and disposal of electronic equipment.

## Goal 10: Climate Change Resilience

**Progress:** Executive Orders 13653 and 13693 require agencies to evaluate agency climate change risks and vulnerabilities to identify and manage the effects of climate change on the agency's operations and mission in both the short and long term. AFRH's Gulfport, MS campus was decimated by Hurricane Katrina in 2005. The new facility was designed for resilience against extreme weather events, including hurricanes, utility system failure, and extreme wind and flooding. The structure is extremely robust and was designed to withstand Category 5 hurricane-force winds. The first floor of the facility is elevated 35 feet above current sea level to prevent damage from a hurricane storm surge. The facility also has

multiple levels of back-up capacity to maintain a supply of fresh water and energy generation, to ensure the health and safety of the resident community during extreme weather events. The Washington, DC campus also has emergency procedures in place in case of an extreme weather event. In the past year, AFRH incorporated potential risks from climate change into emergency response documents.

**Challenges:** AFRH has made progress in its efforts improve climate resilience, but recognizes the need to continue identifying vulnerabilities and implementing adaptation measures, as necessary.

**Planned Actions:** Moving forward, AFRH will continue to implement emergency procedures, identify potential vulnerabilities, and ensure the health and safety of its resident and staff population that could be potentially impacted by climate change. Evaluation of improvements to increase the resilience of the Gulfport facility is ongoing. In the next year, AFRH will:

- Continue to implement workforce policies and emergency procedures;
- Address adaptation efforts in agency policies and communications, as appropriate;
- Continue to ensure the health and safety of vulnerable communities potentially impacted by climate change; and
- Evaluate potential improvements or modifications to building resilience on an ongoing basis.

## Progress on Administration Priorities

AFRH actively supports the priorities of the Administration in the area of sustainability, including the use of energy performance-based contracts, electric and zero emission vehicles, and climate change preparedness and resilience.

### President's Performance Contracting Challenge

In 2015, AFRH coordinated with the Department of Energy to pursue a potential ESPC. Through the pre-assessment phase of the project, AFRH identified a number of additional energy conservation measures and water conservation measures at both campuses; however, due to the structure of the AFRH Trust Fund, it is not financially feasible for AFRH to move forward with an ESPC. AFRH intends to implement some of the action items identified in the assessment using direct funds, as available.

### Electric and Zero Emission Vehicles

AFRH does not own, operate, or lease 20 vehicles and is therefore excluded from the federal reduction targets associated with fleet fuel consumption. However, AFRH requests hybrid vehicles from GSA when possible to reduce fuel consumption and cost, and currently operates several solar-powered/electric golf carts to transport employees and residents within the campus.

### Climate Preparedness and Resilience

As part of last year's SSPP, AFRH submitted a revised climate change adaptation plan in accordance with CEQ guidance, which identifies actions to improve climate preparedness and resilience. AFRH has emergency preparedness procedures in place for each campus in the instance of extreme weather events such as hurricanes, tornadoes, and extreme heat or utility system failure. In addition, AFRH has taken precautions to ensure reliable back-up energy and water sources are available in the case of an extreme event. For example, buildings have back-up chillers, boilers, and energy generators; propane tanks to replace interrupted natural gas supply; and electricity sourced from several grids. Moving forward, AFRH will continue to assess its vulnerabilities and policies as necessary.