U.S. Nuclear Regulatory Commission

2016 Strategic Sustainability Performance Plan

June 30, 2016

Agency Contact

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

June 30, 2016

U.S. NUCLEAR REGULATORY COMMISSION
CLIMATE CHANGE ADAPTATION POLICY STATEMENT

The U.S. Nuclear Regulatory Commission's (NRC) mission is to license and regulate the Nation's civilian use of byproduct, source, and special nuclear materials, to ensure adequate protection of public health and safety, to promote the common defense and security, and to protect the environment.

It is the policy of the NRC to carry out its operations in such a way as to maintain a safe and healthy work environment for building occupants. The NRC will ensure that adequate building services are provided to maintain optimum operational readiness to conduct our mission. The NRC recognizes that planning for climate change in conjunction with meeting energy usage and greenhouse gas reduction targets will aid the Federal government in reducing the consequences of climate changes caused by our operations.

The NRC adaptation, planning, and implementation resources are integrated into the mission of the Office of Administration and will be directed through the Division of Facilities and Security. Actions taken will be done in coordination with other Federal agencies.

Sincerely,

Cynthia A. Carpenter

Cynthia A. Carpenter
Chief Sustainability Officer
Office of Administration

Executive Summary

Sustainability is inherently integrated into the mission of the U.S. Nuclear Regulatory Commission (NRC). "The NRC licenses and regulates the Nation's civilian use of radioactive materials to protect public health and safety, promote the common defense and security, and protect the environment." The commitment to sustainability is not only present in the agency's mission, but also in its operations. The NRC strives to conduct its operations and activities in an environmentally responsible and sustainable manner. The NRC recognizes that reducing and, where possible, eliminating the environmental impacts of business activities is an important part of its mission as stewards of public health and safety. The agency views sustainability as a long-term approach to business planning and decision-making that balances the NRC's economic, environmental, and social responsibilities.

Vision for the Upcoming Fiscal Year

The NRC will continue to work on meeting and exceeding the goals set forth by Executive Order (EO) 13693, "Planning for Federal Sustainability in the Next Decade." The NRC understands the importance of incorporating sustainability within its business operations and will continue to build on successful sustainability efforts as well as initiate new efforts to reduce its environmental impacts.

Greenhouse Gas Reductions and Sustainable Buildings

The NRC is pleased to have exceeded its initial fiscal year (FY) 2020 reduction target goals for Scope 1 and Scope 2 greenhouse gas (GHG) emissions. The FY 2015 GHG accounting for Scope 1 and Scope 2 emissions indicated a 49 percent decrease from the FY 2008 baseline. This decrease significantly exceeds initial agency reduction targets of 4.4 percent by FY 2020. The significant decrease in Scope 1 and Scope 2 GHG emissions is a direct result of the NRC's aggressive energy savings program. The NRC has invested significant time and resources in evaluating agency energy usage and identifying potential reduction measures. By integrating the energy savings program within the Facilities Management Branch, the NRC was able to seamlessly introduce energy saving measures into its daily operations.

The NRC is also pleased to report a significant reduction in Scope 3 GHG emissions. In the agency's FY 2015 GHG accounting for Scope 3 emissions, the NRC reported a 39 percent decrease, compared to the FY 2008 baseline. This reduction in Scope 3 emissions significantly exceeds the agency's original target of 5 percent by FY 2020. Despite the agency's success in reducing Scope 3 emissions, the NRC has found it challenging to generate and implement reduction plans for this category. Because Scope 3 emissions are primarily associated with employee commuting and employee business travel using transportation services outside of the agency's control, the NRC has fewer options available to it for reduction strategies. The NRC plans to continue reducing its Scope 3 emissions by increasing employee awareness of teleconferencing abilities, teleworking options, flexible work schedules, and transit subsidies.

The NRC has also been successful in meeting its reduction target for sustainable buildings. The NRC had a reduction target of 30 percent for facility energy intensity by FY 2015. In the agency's FY 2015 GHG accounting report, the NRC reported a 56 percent decrease in energy intensity.

Fleet Management

The NRC continuously measures and evaluates various approaches to increase the sustainability and efficiency of their Fleet. NRC's 2015 fleet incorporates 3 hybrid vehicles and 8 flex-fuel vehicles. Additionally, an E85 fueling station was recently made available within a 5 mile radius of the NRC headquarter buildings. When possible, flex-fuel vehicles are refueled with E85 at this station.

Water Use Efficiency and Management and Renewable Energy

The NRC is finding it challenging to meet reduction targets for water use efficiency and management. The NRC has completed energy and water audits in both buildings located at its headquarters. It has identified very few areas in which agency water usage can be reduced. One of the areas of water usage is wastewater associated with employee use of restrooms. To reduce the amount of water usage associated with wastewater, the NRC has focused on upgrading high-flow restroom fixtures with more efficient low-flow fixtures.

The NRC is also focused on heating, ventilation, and air conditioning (HVAC) operation. The NRC sub-meters and monitors the water usage associated with its HVAC system, and it has adjusted some of its operations in an effort to reduce any excessive water usage. The agency continues to monitor water usage associated with the HVAC system and will remain proactive in identifying excessive water usage in system operation.

Another area the NRC has identified for possible water-use reductions is facility irrigation. The NRC sub-meters and monitors water usage associated with irrigation. This allows the agency to detect leaks within the irrigation system as well as broken sprinkler heads and system malfunctions. The NRC has also worked with its landscape contractor to determine the best irrigation practices to avoid excessive water usage. The NRC will continue to evaluate the implementation of water management technologies and research best operating practices in an effort to meet water use efficiency targets for FY 2020. In the agency's FY 2015 GHG accounting report, the NRC reported a 10.5 percent decrease in potable water intensity, slightly below the FY2015 target of a 16 percent decrease.

The NRC is limited in its approach to meeting its renewable energy goal. The NRC has previously researched installing a photovoltaic (PV) system at its facilities. The NRC found that the space it had available for a PV system and the projected payback of the system was less than ideal. Currently, the NRC purchases its electricity utilizing a General Services Administration (GSA) area-wide contract. Through this agreement, 7.5 percent of the electricity that the NRC uses comes from renewable energy sources.

Pollution Prevention and Waste Reduction

The NRC continues to benefit from the robust recycling and waste diversion program implemented at its facilities. The agency educates its staff on the recycling program throughout the year using posters, bulletins, and recycling events. It also strives to make the recycling process as simple as possible for employees to encourage participation. In FY 2015, the Pollution Prevention and Waste Reduction Program recorded a 62 percent recycling and waste diversion rate, significantly exceeding the original recycling and waste diversion target of at least 50 percent by the end of FY 2015. The NRC plans to continue educating its staff on its recycling and waste diversion program and to continue simplifying the recycling process to keep the program successful.

Sustainable Acquisition

The NRC is committed to meeting the Sustainable Acquisition mandates set forth in EO 13693. To facilitate the purchasing of green products and services, the NRC issued a Green Purchasing Plan (GPP) in September 2012 to serve as official agency policy. The agency added an environmental clause to its contract writing system (Strategic Acquisition System) to promote green purchasing by prime contractors and subcontractors. The agency incorporated consideration for green purchasing into its market research checklist and narrative template to increase awareness and usage of green products and services. Finally, the agency developed an online course in its iLearn training system to help educate acquisition professionals about the NRC's GPP and GSA's Green Products Compilation Website.

The agency accomplished the following in 2015: (1) reviewed compliance with green purchasing requirements as part of larger post-award quality assurance reviews, particularly during regional purchase order file reviews and made recommendations to enhance compliance, and (2) facilitated annual sustainability training for all acquisition professionals.

Electronic Stewardship and Data Centers

In FY 2015, the NRC closed two non-core data centers. By the end of FY 2016, the NRC is scheduled to close one additional data center. The NRC is also planning to close one data center in FY2017 and three data centers in FY2018.

Size & Scope of Agency Operations

Agency Size and Scope	FY 2014	FY 2015
Total Number of Employees as Reported in the President's Budget	3,804.7	3,778.5
Total Acres of Land Managed	5.2	5.2
Total Number of Buildings Owned	0	0
Total Number of Buildings Leased (GSA and Non-GSA Lease)	2	2
Total Building Gross Square Feet (GSF)	998,000	998,000
Operates in Number of Locations Throughout U.S.	6	6
Operates in Number of Locations Outside of U.S.	0	0
Total Number of Fleet Vehicles Owned	1	1
Total Number of Fleet Vehicles Leased	30	27
Total Number of Exempted-Fleet Vehicles (Tactical, Law Enforcement, Emergency, Etc.)	1	1
Total Amount Contracts Awarded as Reported in FPDS ($Millions)	218.9	222.3

Agency Progress and Strategies to Meet Federal Sustainability Goals

This section provides an overview of progress through FY 2015 on sustainability goals contained in Executive Order 13514, *Federal Leadership in Environmental, Energy, and Economic Performance*, and agency strategies to meet the new and updated goals established by Executive Order 13693, *Planning for Federal Sustainability in the Next Decade*.

Goal 1: Greenhouse Gas (GHG) Reduction

Scope 1 & 2 GHG Reduction Goal

E.O. 13693 requires each agency to establish a Scope 1 & 2 GHG emissions reduction target to be achieved by FY 2025 compared to a 2008 baseline.

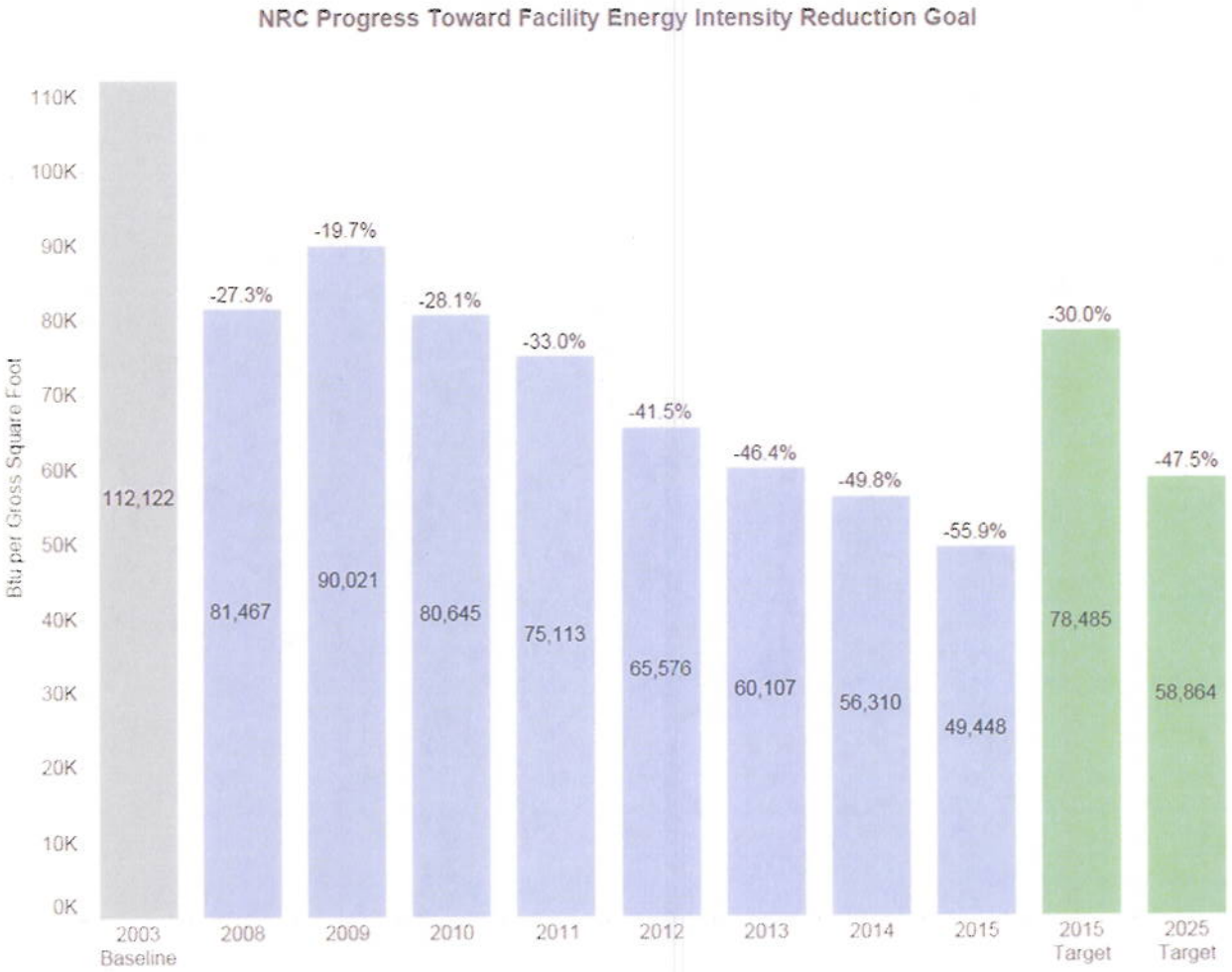
Chart: Progress Toward Scope 1 & 2 GHG Reduction Goal

Goal 2: Sustainable Buildings

Building Energy Conservation Goal

The Energy Independence and Security Act of 2007 (EISA) requires each agency to reduce energy intensity 30% by FY 2015 as compared to FY 2003 baseline. Section 3(a) of E.O. 13693 requires agencies to promote building energy conservation, efficiency, and management and reduce building energy intensity by 2.5% annually through the end of FY 2025, relative to a FY 2015 baseline and taking into account agency progress to date, except where revised pursuant to Section 9(f) of E.O. 13693.

Chart: Progress Toward Facility Energy Intensity Reduction Goal



Goal 4: Water Use Efficiency & Management

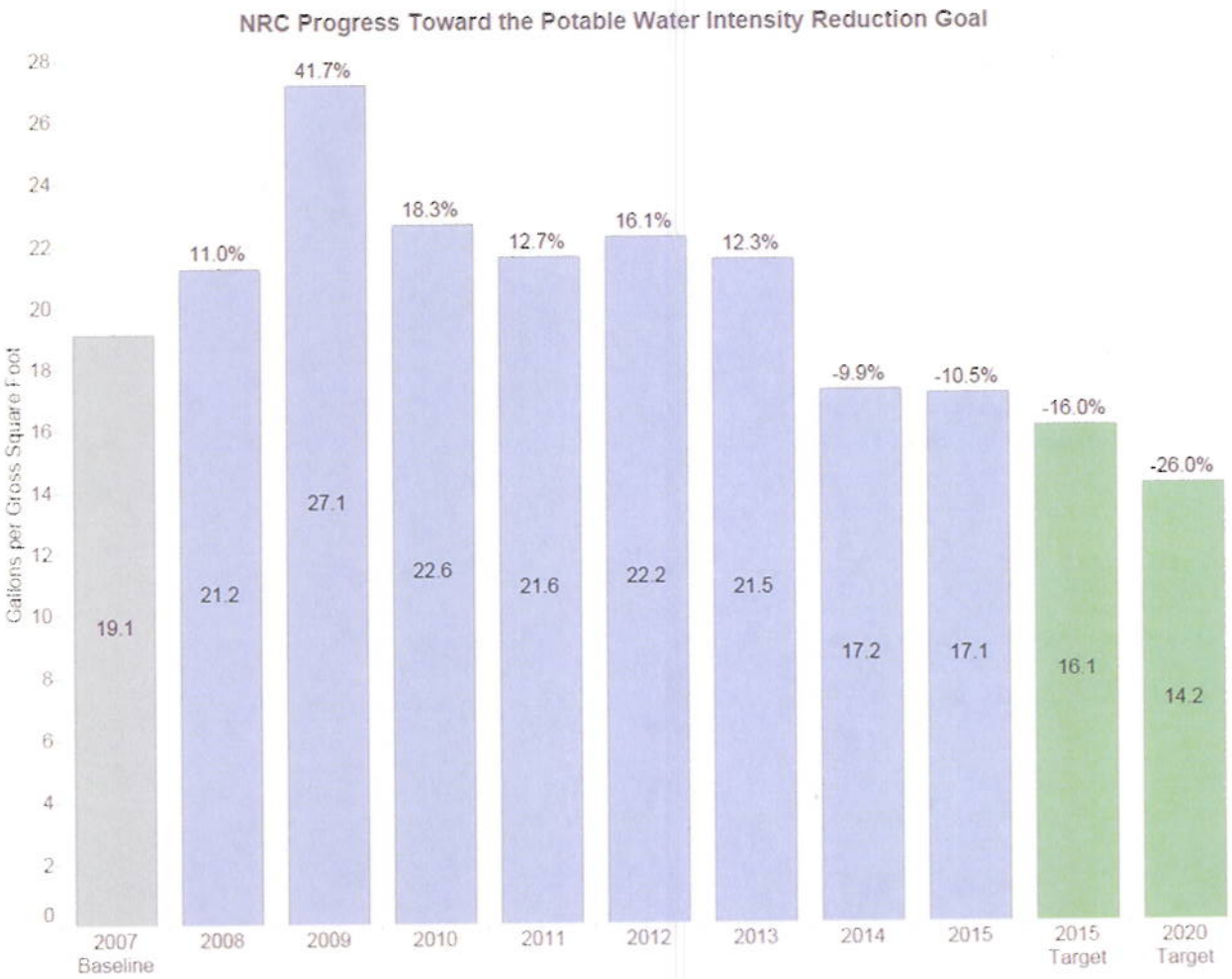
Potable Water Consumption Intensity Goal

E.O. 13693 Section 3(f) states that agencies must improve water use efficiency and management, including stormwater management, and requires agencies to reduce potable water consumption intensity, measured in gallons per square foot, by 2% annually through FY 2025 relative to an FY 2007 baseline. A 36% reduction is required by FY 2025.

Industrial, Landscaping and Agricultural (ILA) Water Goal

E.O. 13693 section 3(f) also requires that agencies reduce ILA water consumption, measured in gallons, by 2% annually through FY 2025 relative to a FY 2010 baseline.

Chart: Progress Toward the Potable Water Intensity Reduction Goal

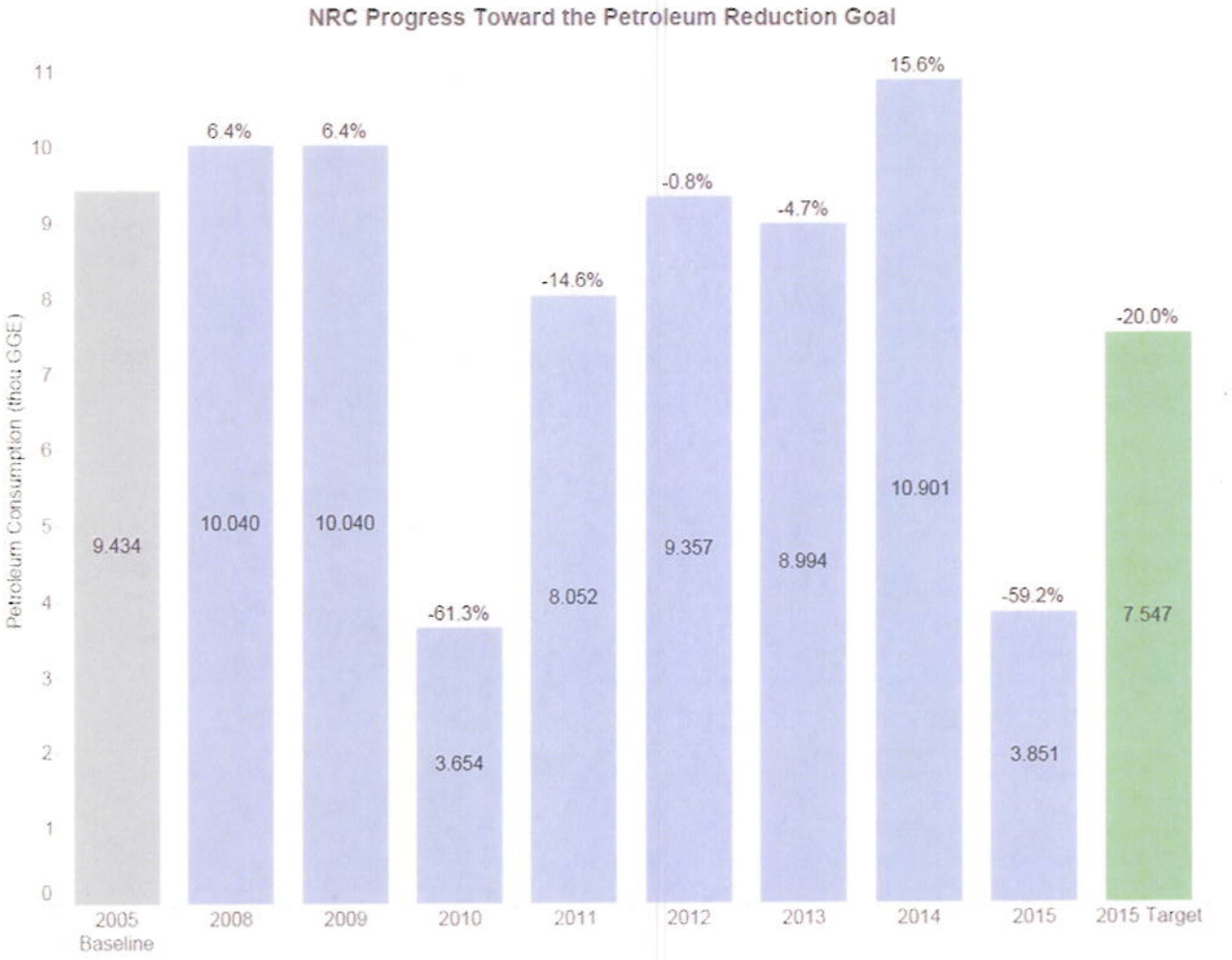


Goal 5: Fleet Management

Fleet Petroleum Use Reduction Goal

E.O. 13514 and the Energy Independence and Security Act of 2007 (EISA) required that by FY 2015 agencies reduce fleet petroleum use by 20% compared to a FY 2005 baseline.

Chart: Progress Toward the Petroleum Reduction Goal

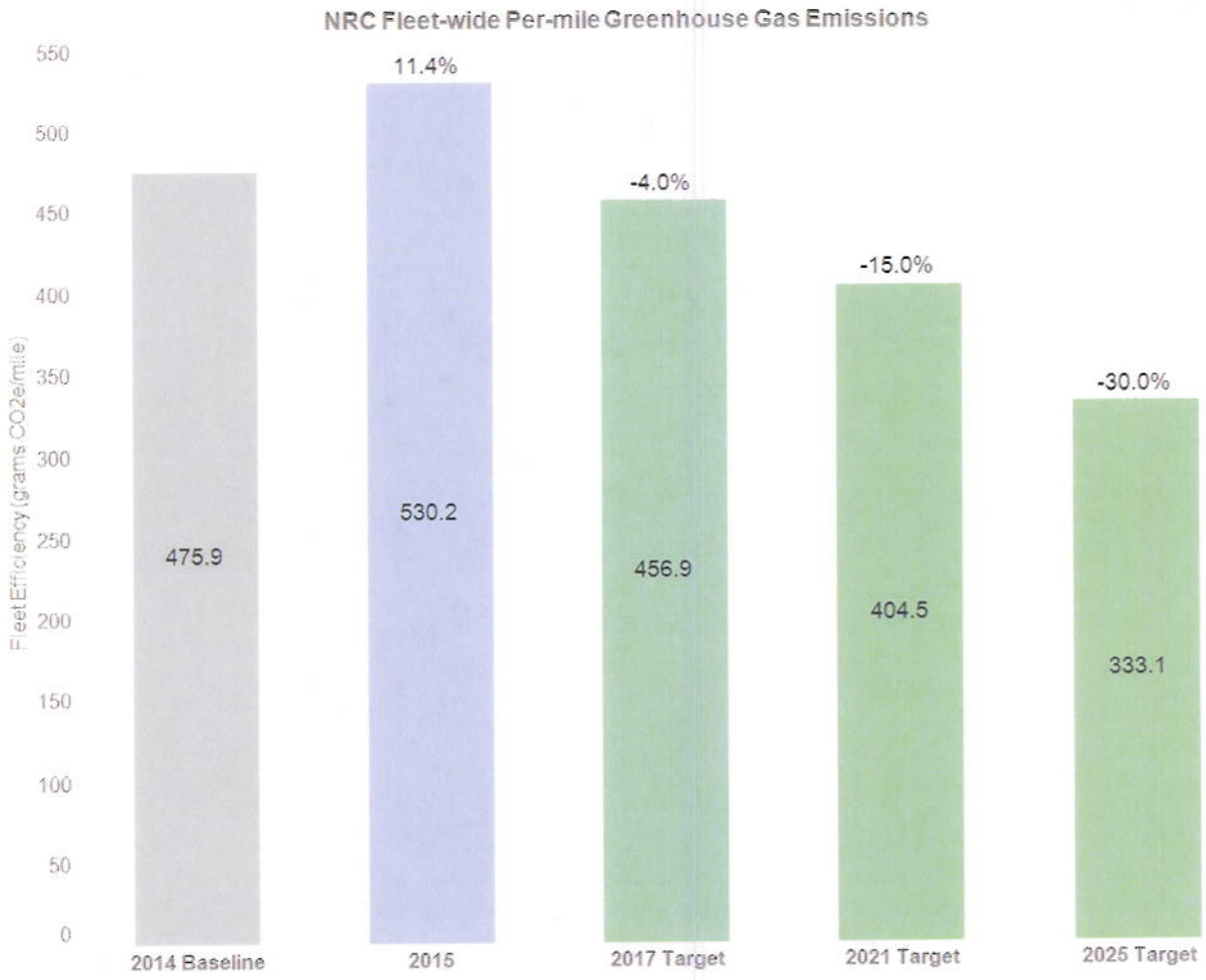


Fleet Per-Mile Greenhouse Gas (GHG) Emissions Goal

E.O. 13693 Section 3(g) states that agencies with a fleet of at least 20 motor vehicles will improve fleet and vehicle efficiency and management. E.O. 13693 section 3(g)(ii) requires agencies to reduce fleet-wide per-mile GHG emissions from agency fleet vehicles relative to a FY 2014 baseline and sets new goals for percentage reductions: not less than 4% by FY 2017; not less than 15 % by FY 2020; and not less than 30% by FY 2025.

E.O. 13693 Section 3(g)(i) requires that agencies determine the optimum fleet inventory, emphasizing eliminating unnecessary or non-essential vehicles. The Fleet Management Plan and Vehicle Allocation Methodology (VAM) Report are included as appendices to this plan.

Chart: Fleet-wide Per-mile GHG Emissions



Goal 7: Pollution Prevention & Waste Reduction

Pollution Prevention & Waste Reduction Goal

E.O. 13693 section 3(j) requires that Federal agencies advance waste prevention and pollution prevention and to annually divert at least 50% of non-hazardous construction and demolition debris. Section 3(j)(ii) further requires agencies to divert at least 50% of non-hazardous solid waste, including food and compostable material, and to pursue opportunities for net-zero waste or additional diversion.

Reporting on progress toward the waste diversion goal will begin with annual data for FY 2016.