



# UNITED STATES COAST GUARD OPERATIONAL SUSTAINABILITY PERFORMANCE PLAN

MARCH 2015



U.S. Department of  
Homeland Security

United States  
Coast Guard



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31 March 2015

### INFORMATION

MEMORANDUM FOR: Jeffery Orner  
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FROM:   
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SUBJECT: FY 2014 USCG OPERATIONAL SUSTAINABILITY  
PERFORMANCE PLAN (OSPP)

#### Purpose

In accordance with the DHS Component OSPP memorandum dated 24 November 2014, the Coast Guard completed its FY 2014 USCG OSPP. The document was electronically submitted to [OCAO-Sustainability Reports@hq.dhs.gov](mailto:OCAO-Sustainability Reports@hq.dhs.gov) on 31 March 2015.

#### Background

In accordance with Executive Order 13514, *Federal Leadership in Environmental, Energy, and Economic Performance*, the Department maintains a Strategic Sustainability Performance Plan (SSPP) which must be submitted to the Office of Management and Budget annually. In support of the SSPP, Components maintain an OSPP.

#### Discussion

An overview of the FY 2014 USCG OSPP is located in the Executive Summary on page two. My point of contact for this matter is the Coast Guard's Office of Energy Management Chief, Mr. Sam Alvord at [Sam.L.Alvord@uscg.mil](mailto:Sam.L.Alvord@uscg.mil).

cc: USCGEXECSEC



## Table of Contents

<b>Table of Contents</b> .....	<b>i</b>
<b>Policy Statement</b> .....	<b>1</b>
<b>Executive Summary</b> .....	<b>2</b>
Vision.....	2
Leadership .....	2
Integration.....	4
Evaluation Measures.....	6
Performance Review.....	7
Evaluation of Previous Year’s Strategies .....	11
Goal 1: Scope 1&2 GHG Reduction.....	11
Goal 1: Scope 3 GHG Reductions .....	11
Goal 2: Sustainable Buildings.....	12
Goal 3: Fleet Management.....	12
Goal 4: Water Use Efficiency & Management .....	13
Goal 5: Pollution Prevention & Waste Reduction .....	13
Goal 6: Sustainable Acquisition.....	13
Goal 7: Electronic Stewardship & Data Centers.....	14
Goal 8: Renewable Energy .....	14
Goal 9: Climate Change Resilience .....	15
<b>Section 1: Size &amp; Scope of Coast Guard Operations</b> .....	<b>17</b>
Sustainability and the Coast Guard Mission.....	17
<b>Section 2: Performance Review and Annual Update</b> .....	<b>20</b>
GOAL 1: GREENHOUSE GAS (GHG) REDUCTION .....	20
GOAL 2: SUSTAINABLE BUILDINGS .....	40
GOAL 3: FLEET MANAGEMENT .....	54
GOAL 4: WATER USE EFFICIENCY AND MANAGEMENT.....	62
GOAL 5: POLLUTION PREVENTION AND WASTE REDUCTION .....	67
GOAL 6: SUSTAINABLE ACQUISITION .....	77
GOAL 7: ELECTRONIC STEWARDSHIP AND DATA CENTERS.....	82
GOAL 8: RENEWABLE ENERGY .....	92
GOAL 9: CLIMATE CHANGE RESILIENCE.....	99
<b>Appendix 1: Acronyms and Abbreviations</b> .....	<b>107</b>

**List of Tables**

**Figure 1.1: Organization Chart ..... 3**

**Table 1.1: Coast Guard Sustainability Goals ..... 3**

**Table 1.2: Size and Scope of Coast Guard Operations..... 18**

**Table 1.3: Scope 1 & 2 GHG Reduction Targets and Goal ..... 21**

**Table 1.4: Scope 1 & 2 GHG Baseline..... 21**

**Table 1.5: Goal 1 Planning and Status..... 22**

**Table 1.6: Scope 1 & 2 GHG Reduction Strategies Short Term (FY15-FY16)..... 23**

**Table 1.7: Scope 1 & 2 GHG Reduction Strategies Mid Term (FY17-FY18) ..... 27**

**Table 1.8: Scope 1 & 2 GHG Reduction Strategies Long Term (FY19 and beyond) ..... 29**

**Table 1.9: Goal 1 Challenges/Justifications..... 30**

**Table 1.10: Goal 1 Best Practices/Highlights ..... 31**

**Table 1.11: Scope 3 GHG Baseline..... 35**

**Table 1.12: Planning/Status for Scope 3 GHG Reductions..... 36**

**Table 1.13: Scope 3 GHG Reduction Strategies Short Term (FY15-FY16)..... 37**

**Table 1.14: Scope 3 GHG Reduction Strategies Mid Term (FY17-FY18) ..... 38**

**Table 1.15: Scope 3 GHG Reduction Strategies Long Term (FY19 and beyond) ..... 38**

**Table 1.16: Goal 1 Challenges/Justifications..... 39**

**Table 1.17: Goal 1 Best Practices/Highlights ..... 39**

**Table 2.1: Goal 2 Baseline..... 41**

**Table 2.2: Goal 2 Planning and Status..... 42**

**Table 2.3: Sustainable Buildings Strategies Short Term (FY15-FY16)..... 45**

**Table 2.4: Sustainable Buildings Strategies Mid Term (FY17-FY18) ..... 47**

**Table 2.5: Sustainable Buildings Strategies Long Term (FY19 and beyond) ..... 49**

**Table 2.6: Goal 2 Challenges/Justifications..... 50**

**Table 2.7: Goal 2 Best Practices/Highlights ..... 51**

**Table 3.1: Goal 3 Fuel Usage Baseline ..... 54**

**Table 3.2: Goal 3 Planning and Status..... 56**

**Table 3.3: Strategies Short Term (FY15-FY16)..... 58**

**Table 3.4: Fleet Management Strategies Mid Term (FY17-FY18) ..... 59**

**Table 3.5: Fleet Management Strategies Long Term (FY19 and beyond) ..... 59**

**Table 3.6: Goal 3 Challenges and Justifications ..... 60**

**Table 3.7: Goal 3 Best Practices and Highlights ..... 60**

**Table 4.1: Goal 4 Baseline..... 63**

**Table 4.2: Goal 4 Planning and Status..... 63**

**Table 4.3: Water Reduction Strategies Short Term (FY15-FY16) ..... 64**

**Table 4.4: Water Reduction Strategies Mid Term (FY17-FY18)..... 64**

**Table 4.5: Water Reduction Strategies Long Term (FY19 and beyond)..... 65**

**Table 4.6: Goal 4 Challenges and Justifications ..... 65**

**Table 4.7: Goal 4 Best Practices and Highlights ..... 65**

**Table 5.1: Goal 5 Planning and Status..... 68**

**Table 5.2: Pollution Prevention and Waste Reduction Strategies Short Term (FY15-FY16) ..... 71**

**Table 5.3: Pollution Prevention and Waste Reduction Strategies Mid Term (FY17-FY18) ..... 72**

**Table 5.4: Pollution Prevention and Waste Reduction Strategies Long Term (FY19 and beyond)..... 73**

**Table 5.5: Challenges or Justifications ..... 74**

**Table 5.6: Goal 5 Best Practices and Highlights ..... 75**

**Table 6.1: Goal 6 Planning and Status..... 78**

**Table 6.2: Sustainable Acquisition Strategies Short Term (FY15-FY16) ..... 79**

**Table 6.3: Sustainable Acquisition Strategies Mid Term (FY17-FY18)..... 79**

**Table 6.4: Sustainable Acquisition Strategies Long Term (FY19 and beyond)..... 80**

**Table 6.5: Goal 6 Challenges and Justifications ..... 80**

**Table 6.6: Goal 6 Best Practices and Highlights ..... 80**

**Table 7.1: Planning and Status..... 84**

**Table 7.2: Electronics Stewardship and Data Center Reduction Strategies Short Term (FY15-FY16) ..... 89**

**Table 7.3: Electronics Stewardship and Data Center Reduction Strategies Mid Term (FY17-FY18) ..... 89**

**Table 7.4: Electronics Stewardship and Data Center Reduction Strategies Long Term (FY19 and beyond)..... 90**

**Table 7.5: Challenges and Justifications..... 90**

**Table 7.6: Best Practices and Highlights ..... 90**

**Table 8.1: Planning/Status ..... 93**

**Table 8.2: Renewable Energy Strategies Short Term (FY15-FY16)..... 94**

**Table 8.3: Renewable Energy Strategies Mid Term (FY17-FY18) ..... 95**

**Table 8.4: Renewable Energy Strategies Long Term (FY19 and beyond) ..... 96**

**Table 8.5: Challenges and Justifications..... 97**

**Table 8.6: Best Practices and Highlights ..... 97**

**Table 9.1: Climate Change Resilience Strategies Short Term (FY15-FY16) ..... 100**

**Table 9.2: Climate Change Resilience Strategies Mid Term (FY17-FY18) ..... 103**

**Table 9.3: Climate Change Resilience Strategies Long Term (FY19 and beyond) ..... 104**

**Table 9.4: Challenges and Justifications..... 105**

**Table 9.5: Best Practices and Highlights ..... 105**

## Policy Statement



THE COMMANDANT OF THE UNITED STATES COAST GUARD  
Washington, DC 20593

### SUSTAINABILITY, ENVIRONMENTAL and ENERGY POLICY STATEMENT

The U. S. Coast Guard provides *Service to Nation* to the public we serve, the industry we regulate and the stakeholders we support through our commitment to protect natural resources and the environment. Our *Commitment to Excellence* demands that we hold ourselves to the highest standards of environmental compliance, sustainability and energy conservation in the conduct of all Coast Guard missions. We will infuse mission criticality, environmental impact and fiscal consequences into all Coast Guard decision making processes. Our *Duty to People* requires that we take steps now to ensure the health of our workforce and the communities around us.

**To achieve these goals, Coast Guard personnel shall:**

- Promote environmental and energy awareness and reduce liabilities in day-to-day activities;
- Optimize energy and environmental management solutions with innovative techniques that maximize future flexibility and reduce costs;
- Comply with all applicable pollution prevention and environmental laws;
- Engender a culture of conservation and engage all Coast Guard personnel as accountable energy and environmental stewards;
- Implement sound sustainable business practices that extend mission capability and minimize energy and environmental impact;
- Execute sustainable tactics that fulfill goals outlined in the Coast Guard Operational Sustainability Performance Plan and meet pertinent Executive Orders.

I charge every Coast Guard member to incorporate sustainability into all mission areas. Our shared duty to protect our natural resources and operate resourcefully is essential to sustained mission excellence.

  
PAUL F. ZUKUNFT  
Admiral, U.S. Coast Guard

## Executive Summary

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### Vision

On October 5, 2009, President Obama signed Executive Order (EO) 13514—“Federal Leadership in Environmental, Energy, and Economic Performance” —that sets sustainability goals for Federal agencies including improving environmental, energy, and economic performance in a measurable way. The goals invoked by the EO include reducing greenhouse gas (GHG) emissions; developing greenhouse gas inventories; designing sustainable buildings; managing the fleet; conserving water; preventing pollution; performing sustainable acquisitions; implementing electronic stewardship; increasing use of renewable energy; and resilience to climate change. As the largest energy consumer in the Department of Homeland Security (DHS), the Coast Guard is aligning itself with the DHS Strategic Sustainability Performance Plan (SSPP) in its commitment to meet all the goals and timelines included with in the EO.

Energy and environmental management is important to every mission, on a daily basis and throughout all operational and support communities. Energy is a key strategic resource with significant economic, environmental, and national security consequences. Recognizing the critical role of energy in sustained mission execution, all Coast Guard operators, mission support personnel, and program managers must judiciously oversee this valuable resource through an optimal balance between operational effectiveness and fiscal efficiency. The Coast Guard is committed to *Resourceful Readiness*. The Coast Guard is committed to empowering the men and women of the force with energy and environmental management tools and strategies that infuse mission criticality and fiscal consequence into all decisions and processes. Resourceful readiness is the ability to apply resources effectively to maximize readiness to execute Coast Guard missions with minimal fiscal, energy, and environmental burden. Resourceful readiness recognizes mission sustainment decisions have a sustainability nexus, and that all engineering decisions may involve energy evaluations.

### Leadership

The Assistant Commandant for Engineering and Logistics (CG-4) is the Coast Guard’s Executive Agent for sustainability, energy and environmental management. The Deputy Assistant Commandant for Engineering and Logistics (CG-4D) is Chief Administrative Officer (CAO) and is accountable for coordination of the OSPP. Other Senior Executives, as shown on the organization chart (Figure 1.1) and listed in the subsequent Table 1.1, are accountable for managing relevant aspects of the OSPP and sharing information with CG-4D via a collaborative relationship. Several offices within the CG-4 directorate, report directly to CG-4D and assume responsibility for the management of other relevant aspects of the OSPP (see next page for Figure 1.1 and Table 1.1).

**Figure 1.1: Organization Chart**



**Table 1.1: Coast Guard Sustainability Goals**

OSPP Section 2 –Performance Goals*	Stakeholders	Stakeholders Description
GOAL 1: Scope 1 & 2 GHG Reduction/ Scope 3 GHG Reduction	CG-46, CG-43	Assistant Commandant for Engineering and Logistics (Energy Management, Civil Engineering)
Federal Employee Travel	CG-1 (CHRO)	Assistant Commandant for Human Resources
Contracted Waste Disposal	CG-43	Assistant Commandant for Engineering and Logistics (Civil Engineering)
Electricity T&D Losses	CG-46	Assistant Commandant for Engineering and Logistics (Energy Management)
GOAL 2: Sustainable Buildings	CG-43, CG-46	Assistant Commandant for Engineering and Logistics (Civil Engineering, Energy Management)
GOAL 3: Fleet Management	CG-43	Assistant Commandant for Engineering and Logistics (Civil Engineering - Vehicle Program)
GOAL 4: Water Use Efficiency and Management		
Water Conservation	CG-46, CG-43	Assistant Commandant for Engineering and Logistics (Energy Management, Civil Engineering)
Storm Water Runoff	CG-43	Assistant Commandant for Engineering and Logistics (Civil Engineering)

OSPP Section 2 –Performance Goals*	Stakeholders	Stakeholders Description
GOAL 5: Pollution Prevention and Waste Reduction	CG-43, CG-47	Assistant Commandant for Engineering and Logistics (Civil Engineering, Environmental Management)
GOAL 6: Sustainable Acquisition	CG-9 (CPO)**	Assistant Commandant for Acquisition
GOAL 7: Electronic Stewardship and Data Centers	CG-6 (CIO)	Assistant Commandant for Command, Control, Communications, Computers and IT
GOAL 8: Renewable Energy	CG-46, CG-43	Assistant Commandant for Engineering and Logistics (Energy Management, Civil Engineering)
GOAL 9: Climate Change Resilience	CG-DCO, CG-4	Deputy Commandant for Operations, Assistant Commandant for Engineering and Logistics

\*For all sustainability goals: Assistant Commandant for Resources (CG-8) is the stakeholder for budget alignment, and the Chief Financial Officer (CFO). \*\*CPO refers to Chief Procurement Officer as the acronym CAO is already used.

**Integration**

The Coast Guard has an overall Sustainability, Environmental and Energy Policy Statement demonstrating commitment to protecting America's marine and coastal environment, conserving natural resources, and fostering efficient and sustainable business practices that extend mission capability and minimize energy and environmental impact. The statement also commits to incorporating sustainable practices into the Coast Guard’s daily operations and executing an OSPP.

The Coast Guard Deputy Commandant for Mission Support (CG-DCMS) has in place a Mission Support Strategic Plan that includes sustainability, energy, and environmental goals and performance metrics. The Coast Guard promulgated a Coast Guard Energy Management Policy Manual (COMDTINST M4100.2E) that establishes major policy updates including:

- Coast Guard energy management mission, vision, strategic functional areas, goals, and objectives,
- CG-46 organization and institution of the Energy Fusion Center (EFC) as the centralized service point for Coast Guard energy logistics policies and energy acquisition methodologies,
- Energy procurement optimization procedures that include Area, District, Base, and Sector Energy Logistics Support Plans (ELSP); fuel procurement hierarchy, commodity management, and participation in rebate programs,
- Energy-centric operational tools that enable data-driven energy management at enterprise- and unit-level, including Coast Guard Total Energy Resource Reporting and Accounting (CG-TERRA) tool,
- Roles in Coast Guard alternatively-financed energy performance contracts,
- Coast Guard sustainability reporting requirements and stakeholder roles for each requirement.

The Financial Resource Management Manual (FRMM) [COMDTINST M7100 series] prescribes the Coast Guard financial resource management policy. It sets forth responsibilities, guidelines, timetables, and procedures for units involved in financial resource management and administration. Financial resource management includes the diligent oversight of all actions that affect the use of Coast Guard funds. These efforts include obtaining funds to carry out the missions, duties, and responsibilities of the Coast Guard while exercising good stewardship over the funds provided by ensuring that they are used for the purposes for which they were meant and in accordance with applicable laws, rules, regulations, and policies. Budget integration is incorporated in the development of the Environmental Compliance and Restoration budget and action plan, acquisition of new high performance assets, recapitalization of shore infrastructure with goals for buildings to meet the requirements of 2006 Memorandum of Understanding (MOU) and be compliant with U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) Green Building Rating System.

The Coast Guard Office of Budget and Programs reviews and coordinates the planning and execution of current and proposed programs including the determination of Coast Guard priorities for resource allocation for matters involving current fiscal year through fiscal year plus three. In addition, it reviews current fiscal year operating expenses and capital investment priorities as they relate to programmatic issues when fallout funds become available or when funding shortfalls compel identification of programmatic alternatives. The office coordinates the review of all prospective resource proposals and their respective priorities for inclusion at various stages of the budget process and will perform such analyses as required to ensure selection of the best alternatives consistent with strategic and long-range planning goals.

The Coast Guard's recapitalization investment strategy emphasizes the Assistant Commandant for Acquisition's (CG-9) duty to deliver products that meet mission requirements – a key criterion for assessing return on investment in Coast Guard recapitalization programs. Coast Guard mission requirements are articulated by the Sponsor on behalf of the Coast Guard Deputy Commandant for Operations (CG-DCO); the end-user of the platforms and mission systems produced by acquisition programs and projects. CG-9 works closely with Coast Guard Technical Authorities to determine the most cost effective and suitable material solutions to meet mission requirements challenges.

The relationships among Sponsor, CG-9, Technical Authority, and end-user are documented in the Coast Guard's departmentally approved Major Systems Acquisition Manual (MSAM) [COMDTINST M5000.10C]. The MSAM outlines a disciplined approach to Lifecycle Cost Estimation (LCCE) in Coast Guard acquisition programs. The MSAM's LCCE process is the basis for project budgets and spend plans, as well as being the foundation for Coast Guard business decisions concerning project affordability. The LCCE does include energy operational estimates and environmental disposal cost estimates.

The Coast Guard, together with the U.S. Navy and other partner agencies, leads the way in federally-regulated environmental protection initiatives while conducting operations. However,

“sustainable design principles,” energy and water consumption reduction, and reduced “environmental impact/footprint” are not considered key factors in the current LCCE process for major systems acquisition projects. From the MSAM’s perspective, the process focuses on financing the delivery of suitable and effective operational capability. To the extent that operational capability can be achieved using sustainable materials and methods, the Coast Guard is prepared to comply with federal government regulations in these endeavors. In short, initial estimated lifecycle energy operational expenses are validated during operational tests and evaluations and are not included as a Key Performance Parameter (KPP) for any existing Coast Guard acquisition.

The Coast Guard recognizes the importance of federal investment in conservation, sustainable and renewable resources, and ecologically sound technologies. As appropriate within the framework of the MSAM process, the Coast Guard will continue to make evaluation of sustainable materials and approaches part of both material and non-material solutions to mission requirements before contracting for new capital asset acquisitions. As other agencies, including the Navy, explore initiatives to apply the principals of operational sustainability to their capital investment programs, the Coast Guard will remain interested in participating to achieve economies of scale in its own investments.

For the real property portfolio the depot level maintenance backlog is prioritized through a Planned Obligations Prioritization (POP) process also known as a POP board. Two types of POP boards are scheduled and administered throughout the organization; a local POP board and a nation-wide Centralized POP board (CPOP). The CPOP is held annually for major maintenance and special projects. As part of the CPOP process, a review of these projects for energy efficiency, water conservation, renewable energy and high performance buildings is conducted. Energy efficiency projects are prioritized independently of the other CPOP projects. In addition, Energy Conservation Measures (ECMs) identified as part of the ongoing energy audit process is prioritized separately with centralized allocated funds. Opportunities to leverage appropriations in financed performance projects for more comprehensive, deeper retrofits are identified and prioritized.

### **Evaluation Measures**

The Coast Guard leadership continues to establish and enforce standards for implementing sustainable practices. These practices are reported and updated to reflect changing circumstances annually. CG-4D is ultimately responsible for evaluation of Coast Guard progress with input from CG-46, CG-47, and CG-43. Metrics include energy conservation, water conservation, renewable energy utilization, metering, training, investments, and for purposes of strategic management, responding to data calls, and reporting. CG-46, CG-47, and CG-43 submit quarterly DHS and OMB Environmental and Energy Scorecards and compile the Annual Energy Report and GHG Inventory in accordance with Department of Energy (DOE) requirements.

CG-46 is developing operational tools to assist in facilitating informed enterprise energy management investments for the Coast Guard. Each of these tools will reside as part of CG-TERRA. The energy expenditure tool is an automated, budgetary solution that captures financial data accurately from multiple sources on all Coast Guard energy expenditures and consumption. This budgetary tool will analyze and report current and historical data. The tool will provide a dynamic, holistic view of the Coast Guard operational portfolio. CG-TERRA includes an energy analytic tool to display energy use by asset identifier or real property geographic area. The tool will provide a standardized reporting format with the ability to export data in multiple formats for analysis and distribution for data-driven operational decision making. The tool will include energy-related operational data, track key performance indicators, and forecast expenditures and consumption based on anticipated operational and/or geographic variables.

### Performance Review

*Scope 1 & 2 GHG Emissions* – The Coast Guard is committed to reduce Scope 1 and 2 GHG emissions 25 percent by FY 2020 relative to a FY 2008 baseline. In FY 2014, the Coast Guard reduced Scope 1 and 2 GHG emissions by 27.5 percent from the baseline. The Coast Guard’s progress in GHG emissions reduction is partially attributed to continued energy conservation efforts, the implementation of renewable energy, and energy conservation projects. This represents a small uptick from FY 2013, which can be attributed to improved liquid fuel accounting for facilities and an increase in heating oil from an unusually harsh winter in FY 2014.

The Coast Guard continues to aggressively implement alternatively financed projects that include energy/water efficiency and renewable energy. In FY 2014, an Utility Energy Service Contract (UESC) was awarded at Training Center (TRACEN) Petaluma; total contract value of \$4.9M, a ten year performance period, and will save over \$450k per year. As the number of alternatively financed projects enacted by the Coast Guard continues to grow, the Coast Guard has institutionalized the continual measurement and verification (M&V) and maintenance that alternatively financed contracts require. In order to realize the full savings potential of each project the Coast Guard has clearly identified roles, approval procedures, and centralized document management within policy, COMDTINST M4100.2E. The Coast Guard will continue to work with its facility engineers and Resource Efficiency Managers (REMs) to provide oversight of these specific projects throughout each contract term. Most significantly, through the development of CG-TERRA, the Coast Guard will be able to more accurately and efficiently manage its overall energy and expenditure consumption to achieve target reductions.

*Scope 3 GHG Emissions* – Scope 3 GHG emissions represent an important opportunity for the Coast Guard to influence the behavior of its employees and suppliers toward behaviors that reduce GHG emissions. The Coast Guard’s goal is to reduce GHG emissions from Scope 3 sources by 7.2 percent by FY 2020 relative to an FY 2008 baseline. In FY 2014, Coast Guard reduced its Scope 3 GHG emissions by 27.4 percent from the baseline. Federal travel reductions largely attributed to exceeding the Scope 3 goal. The Coast Guard significantly limited all non-operational travel, discretionary training, exercises, conferences, and carefully considered use of

Coast Guard assets and personnel in support of non-operational and other outreach efforts. To the maximum practicable, the Coast Guard has increased video teleconferencing utilization and expanded telework capabilities.

*Sustainable Buildings* – Since 1 October 2006, the Coast Guard has designed all new buildings to be 30 percent more energy efficient than the relevant code requires per ASHRAE 90.1 standards. The Coast Guard is using the 2006 MOU Guiding Principles for High Performance and Sustainable Buildings in EO 13514 to assess the inventory of EB. However, the goal of achieving 15 percent of Coast Guard’s new, existing, and leased buildings greater than 5,000 square feet meet the Guiding Principles by FY 2015 remains a challenge. In FY 2014, the Shore Infrastructure Logistics Center (SILC) and CG-46 continued to develop a robust portfolio of alternately financed projects preparing a UESC at Base Portsmouth; a modification to the Energy Savings Performance Contract (ESPC) at the Coast Guard Yard for award in FY 2015; and nearly completing the construction phase of an ESPC at Base Elizabeth City. Through contracted REMs, the SILC continued conducting required energy audits of Energy Independence and Security Act (EISA) covered facilities at a rate of greater than 25% per year. The SILC continued to work with Control, Communications, Computers, and Information Technology (C4IT) components with the Coast Guard to obtain approval for using the Coast Guard data network for transmitting Advanced Metering Initiative (AMI) data to an enterprise energy management software application. The SILC also initiated plans to utilize Energy Star Portfolio Manager for benchmarking integrating data from existing facility data located in the Coast Guard Asset Management System (AMS) database and data from existing advanced and utility meters.

In FY 2014, the Coast Guard reduced its overall energy usage intensity (BTUs/bldg sq. ft.) in facilities by 35.5 percent from a FY 2003 baseline. In order to reduce energy intensity continually and work toward achieving 15 percent of Coast Guard’s inventory of EB that meet the Guiding Principles by FY 2015, the Coast Guard plans to implement several procedures. The Coast Guard will supply facility engineers with energy and consumption data specific to their site on a recurring basis; update construction specifications and Request for Proposal (RFP) templates to ensure sustainable practices and features are incorporated in design and construction contracts; review the Coast Guard Sustainability Guidance to incorporate salient features of the DHS Sustainable Practices Guidance and help meet the 2006 MOU Guiding Principles.

*Fleet Management* – The Coast Guard continued to reduce the total number of conventional fuel vehicles and increase the total alternative fuel vehicles being used in FY 2014. This change in the Coast Guard fleet has resulted in an increase of alternative fuel use by 738 percent from the FY 2005 baseline. The Coast Guard uses the Vehicle Allocation Methodology (VAM) to schedule replacement vehicles and has made the VAM results study a living document that is continuously updated to reflect all changes in the vehicle fleet inventory. In order to continue progress, the Coast Guard is implementing strategies to increase utilization of alternative fuel in dual-fuel vehicles and reduce the total consumption of petroleum products.

*Water Use Efficiency and Management* – In FY 2007, the Coast Guard established a baseline of water intensity of 38.4 Gal/GSF. In FY 2014, the Coast Guard reduced its potable water by 22.3 percent compared to the FY 2007 baseline. The reduction in potable water use is attributed to the completion of water conservation projects included as part of ESPCs, the identification and mitigation of water leaks, proactive water management programs at major facilities, and the inclusion of water conservation in energy projects. The Coast Guard compiles water consumption and cost data from the Financial Center (FINCEN) utility database and field unit records. Through better data transparency and validity, the Coast Guard has been able to remove a large amount of non-water data from water purchases, leading to an additional reduction in water use when compared to the baseline. In line with the EISA 2007, the Coast Guard is beginning to add advanced water meters to its infrastructure. At the end of FY 2014, the Coast Guard had 73 advanced water meters installed.

*Pollution Prevention and Waste Reduction* – The Coast Guard is committed to increase source reduction of pollutants and waste as required by EO 13514. Diversity of its organizational entities and data systems remain key challenges for the Coast Guard for achieving the pollution prevention and waste reduction goal reporting criteria. Currently, there is no data repository to accurately track data required for reporting this goal. The size of operations has indicated that smaller facilities and units do not have the volume to contribute to a proper sampling for measurement. In FY 2015, the Coast Guard is working toward developing enterprise-wide procedures and a database management system to track volume/weight for solid waste collection with minimal manpower burden.

*Sustainable Acquisition* – The Coast Guard continues to review 5 percent of sustainable acquisitions on a quarterly basis for compliance. The Coast Guard ensures that bio-based and other Federal Acquisition Regulations (FAR) sustainability clauses are included in all applicable construction and other relevant service contracts. The Coast Guard includes FAR requirements for energy efficient, recycled, bio-based, and other relevant sustainability factors in all new contract actions and conducts quarterly compliance reviews. Continued participation in the Green Procurement Program (GPP) enhances and sustains mission readiness for the Coast Guard through cost effective acquisition that achieves compliance and reduces resource consumption and solid and hazardous waste products.

*Electronic Stewardship and Data Centers* – The Coast Guard requires in the Blanket Purchase Agreement (BPA) contract for all standard workstations and servers that 95 percent of items must be Electronic Product Environmental Assessment Tool (EPEAT) certified to meet EO 13514. The Coast Guard is currently establishing detailed plans to reduce its data centers, working with other Coast Guard stakeholders to complete its Electronic Stewardship Policy, upgrading all workstations to Windows 7, and researching current inventory management software products to allow better reporting of network electronic stewardship data. Once Windows 7 is implemented into the Coast Guard's infrastructure, the Coast Guard will have the opportunity to further research the possibility of Wake-on-Local Area Network (LAN) capability in order to allow standard workstations to hibernate.

Renewable Energy – In FY 2014, the Coast Guard attributed 6.5 percent of its total electricity is from renewable source, nearly all which came from on-site generation of renewable electricity (new sources). This falls short of the FY 2014 goal of 7.5 percent, despite seeing an uptick in on-site production. This shortfall can be attributed to the lack of Renewable Energy Certificates (RECs) purchased by the Coast Guard, which were not purchased due to budget constraints not aligning to the REC contract solicitation window. Over the past few years, the Coast Guard has actively sought to include renewable energy into alternatively financed contracts in order to build a strong renewable energy portfolio. By including renewable energy in large, holistic performance contracts, the long and prohibitive payback periods of renewable energy technologies are reduced and the high investment costs are spread out over multiple years. In FY 2014, a few of the major renewable energy projects in operation include:

- Roof panels in Southwest Harbor and at Net Zero Cutter NARWHAL facility,
- 875 kW ground mount array and 125 kW of roof mounted panels in Petaluma, CA,
- 2.89 MW of roof mount photovoltaic (PV) in Puerto Rico,
- Ground source heat pumps in Cape Cod, MA,
- Landfill gas combined heat and power generation at the Coast Guard Yard,
- Biomass heat in Southwest Harbor, ME.

Climate Change Resilience – Climate change is a key strategic driver that impacts the Coast Guard’s ability to execute its mission. Adapting to the changing conditions in the Arctic region is a challenge. The seasonal changes are dramatic with unpredictable weather, insufficient infrastructure, and great travel distances to remote areas. The 2013 U.S. Coast Guard’s Arctic Strategy is used to guide the Service in prioritizing its actions in the Arctic region. The annual Coast Guard Arctic Shield operation is one of the tools to ensure successful implementation of many of the actions outlined in both the Coast Guard and National Arctic strategies. The lessons learned from Arctic Shield are constantly being used to improve Coast Guard operations and capabilities, knowledge, and to improve overall Coast Guard preparedness to respond to emergencies within the region. Additionally, these lessons learned are used to inform development of future year Arctic Shield operations. The Coast Guard is implementing the 2013 U.S. Coast Guard Arctic Strategy as permitted within existing resource levels to ensure safe, secure, and environmentally responsible maritime activity in the Arctic.

## Evaluation of Previous Year's Strategies

<b>Goal 1: Scope 1&amp;2 GHG Reduction</b>			
<b>(A) Strategy</b>	<b>(B) Did you implement this strategy? Yes/No</b>	<b>(C) Was the strategy successful for you? Yes/No</b>	<b>(D) Will you use this strategy again next year?</b>
Policy Development	Yes	Yes	Yes, the Coast Guard will continue to develop policy, procedures and guides as needed for Headquarters and field units.
Energy Management Outreach	Yes	Yes	Yes, this is an on-going strategy.
CG-TERRA	Yes	Yes	Yes, the Coast Guard will continue to pursue an up-to-date and effective energy data management system.
Facility Requirement Profiles	Yes	Yes	Yes, this is an on-going strategy.
Alternatively Financed Projects	Yes	Yes	Yes, this financing stream continues to play a vital role in improving energy efficiencies and enhancing sustainable operations and practices.
Sustainability Organization	Yes	Yes	Yes, this is an on-going strategy.
Comprehensive Federal Fleet Management Handbook	Yes	Yes	In addition to efforts in past years, major Coast Guard Bases will begin using centralized motor pools to further increase vehicle efficiency.
Energy Management Training	Yes	Yes	Yes, this is an on-going strategy.
Officer Evaluation Report (OER)	No	No	Yes, the OER change request is still to be determined (TBD).
<b>Goal 1: Scope 3 GHG Reductions</b>			
<b>(A) Strategy</b>	<b>(B) Did you implement this strategy? Yes/No</b>	<b>(C) Was the strategy successful for you? Yes/No</b>	<b>(D) Will you use this strategy again next year?</b>
Increase Awareness and Participation in Telework	Yes	Yes	Yes, the Coast Guard will continue to market the program with periodic reminders. Coast Guard will review/revise the policy on an as needed basis.
Coast Guard Headquarters Move to St. Elizabeth's Campus	Yes	Yes	Yes, Coast Guard Headquarters successfully completed its transition to St. Elizabeth's while increasing its use of mass transit.
Federal Travel Reduction	Yes	Yes	Yes, this is an on-going strategy.
Minimize Distance from Generation Source	Yes	Yes	Yes, this is an on-going strategy.

<b>Goal 2: Sustainable Buildings</b>			
<b>(A) Strategy</b>	<b>(B) Did you implement this strategy? Yes/No</b>	<b>(C) Was the strategy successful for you? Yes/No</b>	<b>(D) Will you use this strategy again next year?</b>
Policy Development	Yes	Yes	The Civil Engineering Manual COMDTINST M11000.11A was promulgated in May 2014. Additional policy will be developed on an as needed basis.
Implementing Goals and Objectives of EO 13514 and EISA.	Yes	Yes	Yes, the Coast Guard continues to implement mandated requirements subject to available financial and personnel resources.
Implementing a Shore Divestiture Program	Yes	Yes	Yes, this is an annual recurring strategy.
Verify and update EB inventory, 5,000 square feet and above.	Yes	Yes	The Coast Guard EB inventory is complete and accurate. There are 1,175 buildings in the Coast Guard inventory subject to sustainability requirements. This strategy will continue to be used in the short term again.
Map EB data with AMI and other utility meters.	Yes	Yes	Yes, this is an on-going strategy and depends on the availability of financial resources to fully implement this initiative.
Assess the scope of effort and resources required to meet the Guiding Principles.	Yes	Yes	Yes, the SILC is currently engaged in determining the level of effort and required resources to meet mandated requirements.
Facility Requirement Profiles	Yes	Yes	This is an on-going strategy.
Prioritization of EB projects through the Coast Guard's CPOP board.	Yes	Yes	This is an annual reoccurring strategy.
Alternatively Financed Projects	Yes	Yes	Yes, this financing stream continues to play a vital role in improving energy efficiencies and enhancing sustainable operations and practices.
Compliance Tracking System (CTS)	Yes	Yes	This is an on-going strategy.
Energy Management Training	Yes	Yes	This is an on-going strategy.
<b>Goal 3: Fleet Management</b>			
<b>(A) Strategy</b>	<b>(B) Did you implement this strategy? Yes/No</b>	<b>(C) Was the strategy successful for you? Yes/No</b>	<b>(D) Will you use this strategy again next year?</b>
Comprehensive Federal Fleet Management Handbook	Yes	Yes	In addition to efforts in past years, major Coast Guard Bases will begin using centralized motor pools to further increase vehicle efficiency.
Increase utilization of alternative fuel in dual-fuel vehicles.	Yes	No	Yes, the education of operational users is paramount and will continue. These efforts will help increase alternative fuel usage. The Coast Guard has issued guidance, but has not yet established a way to enforce the operational users.

Reduce total consumption of petroleum products.	Yes	Yes	Yes, through increasing individual government vehicle (GV) efficiency, and some fleet reductions, overall petroleum use will be reduced.
<b>Goal 4: Water Use Efficiency &amp; Management</b>			
(A) <b>Strategy</b>	(B) <b>Did you implement this strategy? Yes/No</b>	(C) <b>Was the strategy successful for you? Yes/No</b>	(D) <b>Will you use this strategy again next year?</b>
CTS	Yes	Yes	This is an on-going strategy.
Alternatively Financed Projects	Yes	Yes	Yes, this financing stream continues to play a vital role in improving energy efficiencies and enhancing sustainable operations and practices.
Personnel Evaluations	No	No	Yes, the OER change request is still TBD.
<b>Goal 5: Pollution Prevention &amp; Waste Reduction</b>			
(A) <b>Strategy</b>	(B) <b>Did you implement this strategy? Yes/No</b>	(C) <b>Was the strategy successful for you? Yes/No</b>	(D) <b>Will you use this strategy again next year?</b>
Reduce solid waste through elimination, source reduction, and recycling.	No	No	Yes, the Coast Guard is still in the process of implementing this strategy.
<b>Goal 6: Sustainable Acquisition</b>			
(A) <b>Strategy</b>	(B) <b>Did you implement this strategy? Yes/No</b>	(C) <b>Was the strategy successful for you? Yes/No</b>	(D) <b>Will you use this strategy again next year?</b>
Continue to review 5 percent of sustainable acquisitions on a quarterly basis for compliance. Also ensure that bio-based and other FAR sustainability clauses are included in all applicable construction and other relevant service contracts.	Yes	Yes	Yes, reviewing 5 percent sustainable acquisitions on a quarterly basis for compliance is an OMB requirement.

<b>Goal 7: Electronic Stewardship &amp; Data Centers</b>			
<b>(A) Strategy</b>	<b>(B) Did you implement this strategy? Yes/No</b>	<b>(C) Was the strategy successful for you? Yes/No</b>	<b>(D) Will you use this strategy again next year?</b>
Establish detailed plans for the Coast Guard data center reduction.	Yes	Yes	Yes, the Coast Guard will continue to collaborate with the Department of Defense (DoD) Joint Information Environment and explore commercial cloud solutions.
Work with other Coast Guard directorates to re-start the effort to finish the electronic stewardship policy.	Yes	Yes	Yes, policy is drafted and CG-6 is currently working with other directorates to reach concurrence.
Continue research on current inventory management software products to allow better reporting of network electronic stewardship data.	Yes	Yes	Yes, CG-6 is working with CG-8 to gain better understanding of the current networked environment through better inventory management practices.
Research possibility of Wake-on-LAN capability and implement in order to allow Standard Work Stations to hibernate.	Yes	Yes	Yes, Coast Guard technical points of contact are looking at the impact of implementing Wake-on-LAN as Windows 7 has begun its rollout.
<b>Goal 8: Renewable Energy</b>			
<b>(A) Strategy</b>	<b>(B) Did you implement this strategy? Yes/No</b>	<b>(C) Was the strategy successful for you? Yes/No</b>	<b>(D) Will you use this strategy again next year?</b>
RECs	Yes	No	Yes, the Coast Guard received LEED RECs in FY 2014, but was unable to purchase additional RECs due to various budget timing challenges. Coast Guard will pursue purchasing RECs in FY 2015 based on the Defense Logistics Agency (DLA) REC solicitation schedule and budget constraints.
Power Purchase Agreement (PPA)	No	Yes	Yes, the Coast Guard is continuing to utilize existing PPAs and pursue new opportunities when feasible.
Electricity Contracts	No	No	Yes, this is an on-going strategy.
Energy Security	No	No	Yes, this is an on-going strategy.
Renewable Energy Projects	No	Yes	Yes, the Coast Guard is continuing to utilize existing renewable sources and pursue new project opportunities when feasible. Three additional renewable energy projects are in pre-planning phases.
Coast Guard Energy Generation	No	Yes	The Coast Guard is continuing to utilize existing renewable sources and pursue new opportunities when feasible.

<b>Goal 9: Climate Change Resilience</b>			
<b>(A) Strategy</b>	<b>(B) Did you implement this strategy? Yes/No</b>	<b>(C) Was the strategy successful for you? Yes/No</b>	<b>(D) Will you use this strategy again next year?</b>
Develop Implementation Plan for the USCG Arctic Strategy.	No	No	Yes. In May 2013, the Coast Guard submitted a USCG Arctic Strategy Implementation Report to Congress. This report is now being expanded to a detailed Coast Guard Implementation Plan.
National Strategy for the Arctic Region (NSAR).	Yes	Yes	Yes. Published by the White House in January 2014, the Coast Guard and DHS Office of Policy (PLCY) continue to work together to implement the NSAR.
Conduct annual Arctic Shield operations.	Yes	Yes	Yes, this is an annual operation.
Establish the Arctic Coast Guard Forum (ACGF).	No	No	Yes. In the Spring of 2014, Canada hosted an experts meeting and in the Fall of 2014 they hosted an informal Principals' level meeting to move towards formal ACGF establishment. The Coast Guard will continue the momentum by hosting an experts' meeting, and potentially a principals' meeting, in calendar year 2015.
Establish the DHS/Coast Guard Arctic Policy Board (APB).	No	No	Yes, the Coast Guard is working with DHS PLCY to complete the required paperwork to enable its establishment.
Develop requirements for a National Polar Icebreaking capability.	No	No	Yes, the Polar Icebreaker Recapitalization Operational Requirements document and an alternatives analysis is currently in process.
Establish an Arctic Centers of Excellence (COE).	Yes	Yes	Yes, the <i>Center for Arctic Study and Policy</i> was established at the Coast Guard Academy.
Complete the Bering Strait Port Access Route Study.	No	No	Yes. In December 2014, the Coast Guard will publish a <i>Notice Of Study</i> and <i>Request For Comments</i> in the Federal Register. Comments will be accepted through 3 June 2015 on the proposed traffic measures.
Support development of the International Maritime Organization (IMO) Polar Code.	No	No	Yes, the Polar Code has two parts – safety and environmental. The safety part, which amends the Safety of Life at Sea Convention, was adopted at the IMO in November 2014. The environmental part (amends the International Convention for the Prevention of Pollution from Ships (MARPOL)) is expected to be adopted in May 2015. Once adopted both will come into force January 2017.
Support accession to the United Nations Convention on the Law of the Sea (LOS).	No	No	Yes, the U.S. has yet to join the LOS Convention.
Support Department of State (DOS) development of “themes” for U.S. chairmanship of the Arctic Council (2015-2017) and actively engage within the Council to promote U.S. interest (ongoing).	Yes	Yes	Yes, this is an on-going effort. The Coast Guard is co-leading development of an Arctic Council Search and Rescue, and also a Pollution Response exercise during U.S. Chairmanship.

Publish the Coast Guard Western Hemisphere Strategy.	Yes	Yes	The Western Hemisphere strategy was promulgated in September 2014.
Draft and Publish a Coast Guard Climate Change Strategy.	No	No	The Coast Guard is currently exploring the potential to develop a strategic framework to outline its short and medium term climate adaptation priorities.
Implement the DHS Climate Change Action Plan.	No	No	This strategy is on-going. Many of the Arctic initiatives discussed in Goal 9 of this table support this action.
Develop the Coast Guard Electronic Incident Management System	No	No	Yes, the development and purchase of a Coast Guard Electronic Incident Management Software System continues in FY 2015 with an implementation goal set for FY 2016.
DHS-CCAESC	Yes	Yes	Coast Guard participated in all 2014 convened meetings of the DHS-CCAESC and Directors Group.

## Section 1: Size & Scope of Coast Guard Operations

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### Sustainability and the Coast Guard Mission

For more than two centuries, the Coast Guard has safeguarded the Nation’s maritime interests in the heartland, in ports, at sea, and around the globe. It protects the maritime economy and environment, defends the maritime borders, and saves those in peril. As its *Semper Paratus* motto suggests, the Coast Guard is always ready. In line with this credo, a readiness for the demands of the future means creating a sustainable present. Sustainability defines a consistent and coherent set of values and goals for all projects and processes, stimulates innovation and excellence, and serves as a unifying concept for the entire organization.

The Coast Guard recognizes the potential negative impacts of unstable resource streams, natural disasters, and terrorism. Fortunately, the Coast Guard is in a unique position to set the paradigm for a sustainable, secure, and resilient future by demonstrating how efficiency and sustainability will enhance America’s national security. Meeting the mandates in current legislation and executive orders will require a pragmatic, flexible, and strategic plan. The resolution of this plan demonstrates that the Coast Guard is willing to both lead sustainability efforts and increase the nation’s security.

Nonetheless, several challenges confront the Coast Guard in terms of achieving its sustainability goals. The primary obstacles are presented below, including strategies to mitigate the associated risks:

- *Availability of resources* - Like any other federal entity, the Coast Guard acknowledges that resources, both financial and personnel, available to direct towards sustainability efforts are limited. To supplement its limited dedicated staff, the Coast Guard will work towards a paradigm shift in its operational culture to engrain sustainability concepts within all levels of its organization, to instill an “all hands on deck” sense of unity and resultant dedication. Additionally, the Coast Guard will perform thorough due diligence prior to the execution of any sustainability project to ensure that the portfolio of selected projects will yield maximum life cycle returns on investment for key metrics. As a powerful contracting strategy, the Coast Guard will continue to proactively seek and employ alternatively financed projects. Finally, the Coast Guard will employ a cradle-to-grave sustainability philosophy, emphasizing sustainable design, embedding flavors of sustainability in all its activities, and a focusing on personnel training and education where economically feasible.
- *Sustainment through change* - As chains of commands and flag-level leadership transition personnel periodically changes in operational philosophy as well as availability and allocation of resources are potential challenges facing any entity within the Coast Guard. The sustainability plan must be embedded in the core values of Coast Guard personnel at all levels and be flexible and adaptable enough to endure and transcend such leadership and operational shifts. In alignment with the multi-disciplined breadth of this

plan, the Coast Guard will strive to include aspects of sustainability in all facets of operations, including policy, guidance, procurement, and execution.

- *Operational tempo* - Many of the Coast Guard activities are mission-critical; the Coast Guard must always be ready to respond to situations with immediate deployment of resources and personnel. The Coast Guard sustainability plan acknowledges that operational tempo is situational and unpredictable. It will be malleable to adapt to changing situations outside the control of the Coast Guard without jeopardizing mission objectives.

For the Coast Guard, following through on sustainability goals and objectives throughout the long term and at all levels of an organization is mission critical in and of itself – critical to the sustainment of its operations, critical to its assumed responsibility of protecting the environment, and critical to the national security of the U.S. The Coast Guard is committed to becoming a model agency for sustainability. The following table describes the Coast Guard’s size and scope of operations.

**Table 1.2: Size and Scope of Coast Guard Operations**

Coast Guard Size and Scope	FY13	FY14	Comments
Total # Employees as Reported in the President’s Budget	48,806	45,901	Does not include reservists.
Total Acres Land Managed	77,881	70,871	The data provided includes 57,205 rural and 4,120 urban Coast Guard owned acreage. Total leased rural acreage is 7,441 and 2,105 urban acreage.
Total # Buildings Owned <sup>1</sup>	6,985	6,627	The value shown is for buildings only; this does not include structures, towers, etc.
Total # Buildings Leased (General Services Administration (GSA) and Non-GSA Lease)	729	847	
Total Buildings Gross Square Feet (GSF)	31,783,865	31,354,284	
Operates in # of Locations Throughout U.S.	674	4,652	The Coast Guard no longer uses installation records in the Shore Asset Management System (SAMS). The Coast Guard now uses ‘site level record’. Therefore, the variation in the amount of locations from FY 2013. All buildings and structures on that physical piece of land are considered to be part of that site.
Operates in # of Locations Outside of U.S.	N/A	N/A	The number of locations the Coast Guard operates in outside of the U.S. continuously changes based upon mission.

<b>Coast Guard Size and Scope</b>	<b>FY13</b>	<b>FY14</b>	<b>Comments</b>
Total # Fleet Vehicles Owned	302	294	Most Coast Guard owned vehicles will be replaced with GSA-lease.
Total # Fleet Vehicles Leased	3,438	3,403	Planned inventory by the end of FY 2015 is 3,311.
Total # Exempted-Fleet Vehicles (Tactical, Law Enforcement, Emergency, Etc.)	493	360	FY 2014 data reflects more accurate data for all tactical, emergency, and port security vehicles.
Total Amount Contracts Awarded as Reported in FPDS (\$BIL)	2.961	3.112	FY 2013 Sustainability Actions: \$87M FY 2014 Sustainability Actions: \$69M

Building information should be consistent with FY 2013 and FY 2014 data submitted into the Federal Real Property Profile (FRPP)

## Section 2: Performance Review and Annual Update

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### GOAL 1: GREENHOUSE GAS (GHG) REDUCTION

#### I. Scope 1 and 2 GHG Emission Sources

Scope 1 GHG emissions are direct emissions from the operation of sources that are owned or controlled by the Coast Guard, to include those emissions from:

- Stationary fuel combustion equipment, such as boilers, furnaces, and emergency generators;
- Mobile sources, such as fleet vehicles (tactical vehicles are excluded); and
- Fugitive and process carbon emissions associated with current land-use management practices and activities (e.g., forest management practices) and from the operation of refrigeration and air-conditioning systems, electrical switchgear, and other equipment and systems.

Scope 2 GHG emissions are indirect emissions that occur as a result of the Coast Guard operations but are produced by sources owned or controlled by another entity. Scope 2 GHG emissions include emissions from the consumption of purchased electricity and steam generated by other entities. The Coast Guard Scope 2 GHG targets reflect:

- Identified reductions in energy use and intensity;
- Reduced use of fossil fuels and increased use of alternative fuels in fleet vehicles;
- Increased application of green building applications and sustainable design; and
- Innovative energy technologies and funding strategies which promote conservation and renewable energy use.

#### II. Overall Strategy to Meet Scope 1 and 2 GHG Reductions

##### *Goal 1 – Description of Scope 1 and 2 GHG Reductions*

The Coast Guard targets align with DHS's goal to reduce Scope 1 and 2 GHG emissions 25 percent by FY 2020 relative to a FY 2008 baseline. As per EO 13514 and OMB guidance (as relayed via DHS), the Coast Guard applies reduction goals to shore facilities and fleet vehicles, while tactical vehicles (aircraft, cutters, patrol boats, equipment trucks, etc.) are excluded. However, GHG emissions are being tracked for tactical vehicles and opportunities for reduction and integration of renewable alternative fuels are being pursued with DLA. Specific annual Scope 1 and 2 GHG reduction targets (from FY2008 baseline) for the Coast Guard are listed on the following page in Table 1.3.



**Table 1.3: Scope 1 & 2 GHG Reduction Targets and Goal**

Component	Scope 1 & 2	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20
Coast Guard	25% from FY-08 Base Year	4%	6%	8%	11%	13%	15%	17%	19%	21%	23%	25%

*Goal 1 – Coast Guard Lead for Scope 1 and 2 GHG Reductions*

CG-4D is responsible for achieving non-exempted Scope 1 and 2 GHG reductions. Program management for shore renewable energy and efficiency are shared between CG-46 and CG-43. CG-9 participation is critical to the accomplishment of this goal, as continued award of alternatively financed energy contracts is essential for success. Localized energy conservation experts, energy consultants, and designated facility energy managers provide strategic support.

The program management for the fleet vehicle aspects of the goal falls under the jurisdiction of the Fleet Vehicle Program (CG-435). Military and civilian employees provide vehicle support in the field as a collateral duty at the SILC-Base Services Division and various Coast Guard Regional Motor Fleet Managers.

*Goal 1 - Staff Resources for Scope 1 and 2 GHG Reductions*

The Coast Guard has two billets assigned to Scope 1 and Scope 2 GHG reductions: one in CG-46 and one in CG-43. As the workforce is reshaped for the future, one way that the Coast Guard has been able to mitigate the lack of dedicated billeted staff resources is by assigning the duties to military and civilian employees as a collateral duty. Other personnel throughout the Coast Guard such as contracting officers, lawyers, engineers, environmentalists, and financial personnel also provide assistance on an ad-hoc basis.

*Goal 1 – Baseline for Scope 1 and 2 GHG Reductions*

**Table 1.4: Scope 1 & 2 GHG Baseline**

Description	Baseline Year	Baseline Value
Total scope 1&2 GHG emissions (comprehensive) MTCO <sub>2e</sub>	2008	985,680
Total scope 1&2 GHG emissions (subject to Component scope 1&2 GHG reduction target) MTCO <sub>2e</sub>	2008	338,684

*Goal 1 - Planning/Status for Scope 1 and 2 GHG Reductions*

**Table 1.5: Goal 1 Planning and Status**

GHG Emissions	FY08 Baseline	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	Changes/Comments
Total scope 1&2 GHG emissions (comprehensive) (MTCO2e) <b>ACTUAL</b>	985,680	958,617	960,533	933,839	844,712	855,807	Future	Future	Future	Future	Future	Future	
Total scope 1&2 GHG emissions (subject to Component scope 1&2 GHG reduction target) (MTCO2e) <b>TARGET</b> <sup>12</sup>	N/A	325,137	318,363	311,589	301,429	294,655	...	...	...	...	...	254,013	
Total scope 1&2 GHG emissions (subject to Component scope 1&2 GHG reduction target) (MTCO2e) <b>ACTUAL</b>	338,684	300,944	312,046	272,179	220,699	245,551.8	Future	Future	Future	Future	Future	Future	Certain exclusions, such as shore tied ship GHGs are engineering estimates derived from advanced electrical utility meter data.
Overall Component scope 1&2 GHG reduction (reduced from FY08 base year) (%) <b>TARGET</b> <sup>12</sup>	N/A	4	6	8	11	13	15	17	19	21	23	25	
Overall Component scope 1&2 GHG reduction (reduced from FY08 base year) (%) <b>ACTUAL</b>	0	15	13	23	34.8	27.5	Future	Future	Future	Future	Future	Future	This represents a small uptick from FY 2013, which can be attributed to improved liquid fuel accounting for facilities and an increase in heating oil from an unusually harsh winter in FY 2014.

*Goal 1 – Strategies Short Term (FY15-FY16) for Scope 1 and 2 GHG Reductions*

**Table 1.6: Scope 1 & 2 GHG Reduction Strategies Short Term (FY15-FY16)**

(A) Strategy Description	(B) Top Priority? Yes/No	(C) Strategy Implementation	(D) Specific targets/metrics to measure strategy success including milestones to be achieved in <u>next 18-24 months</u> .
Policy Development	Yes	Continue developing new policies, plans, and procedural guidance, while updating existing such as the OSPP.	Develop process guide for Alternately Financed Performance Projects. Target completion date Q1 FY 2016.
Energy Management Outreach	Yes	Continuing to conduct enterprise-wide environmental sustainability awareness and outreach through the use of messages, web portals, newsletters, awards programs, briefings and other means.	<p>(1) Continue to publish a semi-annual Energy and Fuel Matters Newsletter.</p> <p>(2) Convene judging panel for the Coast Guard Sustainability, Energy, and Environmental Readiness (SEER) Awards in February 2015/2016.</p> <p>(3) SEER Award winners announced in alignment with Earth Day 2015/2016.</p>
CG-TERRA	Yes	The Coast Guard will continually develop, manage, and maintain an automated tool that captures the Coast Guard energy and expenditure consumption data. The tool will include energy related operational data, track key performance indicators, and forecast expenditures and consumption.	Capture and disseminate all petroleum consumption for each asset and geographic site Q4 FY 2015.
Facility Requirement Profiles	Yes	The Coast Guard plans to supply facility engineers with energy and consumption data specific to their site on a recurring basis.	<p>(1) Facility Requirement Profiles will be completed for all EISA covered Facilities by the end of Q4 FY 2015.</p> <p>(2) Begin distributing Facility Requirement Profiles on the Coast Guard web portal by Q1 FY 2016.</p> <p>(3) In FY 2016, semi-annual updates of Facility Requirement Profiles will be provided.</p>

<p>Alternatively Financed Projects</p>	<p>Yes</p>	<p>Continuing aggressive implementation of alternatively financed contracts that include energy/water efficiency and renewable energy.</p>	<p>(1) Modification to the Coast Guard Yard ESPC by Q4 FY 2015.</p> <p>(2) Base Portsmouth UESC award no later than Q4 FY 2015.</p> <p>(3) Alternatively financed project at the Coast Guard Academy initiated. Initiate Investment Grade Audit (IGA) for ESPC/UESC at Coast Guard Academy by Q1 FY 2016. Complete IGA by Q4 FY 2016.</p> <p>(4) Initiate IGA for additional alternatively financed project to be identified by Q2 FY 2016.</p>
<p>Sustainability Organization</p>	<p>Yes</p>	<p>Continue to develop a sustainability organization within the Coast Guard and identify the stakeholders responsible for corresponding functions. The Coast Guard will utilize the existing SEER Council (COMDTINST 4101.1) hierarchy to vet initiatives, issues and challenges for flag-level leadership awareness and approval.</p>	<p>(1) Convene Sustainability Working Group and Fuel Management and Logistics Working Group. Dates will be determined as needed throughout FY 2015 – FY2016.</p> <p>(2) Convene Public-Private Partnership Petroleum Logistics Working Group (P3PL WG) at least monthly or more often as needed throughout FY 2015 – FY 2016. See below P3PL strategy in this table for additional targets.</p> <p>(3) Convene SEER Steering Committee (SEERSC) no later than August 2015.</p> <p>(4) Convene SEER Council as needed.</p>
<p>Comprehensive Federal Fleet Management Handbook</p>	<p>Yes</p>	<p>Rightsizing of the Coast Guard fleet and replacement of existing vehicles with EISA compliant vehicles. Major Coast Guard Bases will also begin using centralized motor pools to further increase vehicle efficiency.</p>	<p>Replace existing vehicles throughout FY 2015- FY 2016 when economically feasible.</p>
<p>Energy Management Training</p>	<p>Yes</p>	<p>Provide training on energy efficiency, water conservation, renewable energy, and alternatively financed contracts in order to comply with federal requirements. Targeted individuals for training will be engineering leadership, engineers, specification writers, facility managers, contracting officers, lawyers, shop foreman, maintenance leaders, certified energy managers, etc.</p>	<p>Training will continue to be determined on a case-by-case basis in accordance with the Coast Guard’s guidance on travel, conference, training, and community outreach.</p>

OER	Yes	Provide incentives to Commissioned Officers by identifying water, energy, and fuel in the “Using Resources” block of the OER. Specifically, request to change this block to read “Ability to manage time, materials (including energy, water, and fuel), information, money, and people (i.e. all Coast Guard components as well as external publics).” This addition will provide Commissioned Officers with a tangible incentive to actively and assertively change their behavior and assist the Coast Guard in satisfying its obligation to decrease energy and water consumption.	OER change request submitted in Q2 FY 2014; approval status is still TBD. Anticipate edits will be incorporated during next OER revision.
ELSPs	Yes	Energy and fuel commodities are allocated through various military and commercial distribution systems that vary by geographical and economic constraints. In accordance with the Coast Guard’s Energy Management Policy (COMDTINST M4100.2E), the Coast Guard is developing ELSPs for two basic levels of support: recurring and emergent. The ELSPs will optimize use of DoD and DHS logistic operations that ensure the right energy and/or fuel commodity and/or product is being delivered at the right place at the right price. To maximize procedural efficiencies associated with fuel/energy procurement, all Headquarters units, TRACEN, Area, District, Base and Sector command staff will develop ELSPs.	<p>(1) In accordance with COMDTINST M4100.2E, the annual recurring submission deadline for ELSPs is by the end of Q2. CG-4 authorized a 30 day extension for the first round of submissions in FY 2015.</p> <p>(2) ELSP Workshops were held with Districts 1, 5, and 9 at the CG-46 Energy and Fuel Logistics Training events executed in Q1-Q2 FY 2015. CG-46 plans to use District 9 as a pilot and deep dive into their ELSP development process. District 9 will be completed by the end of Q4 FY 2015.</p> <p>(3) ELSP webinars will be provided to the remaining Districts to walk through the finalized development process and review their FY 2015 submissions. Webinars will be scheduled throughout FY 2016.</p>
Public-Private Partnership for Petroleum Logistics Working Group (P3PL WG)	Yes	The Coast Guard established the P3PL WG to develop a plan of action to explore the establishment of a Public-Private Partnership (P3) for Petroleum Logistics. The establishment of a P3 supports all current and future operational units by leveraging the buying power of annual Coast Guard energy spending. Petroleum fiscal stewardship is achieved by implementing infrastructure enhancements that enable enterprise-wide data capture, measurement and analytic tools. These efforts historically have not competed well for capital investment funds. Optimization of the hardware supports optimization of the logistics processes, and establishment of a P3 may offer privately funded comprehensive infrastructure modernization, while enabling Coast	<p>(1) P3PL WG will meet at least monthly or more often as needed throughout FY 2015 – FY 2016.</p> <p>(2) P3PL WG will develop a feasibility analysis throughout FY 2015 – FY2016. Preliminary objectives to support the feasibility analysis include:</p> <ul style="list-style-type: none"> <li>• Identify cost elements for consideration and document in a LCCE for Coast Guard Petroleum Logistics;</li> <li>• Assess financial feasibility and document in a Business Case Analysis;</li> <li>• Identify the partnership (e.g. infrastructure and service) requirements;</li> </ul>

		Guard personnel to focus on core mission and mission support functions. Establishment of a P3 may also increase energy reliability goals by providing access to investment in modern equipment and technology that enables off-grid, renewable energy powered fuel distribution facilities.	<ul style="list-style-type: none"> <li>Establish risk management program.</li> </ul> <p>(3) The P3PL WG will develop a plan of action to explore such a partnership for leadership review and report to the SEERSC by 31 August 2015.</p>
Cost Avoidance Reduction & Efficiency (CARE) Projects	Yes	The Coast Guard FRMM revised the previous Facility Energy Efficiency Funds (FEEF) to CARE funds. CARE funds are now AFC-30 funds that can be provided to rapidly deploy any energy management and energy efficiency retrofit projects of \$150,000 or less (per project). A CARE prioritization process will be developed in order to approve projects, which will include operational and maintenance stakeholder evaluation.	<p>(1) CG-46 plans to develop CARE prioritization process by Q4 FY 2015.</p> <p>(2) SILC Engineering Services Division (ESD) and Surface Forces Logistics Center (SFLC) ESD present energy CARE projects annually to CG-46 no later than the start of Q4.</p>
Standardization and Pitch Optimization Trials – Medium Endurance Cutter (WMEC)	Yes	<p>The Coast Guard will plan, conduct, analyze and document Standardization/Pitch Optimization Trials on the Coast Guard Cutter Harriet Lane.</p> <p>The purpose is to collect and analyze data that supports the development of alternative speed and pitch schedules to improve cutters fuel efficiency.</p>	<p>(1) Project initiated in December 2015.</p> <p>(2) Completion date scheduled for January 2016.</p>
Diesel Outboard Development	Yes	The Maritime Security Response Team (MRST) currently utilizes 300hp, gas-fueled engines on all of its boats. The replacement of gasoline outboards with diesel equivalents could eliminate many fuel quality (ethanol) and storage stability concerns, mitigate electrical power generation concerns, reduce fuel consumption (reduced carbon foot print), unit fuel costs, eliminate explosion hazards of gasoline, eliminate the need for gasoline-alternative research, etc. Investigate diesel outboard development through appropriate research vehicles to include partnership with Naval Sea Systems Command (NAVSEA).	This strategy is TBD based on the availability of Research, Development, Test & Evaluation (RDT&E) financial resources in FY 2016.

*Goal 1 – Strategies Mid Term (through FY18) for Scope 1 and 2 GHG Reductions*

**Table 1.7: Scope 1 & 2 GHG Reduction Strategies Mid Term (FY17-FY18)**

(A) Strategy Description	(B) Top Priority? Yes/No	(C) Strategy Implementation	(D) Specific targets/metrics to measure strategy success including milestones to be achieved from FY17-FY18.
Policy Development	Yes	Continue developing new policies, plans, and procedural guidance, while updating existing such as the OSPP.	Update policies, plans, and procedural guidance as necessary.
CG-TERRA	Yes	The Coast Guard will continually develop, manage, and maintain an automated tool that captures the Coast Guard energy and expenditure consumption data. The tool will include energy related operational data, track key performance indicators, and forecast expenditures and consumption.	Integrate facility utility data and display Facility Requirement Profiles in CG-TERRA.
Facility Requirement Profiles	Yes	The Coast Guard plans to supply facility engineers with energy and consumption data specific to their site on a recurring basis.	<p>(1) Transition to automatically generated facility profiles will lag behind energy management system approval by approximately one year, but is anticipated to occur within the FY 2017 – FY 2018 timeframe. The timeline of this goal will be updated as intermediary milestones are met.</p> <p>(2) SILC-ESD will validate the energy requirement profiles of each District at the end of the first and third fiscal quarters.</p>
Alternatively Financed Projects	Yes	Continuing aggressive implementation of alternatively financed contracts that include energy/water efficiency and renewable energy.	<p>(1) Pursue renewable energy projects at Air Station Barbers Point and Base Cape Cod. See Table 8.3 for targets/metrics.</p> <p>(2) Award the ESPC/UESC at the Coast Guard Academy by Q3 FY 2017.</p> <p>(3) Award alternatively financed project that is identified in Table 1.6 by the end of FY 2018.</p>

Energy Management Outreach	Yes	Continuing to conduct enterprise-wide environmental sustainability awareness and outreach through the use of messages, web portals, newsletters, awards programs, briefings and other means.	<p>(1) Continue to publish a semi-annual Energy and Fuel Matters Newsletter.</p> <p>(2) Convene judging panel for the Coast Guard SEER Awards in Q2 FY 2017/2018.</p> <p>(3) SEER Award winners announced in alignment with Earth Day 2017/2018.</p>
Energy Management Training	Yes	Provide training on energy efficiency, water conservation, renewable energy, and alternatively financed contracts in order to comply with federal requirements. Targeted individuals for training will be engineering leadership, engineers, specification writers, facility managers, contracting officers, lawyers, shop foreman, maintenance leaders, certified energy managers, etc.	Training will continue to be determined on a case-by-case basis in accordance with the Coast Guard's guidance on travel, conference, training, and community outreach.
ELSPs	Yes	To maximize procedural efficiencies associated with fuel/energy procurement, all Headquarters units, TRACEN, Area, District, Base and Sector command staff will continue to update ELSPs.	Update and submit ELSPs annually by the end of Q2.
Light Emitting Diode (LED) Shipboard Lighting	Yes	<p>The Coast Guard surface mobile assets consume up to 27 percent of a typical Coast Guard Base's electric utility consumption while moored pier-side. CG-46 is pursuing dedicated funding for the purchase of hardware to facilitate installation of LED shipboard lighting across 225' Seagoing Buoy Tender (WLB) and 418' National Security Cutter (WMSL) cutters. This project will impact the performance goals and readiness standard in the following areas:</p> <p>(1) Reduced cutter crew maintenance of fixtures;</p> <p>(2) Reduction of shore power energy draw and generator load (fuel consumption);</p> <p>(3) Reduction in weight (thus in fuel consumption) depending on option selected and sparing onboard;</p> <p>(4) Efficient lighting will also reduce fuel consumption underway.</p>	The Coast Guard's ability to deploy this project will be determined by the FY 2017 budgetary climate.

Diesel Outboard Development	Yes	The MRST currently utilizes 300hp, gas-fueled engines on all of its boats. The replacement of gasoline outboards with diesel equivalents could eliminate many fuel quality (ethanol) and storage stability concerns, mitigate electrical power generation concerns, reduce fuel consumption (reduced carbon foot print), unit fuel costs, eliminate explosion hazards of gasoline, eliminate the need for gasoline-alternative research, etc. Investigate diesel outboard development through appropriate research vehicles to include partnership with NAVSEA.	This strategy is TBD based on the availability of RDT&E financial resources in FY 2017.
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*Goal 1 – Strategies Long Term (FY19 and beyond) for Scope 1 and 2 GHG Reductions*

**Table 1.8: Scope 1 & 2 GHG Reduction Strategies Long Term (FY19 and beyond)**

(A) Strategy Description	(B) Top Priority? Yes/No	(C) Strategy Implementation	(D) Specific targets/metrics to measure strategy success including milestones to from FY19 and beyond.
Policy Development	Yes	Continue developing new policies, plans, and procedural guidance, while updating existing such as the OSPP.	Update policies, plans, and procedural guidance as necessary.
Facility Requirement Profiles	Yes	The Coast Guard plans to supply facility engineers with energy and consumption data specific to their site on a recurring basis.	SILC-ESD will validate the energy requirement profiles of each District at the end of the first and third fiscal quarters.
Leverage a P3 for Petroleum Storage and Distribution Infrastructure	Yes	Increase Coast Guard resiliency to energy disruptions both to the electric utility and the petroleum logistics supply chain by entering into a service-oriented long term partnership. The partnership would provide receipt, distribution, storage and issuance of petroleum, while simultaneously generating its own power resources “off-grid” from renewable energy technologies.	Anticipate contract award by FY 2020.

Energy Management Outreach	Yes	Continuing to conduct enterprise-wide environmental sustainability awareness and outreach through the use of messages, web portals, newsletters, awards programs, briefings and other means.	(1) Continue to publish a semi-annual Energy and Fuel Matters Newsletter.  (2) Convene judging panel for the Coast Guard SEER Awards in Q2 FY 2019.  (3) SEER Award winners announced in alignment with Earth Day 2019.
Energy Management Training	Yes	Provide training on energy efficiency, water conservation, renewable energy, and alternatively financed contracts in order to comply with federal requirements. Targeted individuals for training will be engineering leadership, engineers, specification writers, facility managers, contracting officers, lawyers, shop foreman, maintenance leaders, certified energy managers, etc.	Training will continue to be determined on a case-by-case basis in accordance with the Coast Guard's guidance on travel, conference, training, and community outreach.
LED Shipboard Lighting	Yes	Continue hardware installation of LED shipboard lighting across 225' WLB and 418' WMSL cutters.	TBD based on the Coast Guard's ability to deploy this project in FY 2017.
ELSPs	Yes	To maximize procedural efficiencies associated with fuel/energy procurement, all Headquarters units, TRACEN, Area, District, Base and Sector command staff will continue to update ELSPs.	Update and submit ELSPs annually by the end of Q2.
Renewable Fuel Utilization in Tactical Assets	Yes	As DLA expands procurement and distribution of renewable marine and aviation fuels within their distribution pipelines, the Coast Guard is well positioned to consume these commodities within its tactical assets. The Coast Guard currently procures greater than 89% of its liquid petroleum via DLA sources.	TBD from FY 2019 and beyond.

*Goal 1 - Challenges/Justification for Scope 1 and 2 GHG Reductions*

**Table 1.9: Goal 1 Challenges/Justifications**

ID	Title	Description
1	Budgetary Restrictions	The current budgetary climate and funding volatility could restrict the Coast Guard's ability to deploy projects and programs that will further progress towards goals.

2	Staff Resources	CG-46, CG-43 and the SILC personnel are continually challenged with immediate operational logistics, maintenance, and repair crises, thereby limiting the ability to devote dedicated personnel toward achieving many of the energy conservation and sustainability measures. CG-46 personnel sustain Coast Guard operations by performing critical fuel and energy logistics functions targeted toward reducing overall cost. It is the inability to dedicate billets towards driving the implementation of the OSPP that the Coast Guard has embraced an “all hands on deck” approach and attempted to integrate energy efficiency and sustainable practices in all decisions, at all elements of the chain of command, continuously. This cultural change is lengthy.
3	A Variable Real Property Outlook	Due to the current political and budgetary climate, the Coast Guard is not confident in the future of all real property, which makes long term investments for energy savings difficult to justify.
4	“Squadron Level Surface Mobile Asset UESC Study” Unsolicited Proposal	DOE declined the Coast Guard and U.S. Navy’s unsolicited proposal due to the conclusion that the concept does not possess sufficient relevance to DOE’s program objectives at this time to be of further interest. The primary goal of Coast Guard’s ~\$2M funding request is to examine the viability and potential transferability of using a UESC to implement ECMs on surface mobile assets (e.g. personal property instead of real property). Successful outcomes will germinate foundational principles for establishing a surface mobile asset UESC process that could be used by many other Federal agencies. Agencies with surface mobile assets that may benefit from implementing energy and water-related improvements on surface fleets include: the U.S. Navy, DHS (Coast Guard), U.S. Army (U.S. Corps of Engineers), Department of Transportation (Maritime Administration), and National Oceanic and Atmospheric Administration (NOAA).

*Goal 1 - Best Practices/Highlights for Scope 1 and 2 GHG Reductions*

**Table 1.10: Goal 1 Best Practices/Highlights**

ID	Title	Description
1	Scope 1 & 2 Emission Reductions	The Coast Guard reduced Scope 1 & 2 GHG emissions by 27.5 percent from the FY 2008 baseline.
2	Scope 1 & 2 Emission Reductions	CG-46 and CG-43 are reviewing performance of central steam plants at multiple locations. The Coast Guard is also in the process of evaluating cost/benefits in operations/maintenance of decentralized solutions and/or replacing fuel from heating oil to natural gas through regional ESPCs. The work is underway.
3	Alternatively Financed Contracts	A UESC was awarded at TRACEN Petaluma in FY 2014 that has a total contract value of \$4.9M, a ten year performance period, and will save over \$450k per year.
4	Continued Emphasis on Improving Data Integrity	The Coast Guard completed an initial deep dive into the energy use of its largest facilities in order to better baseline and track energy use at individual sites. This investigation is enabling the Coast Guard to better understand the energy distribution, use of its energy, and better identify inefficiencies at the localized geographic level. In addition, fuel consumption is more accurately compiled and analyzed due to the development of CG-TERRA.

5	Energy Management Outreach Opportunities	<p>The Coast Guard was featured on the cover of the 2015 Energy Issue of the Military Engineer. The article focuses on the contemporary challenges that require the Coast Guard to look to <i>resourceful readiness</i> to sustain current and future response-level energy management. Addresses how the Coast Guard will look to maximize efficacy and affordability while it implements aggressive tactics to validate fully-burdened fuel and energy costs associated with response-level readiness.</p> <p>The Coast Guard continues to distribute information on effective energy management practices through the Coast Guard Energy Portal intranet site, via email and through a semi-annual electronic newsletter. A master energy stakeholder email list provides a mechanism for outreach that includes disseminating information from the Federal Energy Management Program (FEMP) and other energy awareness notices. This list is updated annually, and includes personnel from multiple technical and non-technical disciplines.</p>
6	Staff Resources	<p>The Coast Guard attained full geographic coverage of contracted REMs for the first time. These individuals will provide energy and sustainability subject matter experts to facility engineers, planners, and designers. Additional facility audit and Guiding Principles assessments can over time be executed throughout the Coast Guard real property portfolio.</p>
7	Energy Efficiency Subsystem Forum for Specification Writers and Engineers	<p>In Q4 FY 2014, the Coast Guard held a forum to provide training on energy efficient subsystems, high performance buildings, energy and sustainability assessments, retro commissioning, design vs. performance specifications, specification writing, and ECMs ashore and afloat in order to comply with federal statutes. The training was sponsored by DHS Mission Sustainable Energy, who provided trainers from the Department of Energy's National Renewable Energy Lab (NREL). Targeted individuals for training from the SILC and SFLC-Environmental Management Division (EMD) were engineering leadership, engineers, specification writers, facility managers, shop foreman, maintenance leaders, and certified energy managers, etc.</p>
8	Energy and Fuel Logistics Training	<p>The Coast Guard is leveraging its military logistic partnerships with DLA and DLA-Energy to fulfill current and future fuel and energy requirements. The Coast Guard provided Energy and Fuel Logistics Training to District 7 in Q2 FY 2014 and Districts 1, 5, and 9 during Q1 – Q2 FY 2015. The event trained personnel for DLA-Energy's new Enterprise External Business Portal (EEBP) &amp; Invoicing, Receipting, Acceptance, and Property Transfers (iRAPT) systems to start utilizing DLA shore fuel tank contracts and better support operational units. This event covered fuel into aircraft, cutters, boats, and shore units, whether direct delivery from the vendor, or provided directly from a DLA Defense Fuel Supply Point (DFSP). The event also highlighted the latest energy and fuel policy and provided detailed procedural information. ELSP Workshops were included in the training for Districts 1, 5, and 9 to address the development process of the new ELSP requirements.</p>

**Goal 1 - Lessons Learned for Scope 1 and 2 GHG Reductions**

The Coast Guard’s progress in GHG emissions reduction is partially attributed to continued energy conservation efforts, the implementation of renewable energy, and energy conservation projects. We can attribute a small uptick in consumption to an unusually harsh winter as evident in an increase of fossil fuel consumption.

As the number of alternatively financed projects enacted by the Coast Guard continues to grow, the Coast Guard has institutionalized the continual M&V and maintenance that ESPCs require. In order to realize the full savings potential of each project the Coast Guard has clearly identified

roles, approval procedures, and centralized document management within policy, COMDTINST M4100.2E. The Coast Guard will continue to work with its facility engineers and REMs to provide oversight of these specific projects throughout each contract term. Most significantly, through the development of CG-TERRA, the Coast Guard will be able to more accurately and efficiently manage its overall energy and expenditure consumption to achieve target reductions.

### **III. Scope 3 GHG Emission Sources**

Scope 3 GHG emissions account for all other indirect emissions not included in Scope 2. These emissions are a consequence of the activities of the Coast Guard and come from sources not controlled by the Coast Guard. In deciding which Scope 3 GHG emissions to include in the reduction target, the Council on Environmental Quality (CEQ) and OMB considered the availability of data, the existence of methodologies to accurately calculate emissions quantities, and the ability of agencies to measure changes in emissions as a result of their actions. OMB determined that the following categories are included in the initial scope 3 GHG emission reduction targets:

Category 1 - Transmission and Distribution (T&D) losses from purchased energy to include:

- Purchased electricity T&D losses;
- Purchased steam T&D losses; and
- Purchased chilled water T&D losses.

Category 2 - Federal employee travel to include:

- Business air travel;
- Business ground travel; and
- Federal employee commuting.

Category 3 - Contracted municipal waste disposal to include:

- Contracted municipal solid waste disposal; and
- Contracted wastewater treatment.

### **IV. Overall Strategy to Meet Scope 3 GHG Reductions**

#### *Goal 1 – Description of Scope 3 GHG Reductions*

Scope 3 GHG emissions represent an opportunity for the Coast Guard to influence the behavior of its employees and suppliers toward behaviors that reduce GHG emissions and protect the climate. The Coast Guard's goal is to reduce GHG emissions from Scope 3 sources by 7.2 percent by FY 2020 relative to an FY 2008 baseline. The Coast Guard's targets for reducing Scope 3 GHG emissions, by category, are as follows:

- Purchased electricity T&D losses: 16 percent
- Contracted municipal waste disposal: 10.5 percent
- Federal employee travel: 4.6 percent

The Coast Guard established these goals based on the total emissions and estimated reductions provided by using DOE's Scope 3 Target tool.

### *Goal 1 – Coast Guard Lead for Scope 3 GHG Reductions*

Electricity T&D - CG-4D is responsible for this goal. Program management for accomplishment of the goal falls to CG-46 with assistance from CG-43 and the SILC. Critical to accomplishment of the goal is the participation of CG-9 as continued award of alternatively financed energy contracts is essential for success. Strategic support is also provided by localized energy conservation experts, energy consultants, and designated facility energy managers.

Federal Employee Travel - CG-1 is responsible for this goal. Program management for accomplishment of the goal falls to the Director of Personnel Management (CG-12). Program management includes oversight, policy development, initiative implementation, and M&V.

Contracted Municipal Waste Disposal - CG-4D is responsible for this goal. Program management for accomplishment of the goal falls to CG-43 and CG-47 with assistance from the SILC and Base Support Division. Program management includes recycling, source reduction, emission reduction target development, adjustment, initiative implementation, measurement as well as verification, and oversight.

### *Goal 1 – Staff Resources for Scope 3 GHG Reductions*

Electricity T&D - For this sub-goal, no additional billets will be requested beyond what is mentioned in Staff Resources for Scope 1 and 2 GHG reductions. The work performed for energy efficiency will also reduce T&D losses.

Federal Employee Travel - For this sub-goal, the Coast Guard anticipates a net decrease in billets.

Contracted Municipal Waste Disposal - For this sub-goal, the Coast Guard anticipates a net decrease in billets.

*Goal 1 – Baseline for Scope 3 GHG Reductions*

**Table 1.11: Scope 3 GHG Baseline**

Description	Baseline Year	Baseline Value
Total scope 3 GHG emissions (comprehensive) MTCO <sub>2</sub> e <sup>12</sup>	2008	140,931
Total scope 3 GHG emissions (subject to Component scope 3 GHG reduction target) MTCO <sub>2</sub> e <sup>12</sup>	2008	138,348

*Goal 1 – Planning/ Status for Scope 3 GHG Reductions*

**Table 1.12: Planning/Status for Scope 3 GHG Reductions**

GHG Emissions	FY08 BASELINE	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	Comments/Changes
Total Scope 3 GHG emissions (comprehensive) (MTCO2e) ACTUAL	140,931	104,334	85,982	122,151	101,646	104,182	Future	Future	Future	Future	Future	Future	DHS extrapolates commuter GHGs.
Total Scope 3 GHG emissions (subject to component Scope 3 GHG reduction target) (MTCO2e) TARGET	N/A	136,965	136,273	135,581	134,198	133,506	...	...	...	...	...	128,387	
Total Scope 3 GHG emissions (subject to component Scope 3 GHG reduction target) (MTCO2e) ACTUAL	138,348	101,719	83,182	119,256	98,032	100,424	Future	Future	Future	Future	Future	Future	FY 2014 data includes new category of commuter GHGs not applied to the baseline.
Overall component Scope 3 GHG reduction (reduced from FY 2008 base year) (%)TARGET	N/A	1	1.5	2	3	3.5	...	...	...	...	...	7.2	
Overall component Scope 3 GHG reduction (reduced from FY 2008 base year) (%) ACTUAL	0	26.5	39.9	13.8	29.2	27.4	Future	Future	Future	Future	Future	Future	FY 2014 data includes new category of commuter GHGs not applied to the baseline.

*Goal 1 – Strategies Short Term (FY15-FY16) for Scope 3 GHG Reductions*

**Table 1.13: Scope 3 GHG Reduction Strategies Short Term (FY15-FY16)**

(A) Strategy Description	(B) Top Priority? Yes/No	(C) Strategy Implementation	(D) Specific targets/metrics to measure strategy success including milestones to be achieved in <u>next 18-24 months</u> .
Increase Awareness and Participation in Telework	Yes	<p>(1) Enhance visibility of the telework program through increased marketing of the program’s benefits.</p> <p>(2) Assess participation in telework.</p>	<p>(1) Assess data gathered from OPM, DHS, and internal employee surveys to determine best practices and barriers to increased participation.</p> <p>(2) Review telework participation frequency data to establish a baseline for measuring increased usage following issuance of the Commandant Instruction and establish a target goal for increased participation by Q1 FY 2016.</p>
Federal Travel Reduction	Yes	The Coast Guard will significantly limit all non-operational travel, discretionary training, exercises, conferences, and carefully consider use of the Coast Guard assets and personnel in support of non-operational and other outreach efforts.	Continuously throughout FY 2015 – FY 2016.
Minimize Distance from Generation Source	Yes	Pursue on-site power generation to reduce transmission distances and energy security concerns.	<p>(1) Initiate projects to deploy renewable energy at Air Station Barbers Point and Base Cape Cod.</p> <p>(2) Alternatively financed project initiated at the Coast Guard Academy to include ~600kW PV array. Initiate IGA for an ESPC/UESC at Coast Guard Academy by Q1 FY 2016. Complete IGA by Q4 FY 2016.</p> <p>(3) Additional projects are TBD throughout FY 2015 – FY 2016.</p>

*Goal 1 – Strategies Mid Term (through FY18) for Scope 3 GHG Reductions*

**Table 1.14: Scope 3 GHG Reduction Strategies Mid Term (FY17-FY18)**

(A) Strategy Description	(B) Top Priority? Yes/No	(C) Strategy Implementation	(D) Specific targets/metrics to measure strategy success including milestones to be achieved from FY17-FY18.
Increase Awareness and Participation in Telework	Yes	Issue annual telework eligibility notices.	Review telework participation/frequency data with target goal of a participation increase of 5% by FY 2017.
Federal Travel Reduction	Yes	The Coast Guard will significantly limit all non-operational travel, discretionary training, exercises, conferences, and carefully consider use of the Coast Guard assets and personnel in support of non-operational and other outreach efforts.	Continuously throughout FY 2017 – FY 2018.
Minimize Distance from Generation Source	Yes	Pursue on-site power generation to reduce transmission distances and energy security concerns.	(1) Address power distribution situation at Air Station Barbers Point by the end of Q4 FY 2017.  (2) Implement PV array at Base Cape Cod in FY 2017 – FY 2018.  (3) Anticipated award date for the alternatively financed project at the Coast Guard Academy by Q3 FY 2017.

*Goal 1 – Strategies Long Term (FY19 and beyond) for Scope 3 GHG Reductions*

**Table 1.15: Scope 3 GHG Reduction Strategies Long Term (FY19 and beyond)**

(A) Strategy Description	(B) Top Priority? Yes/No	(C) Strategy Implementation	(D) Specific targets/metrics to measure strategy success including milestones from FY19 and beyond.
Increase Awareness and Participation in Telework	Yes	Issue annual telework eligibility notices.	Review telework participation/frequency data with target goal of a participation increase of 5% by FY 2020.

Federal Travel Reduction	Yes	The Coast Guard will significantly limit all non-operational travel, discretionary training, exercises, conferences, and carefully consider use of the Coast Guard assets and personnel in support of non-operational and other outreach efforts.	Continuously from FY 2019 and beyond.
Minimize Distance from Generation Source	Yes	Pursue on-site power generation to reduce transmission distances and energy security concerns.	Additional projects are TBD from FY 2019 and beyond.

*Goal 1 - Challenges/Justification for Scope 3 GHG Reductions*

**Table 1.16: Goal 1 Challenges/Justifications**

ID	Title	Description
1	Budgetary Restrictions	The current budgetary climate and funding volatility could restrict the Coast Guard's ability to deploy projects and programs that will further progress towards goals.
2	Commuting	The Coast Guard is unable to change commuting behaviors in small, remote, weather sensitive Coast Guard locations.
3	T&D Losses	Difficulty justifying self-generation due to inexpensive utility power.

*Goal 1 - Best Practices/Highlights for Scope 3 GHG Reductions*

**Table 1.17: Goal 1 Best Practices/Highlights**

ID	Title	Description
1	Scope 3 GHG Emissions Reductions	The Coast Guard reduced Scope 3 GHG emissions by 27.4 percent from the FY 2008 baseline mainly due to reductions in official travel.
2	Continued Emphasis on Improving Data Integrity	The Coast Guard completed an initial deep dive into the energy use of its largest facilities in order to better baseline and track energy use at individual sites. This investigation is enabling the Coast Guard to better understand the energy distribution, use of its energy, and better identify inefficiencies at the localized geographic level. In addition, fuel consumption is more accurately compiled and analyzed due to the development of CG-TERRA.

*Goal 1 - Lessons Learned for Scope 3 GHG Reductions*

To the maximum practicable, the Coast Guard has increased video teleconferencing utilization and expanded telework capabilities.

## GOAL 2: SUSTAINABLE BUILDINGS

### I. Sustainable Buildings Goals

EO 13514 Section 2 requires that agencies consider building energy intensity reductions. Further, EISA requires each agency to reduce energy intensity 30 percent by FY 2015 as compared to the FY 2003 baseline. Agencies are expected to reduce energy intensity by 3 percent annually to meet the goal.

EO 13514 requires that by FY 2015, 15 percent of agencies' new, existing, and leased buildings greater than 5,000 square feet meet the Guiding Principles. In order to meet the FY 2015 goal, agencies should have increased the percentage of conforming buildings by approximately 2 percent annually from their FY 2007 baseline.

### II. Overall Strategy to Achieve Sustainable Buildings Goals

#### *Goal 2 - Goal Description*

The Coast Guard is consistently making efforts to achieve the sustainable buildings goals set forth in EO 13514 and EISA. The Coast Guard has already achieved its FY 2015 goal to reduce energy intensity by 30 percent. In order to continue to reduce energy intensity and work toward achieving 15 percent of the Coast Guard's new, existing, and leased buildings greater than 5,000 square feet meet the Guiding Principles, the Coast Guard will to the extent economically feasible and technically practicable take the following actions:

#### Scope 1 & 2 GHG Emissions Reductions (applicable to buildings) include:

- Track the Coast Guard's progress and performance to date.
- Reduce facility energy intensity.
- Increase renewable electricity installation and use.
- Reduce per capita energy consumption through space management policies.
- EISA Section 432 requirements to evaluate (audit and commission) designated covered facilities; assign energy managers, benchmark, and implement projects.
- Building improvement programs that include metering and commissioning initiatives.

#### High-Performance Sustainable Design / Green Buildings include:

- Track the Coast Guard's progress and performance to date.
- Demonstrate use of cost-effective and innovative building strategies to minimize energy, water, and materials consumption.
- Offset new space or property acquisitions with corresponding disposals or lease terminations to restrict net growth in the Coast Guard's real estate inventory.



Regional and Local Planning includes:

- Track the Coast Guard’s progress and performance to date.
- Integrate the Principles for Sustainable Federal Location Decision into the Coast Guard site selection and lease procurement procedures.
- Integrate the Principles into written Coast Guard procedures for defining its facility requirements and formulation or related funding requests.
- Coast Guard participation in critical local and regional efforts and initiatives (i.e., EO on Chesapeake Bay Protection and Restoration, EO on Stewardship of the Ocean, Our Coasts, and the Great Lakes, etc.).

*Goal 2 – Coast Guard Lead*

CG-4D is responsible for accomplishment of this goal. Program management is provided by CG-43 and the SILC. CG-46 and CG-47 provide support for efforts that involve their respective programs.

*Goal 2 - Staff Resources*

CG-43 and the SILC are continually challenged with being understaffed and underfunded to meet increasing mandates, such as many of the energy conservation and sustainability measures. In FY 2014, CG-43 and the SILC were committed to the Real Property Enrollment Program for CFO compliance. Depending on the availability of funds and REMs, SILC plans to initiate populating Environmental Protection Agency’s (EPA) Portfolio Manager with EB 5,000 square feet and above.

*Goal 2 – Baseline*

**Table 2.1: Goal 2 Baseline**

Description	Baseline Year	Baseline Value
<i>Energy intensity (Btu/GSF)</i>	2003	131,773

Goal 2 - Planning/Status Table

Table 2.2: Goal 2 Planning and Status

Buildings	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	Changes/Comments
Energy intensity reduction (% reduced from FY03 base year) <b>TARGET</b>	15	18	21	24	27	30	30	...	...	...	30	
Energy intensity reduction (% reduced from FY03 base year) <b>PLAN</b>	15	18	21	24	27	30	30	...	...	...	30	
Energy intensity reduction (% reduced from FY03 base year) <b>ACTUAL</b>	25.0	26.4	28.6	37.9	35.5	Future	Future	Future	Future	Future	Future	Certain exclusions, such as shore tied ship energy are engineering estimates.
Owned buildings meeting Guiding Principles <sup>1</sup> (%) <b>TARGET</b>	1.8	2.4	4.6	8.0	12.0	15.0	16.0	...	...	...	20.0	Real property enrollment is being reconciled. The Coast Guard has not been able to assign resources to populate database inventory.
Owned buildings meeting Guiding Principles <sup>1</sup> (%) <b>ACTUAL</b>	1.8	2.4	2.90	0	1.6	Future	Future	Future	Future	Future	Future	Coast Guard considers attainment of LEED Silver (or better) with additional Coast Guard policies as meeting the 2006 MOU requirements. There are 1,165 buildings that are 5,000 sq. ft. or above with 19 buildings meeting the criteria listed above.

<sup>1</sup> Buildings >5000 sq.ft.

UNITED STATES COAST GUARD  
 OPERATIONAL SUSTAINABILITY  
 PERFORMANCE PLAN

Buildings	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	Changes/Comments
Federal Real Property Profile (FRPP)-reported leased buildings meeting Guiding Principles (%) <b>TARGET</b>	1.8	2.4	4.6	8.0	12.0	15.0	16.0	...	...	...	20.0	
FRPP-reported leased buildings meeting Guiding Principles (%) <b>ACTUAL</b>	N/A	N/A	N/A	N/A	0	Future	Future	Future	Future	Future	Future	There are 35 direct lease buildings 5,000 sq. ft. or above.
Total buildings meeting Guiding Principles (%) <b>TARGET</b>	1.8	2.4	4.6	8.0	12.0	15.0	16.0	...	...	...	20.0	
Total buildings meeting Guiding Principles (%) <b>ACTUAL</b>	1.4	2.4	2.9	0	1.5	Future	Future	Future	Future	Future	Future	Coast Guard considers attainment of LEED Silver (or better) with additional Coast Guard policies as meeting the 2006 MOU requirements.
% of EISA covered facilities <sup>2</sup> that have an energy manager <sup>3</sup>	100	100	100	100	100	Future	Future	Future	Future	Future	Future	

<sup>2</sup> Covered facilities under 42 U.S.C. 8253(f).

<sup>3</sup> If <100%, describe in planning section how the agency will attain compliance.

UNITED STATES COAST GUARD  
 OPERATIONAL SUSTAINABILITY  
 PERFORMANCE PLAN

Buildings	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	Changes/Comments
% of EISA covered facilities evaluated through June <sup>4</sup>	50	75	100	100	100	Future	Future	Future	Future	Future	Future	Planning for FY 2015 and beyond includes 5% above required audits to assure compliance.
% of appropriate buildings metered for electricity <sup>5</sup>	13	95	100	100	100	Future	Future	Future	Future	Future	Future	
% of metered buildings that are (or are part of) EISA covered facilities that have been benchmarked through June <sup>6</sup>	0	0	0	0	0	Future	Future	Future	Future	Future	Future	SILC is developing a methodology to populate Portfolio Manager with baseline data from SAMS.

<sup>4</sup> If <100%, describe in the planning section how the agency will attain compliance.

<sup>5</sup> If <90%, describe in the planning section how the agency will attain 100% compliance by end of FY2012.

<sup>6</sup> All separately metered buildings within covered facilities are required to be benchmarked.

*Goal 2 – Strategies Short Term (FY15-FY16)*

**Table 2.3: Sustainable Buildings Strategies Short Term (FY15-FY16)**

(A) Strategy Description	(B) Top Priority? Yes/No	(C) Strategy Implementation	(D) Specific targets/metrics to measure strategy success including milestones to be achieved in <u>next 18-24 months.</u>
Implementing Goals and Objectives of EO 13514 and EISA.	Yes	CG-43 and the SILC are devising a practical and sustainable approach to leverage Portfolio Manager for facility benchmarking and Guiding Principle compliance tracking.	(1) Initial upload of facility baseline data to Portfolio Manager will be completed by the end of FY 2015.  (2) Facility utility data will be integrated by the end of FY 2016.
Implementing a Shore Divestiture Program	Yes	The Coast Guard continues to implement an aggressive Shore Divestiture Program to divest of properties determined to be in excess to the Coast Guard’s needs. The Coast Guard intends to obtain current fair market value for these properties and use the net proceeds to support the Coast Guard’s military housing recapitalization program. Through this initiative the Coast Guard’s footprint will decrease.	(1) The Coast Guard is in the process of divesting of over 700 housing units in accordance with the Coast Guard Authorization Act of 2010 throughout FY 2015 – FY 2016. Target completion date is by the end of Q4 FY 2018.  (2) The Coast Guard is active in the divestiture of lighthouses, deemed access, through the National Historic Lighthouse Preservation Act (NHLPA) in conjunction with the National Park Service and GSA. This is an annual recurring strategy.
Verify and update EB inventory, 5,000 square feet and above.	Yes	The Coast Guard EB inventory is complete and accurate, passing CFO Audit scrutiny. Assessment of inventory for meeting Guiding Principles will commence following data baseline information transfer to Portfolio Manager.	(1) The current numbers of buildings, 5,000 sq. ft. or above in the Coast Guard are 1,165 owned and 35 leased (Q4 FY 2014).  (2) SILC plans to complete assessment of 25% of buildings in FY 2016.
Map EB data with Advanced Meters Initiative (AMI) and other utility meters.	Yes	AMI equipment inventory will be integrated into the SAMS database. From there the data will be mapped into Portfolio Manager. Once an enterprise energy management software package is approved, this data will also be integrated between the three software systems.	(1) AMI equipment inventory will be reflected in SAMS and Portfolio Manager by the end of FY 2015.  (2) Meter data will be integrated by the end of FY 2016 if an energy management software package is approved by Coast Guard C4IT authorities.  (3) Plan to have advanced gas meters installed on 24 Coast Guard facilities that are over 75,000 sq. ft. by the end of Q4 FY 2016.

Assess the scope of effort and resources required to meet the Guiding Principles.	Yes	SILC will evaluate resource requirements for sustaining and evaluating utility data for tactical decision making processes and for sustaining data requirements of Portfolio Manager.	Anticipated resource requirements will be communicated to CG-43 by the end of FY 2015.
Facility Requirement Profiles	Yes	The Coast Guard plans to supply facility engineers with energy and consumption data specific to their site on a recurring basis.	<p>(1) Facility Requirement Profiles will be completed for all EISA covered Facilities by the end of Q4 FY 2015.</p> <p>(2) Begin distributing Facility Requirement Profiles on the Coast Guard web portal by Q1 FY 2016.</p> <p>(3) In FY 2016, semi-annual updates of Facility Requirement Profiles will be provided.</p>
Prioritization of EB projects through the Coast Guard's CPOP board.	Yes	<p>(1) CG-43 prioritizes the Coast Guard's depot level maintenance backlog through a CPOP process. As part of the CPOP process, a review of projects for energy efficiency, water conservation, renewable energy and high performance buildings is conducted. Both finance projects and projects to be funded with appropriations are discussed. Opportunities to leverage appropriations in finance performance projects for more comprehensive, deeper retrofits are identified and prioritized.</p> <p>(2) SILC will promulgate and implement centralized Energy Project Prioritization Guidance.</p>	<p>(1) CPOP convenes annually in Q1.</p> <p>(2) Energy Project Prioritization Process guide will be promulgated by the end of FY 2015.</p>
Alternatively Financed Projects	Yes	Continuing aggressive implementation of alternatively financed contracts that include energy/water efficiency and renewable energy.	<p>(1) Modification to the Coast Guard Yard ESPC by Q4 FY 2015.</p> <p>(2) Base Portsmouth UESC award no later than Q4 FY 2015.</p> <p>(3) Alternatively financed project at the Coast Guard Academy initiated. Initiate IGA for ESPC/UESC at Coast Guard Academy by Q1 FY 2016. Complete IGA by Q4 FY 2016.</p> <p>(4) Initiate IGA for additional alternatively financed project to be identified by Q2 FY 2016.</p>

CTS	Yes	Continue populating CTS with potential projects as well as implemented projects to facilitate planning and benchmarking.	Complete all required facility audits and populate CTS by June 2015.
CARE Projects	Yes	The Coast Guard FRMM revised the previous FEEF to CARE funds. CARE funds are now AFC-30 funds that can be provided to rapidly deploy any energy management and energy efficiency retrofit projects of \$150,000 or less (per project). A CARE prioritization process will be developed in order to approve projects, which will include operational and maintenance stakeholder evaluation.	(1) CG-46 plans to develop CARE prioritization process by Q4 FY 2015.  (2) SILC-ESD and SFLC-ESD present energy CARE projects annually to CG-46 no later than the start of Q4.
Energy Management Training	Yes	(1) Provide training on energy efficiency, water conservation, renewable energy, and alternatively financed contracts in order to comply with federal requirements. Targeted individuals for training will be engineering leadership, engineers, specification writers, facility managers, contracting officers, lawyers, shop foreman, maintenance leaders, certified energy managers, etc.  (2) SILC will leverage contracted REMs to conduct recurring depot and operational level energy management training.	(1) Training will continue to be determined on a case-by-case basis in accordance with the Coast Guard's guidance on travel, conference, training, and community outreach.  (2) Develop and promulgate REM training schedule by Q3 FY 2015.

*Goal 2 – Strategies Mid Term (through FY18)*

**Table 2.4: Sustainable Buildings Strategies Mid Term (FY17-FY18)**

(A) Strategy Description	(B) Top Priority? Yes/No	(C) Strategy Implementation	(D) Specific targets/metrics to measure strategy success including milestones to be achieved from FY17-FY18.
Implementing a Shore Divestiture Program	Yes	The Coast Guard continues to implement an aggressive Shore Divestiture Program to divest of properties determined to be in excess to the Coast Guard's needs. The Coast Guard intends to obtain current fair market value for these properties and use the net proceeds to support the Coast Guard's military housing recapitalization program. Through this initiative the Coast Guard's footprint will decrease.	(1) The Coast Guard is in the process of divesting of over 700 housing units in accordance with the Coast Guard Authorization Act of 2010. Target completion date of all sales is by the end FY 2018.  (2) The Coast Guard is active in the divestiture of lighthouses, deemed access, through the NHLPA in conjunction with the National Park Service and GSA. This is an annual recurring strategy.

AMI	Yes	The AMI collects time-interval electricity consumption data and uploads data packets daily to a central server. Where applicable, the system can collect time-interval data from other utility/fuel sources such as water and natural gas. This data will enable the Coast Guard to understand and control its energy and water consumption and costs with increased precision.	Complete integration of AMI data is TBD.
Facility Requirement Profiles	Yes	The Coast Guard plans to supply facility engineers with energy and consumption data specific to their site on a recurring basis.	<p>(1) Transition to automatically generated facility profiles will lag behind energy management system approval by approximately one year, but is anticipated to occur within the FY 2017 – FY 2018 timeframe. The timeline of this goal will be updated as intermediary milestones are met.</p> <p>(2) SILC-ESD will validate the energy requirement profiles of each District at the end of the first and third fiscal quarters.</p>
Alternatively Financed Projects	Yes	Continuing aggressive implementation of alternatively financed contracts that include energy/water efficiency and renewable energy.	<p>(1) Pursue renewable energy projects at Air Station Barbers Point and Base Cape Cod. See Table 8.3 for targets/metrics.</p> <p>(2) Award the ESPC/UESC at the Coast Guard Academy by Q3 FY 2017.</p> <p>(3) Award alternatively financed project that is identified in Table 2.3 by the end of FY 2018.</p>
Prioritization of EB projects through the CPOP board.	Yes	Continue centralized prioritization of energy projects.	CPOP convenes annually in Q1.
CTS	Yes	Continue populating CTS with potential projects as well as implemented projects to facilitate planning and benchmarking.	Complete all required facility audits and populate CTS semi-annually.

Energy Management Training	Yes	<p>(1) Provide training on energy efficiency, water conservation, renewable energy, and alternatively financed contracts in order to comply with federal requirements. Targeted individuals for training will be engineering leadership, engineers, specification writers, facility managers, contracting officers, lawyers, shop foreman, maintenance leaders, certified energy managers, etc.</p> <p>(2) Continue leveraging contracted REMs to conduct recurring depot and operational level energy management training.</p>	Training will continue to be determined on a case-by-case basis in accordance with the Coast Guard’s guidance on travel, conference, training, and community outreach.
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*Goal 2 – Strategies Long Term (FY19 and beyond)*

**Table 2.5: Sustainable Buildings Strategies Long Term (FY19 and beyond)**

(A) Strategy Description	(B) Top Priority? Yes/No	(C) Strategy Implementation	(D) Specific targets/metrics to measure strategy success including milestones to be achieved from FY19 and beyond.
Facility Requirement Profiles	Yes	The Coast Guard plans to supply facility engineers with energy and consumption data specific to their site on a recurring basis.	SILC-ESD will validate the energy requirement profiles of each District at the end of the first and third fiscal quarters.
Alternatively Financed Projects	Yes	The Coast Guard will continue to leverage past projects and continue to use performance contracts that reduce energy consumption, provide capital improvements, and maximize near-term capital outlays.	TBD from FY 2019 and beyond.
Prioritization of EB projects through the CPOP board.	Yes	Continue centralized prioritization of energy projects.	CPOP convenes annually in Q1.
CTS	Yes	Continue populating CTS with potential projects as well as implemented projects to facilitate planning and benchmarking.	Complete all required facility audits and populate CTS semi-annually.

Energy Management Training	Yes	<p>(1) Provide training on energy efficiency, water conservation, renewable energy, and alternatively financed contracts in order to comply with federal requirements. Targeted individuals for training will be engineering leadership, engineers, specification writers, facility managers, contracting officers, lawyers, shop foreman, maintenance leaders, certified energy managers, etc.</p> <p>(2) Continue leveraging contracted REMs to conduct recurring depot and operational level energy management training.</p>	Training will continue to be determined on a case-by-case basis in accordance with the Coast Guard's guidance on travel, conference, training, and community outreach.
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*Goal 2 - Challenges/Justifications*

**Table 2.6: Goal 2 Challenges/Justifications**

ID	Title	Description
1	Staff Resources	CG-43 and the SILC staff did not have the manpower capability to assess 15% of the inventory of EB for compliance with the Guiding Principles. Resources were directed toward the Real Property Enrollment Program for CFO Compliance. Staffing resources continue to constrain progress toward attaining and continuing sustainability goals and objectives.
2	Budgetary Restrictions	The budgetary environment is not expected to improve in the foreseeable future. Innovative solutions will be required to meet the mandates to the extent practicable. Financial resources continue to constrain progress toward attaining and continuing sustainability goals and objectives.
3	Sustainable Buildings Goal	The goal of achieving 15% sustainable buildings of the existing inventory by FY 2015 remains a challenge. CG-43, CG-46, and CG-47, in collaboration with SILC-EMD and Force Readiness Command (FORCECOM) are focusing on devising tools and securing resources in promoting awareness, environmental compliance and proper environmental planning and documentation.
4	Guiding Principles Requirement	The Coast Guard Sustainability Guidance published in October 2010 mandated LEED certified level, as minimum, for the new construction and major renovations. This was done with the understanding that it is an acceptable metric for certified buildings to meet the Guiding Principles requirement. However, later FEMP and DHS clarifications, ruling, guidance, and review determined that though LEED is a helpful tool in meeting the sustainability requirements, it is not a demonstrable and acceptable metric for compliance. This has necessitated a review of the Coast Guard's Sustainability Guidance. Consultations are progressing within CG-43 and other Coast Guard stakeholders on how best to leverage resources for compliance with the mandate.
5	Populate EB inventory in EPA's Portfolio Manager	The collection and sustainment of data in EPA's Portfolio Manager will require a long-term commitment of financial and staff resources in a declining budgetary environment.

*Goal 2 - Best Practices/Highlights*

**Table 2.7: Goal 2 Best Practices/Highlights**

ID	Title	Description
1	Alternatively Financed Projects	The Coast Guard continues to award ESPCs and UESCs, which have greatly enabled accomplishment of energy intensity reduction and renewable energy goals.
2	Guiding Principles Requirement	The Coast Guard Sustainability Guidance is in review to incorporate salient features of the DHS Sustainability Practice Guidance and help meet the 2006 MOU Guiding Principles.
3	First Net Zero Building	In FY 2013, the Coast Guard commissioned a 1,400 sq. ft. net zero building as the Coast Guard Cutter NARWHAL support facility. In Q4 FY 2014, the NARWHAL support facility achieved a LEED Gold rating from the U.S. Green Building Council and officially became net zero after completing one full year of producing more energy than consumed. This single story building utilizes solar PV panels on the roof, yet maintains architectural integration with the surrounding neighborhood of beachfront homes. This building serves as an institutional template and highlights how energy security can be effectively integrated within mission support facilities.
4	LEED Certified Building	The principles of the Green Building Council’s LEED were applied to the construction of multiple new facilities, particularly facilities being rebuilt as a result of damage sustained by Hurricane Sandy. These principles focus on building envelope and equipment efficiency points predominantly.
5	Historic Buildings	The Coast Guard has custody and control, and maintains an inventory of, real property facilities and structures that may be eligible for registration under the National Register of Historic Places. The Coast Guard coordinates with the State Historic Preservation Offices (SHPO), as appropriate, to ensure compliance with Section 106 of the National Historic Preservation Act; as well as implements best practices and technology in accordance with the Secretary of the Interior’s Standards for Rehabilitation of Historic Buildings.
6	Freeze the Footprint	The Coast Guard is in compliance with OMB’s initiative, “Freeze the Footprint,” requiring offsets for any growth above an established baseline and has an active management and oversight program in accordance with DHS’s guidance to report. OMB’s instructions for federal agencies to freeze their office and warehouse footprint requires implementation of a rigorous program to track, account, seek opportunities for consolidation and report on all real property and real estate actions and transactions that cross a multitude of disciplines.
7	Staff Resources	SILC awarded a one year contract in November 2014 for area REMs with three year options. The Coast Guard attained full geographic coverage of contracted REMs for the first time. These individuals will provide energy and sustainability subject matter experts to facility engineers, planners, and designers. Additional facility audit and Guiding Principles assessments can over time be executed throughout the Coast Guard real property portfolio.
8	Component Partnerships	The Coast Guard continues to work with other DHS components (i.e., Customs & Border Patrol (CBP), etc) for opportunities to co-locate their buildings, airfields, and waterfront facilities.

9	LEED Silver Certification	<p>The Coast Guard Station Fairport Building received LEED Silver Certification in Q2 FY 2015 for new construction and major renovations. Highlights to this building include, but are not limited to:</p> <ul style="list-style-type: none"> <li>• The use of bio swales to provide a high level of filtration of captured runoff,</li> <li>• Added windows in spaces not scheduled to receive windows to provide day-lighting,</li> <li>• Achieved a 38% reduction of water use in all fixtures,</li> <li>• Achieved a 28.6% energy cost savings.</li> </ul>
10	Electronic Performance Support Solution (EPSS)	<p>The Coast Guard has an EPSS to provide information for Coast Guard Facility Energy Managers and unit engineering personnel regarding duties, responsibilities, and opportunities for shore facility energy management and conservation. The EPSS addresses major tasks of a Facility Energy Manager including, but not limited to: monitoring energy consumption at their unit, encouraging ECMs, and completing required reports.</p>

### *Goal 2 – ESPC Implementation Schedule*

The Coast Guard continues to make progress on energy performance contracts that in turn enable the accomplishment of facility energy intensity and renewable energy goals. Energy efficiency and renewable energy components of such contracts awarded from 2010 through 2014 have manifested with excellent results.

In FY 2014, the Coast Guard awarded a UESC at TRACEN Petaluma, which included a number of energy and water efficiency measures. The project has a total contract value of \$4.9M, a ten year performance period, and savings of 16.7 BBTU, 5.2 MGal of water, and approximately \$450k per year.

In FY 2013, the Coast Guard initiated a modification to the existing ESPC at the Coast Guard Yard in Baltimore, Maryland. The goal of the modification was to rectify the existing Renewable Energy Center, incorporate new energy conservation measures, and refinance the project. The modification began in earnest in FY 2014 and an award is expected in Q4 FY 2015.

Also in FY 2014, the Coast Guard initiated and pursued a UESC at Base Portsmouth to switch the base from fuel oil to natural gas and install a peak shaving turbine, among other ECMs. This project has progressed and is expected to be awarded no later than Q4 FY 2015.

In addition to these project in development, the Coast Guard has began a concerted effort to dig deeper into the existing performance contracts to identify shortfalls and potential issues before they arise. This effort began with the performance of a quadrennial review, which was done to identify the status of all awarded performance contracts and attempt to identify any concerns or potential problems. This will be followed by process guides to redefine how M&V is done on performance contracts throughout the Coast Guard.

## *Goal 2 – Lessons Learned*

The Coast Guard has learned with respect to facility energy intensity reduction:

- The overall energy intensity reduction performance shows continued progress. Energy performance contracting has provided needed resources to implement ECMs in achieving the reduction targets.
- Scope 1 and 2 GHG emissions reduction performance is closely related to facilities energy intensity reduction. The facilities energy consumption reduction has helped Coast Guard to meet targeted GHG reductions. For data on the Scope 1 and 2 GHG emissions reductions, refer to Table 1.5.
- The Coast Guard measures facility energy intensity reductions at the “campus level.” Presently, the Coast Guard is taking a fresh look at these covered facilities due to improved data management initiatives at the enterprise level.



**GOAL 3: FLEET MANAGEMENT**

**I. Fleet Management Goals**

EO 13514 and EISA require that by FY 2015 agencies reduce fleet petroleum use by 20 percent compared to a FY 2005 baseline. Agencies are expected to achieve at least a 2 percent annual reduction and a 30 percent reduction is required by FY 2020.

**II. Overall Strategy to Achieve Fleet Management Goals**

*Goal 3 - Goal Description*

The Coast Guard, to the extent economically feasible and technically practicable, will take the following actions to meet the targets in this goal:

- Reduce petroleum use in fleet vehicles.
- Increase the use of alternative fuels in fleet Alternative Fuel Vehicles (AFVs) and Flex-Fuel Vehicles (FFVs).
- Right-size the vehicle fleet using the VAM process.
- Increase population of low-emission/high fuel efficient vehicles in fleet.

*Goal 3 – Coast Guard Lead*

CG-4D is responsible for this goal. Program management is provided by CG-435.

*Goal 3 - Staff Resources*

Currently, there is no staff resources dedicated to vehicle fleet management. The SILC is providing one Coast Guard military person on a collateral basis to manage the Coast Guard Vehicle Program. There remains a vacant billet in CG-435 to service as the Vehicle Fleet Manager.

*Goal 3- Baseline*

**Table 3.1: Goal 3 Fuel Usage Baseline**

Description	Baseline Year	Baseline Value	Comments
Petroleum use (GGE)	2005	2,804,873	Gasoline Gallon Equivalent (GGE).

Description	Baseline Year	Baseline Value	Comments
Alternative fuel use (GGE)	2005	1,276	The Coast Guard recorded very little Alternative Fuel use in 2005. The reasons for this are; (1) poor data collection, (2) extremely limited access (no commercial infrastructure) and (3) no incentive to drivers for Alternative Fuel use. Goals for increased use are 10% per year each year.

Goal 3 - Planning/Status Table

Table 3.2: Goal 3 Planning and Status

Fleet Management	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	Changes/Comments
Petroleum use reduction (% reduction from FY05 base year) <b>TARGET</b>	10	12	14	16	18	20	22	...	...	...	30	Federal Mandate
Petroleum use reduction (% reduction from FY05 base year) <b>PLAN</b>	10	12	14	16	18	20	22	...	...	...	30	
Petroleum use reduction (% reduction from FY05 base year) <b>ACTUAL</b>	10.9	11.6	15.9	17	19	Future	Future	Future	Future	Future	Future	
Alternative fuel use in fleet (% increase from FY05 base year) <b>TARGET</b>	61	77	95	114	136	159	N/A	...	...	...	N/A	Federal Mandate 10% per year
Alternative fuel use in fleet (% increase from FY05 base year) <b>PLAN</b>	61	77	95	102.7	128.4	160.5	200.6	...	...	...	401.2	FY 2005 alternative fuel consumption is nonexistent
Alternative fuel use in fleet (% increase from FY05 base year) <b>ACTUAL</b>	35.34	54.7	82.1	1,975.6	738	Future	Future	Future	Future	Future	Future	FY 2010 in error
Total conventional fuel vehicles (#) <b>TARGET</b>	N/A	N/A	N/A	N/A	N/A	N/A	N/A	...	...	...	N/A	
Total conventional fuel vehicles (#) <b>ACTUAL</b>	2,380	2,242	2,095	1,935	1,759	Future	Future	Future	Future	Future	Future	

UNITED STATES COAST GUARD  
OPERATIONAL SUSTAINABILITY  
PERFORMANCE PLAN

Fleet Management	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	Changes/Comments
Total alternative fuel vehicles (#) <b>TARGET</b>	N/A	N/A	N/A	N/A	N/A	N/A	N/A	...	...	...	N/A	
Total alternative fuel vehicles (#) <b>ACTUAL</b>	1,568	1,681	1,806	1,846	1,967	Future	Future	Future	Future	Future	Future	In almost all cases, any diesel engine is capable of burning B20 (or higher biodiesel blends up to B100). By this standard either all diesel vehicle are AFVs, or none are.
Reduction in Executive fleet vehicles larger than a midsize sedan or that do not comply with the alternative fueled vehicle <u>requirements</u> through June (#) <b>TARGET</b>	0	0	2	0	0	0	0	...	...	...	0	Current plan is to move to right size the executive fleet and to align it with the current requirements.
# Executive fleet vehicles larger than a midsize sedan or that do not comply with alternative fueled vehicle <u>requirements</u> as posted on Component website <b>ACTUAL</b>	N/A	11	13	13	13	Future	Future	Future	Future	Future	Future	Based on current data, FY 2012 data was incorrect. There has not been an increase in executive vehicles, but proper classification and annotation of executive vehicles has improved. The correct number of executive vehicles for FY 2012 is 13, not 9 as reported in previous year's OSPP.

*Goal 3- Strategies Short Term (FY15-FY16)*

**Table 3.3: Strategies Short Term (FY15-FY16)**

(A) Strategy Description	(B) Top Priority? Yes/No	(C) Strategy Implementation	(D) Specific targets/metrics to measure strategy success including milestones to be achieved in <u>next 18-24 months.</u>
Comprehensive Federal Fleet Management Handbook	Yes	Rightsizing of the Coast Guard fleet and replacement of existing vehicles with EISA compliant vehicles. Major Coast Guard Bases will also begin using centralized motor pools to further increase vehicle efficiency.	Replace existing vehicles throughout FY 2015 – FY 2016 when economically feasible.
Increase utilization of alternative fuel in dual-fuel vehicles.	Yes	<ul style="list-style-type: none"> <li>(1) Increase E85 use in flex-fuel vehicles.</li> <li>(2) Locate dual fuel vehicles and communicate list.</li> <li>(3) Locate all alternative fuel stations.</li> </ul>	<ul style="list-style-type: none"> <li>(1) Targeted a 20% increase in E85 use over FY 2014 as related to baseline capabilities.</li> <li>(2) Measure use of alternative fuel in FY 2015.</li> <li>(3) Determine percentage of alternative fuel vehicles within 5 miles of alternative fuel stations.</li> <li>(4) Determine percentage of total non-alternative fuel vehicles to alternative fuel vehicles in service.</li> </ul>
Reduce total consumption of petroleum products.	Yes	<ul style="list-style-type: none"> <li>(1) Increase Slow Moving Vehicle (SMV) replacements.</li> <li>(2) Develop a plan to replace vehicles with hybrid vehicles.</li> </ul>	<ul style="list-style-type: none"> <li>(1) Target 2% annual reduction (based on 2005 baselines) through FY 2015.</li> <li>(2) Verify 2005 baseline.</li> <li>(3) Measure total fuel consumption for FY 2014 and FY 2015.</li> <li>(4) Measure total number of electric SMVs used for FY 2014 and FY 2015.</li> <li>(5) Determine total mileage and calculate fuel savings based on SMV replacement.</li> <li>(6) Calculate percentage of fuel savings for FY 2015.</li> <li>(7) Determine total number of vehicles that can be replaced by hybrid vehicles.</li> </ul>

*Goal 3 – Strategies Mid Term (through FY18)*

**Table 3.4: Fleet Management Strategies Mid Term (FY17-FY18)**

(A) Strategy Description	(B) Top Priority? Yes/No	(C) Strategy Implementation	(D) Specific targets/metrics to measure strategy success including milestones to be achieved from FY17-FY18.
Increase utilization of alternative fuel in dual-fuel vehicles.	Yes	(1) Continue to increase E85 use in flex-fuel vehicles.  (2) Develop plan to increase dual fuel vehicles by increasing alternate fuel stations.	(1) Determine total number of E85 vehicles and what capabilities are to increase of E85 vehicles.  (2) Determine future infrastructure plans to build more E85 stations.
Reduce total consumption of petroleum products.	Yes	(1) Continue to develop SMV replacements.  (2) Develop plan to replace vehicles with hybrid vehicles.	(1) Determine SMV capabilities throughout the Coast Guard facilities and measure the total number of SMVs used and if further increases can be tolerated.  (2) Determine how many current vehicles can be replaced with hybrid vehicles.  (3) Initiate planning/programming to use hybrid vehicles.  (4) Calculate possible fuel savings with hybrid replacements.

*Goal 3 – Strategies Long Term (FY19 and beyond)*

**Table 3.5: Fleet Management Strategies Long Term (FY19 and beyond)**

(A) Strategy Description	(B) Top Priority? Yes/No	(C) Strategy Implementation	(D) Specific targets/metrics to measure strategy success including milestones to be achieved from FY19 and beyond.
Increase utilization of alternative fuel in dual-fuel vehicles.	Yes	(1) Continue to increase E85 use in flex-fuel vehicles.  (2) Develop plan to increase dual fuel vehicles by increasing alternate fuel stations.	(1) Determine total number of E85 vehicles and what capabilities are to increase of E85 vehicles.  (2) Determine future infrastructure plans to build more E85 stations.

Reduce total consumption of petroleum products.	Yes	<p>(1) Continue to develop SMV replacements.</p> <p>(2) Implement plan to replace vehicles with hybrid vehicles.</p>	<p>(1) Determine fuel savings using SMV replacements throughout the Coast Guard facilities.</p> <p>(2) Determine how many vehicles were replaced with hybrid vehicles.</p> <p>(3) Calculate percentage of fuel reduction and determine out year cost reductions.</p>
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### Goal 3 - Challenges/Justification

**Table 3.6: Goal 3 Challenges and Justifications**

ID	Title	Description
1	Data Access and Validation	It is a challenge for the Coast Guard to access and/or validate data for maintaining inventory control maintenance, auctioned vehicles, and access to Federal Automotive Statistical Tool (FAST) data.
2	Cultural Change for Mandated Vehicle Compliance	It has been difficult to get the Agency up to date with all of the changes given the organizational changes within the Coast Guard (i.e., executive vehicles, emergency vehicle use, and general compliance with more fuel efficient and smaller vehicles).
3	Incompatibility to other Departmental Databases and Websites	Compatibility between the Coast Guard browser and some other federal databases remains an issue.

### Goal 3 - Best Practices/Highlights

**Table 3.7: Goal 3 Best Practices and Highlights**

ID	Title	Description
1	Use VAM to Right Size Coast Guard Fleet Vehicles	The Coast Guard has made the VAM Results study a living document that is constantly updated to reflect all changes in the vehicle fleet inventory.
2	Establish Standard Vehicle Types	ALCOAST 234-12 is the policy used to establish the most fuel efficient and/or cost efficient vehicles as the Coast Guard Standard Vehicle Type according to mission required capabilities.

### *Goal 3 – Lessons Learned*

The Coast Guard has learned with respect to developing the VAM:

- Develop a vehicle allowance for vehicles that will assist in finalizing the VAM report;
- Accurate data is not being tracked in order to properly populate the VAM report;
- It is not necessary to complete the VAM each year, adjustments are made as vehicles are replaced; and
- CG-43 recommends a two year cycle to completing the VAM.

## **GOAL 4: WATER USE EFFICIENCY AND MANAGEMENT**

### **I. Water Use Efficiency and Management Goals**

EO 13514 requires agencies to reduce potable water intensity by 2 percent annually through FY 2020 compared to an FY 2007 baseline. A 16 percent reduction is required by FY 2015 and a 26 percent reduction is required by FY 2020.

### **II. Overall Strategy to Achieve Potable Water Intensity Reduction Goals**

#### *Goal 4 – Description*

The Coast Guard has established the following water conservation and management goals, in alignment with federal legislation and EO:

- Reduce potable water use intensity by at least 26 percent by FY 2020;
- Reduce non-potable water use (industrial, landscaping, agricultural) by at least 20 percent by FY 2020;
- Identify and implement water reuse strategies; and
- Achieve objectives established by EPA in Technical Guidance on Implementing the Stormwater Runoff Requirements for Federal Projects under Section 438 of EISA, December 2009.

#### *Goal 4 – Coast Guard Lead*

CG-4D is responsible for accomplishment of this goal. Program management for water reduction goals is provided by CG-46. CG-46 provides oversight of water conservation management and strategy, water consumption reduction target development and adjustment, implementation, and M&V. Strategic support is provided by CG-43, SILC, localized water conservation experts, REMs, and designated facility energy managers. Program management for storm water run-off is provided by CG-43 and the SILC.

#### *Goal 4 - Staff Resources*

The Coast Guard currently maintains one third of one billet for work that includes water conservation in addition to energy intensity reduction, renewable energy utilizations, and Scope 1 and 2 GHG emissions reduction.

*Goal 4 – Baseline*

**Table 4.1: Goal 4 Baseline**

Baseline	Baseline Year	Baseline Value
Potable water use (Gal/SF)	2007	38
Industrial, landscaping, and agricultural water use (Thous. Gal)	2010	0

*Goal 4 - Planning/Status Table*

**Table 4.2: Goal 4 Planning and Status**

Water Use Efficiency and Management	FY07 Baseline	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20
Potable water reduction (% reduction from FY07 base year) <b>TARGET</b>	0	6	8	10	12	14	...	...	...	...	...	26
Potable water reduction (% reduction from FY07 base year) <b>PLAN</b>	0	6	8	10	12	14	...	...	...	...	...	26
Potable water reduction (% reduction from FY07 base year) <b>ACTUAL</b>	38	17	15	17.3	29.2	22.3	Future	Future	Future	Future	Future	Future
Industrial, landscaping and agricultural water reduction (% reduction from FY10 base year) <b>TARGET</b>	N/A	N/A	N/A	N/A	N/A	N/A	...	...	...	...	...	20
Industrial, landscaping and agricultural water reduction (% reduction from FY10 base year) <b>PLAN</b>	N/A	N/A	N/A	N/A	N/A	N/A	...	...	...	...	...	20
Industrial, landscaping and agricultural water reduction (% reduction from FY10 base year) <b>ACTUAL</b>	N/A	N/A	N/A	N/A	N/A	N/A	...	...	...	...	...	N/A

*Goal 4 – Strategies Short Term (FY15-FY16)*

**Table 4.3: Water Reduction Strategies Short Term (FY15-FY16)**

(A) Strategy Description	(B) Top Priority? Yes/No	(C) Strategy Implementation	(D) Specific targets/metrics to measure strategy success including milestones to be achieved in <u>next 18- 24 months.</u>
CTS	Yes	The Coast Guard plans to populate CTS with facility water use data.	Data will be entered by June each year to meet the requirement under EISA Section 432.
Alternatively Financed Projects	Yes	Investigate water conservation when performing IGAs for performance contracts.	Include water ECMs on contract awards throughout FY 2015 – FY 2016.
OER	Yes	Provide incentives to Commissioned Officers by identifying water, energy, and fuel in the “Using Resources” block of the OER. Specifically, request to change this block to read “Ability to manage time, materials (including energy, water, and fuel), information, money, and people (i.e. all Coast Guard components as well as external publics).” This addition will provide Commissioned Officers with a tangible incentive to actively and assertively change their behavior and assist the Coast Guard in satisfying its obligation to decrease energy and water consumption.	OER change request submitted in Q2 FY 2014; approval status is still TBD. Anticipate edits will be incorporated during next OER revision.

*Goal 4 – Strategies Mid Term (through FY18)*

**Table 4.4: Water Reduction Strategies Mid Term (FY17-FY18)**

(A) Strategy Description	(B) Top Priority? Yes/No	(C) Strategy Implementation	(D) Specific targets/metrics to measure strategy success including milestones to be achieved from <b>FY17-FY18.</b>
CTS	Yes	Populate CTS with facility water use data.	Data will be entered by June each year to meet the requirement under EISA Section 432.
Alternatively Financed Projects	Yes	Investigate water conservation when performing IGAs for performance contracts.	Include water ECMs on future contract award.

*Goal 4 – Strategies Long Term (FY19 and beyond)*

**Table 4.5: Water Reduction Strategies Long Term (FY19 and beyond)**

(A) Strategy Description	(B) Top Priority? Yes/No	(C) Strategy Implementation	(D) Specific targets/metrics to measure strategy success including milestones to be achieved from FY19 and beyond.
CTS	Yes	Populate CTS with facility water use data.	Data will be entered by June each year to meet the requirement under EISA Section 432.
Alternatively Financed Projects	Yes	Investigate water conservation when performing IGAs for performance contracts.	Include water ECMs on future contract award.

*Goal 4 - Challenges/Justification*

**Table 4.6: Goal 4 Challenges and Justifications**

ID	Title	Description
1	Budgetary Restrictions	The current budgetary climate and funding volatility could restrict the Coast Guards ability to deploy projects and programs that will further progress towards goals.

*Goal 4 – Best Practices/Highlights*

**Table 4.7: Goal 4 Best Practices and Highlights**

ID	Title	Description
1	Potable Water Use Intensity Reductions	FY 2014 showed a decrease of 22.3% compared to the FY 2007 baseline.
2	Potable Water Use Intensity Reductions	The reduction in potable water use is attributed to the completion of water conservation projects included as part of ESPCs, the identification and mitigation of water leaks, proactive water management programs at major facilities, and the inclusion of water conservation in energy projects.
3	Water Meters	In line with EISA 2007, the Coast Guard is beginning to add advanced water meters to its infrastructure. At the end of FY 2014, the Coast Guard had 73 advanced water meters installed.

#### *Goal 4 – Lessons Learned*

The Coast Guard compiles water consumption and cost data from the FINCEN utility database and field unit records. Through better data transparency and validity, the Coast Guard has been able to remove a large amount of non-water data from water purchases, leading to an additional reduction in water use when compared to the baseline. By utilizing advanced water meters the Coast Guard has been able to identify and thus proactively repair water leaks.

## **GOAL 5: POLLUTION PREVENTION AND WASTE REDUCTION**

### **I. Pollution Prevention & Waste Reduction Goals**

EO 13514 requires that by FY 2015 agencies annually divert at least 50 percent of non-hazardous solid waste from disposal, excluding construction and demolition (C&D) debris. EO 13514 requires that by FY 2015 agencies annually divert at least 50 percent of C&D materials.

### **II. Overall Strategy to Achieve Non-hazardous Solid Waste Diversion Goals**

#### *Goal 5 – Description*

The Coast Guard plans to increase source reduction of pollutants and waste as required by EO 13514 by accomplishing the following:

- Revising internal cross-programmatic guidance and establishing new standards for identifying, base lining and tracking municipal solid waste disposal Coast Guard-wide.
- Diverting at least 50% of non-hazardous solid waste and C&D debris by FY 2020. This will require a cross-programmatic and dedicated concerted effort to identify and baseline generation amount and then to identify ways to minimize use and increase recycling and reuse of non-hazardous C&D material.
- Reducing printing paper and increasing use of uncoated printing and writing paper containing at least 30% postconsumer fiber. This will require the Coast Guard to procure less paper and increase use of electronic communications.
- Promote the development of Green Purchasing Programs to reduce and minimize the acquisition, use, and disposal of hazardous chemicals and materials, and discuss how implementation will assist the Coast Guard in achieving FY 2020 GHG reduction targets.
- Planning to revise the Emergency Planning and Community Right-to-Know Act (EPCRA) and related guidance to include EO 13514 requirements.

#### *Goal 5 – Coast Guard Lead*

CG-4D is responsible for the accomplishment of this goal. Overall program management and coordination for pollution prevention and waste elimination goal is provided by CG-47 and CG-43 along with other head quarters directorates with policy responsibilities. Implemented and supported by the Director of Operational Logistics (DOL) and SILC-ESD.

#### *Goal 5 - Staff Resources*

Although the Coast Guard has a number of billeted environmental protection specialists in various offices and units that deal partially with these issues, no singular person is dedicated solely to any one issue. The Coast Guard assigns collateral duty environmental coordinators at many units that may be integral to assisting in the implementation of elements of the goals where feasible.

Goal 5 - Planning/Status Table

Table 5.1: Goal 5 Planning and Status

Pollution Prevention & Waste Reduction	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	Comments/Changes
Total non-hazardous solid waste (non-C&D) (tons) <b>ACTUAL</b>	N/A	38,457 (extrapolated)	550 (QRP data only)	N/A	33,368	Future	Future	Future	Future	Future	Future	See Table 5.2 Short Term Strategies
Non-hazardous solid waste diversion (Non-C&D) (%) <b>TARGET</b>	24	28	30	N/A	30	50	N/A	...	N/A	...	...	See Table 5.2 Short Term Strategies
Non-hazardous solid waste diversion (Non-C&D) (%) <b>ACTUAL</b>	N/A	28	28	N/A	9.2	Future	Future	Future	Future	Future	Future	See Table 5.2 Short Term Strategies. Prior year's data were rough estimates and cannot be validated.
Total C&D material and debris (tons) <b>ACTUAL</b>	N/A	6,500	6,500	N/A	129	Future	Future	Future	Future	Future	Future	See Table 5.2 Short Term Strategies. Prior year's data were rough estimates and cannot be validated.
C&D material and debris diversion (%) <b>TARGET</b>	22	25	25	N/A	N/A	50	N/A	...	N/A	...	...	See Table 5.2 Short Term Strategies. Prior year's data were rough estimates and cannot be validated.
C&D material and debris diversion (%) <b>ACTUAL</b>	N/A	25	25	N/A	100	Future	Future	Future	Future	Future	Future	See Table 5.2 Short Term Strategies. Prior year's data were rough estimates and cannot be validated.

UNITED STATES COAST GUARD  
OPERATIONAL SUSTAINABILITY  
PERFORMANCE PLAN

<b>Pollution Prevention &amp; Waste Reduction</b>	<b>FY10</b>	<b>FY11</b>	<b>FY12</b>	<b>FY13</b>	<b>FY14</b>	<b>FY15</b>	<b>FY16</b>	<b>FY17</b>	<b>FY18</b>	<b>FY19</b>	<b>FY20</b>	<b>Comments/Changes</b>
Estimated total weight of materials managed through waste-to-energy (tons) <b>TARGET</b>	N/A	...	N/A	...	...	See Table 5.2 Short Term Strategies.						
Estimated total weight of materials managed through waste-to-energy (tons) <b>ACTUAL</b>	N/A	N/A	N/A	N/A	319	Future	Future	Future	Future	Future	Future	See Table 5.2 Short Term Strategies.
Number of sites or facilities with on-site or off-site composting programs <b>TARGET</b>	N/A	...	N/A	...	...	See Table 5.2 Short Term Strategies.						
Number of sites or facilities with on-site or off-site composting programs <b>ACTUAL</b>	N/A	N/A	N/A	N/A	2	Future	Future	Future	Future	Future	Future	See Table 5.2 Short Term Strategies.
Estimated total weight of materials diverted to composting (tons) <b>TARGET</b>	N/A	...	N/A	...	...	See Table 5.2 Short Term Strategies.						

UNITED STATES COAST GUARD  
OPERATIONAL SUSTAINABILITY  
PERFORMANCE PLAN

<b>Pollution Prevention &amp; Waste Reduction</b>	<b>FY10</b>	<b>FY11</b>	<b>FY12</b>	<b>FY13</b>	<b>FY14</b>	<b>FY15</b>	<b>FY16</b>	<b>FY17</b>	<b>FY18</b>	<b>FY19</b>	<b>FY20</b>	<b>Comments/Changes</b>
Estimated total weight of materials diverted to composting (tons) <b>ACTUAL</b>	1,918	1,625	1,600	N/A	120	Future	Future	Future	Future	Future	Future	See Table 5.2 Short Term Strategies. Prior year's data were estimates and cannot be validated.
% of Component-operated offices/sites and offices located in multi-tenant buildings with a recycling program <b>TARGET</b>	0	0	0	N/A	N/A	N/A	N/A	...	N/A	...	...	See Table 5.2 Short Term Strategies.
% of Component-operated offices/sites and offices located in multi-tenant buildings with a recycling program <b>ACTUAL</b>	0	0	0	N/A	100	N/A	N/A	...	N/A	...	...	See Table 5.2 Short Term Strategies.

*Goal 5 – Strategies Short Term (FY15-FY16)*

**Table 5.2: Pollution Prevention and Waste Reduction Strategies Short Term (FY15-FY16)**

(A) Strategy Description	(B) Top Priority? Yes/No	(C) Strategy Implementation	(D) Specific targets/metrics to measure strategy success including milestones to be achieved in <u>next 18-24 months.</u>
Coast Guard Environmental Policy Updates, Revision and Awareness	Yes	In-house subject matter experts will continue to revise and update existing legacy policy and guidance documents to align with current federal regulations and Coast Guard organizational structure. Due to staffing shortages and in order to maintain and meet the need for updating Coast Guard policy, contract support will be requested to assist in the administrative layouts and configuration management.	Headquarters and field Logistics Centers will coordinate and collaborate efforts to define a prioritized list of policy documents that need to be revised. Headquarters will update policy and Logistics Centers will develop implementing procedures and process guides to ensure proper execution.  This will be done in Phases based on priority, funding, and other workload. Current Phase I policies include: Environmental Compliance Evaluations (ECE), Qualified Recycling Program (QRP), National Environmental Policy Act (NEPA) updates to align with DHS policy, and Environmental Liability Program. Most will also require implementing or process guides.
Establish a Headquarters/ Logistics Centers Environmental Management Integrated Project Team (IPT)	Yes	Bring together the three Logistics Centers (SILC, SFLC, and Aviation Logistics Center (ALC)) environmental managers and staff in order to establish cross-program uniformity and standardization.	In order to cooperatively develop standardized and uniform execution of the Coast Guard policy revisions, the IPT will meet quarterly or semi-annually, depending on resources, workload and travel restrictions to ensure each policy and process guide reflects the overall Coast Guard needs.
Pollution Prevention Opportunity Assessments (P2OA)	Yes	Primary purpose of P2OA report is to recommend strategies and technologies to eliminate or reduce targeted waste streams generated by units; thereby, enhancing environmental sustainability while reducing waste disposal costs and compliance risks.	Specific targets include: fuel reuse, proactive recycling systems, integrated oil spill control systems, corrosion control best practices, improved hazardous material tracking, mandatory use of environmentally friendly cleaning products, and sharing best practices across the Coast Guard.

Coast Guard Environmental Management Portal	Yes	<p>Develop and integrate an environmental data storage system to standardize management processes to track and mechanize the environmental processes.</p> <p>(1) Improve data collection methodology or the lack of data repository.</p> <p>(2) Centralized procurement strategy to include object class codes to track expenditures and focus on line item accountability.</p> <p>(3) Consider the use of DLA for construction and industrial materials to minimize source waste.</p> <p>(4) Analyze technological solutions.</p> <p>(5) Develop process map and resource allocation matrix to manage solid waste program.</p>	<p>The metrics are TBD, but will have metrics to track the following: routine totals for solid waste, hazardous materials, hazardous waste, determine total number of solid waste contracts, rationalize solid waste fee structure, collect data on sizes and total number of bases with solid waste, recycling and composting programs, collect data on resources to manage solid waste, recycling and composting programs, collect data on land requirements to operate recycling and composting programs, etc.</p>
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*Goal 5 – Strategies Mid Term (through FY18)*

**Table 5.3: Pollution Prevention and Waste Reduction Strategies Mid Term (FY17-FY18)**

(A) Strategy Description	(B) Top Priority? Yes/No	(C) Strategy Implementation	(D) Specific targets/metrics to measure strategy success including milestones to be achieved from FY17-FY18.
Coast Guard Environmental Policy Updates, Revisions, and Awareness	Yes	Depending on the Phase I completion status and workload, the Coast Guard will either continue, increase, or terminate the contractual support approach to policy revision and updates.	Phase II policies include: Waste Management (to include Hazardous, Municipal Solid, C&D wastes), full NEPA revision, natural resources, Historical and Cultural Manual, environmental training and awareness, EPCRA Manual, and including process guides.
Establish a Headquarters/ Logistics Centers IPT	Yes	Further the uniformity process by incorporating other operational entities such as DOL/Bases, TRACENS, and Area/Sectors into the IPT.	Continue IPT Meetings throughout FY 2017 – FY 2018.

Implementation of P2OA Technologies	Yes	Implement identified technologies through P2OA.	Specific technologies and goals TBD based on approved strategies.
Reduce solid waste through elimination, source reduction, and recycling.	Yes	Implementation strategies will commensurate with resource and funding approvals.	Specific goals and metrics TBD based on approved strategies.

*Goal 5 – Strategies Long Term (FY19 and beyond)*

**Table 5.4: Pollution Prevention and Waste Reduction Strategies Long Term (FY19 and beyond)**

(A) Strategy Description	(B) Top Priority? Yes/No	(C) Strategy Implementation	(D) Specific targets/metrics to measure strategy success including milestones to be achieved from FY19 and beyond.
Coast Guard Environmental Policy Updates, Revisions and Awareness	Yes	Continue or revise policy update process.	Phase III policies are TBD depending on Coast Guard and external requirements and priorities.
Establish a Headquarters/ Logistics Centers IPT	Yes	Further the uniformity process by incorporating other operational entities such as Sector and District units.	Continue IPT Meetings from FY 2019 and beyond.
Reduce solid waste through elimination, source reduction, and recycling based on P2OA.	Yes	Implementation strategies will commensurate with resource and funding approvals.	Specific goals and metrics TBD based on approved strategies.

*Goal 5 - Challenges/Justification*

**Table 5.5: Challenges or Justifications**

ID	Title	Description
1	Staff Resources	Challenges for 2015 and beyond focus on staffing, funding, IT, and organizational synchronization. There remains a shortage of dedicated and environmentally knowledgeable staff resources throughout the Coast Guard's many operational locations and administrative support mission areas. The very nature of environmental compliance requires a multi-dimensional, cross programmatic team of operational and support organizational staff. The gap between the future organization and the current staffing structure has no clear path to being mitigated, despite multiple resource proposals advocating to fill this need.
2	Lack of Comprehensive, Integrated Coast Guard Wide IT Reporting System	There currently is not a single, uniform Coast Guard wide database or system to collect and maintain the data required in Goal 5. All data has to be collected manually, usually with visual inspections to obtain single datum points. As mentioned in Table 5.2, hopefully within the year there will be remedy for this issue and a database will be developed to maintain environmental data.
3	Lack of Comprehensive Fiscal Accountability	Need for better coordination with interrelated operational program budget accountability and environmental support. The new database management system will help to alleviate some of the issues associated with fiscal accountability.
4	Training	Training still remains a challenge due to Coast Guard travel ceilings and a reduction in available financial resources. However, training on waste reduction and effective recycling strategies at both large and small Coast Guard locations have been included into environmental training programs when possible.
5	Budgetary Restrictions	Measuring and validating solid waste measurements require resources. Currently, there are not enough staff resources to allow for dumpster inspecting prior to each pick-up. Even if possible, this is likely not a profitable means of data collection. A technological solution to obtain this data is needed to ensure limited Coast Guard personnel are being used; allowing focus to remain on key mission execution and direct mission support.

*Goal 5 - Best Practices/Highlights*

**Table 5.6: Goal 5 Best Practices and Highlights**

ID	Title	Description
1	Coast Guard Corps of Engineers Compliance Track (CP-Track) Integration	The Coast Guard continues to coordinate with DHS and the Construction Engineering Research Laboratory (CERL) to upload ECE data into the CP-Track. Current and future ECE data will be incorporated into CP-Track as the evaluations are completed. This use of CP-Track will also allow the Coast Guard to meet DHS Environmental Management Scorecard metrics requirements, as well as provide Coast Guard senior management with periodic updates on the Coast Guard's compliance status.
2	Commanding Officer's Environmental Guide Revised	The Commanding Officer's Environmental Guide, which is a mainstay of any Coast Guard unit command, has been updated to include Headquarters and field organizational and realignment changes, a number environmental regulation revisions, and a host of new regulatory requirements dealing with: environmental liabilities, sustainability, Migratory Bird Treaty Act, tribal relations, Environmental Management System (EMS), updates to point of contact listings, and Coast Guard and federal websites.
3	Fuel Filtering and Reuse: Air Station Borinquen	Aviation fuel is recycled during maintenance operations by using a double filtration and fuel analysis to sample for purity. In the past, the fuel was discarded as waste at an annual cost of \$31,380 in 2010. Filtering the aviation fuel has saved tens of thousands of dollars over the last few years. This is a pollution prevention (P2) initiative that is also being used at other applicable locations.
4	Corrosion Control: Air Station Borinquen	<p>Air Station Borinquen has the second highest aircraft corrosion rate of all Coast Guard units; 80% of ageing aircraft related costs is corrosion related. Preventing and correcting corrosion for aircrafts is an important duty for personnel at Air Station Borinquen, but it can be one of the most pollutant-laden activities.</p> <p>Air Station Borinquen uses several cutting-edge best practices for corrosion control pollution prevention. They include the use of chromate-free paint (as approved per A CMS/CG-22; Sherwin Williams), cleaning with alcohol instead of Methyl Ethel Ketone (MEK), and use of the 3M™ Accuspray™ Spray Gun for painting. Among the benefits of the Accuspray™, the spray gun has low overspray which conserves paint, saves money and time, and enables pollution prevention cleaning due to the location of the cup attachment. The cup is attached as close to the spray tip as possible, requiring cleaning only at the tip, not throughout the entire gun.</p>

5	P2 Initiatives: Base Alameda	<p>Base Alameda has an active P2 Program that incorporates awareness, training, recycling, reduction, and waste minimization. With special issues, such as ships arriving from international ports, the Base continues to find creative methods for meeting federal, state and local requirements while saving money and meeting EO reductions to the best of their ability with limited financial resources. No area of the Base is untouched by the P2 Program.</p> <p>Solid waste initiatives range from simple changes in dumpster shapes to ensuring that recycle bins are centrally located. Solid waste initiatives include, but are not limited to the following:</p> <ul style="list-style-type: none"> <li>• The Base saved over \$40k per year by decreasing the number of solid waste dumpster pulls by changing the shapes of the dumpsters from slanted tops to flat top styles. This allowed for more waste to be placed into the same weighted dumpster.</li> <li>• Recycle bins are placed near each trash bin in outdoor areas, providing convenience and visibility for recycling.</li> <li>• Office trash is compacted at the Recycle Center, requiring fewer hauls by the waste company.</li> <li>• Packing material is collected and reused, which is above recycling on the P2 hierarchy.</li> <li>• Toner cartridge collection and recycling is centrally located at the Recycle Center.</li> <li>• Regulated Foreign Waste is operated under a separate process and is organized via separate bins with a spill equipment bin nearby.</li> </ul> <p>Over \$1,000 was collected by the QRP by recycling pallets; \$1,400 was collected for bottles and cans; \$7,000 for metals; \$3,500 for paper and cardboard. Totalling over \$12,900 in recycling proceeds for 2010.</p>
6	Line Item Accountability for Solid Waste Contracts	<p>A review on the reporting requirements for solid waste has been inserted into new base service contracts. The future contracts will allow for line item accountability of solid waste by contract Contractor Line Item Number (CLIN). It is anticipated that the transition of financial accounting systems planned at the start of FY 2018 will increase data availability on this goal. Coast Guard site specific detail, for both the municipal solid waste and the recycling collection service payments, would be determined from the contracted services payment transactional records.</p>

*Goal 5 – Lessons Learned*

As described above, the Coast Guard has implemented several effective P2 initiatives. The Coast Guard continues to forge ahead to develop a data repository to accurately track data for pollution prevention and waste reduction. Metrics are being developed and put in place to collect or validate data. Coast Guard is working toward developing proper processes to track volume/weight for solid waste collection via future service contract performance work statements. The diversity in Coast Guard site locations has been a determining factor in collecting data for P2 and waste reduction. It has been indicated that smaller facilities and units do not have the volume to contribute to a proper sampling for measurement.

## **GOAL 6: SUSTAINABLE ACQUISITION**

### **I. Sustainable Acquisition Goals**

EO 13514 requires agencies to advance sustainable acquisition and ensure that 95 percent of applicable new contract actions meet federal mandates for acquiring products that are energy efficient, water efficient, bio-based, environmentally preferable, non-ozone depleting, recycled content, or are non-toxic or less toxic alternatives, where these products meet performance requirements. To monitor performance, agencies perform quarterly reviews of at least 5 percent of applicable new contract actions to determine if sustainable acquisition requirements are included.

### **II. Overall Strategy to Meet Sustainable Acquisition Goals**

#### *Goal 6 – Description*

The Coast Guard plans to accomplish the following:

- Ensure 95 percent of all new contract actions require the supply or use of products and services that are energy efficient; water efficient; bio-based; environmentally preferable; non-ozone depleting; contain recycled content; non-toxic or less-toxic alternatives. Purchases are mandated where such products and services meet the Coast Guard performance requirements. These mandates do not apply to the acquisition of weapons systems. The Coast Guard plans to discuss how it currently captures and analyzes data to track performance regarding the 95% target for new contracted actions.
- Adherence to the DHS Affirmative Procurement Plan in the Homeland Security Acquisition Manual (HSAM), Appendix Q (also known as green purchasing plans or environmentally preferable purchasing plans), policies, and programs to ensure that all federally-mandated designated products and services are included in all relevant acquisitions.

#### *Goal 6 – Coast Guard Lead*

CG-9 is responsible for this goal. The Office of Procurement Policy and Oversight (CG-913) is responsible for managing the requirements of the GPP and implementing the requirements of EO 13514 and other applicable EOs with special emphasis on promoting the purchase of sustainable products and services acquisitions.

#### *Goal 6 - Staff Resources*

For this goal, the Coast Guard anticipates no additional positions beyond current staffing. Current staffing consists of one person dedicated to this program, on a part-time basis (1/8 of man-hours).

*Goal 6 - Planning/Status Table*

**Table 6.1: Goal 6 Planning and Status**

<b>Sustainable Acquisition New Contract Action Review</b>	<b>3<sup>rd</sup> QTR FY14</b>	<b>4<sup>th</sup> QTR FY14</b>	<b>1<sup>st</sup> QTR FY15</b>	<b>2<sup>nd</sup> QTR FY15</b>	<b>3<sup>rd</sup> QTR FY15 (Planned)</b>	<b>4<sup>th</sup> QTR FY15 (Planned)</b>
Total # new Component contract actions <sup>7</sup>	98	135	41	70	TBD	TBD
Total # new contract actions eligible for review	98	135	41	70	TBD	TBD
Total # eligible contract actions reviewed (at least 5% of eligible contracts)	5	6	2	4	TBD	TBD
# of contract actions including sustainability requirements	5	6	2	4	TBD	TBD
% of reviewed contract actions that include sustainability requirements	100	100	100	100	TBD	TBD
Total number IT-related contracts reviewed for which Energy Star and/or FEMP-designated product procurement requirements are applicable	1	1	0	0	TBD	TBD
Total number of applicable contracts identified in above that contain Energy Star and/or FEMP-designated product procurement requirements	1	1	1	2	TBD	TBD
Total number of applicable contracts identified above that did not contain Energy Star and/or FEMP-designated product procurement requirements	3	4	1	2	TBD	TBD

Review samples, for applicable quarters, consists of 5 percent of the total new applicable (Recovered Materials – Comprehensive Procurement Guidelines (CPG)/Recycled Content, Bio-based/Bio-Preferred Products, and Energy Efficient Products) actions awarded for that quarter (excludes existing awards and/or modifications). The sustainability categories are predetermined and prioritized by DHS on a quarterly basis.

<sup>7</sup> Do not include contracts for weapons systems.

Review samples (award actions) are pulled using the Federal Procurement Data System-Next Generation (FPDS-NG) Data Element 8L “Recovered Materials/Sustainability” that was established by GSA to capture such awards for subject Sustainable Acquisition Data Call, using a standard Sustainability Report. The 5 percent review actions are randomly selected (based on the predetermined categories determined by DHS) and stratified based on obligated amount. Applicable Coast Guard office(s) are requested to evaluate the files from their office and provide supporting documentation to CG-913, which in turn evaluates the documentation for compliance (e.g., sustainability clauses, FPDS-NG coding). The results are entered into standardized templates for submittal to the DHS Acquisition Policy and Legislation Office.

**Goal 6 - Strategies Short Term (FY15-FY16)**

**Table 6.2: Sustainable Acquisition Strategies Short Term (FY15-FY16)**

(A) Strategy Description	(B) Top Priority? Yes/No	(C) Strategy Implementation - Must include at least one strategy to increase biobased purchasing.	(D) Specific targets/metrics to measure strategy success including milestones to be achieved in <u>next 18-24 months</u> .
Continue to review 5 percent of sustainable acquisitions on a quarterly basis for compliance. Also ensure that bio-based and other FAR sustainability clauses are included in all applicable construction and other relevant service contracts.	Yes	Include FAR requirements for energy efficient, recycled, bio-based and other relevant sustainability factors in all new applicable contract actions and conduct quarterly compliance reviews.	Continuously encourage the purchase and use of bio-based products for all applicable purchases throughout FY 2015 – FY 2016.

**Goal 6 – Strategies Mid Term (through FY18)**

**Table 6.3: Sustainable Acquisition Strategies Mid Term (FY17-FY18)**

(A) Strategy Description	(B) Top Priority? Yes/No	(C) Strategy Implementation – Must include at least one strategy to increase biobased purchasing.	(D) Specific targets/metrics to measure strategy success including milestones to be achieved from FY17-FY18.
Continue to review 5 percent of sustainable acquisitions on a quarterly basis for compliance. Also ensure that bio-based and other FAR sustainability clauses are included in all applicable construction and other relevant service contracts.	Yes	Include FAR requirements for energy efficient, recycled, bio-based and other relevant sustainability factors in all new applicable contract actions and conduct quarterly compliance reviews.	Continuously encourage the purchase and use of bio-based products for all applicable purchases throughout FY 2017 – FY 2018.

*Goal 6 – Strategies Long Term (FY19 and beyond)*

**Table 6.4: Sustainable Acquisition Strategies Long Term (FY19 and beyond)**

(A) Strategy Description	(B) Top Priority? Yes/No	(C) Strategy Implementation - Must include at least one strategy to increase biobased purchasing.	(D) Specific targets/metrics to measure strategy success including milestones to be achieved from FY19 and beyond.
Continue to review 5 percent of sustainable acquisitions on a quarterly basis for compliance. Also ensure that bio-based and other FAR sustainability clauses are included in all applicable construction and other relevant service contracts.	Yes	Include FAR requirements for energy efficient, recycled, bio-based and other relevant sustainability factors in all new applicable contract actions and conduct quarterly compliance reviews.	Continuously encourage the purchase and use of bio-based products for all applicable purchases from FY 2019 and beyond.

*Goal 6 - Challenges/Justification*

**Table 6.5: Goal 6 Challenges and Justifications**

ID	Title	Description
1	Staff Resources	The Coast Guard is in need of a dedicated position to support the GPP. Current resources allow a minimum level of implementation and compliance of the Sustainable Acquisition Program.

*Goal 6 - Best Practices/Highlights*

**Table 6.6: Goal 6 Best Practices and Highlights**

ID	Title	Description
1	GPP	The GPP is designed to enhance and sustain mission readiness through cost effective acquisition that achieves compliance and reduces resource consumption and solid and hazardous waste generation. Green procurement is the purchase of environmentally preferable products and services in accordance with federally mandated “green” procurement preference programs. The GPP applies to all acquisitions and contracting mechanisms used by federal agencies including: service contracts, leases, purchases made with government purchase and fleet cards, and purchases below the micro-purchase threshold. Proper attention to green procurement will enhance the Coast Guard’s credibility and demonstrate DHS’s commitment to environmental stewardship by becoming a model consumer of green products and services.
2	Green Procurement Training Opportunities	Continue to provide the Coast Guard acquisition community numerous opportunities to participate in webinar training sessions (held throughout the year) sponsored by EPA, DOE, and the Coast Guard Learning Management System (CGLMS), which has several online courses.

3	Green Procurement Desk Guide	DHS issued a Sustainable (Green) Acquisition Desk Guide as a tool for use by DHS acquisition personnel, including Contract Specialists, Contracting Officers, Contracting Officer Representatives, and program personnel who help define requirements that result in procurements. The purpose of the guide is to provide background on the laws and regulations that govern the federal procurement of sustainable products and services; to provide an understanding of what a green product is and how services can likewise be green; provide resources for conducting market research; and provide information regarding constructing solicitations, purchase orders and contracts so as to comply with applicable laws, regulations, and federal procurement guidelines, including DHS policy.
4	Biobased Training	CG-913 addressed the importance of procuring biobased products for all applicable procurements in two live webinar training workshops held in June 2014. Over 48 contracting offices, both formal and Simplified Acquisition Process (SAP), were invited to attend training. The workshops addressed the definition, benefits, regulation, vendor resources (U.S. Department of Agriculture (USDA) BioPreferred Program/GSA Advantage), FPDS-NG coding, SAM certification for BioPreferred Reporting, and other topics on sustainability. The USDA BioPreferred Manager was in attendance. The training was well received by the SAP contracting offices due to their frequent use of GSA Advantage, which provides unique labeling for green products.

*Goal 6 – Lessons Learned*

The Coast Guard is defining the parameters associated with green procurement data calls to better capture requirements that reflect actual green product and services, as well as addressing issues with various contracting offices to ensure requirements are coded green as applicable in FPDS-NG.

## GOAL 7: ELECTRONIC STEWARDSHIP AND DATA CENTERS

### I. Electronic Stewardship & Data Center Goals

EO 13514 requires agencies to promote electronics stewardship by: ensuring procurement preference for Electronic Product Environmental Assessment Tool (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.

### II. Overall Strategy to Meet Electronic Stewardship and Data Center Goals

#### *Goal 7 – Description*

The primary goal is promulgation of the Coast Guard’s Electronic Stewardship Plan which is currently still in draft format. Specific goals, addressed in the draft Electronic Stewardship Plan, are defined in three electronics stewardship life-cycle activities: acquisition, operations and maintenance, and end-of-life management.

#### Acquisition goals:

- Establish policy for the acquisition of EPEAT-registered, ENERGY STAR qualified, and FEMP designated electronic office products when procuring electronics in eligible product categories.
- Ensure new contract actions for electronic products follow established acquisition policy to include the purchasing of EPEAT-registered, ENERGY STAR qualified, and FEMP designated electronic office products when procuring electronics in eligible product categories.
- Strive to purchase 95 percent of all new electronic products having EPEAT standards be EPEAT-registered.

#### Operations and maintenance:

- Establish policy to promote the use of power management, duplex printing, and other energy efficient or environmentally preferred options and features on all eligible electronic products.
- Strive to enable ENERGY STAR features on 100 percent of ENERGY STAR capable products.
- Establish policy to implement best practices for energy efficient management of servers and Federal data centers, and reflect requirements to meet data center reduction goals included in the Federal Data Center Consolidation Initiative.
- Work towards the Coast Guard’s data center consolidation plan.

End-of-life management goals:

- Clarify and emphasize policy to reflect environmentally sound practices for disposition of all excess or surplus electronic products. Current policy can be expanded and clarified.
- Clarify policy to include a greater variety of disposition options for electronic products to include the GSA Xcess, recycling through Unicor, 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 certification.

*Goal 7 – Coast Guard Lead*

CG-6 is responsible for this goal. However, in order to accomplish the requirements in this goal, cooperation is needed from all areas including acquisitions, logistics, operations, as well as from field units and COE.

*Goal 7 - Staff Resources*

For this goal, the Coast Guard anticipates no additional positions beyond current staffing. The electronic stewardship duty is a collateral duty position assigned to the IT Infrastructure Office at Headquarters. There are no other dedicated resources for this program. However, many other offices and field units play a role in electronic stewardship, in particular the COE, acquisitions, logistics, field services, etc.

Goal 7 - Planning/Status Table

Table 7.1: Planning and Status

Electronic Stewardship & Data Centers	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	Comments/Changes
Number of <b>EPEAT</b> monitors, personal computers, laptops (notebooks, slates and tablets), multifunction devices, printers, and televisions purchased NOT through the DHS FSSI Eagle/FirstSource contract	N/A	N/A	N/A	N/A	0	Future	Future	Future	Future	Future	Future	Sample taken from FY 2014 Standard Workstation purchases from Standard Hardware Blanket Purchase Agreement (BPA) Contract.  Currently do not have a reliable centralized method for tracking or calculating this metric for “non-standard” hardware that is purchased “off-contract”.
Number of <b>Non-EPEAT</b> monitors, personal computers, laptops (notebooks, slates and tablets), multifunction devices, printers, and televisions purchased NOT through the DHS FSSI Eagle/FirstSource contract	N/A	N/A	N/A	N/A	0	Future	Future	Future	Future	Future	Future	Sample taken from FY 2014 Standard Workstation purchases from Standard Hardware BPA Contract.  Currently do not have a reliable centralized method for tracking or calculating this metric for “non-standard” hardware that is purchased “off-contract”.
% of covered electronic product acquisitions that are EPEAT-registered <b>TARGET</b>	N/A	100	95	95	95	95	95	95	95	95	95	Target changed to align with EO 13514.
% of covered electronic product acquisitions that are EPEAT-registered <b>ACTUAL</b>	N/A	100	100	100	100	Future	Future	Future	Future	Future	Future	Sample taken from FY 2014 Standard Workstation purchases from Standard Hardware BPA Contract.  Currently do not have a reliable centralized method for tracking or calculating this metric for “non-standard” hardware that is purchased “off-contract”.

UNITED STATES COAST GUARD  
OPERATIONAL SUSTAINABILITY  
PERFORMANCE PLAN

Electronic Stewardship & Data Centers	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	Comments/Changes
% of eligible PC, laptops, and monitors with power management actively implemented and in use <b>TARGET</b>	N/A	100	Monitors: 100 PCs, Laptops: 0	Monitors: 100 PCs, Laptops: 0	Monitors: 100 PCs, Laptops: 0	100	100	100	100	100	100	The Standard Workstation Standard Image turns off monitors after 20 minutes but does not put computers to sleep. Justification – do not have Wake-on-LAN capability to perform necessary updates. When Coast Guard moves to Windows 7, will re-evaluate.
% of eligible PC, laptops, and monitors with power management actively implemented and in use <b>ACTUAL</b>	N/A	100	Monitors: 100 PCs, Laptops: 0	Monitors: 100 PCs, Laptops: 0	Monitors: 100 PCs, Laptops: 0	Future	Future	Future	Future	Future	Future	Unable to track or verify settings for “non-standard” hardware that is not centrally managed and not connected to network.
% of Component, eligible electronic printing products with duplexing features in use <sup>8</sup> <b>TARGET</b>	N/A	45	100	100	100	100	100	100	100	100	100	Duplex printing policy released June 2102. Requires all eligible printers to be duplex, except those provided with a waiver.

<sup>8</sup> Eligible electronic products include, but are not limited to, imaging equipment such copiers, faxes, printers, scanners, etc.

UNITED STATES COAST GUARD  
OPERATIONAL SUSTAINABILITY  
PERFORMANCE PLAN

Electronic Stewardship & Data Centers	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	Comments/Changes
% of Component, eligible electronic printing products with duplexing features in use <sup>32</sup> <b>ACTUAL</b> (estimate if needed)	N/A	45	100	100	100	Future	Future	Future	Future	Future	Future	The Coast Guard currently has no reliable, centralized, automated way to validate and verify this policy. The Coast Guard estimated 100 percent using a sample size of 3,452 duplex capable printers. Of the 3,452 duplex capable printers, 124 of those have been provided a waiver to remain single sided. Non-network printers cannot be centrally managed or tracked.
% of electronic assets covered by sound disposition practices <sup>9</sup> <b>TARGET</b>	N/A	100	100	100	100	100	100	100	100	100	100	Property Management Manual requires sound disposition of electronic items including recycle, reuse, and donation.
% of electronic assets covered by sound disposition practices <b>ACTUAL</b>	N/A	100	100	100	100	Future	Future	Future	Future	Future	Future	The Coast Guard does not at this time have an automated system to track and calculate this metric. The current property management policy provides avenues for proper disposition of electronic assets. Best estimate is that 100% of items are soundly disposed of.

<sup>9</sup> Electronic assets are generally those electronics products owned and/or leased by the agency that need to be disposed of in accordance with acceptable end-of-life practices. Some examples of sound disposition practices include, but are not limited to, GSA Xcess (Note: The use of GSA Auctions, public sales, and abandonment and destruction provided by GSA is outside of the scope of GSA Xcess and does not ensure sound disposition.); recycling through Unicor; 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 certification. Agencies should set a target as close to 100% as is reasonably achievable.

UNITED STATES COAST GUARD  
OPERATIONAL SUSTAINABILITY  
PERFORMANCE PLAN

Electronic Stewardship & Data Centers	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	Comments/Changes
% of Component data centers independently metered, advanced metered, or sub-metered to determine monthly (or more frequently) <b>TARGET</b>	N/A	(33) – incorrectly reported in FY11	0	0	0	0	0	0	0	0	0	None of the three Coast Guard data centers are independently metered. There are no plans at this time to do so.
% of Component data centers independently metered, advanced metered, or sub-metered to determine monthly (or more frequently) <b>ACTUAL</b>	N/A	(33) – incorrectly reported in FY11	0	0	0	Future	Future	Future	Future	Future	Future	None of the three Coast Guard data centers are independently metered. There are no plans at this time to do so.
Reduction in the number of Component data centers <b>TARGET</b>	N/A	0	0	0	1	1	0	...	...	...	...	The Coast Guard has a general Data Center Consolidation Plan, which includes keeping Operations Systems Command (OSC) open as a DHS Data Center. A detailed plan needs to be established.
Reduction in the number of Component data centers <b>ACTUAL</b>	N/A	0	0	0	0	Future	Future	Future	Future	Future	Future	The Coast Guard has a general Data Center Consolidation Plan, which includes keeping OSC open as a DHS data center. A detailed plan needs to be established.

UNITED STATES COAST GUARD  
OPERATIONAL SUSTAINABILITY  
PERFORMANCE PLAN

Electronic Stewardship & Data Centers	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	Comments/Changes
% of Component data centers operating with an average CPU utilization greater than 65% <sup>10</sup> <b>TARGET</b>	N/A	0	0	0	0	0	0	0	0	0	0	The Coast Guard does not track this information and has no plans to do so in the near future.
% of Component data centers operating with an average CPU utilization greater than 65% <b>ACTUAL</b>	N/A	0	0	N/A	N/A	Future	Future	Future	Future	Future	Future	The Coast Guard does not track this information and has no plans to do so in the near future.
Maximum annual weighted average Power Utilization Effectiveness (PUE) for Component. (#) <b>TARGET</b>	N/A	(1.8) – incorrectly reported this in FY11	*	*	*	*	*	*	*	*	*	*The Coast Guard does not have the ability to report this figure and has no plans at this time to implement.
Maximum annual weighted average Power Utilization Effectiveness (PUE) for Component. (#) <b>ACTUAL</b>	N/A	(1.8) – incorrectly reported this in FY11	*	*	*	Future	Future	Future	Future	Future	Future	*The Coast Guard does not have the ability to report this figure and has no plans at this time to implement.

<sup>10</sup> In data centers with large variations in load this metric should be applied only to servers that are powered up. Servers that are powered down should not be counted.

*Goal 7 – Strategies Short Term (FY15-FY16)*

**Table 7.2: Electronics Stewardship and Data Center Reduction Strategies Short Term (FY15-FY16)**

(A) Strategy Description	(B) Top Priority? Yes/No	(C) Strategy Implementation	(D) Specific targets/metrics to measure strategy success including milestones to be achieved in <u>next 18-24 months.</u>
Establish detailed plans for the Coast Guard data center reduction.	Yes	Collapse two existing data centers at ALC and FINCEN to OSC.	(1) Establish detailed plan.  (2) Begin transitioning ALC in FY 2015 – FY 2016.
Work with other Coast Guard directorates to re-start the effort to finish the electronic stewardship policy.	Yes	Renew work on the draft policy and receive input from all stakeholders to complete the policy.	Gain concurrence for electronic stewardship policy by July 2015.
Continue research on current inventory management software products to allow better reporting of network electronic stewardship data.	Yes	Learn how to harness our current products to provide the necessary reports.	Work with COE to configure reporting software. No specific target/metric at this time.
Research possibility of Wake-on-LAN capability and implement in order to allow Standard Work Stations to hibernate.	Yes	Utilize Wake-on-LAN functionality to allow computers to hibernate but also allow computers to be updated during non-use hours.	Upgrade all workstations to Windows 7, which began June 2014 and should be complete by December 2015.

*Goal 7 – Strategies Mid Term (through FY18)*

**Table 7.3: Electronics Stewardship and Data Center Reduction Strategies Mid Term (FY17-FY18)**

(A) Strategy Description	(B) Top Priority? Yes/No	(C) Strategy Implementation	(D) Specific targets/metrics to measure strategy success including milestones to be achieved from FY17-FY18
Research possibility of Wake-on-LAN capability and implement in order to allow Standard Work Stations to hibernate.	Yes	Utilize Wake-on-LAN functionality to allow computers to hibernate but also allow computers to be updated during non-use hours.	(1) Research possible use by July 2015.  (2) Implement policy by December 2016.

Continue data center consolidation efforts.	Yes	Continue collapsing data centers to OSC.	Begin transitioning FINCEN in FY 2015/FY 2016.
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*Goal 7 – Strategies Long Term (FY19 and beyond)*

**Table 7.4: Electronics Stewardship and Data Center Reduction Strategies Long Term (FY19 and beyond)**

(A) Strategy Description	(B) Top Priority? Yes/No	(C) Strategy Implementation	(D) Specific targets/metrics to measure strategy success including milestones to be achieved from FY19 and beyond.
TBD	Yes	TBD	TBD

*Goal 7 - Challenges/Justification*

**Table 7.5: Challenges and Justifications**

ID	Title	Description
1	Budgetary Restrictions	The Coast Guard currently has no direct funding at the Headquarters level to carry out electronic stewardship duties, efforts, mandates, and to implement many of the necessary measuring procedures including independent metering, power usage effectiveness (PUE) figures, and various centralized reporting capabilities.
2	Centralized Management	The Coast Guard has very little centralized management over non-standard hardware, which makes reporting on the equipment near impossible.
3	System Center Configuration Manager (SCCM) Implementation	The Coast Guard is now implementing SCCM. Currently working on creating necessary reports to validate and verify the Coast Guard policies. This will only help reporting capabilities on network equipment. Non-network equipment will remain a large challenge.
4	Staff Resources	Currently, only one billet is assigned to these duties and is considered a collateral duty. Electronic stewardship routinely is not a first priority due to lack of resources.

*Goal 7 - Best Practices/Highlights*

**Table 7.6: Best Practices and Highlights**

ID	Title	Description
1	Computers and Servers EPEAT Registered	The Coast Guard included in the BPA contract for all standard workstations and servers that 95% of items must be EPEAT certified to meet EO 13514.

2	Duplex Printing Plan	The Coast Guard implemented an Enterprise Duplex Printing Plan in June 2012, requiring all duplex capable printers to be set double sided by default. Policy also requires new procurements to be duplex capable. The Coast Guard continued to follow the Enterprise Duplex Printing Plan in FY 2014.
3	Mobile Incident Management Handbook	CG-DCO has directed the publication of the 2014 revision of the Coast Guard Incident Management Handbook (CG IMH) to be primarily through the development and release of a standalone free mobile application version of the CG IMH. The Government Printing Office printed 68,000 copies, 375 pages each, of the CG IMH since the 2006 version was released. The development and release of a standalone mobile version of the CG IMH that does not require cellular or WiFi connectivity will significantly reduce the number of printed copies required by the Coast Guard and our maritime stakeholders.

*Goal 7 – Lessons Learned*

The Coast Guard has had a challenging time with collecting the necessary data for this goal. The processes in this area are very de-centralized and not all information is captured, such as recycling information. Other information that is challenging to determine is not necessarily captured in easy to search/manipulate databases.

The Coast Guard data center plans have yet to be established in detail. The Coast Guard’s general plan is to eventually collapse two data centers into its main OSC data center. Additionally, Coast Guard data centers are not configured to obtain the metrics that are required in this goal. Without specific funding for electronic stewardship, the Coast Guard does not anticipate funding projects to install the necessary equipment and hardware at this time.

The Coast Guard has learned that without direct funding and staff resources for this effort, it has been extremely hard to make progress for this goal. The Coast Guard believes that once Windows 7 is implemented into its infrastructure it will have the opportunity to perform more research on the Wake-On-LAN functionality to eventually allow workstations to hibernate when not in use.

## **GOAL 8: RENEWABLE ENERGY**

### **I. Renewable Energy Goals**

EO 13514 requires that agencies increase use of renewable energy. Further, Energy Policy Act (EPA) 2005 requires agencies to increase renewable energy use such that 7.5 percent of the agency's total electricity consumption is generated by renewable energy sources for FY 2013 and beyond. For FY 2012, the required target was 5 percent of an agency's total electricity consumption.

### **II. Overall Strategy to Achieve Renewable Energy Goals**

#### *Goal 8 – Goal Description*

The Coast Guard is committed to achieving the renewable energy goals set forth in EO 13514. The Presidential Memorandum “Federal Leadership on Energy Management” signed 5 December 2013 (effective FY 2014 and beyond) establishes a new target for federal use of renewable energy that challenges agencies to more than double its renewable electricity consumption.

By FY 2020, to the extent economically feasible and technically practicable, 20 percent of the total amount of electric energy consumed by each agency during any fiscal year shall be renewable energy. The Coast Guard shall seek to achieve this new renewable energy consumption target by taking the following actions where possible:

- Install agency-funded renewable energy on-site at federal facilities and retain RECs;
- Contract for energy that includes the installation of a renewable energy project on-site or off-site at federal facilities and the retention of RECs for the term of the contract;
- Purchase electricity bundled and corresponding RECs; and
- Purchase RECs.

#### *Goal 8 – Coast Guard Lead*

CG-4D is responsible for accomplishment of this goal. Program management is provided by CG-46. All renewable energy projects are approved through CG-43 and SILC business processes.

#### *Goal 8 – Staff Resources*

The Coast Guard has limited staff resources to dedicate solely to renewable energy. The Coast Guard has been able to mitigate this issue by assigning the duties to military and civilian employees as a collateral duty. Other personnel throughout the Coast Guard such as contracting officers, lawyers, engineers, environmentalists, and financial personnel also provide assistance on an ad-hoc basis.

*Goal 8 – Baseline*

Baseline is not applicable.

*Goal 8 – Planning/Status*

**Table 8.1: Planning/Status**

Renewable Energy	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20
Renewable electricity (% of electricity from renewable sources) <b>TARGET</b>	5	5	5	7.5	7.5	10	15	15	17.5	17.5	20
Renewable electricity (% of electricity from renewable sources) <b>PLAN</b>	5	5	5	7.5	7.5	10	15	15	17.5	17.5	20
Renewable electricity (% of electricity from renewable sources) <b>ACTUAL</b>	9.5	7.1	10.2	8.2	6.5	Future	Future	Future	Future	Future	Future
% of renewable energy that is “new.” <sup>11</sup>	75.1	83.9	88.3	100	91.5	Future	Future	Future	Future	Future	Future

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<sup>11</sup> If <50%, describe in the planning section below the strategies the agency will use to meet the 50% new requirement from EO 13423.

*Goal 8 – Strategies Short Term (FY15-FY16)*

**Table 8.2: Renewable Energy Strategies Short Term (FY15-FY16)**

(A) Strategy Description	(B) Top Priority? Yes/No	(C) Strategy Implementation	(D) Specific targets/metrics to measure strategy success including milestones to be achieved in <u>next 18-24 months</u> .
RECs	Yes	The Coast Guard will purchase RECs through DLA Energy to augment renewable energy purchased when on-site generation or utility-provided renewable energy is not economically feasible.	TBD throughout FY 2015 - FY 2016 based on the REC solicitation schedule and budget constraints.
PPAs	Yes	The Coast Guard will continue to purchase renewable energy through PPAs for renewable energy that is generated on Coast Guard property.	TBD throughout FY 2015- FY 2016.
Electricity Contracts	Yes	The Coast Guard will include renewable energy as part of electricity contracts, where cost effective.	TBD throughout FY 2015- FY 2016.
Energy Security	Yes	To the maximum extent possible, renewable energy shall provide energy security to mission-critical infrastructure, including that which distributes tactical liquid fuels as prioritized by the Public-Private Partnership for Petroleum Logistics Working Group (P3PL WG).	TBD throughout FY 2015- FY 2016.
Renewable Energy Projects	Yes	The Coast Guard plans to continue to evaluate renewable energy projects for economic viability as a part of the planning of new design and major retrofits.	(1) Initiate projects to deploy renewable energy at Air Station Barbers Point and Base Cape Cod.  (2) Additional projects include ~600 kW PV array at the Coast Guard Academy, executed via an alternatively financed project, with award anticipated by Q3 FY 2017.
Coast Guard Energy Generation	Yes	The Coast Guard plans to quantify the energy output and associated savings with all energy generation projects in order to track project performance.	M&V still in progress for Puerto Rico PPA.

*Goal 8 – Strategies Mid Term (through FY18)*

**Table 8.3: Renewable Energy Strategies Mid Term (FY17-FY18)**

(A) Strategy Description	(B) Top Priority? Yes/No	(C) Strategy Implementation	(D) Specific targets/metrics to measure strategy success including milestones to be achieved from FY17-FY18.
RECs	Yes	The Coast Guard will continue to evaluate whether or not it is necessary to purchase RECs through DLA Energy to augment renewable energy purchased when on-site generation or utility-provided renewable energy is not economically feasible.	TBD throughout FY 2017 - FY 2018 based on the REC solicitation schedule and budget constraints.
PPAs	Yes	The Coast Guard will continue to purchase renewable energy through PPAs for renewable energy that is generated on Coast Guard property.	Expand existing PPA at Petaluma by ~100 kW to reach maximum capacity of installed transformers in FY 2017 – FY 2018.
Electricity Contracts	Yes	The Coast Guard will include renewable energy as part of electricity contracts, where cost effective.	TBD throughout FY 2017 – FY 2018.
Energy Security	Yes	To the maximum extent possible, renewable energy shall provide energy security to mission-critical infrastructure, including that which distributes tactical liquid fuels as prioritized by the P3PL WG.	TBD throughout FY 2017 – FY 2018.
Renewable Energy Projects	Yes	The Coast Guard plans to continue to evaluate renewable energy projects for economic viability as a part of the planning of new design and major retrofits.	<p>(1) Additional projects include ~600 kW PV array at the Coast Guard Academy, executed via an alternatively financed project, with award anticipated by Q3 FY 2017.</p> <p>(2) Address power distribution situation at Air Station Barbers Point by the end of Q4 FY 2017.</p> <p>(3) Implement PV array at Base Cape Cod in FY 2017 – FY 2018.</p>

*Goal 8 – Strategies Long Term (FY19 and beyond)*

**Table 8.4: Renewable Energy Strategies Long Term (FY19 and beyond)**

(A) Strategy Description	(B) Top Priority? Yes/No	(C) Strategy Implementation	(D) Specific targets/metrics to measure strategy success including milestones to be achieved from FY19 and beyond.
RECs	Yes	The Coast Guard will continue to evaluate whether or not it is necessary to purchase RECs through DLA Energy to augment renewable energy purchased when on-site generation or utility-provided renewable energy is not economically feasible.	TBD from FY 2019 and beyond.
PPAs	Yes	The Coast Guard will continue to purchase renewable energy through PPAs for renewable energy that is generated on Coast Guard property.	TBD from FY 2019 and beyond.
Electricity Contracts	Yes	The Coast Guard will include renewable energy as part of electricity contracts, where cost effective.	TBD from FY 2019 and beyond.
Energy Security	Yes	To the maximum extent possible, renewable energy shall provide energy security to mission-critical infrastructure, including that which distributes tactical liquid fuels as prioritized by the P3PL WG.	TBD from FY 2019 and beyond.
Renewable Energy Projects	Yes	The Coast Guard plans to continue to evaluate renewable energy projects for economic viability as a part of the planning of new design and major retrofits.	TBD from FY 2019 and beyond.

*Goal 8 – Challenges/Justifications*

**Table 8.5: Challenges and Justifications**

ID	Title	Description
1	Budgetary Restrictions	The current budgetary climate and funding volatility could restrict the Coast Guard’s ability to deploy projects and programs that will further progress towards goals.
2	PPA Limits	Legal and budgetary difficulties with awarding PPAs with performance periods beyond ten years.
3	Variable Real Property Outlook	Due to the current political and budgetary climate the Coast Guard is not confident in the future of all Real Property, which makes long term investments in renewable energy difficult to justify.
4	RECs	In FY 2014, the Coast Guard attributed 6.5% of its total electricity is from renewable sources, nearly all of which came from on-site generation of renewable electricity (new sources). This falls short of the FY 2014 goal of 7.5%, despite seeing an uptick in on-site production. This shortfall can be attributed to the lack of RECs purchased by the Coast Guard, which were not purchased due to budget constraints not aligning to the REC contract solicitation window.

*Goal 8 – Best Practices/Highlights*

**Table 8.6: Best Practices and Highlights**

ID	Title	Description
1	Solar Water Heating Projects	In FY 2014, the following solar water heating projects were in operation: <ul style="list-style-type: none"> <li>• Housing units in Honolulu, HI</li> <li>• Indoor swimming pool in Alameda, CA</li> <li>• Swimming pool in Petaluma, CA</li> <li>• Naval Engineering Support building and Gymnasium in Portsmouth, VA</li> </ul>
2	PV Projects	In FY 2014, the following PV projects were in operation: <ul style="list-style-type: none"> <li>• 875 kW ground mount array in Petaluma, CA</li> <li>• 125 kW of roof mounted panels in Petaluma, CA</li> <li>• Roof panels in Southwest Harbor</li> <li>• Lighted aids to navigation – approximately 4.8 thousand solar panel/battery powered light-buoys; approximately 11.5 thousand solar panel/battery powered lighted-fixed aids to navigation</li> <li>• 2.89 MW of roof mount PV in Puerto Rico</li> <li>• Roof panels at Net Zero Cutter NARWHAL facility</li> </ul>

3	Major Renewable Energy Projects	<p>In FY 2014, the following major renewable energy projects were in operation:</p> <ul style="list-style-type: none"> <li>• Recapitalization and improvement of the Renewable Energy Center at the Coast Guard Yard to increase electric and steam output</li> <li>• Planning for a potential ~100KW increase to the array in Petaluma, CA</li> </ul>
4	Other Projects	<p>In FY 2014, the following other projects were in operation:</p> <ul style="list-style-type: none"> <li>• Ground source heat pumps in Cape Cod, MA</li> <li>• Landfill gas combined heat and power generation at the Coast Guard Yard</li> <li>• Biomass heat in Southwest Harbor</li> </ul>

*Goal 8 – Lessons Learned*

Over the past few years, the Coast Guard has actively sought to include renewable energy into alternatively financed projects in order to build a strong renewable energy portfolio. By including renewable energy in large, holistic performance contracts, the long and prohibitive payback periods of renewable energy technologies are reduced and the high investment costs are spread out over multiple years.

## GOAL 9: CLIMATE CHANGE RESILIENCE

### I. Climate Change Resilience Goals

EO 13514 requires each agency 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. The Department's Climate Change Adaptation efforts can be viewed at <http://dhsconnect.dhs.gov/org/comp/mgmt/Pages/Climate-Change-Adaptation-.aspx>.

### II. Overall Strategy to Meet Climate Change Resilience Goals

#### *Goal 9 – Goal Description*

Climate Change is a strategic driver that impacts the Coast Guard's ability to execute its missions. The Coast Guard is addressing the need for climate change adaptation and resilience by taking the following actions:

- Ensure safe, secure, and environmentally responsible maritime activity in the Arctic by implementing the 2013 U.S. Coast Guard Arctic Strategy as permitted within existing resource levels.
- Take for action those tasks assigned to the Coast Guard under the 2014 Implementation Plan for the National Strategy for the Arctic Region as allowed within current resource levels.
- Develop a Coast Guard specific climate change adaptation framework that aligns with 2013 DHS Climate Action Plan and The President's Climate Action Plan, June 2013.

#### *Goal 9 – Coast Guard Lead*

CG-DCO is responsible for the accomplishment of this goal with the support of CG-4 and CG-DCMS. In order to accomplish this goal, cooperation occurs across Coast Guard program areas as well as from field units.

#### *Goal 9 – Staff Resources*

The Arctic is an evolving region. The Coast Guard will continually reassess requirements for Arctic operations and ensure the Administration has awareness of the risks and options for providing maritime governance. As outlined in the U.S. Coast Guard Arctic Strategy, the Coast Guard will take a "mobile and seasonal" approach to operations over the coming decade, providing the Service with the opportunity to assess and test operational capabilities and identify the additional resources needed to provide effective presence and response capabilities in this region.

*Goal 9 – Baseline*

Baseline is not applicable.

*Goal 9 – Strategies Short Term (FY15-FY16)*

**Table 9.1: Climate Change Resilience Strategies Short Term (FY15-FY16)**

(A) Strategy Description	(B) Top Priority? Yes/No	(C) Strategy Implementation	(D) Specific targets/metrics to measure strategy success including milestones to be achieved in <u>next 18-24 months.</u>
Develop Implementation Plan for the USCG Arctic Strategy	Yes	This Implementation Plan will include the Coast Guard’s plan to implement the USCG Arctic Strategy, the Implementation Plan for the NSAR, and specific portions of the Implementation Plan for the National Ocean Policy (NOP) relating to the Arctic.	This plan is expected to be completed in calendar year 2015.
NSAR	Yes	The Coast Guard will support implementation of those sections it has been assigned, as lead or support, in the Implementation Plan for the NSAR.	Progress is tracked in an annual National Security Council Report to the President.
Enhance Arctic Operations and Exercises	Yes	The Coast Guard conducts annual <i>Arctic Shield</i> operations. The annual operation involves months of preparation and includes objectives to perform select Coast Guard missions and activities in the Arctic, advance Arctic maritime domain awareness through operations, intelligence and partnerships, improve preparedness and response capabilities and test capabilities and refine Arctic resource requirements.	Following annual operations and exercises, lessons learned are created and used to further Coast Guard operations within the region.

Establish an ACGF	Yes	The Coast Guard will hold an Experts' Meeting 24-25 March 2015 with Arctic nations to finalize drafting of a <i>Terms of Reference</i> .	A follow on Principals' meeting is held and the <i>Terms of Reference</i> to establish the ACGF is signed by all eight nations. Date is TBD.
Establish an APB	Yes	Submit package to DHS S-1 to formally establish the APB Federal Advisory Committee and announce/solicit membership in the Federal Register.	Establish the APB and schedule the first meeting. Date is TBD.
Ensure Arctic Surface and Air Capabilities with Associated Infrastructure	Yes	Continue to lead a multi-agency workgroup to develop an Operational Requirements document for a National Polar Icebreaker and conduct an Alternatives Analysis.  Lead development of an interagency document on needed capabilities to support Federal activities in ice-impacted waters.	Success milestone will be completion of the document.
Promote Waterways Management: Complete the Bering Strait Port Access Route Study	Yes	The Coast Guard is seeking comments via the Federal Register on whether a vessel routing system such as a fairway, or traffic separation scheme, is needed.	Comments are received, adjudicated, and if deemed warranted, a proposal for a vessel routing system is finalized.
Continue International IMO Polar Code Development	Yes	The environmental requirements in the Polar Code (amendments to International Convention for the Prevention of Pollution from Ships (MARPOL)) are expected to be adopted at IMO in May 2015.	The environmental component of the Polar Code is adopted by the IMO in May 2015.
Support accession to the United Nations Convention on the LOS	Yes	This effort is ongoing. As opportunities present themselves, the Coast Guard will continue to join senior administration, military, industry, and academic leaders in supporting favorable action on the part of the U.S. Senate to accede to the LOS Convention.	The U.S. accedes to the LOS Convention.

Support Arctic Council (AC) and U.S. Chairmanship	Yes	This is an ongoing effort. The Coast Guard is co-leading development of an Arctic Council Search and Rescue (SAR) exercise, and through the AC Emergency Prevention, Preparedness and Response Work Group (EPPR), will also sponsor a Pollution Response exercise during U.S. Chairmanship.	(1) An Arctic Council SAR Table Top Exercise is held during calendar year 2015.  (2) An Arctic Council EPPR Pollution response exercise is conducted during calendar year 2015.
Improve (Arctic) Maritime Domain Awareness	Yes	In conjunction with interagency partners, the Coast Guard is studying feasibility of Unmanned Aircraft Systems (UASs) and evaluating space based observation capabilities.	Success milestone includes completion of the study. Date is TBD.
Draft and Publish a Coast Guard Climate Resilience Frame Work Document	Yes	The Coast Guard is currently exploring the potential to develop a document to outline its short and medium-term climate adaptation and resilience priorities.	The Coast Guard publishes a document outlining its climate adaptation priorities. Date is TBD.
Implement the DHS Climate Change Action Plan	Yes	This effort is ongoing. Many of the Arctic initiatives discussed in Goal 9 support this action.	The Coast Guard continues to implement its Coast Guard Arctic Strategy.
Develop the Coast Guard Electronic Incident Management System	Yes	In coordination with DHS Science and Technology Directorate (S&T) and the Coast Guard Research and Design (R&D) Center, develop and operationalize a Coast Guard Electronic Incident Management System.	(1) Complete Coast Guard development of proof of concept for the DHS S&T Next Generation Incident Command System (NICS) and associated R&D Center Portable Integrated Handheld Next Generation Incident Command System (PHINICS) mobile application by the end of calendar year 2015.  (2) Complete acquisition of Commercial Off-the-Shelf Incident Management Software System by the end of calendar year 2015.
Develop Coast Guard Mobile IMH Application	Yes	Coast Guard will develop and release a standalone mobile version of the IMH that does not require cellular or WiFi connectivity to ensure (paperless) availability to Coast Guard responders and maritime stakeholders.	Mobile IMH application will be made available on the Android and Apple mobile application stores. Date is TBD.

Update Coast Guard Incident Management Policies and Processes	Yes	Consolidate and update all Coast Guard Incident Management policy into a single manual to provide a single location to access when needed during a response.	<p>(1) The Coast Guard plans to update incident management policy and publish documents within a single manual. Date of completion is TBD.</p> <p>(2) Manual will include multiple Coast Guard preparedness and readiness metrics relating to responding to catastrophic disasters.</p>
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**Goal 9 – Strategies Mid Term (through FY18)**

The Coast Guard is in the process of developing its plan to implement both the U.S. Coast Guard Arctic Strategy and the Implementation Plan for the NSAR. Additionally, the Coast Guard is exploring the potential of developing an internal framework for adapting to Climate Change. In future years, the results of these documents will assist with further building out Table 9.2 and 9.3.

**Table 9.2: Climate Change Resilience Strategies Mid Term (FY17-FY18)**

(A) Strategy Description	(B) Top Priority? Yes/No	(C) Strategy Implementation	(D) Specific targets/metrics to measure strategy success including milestones to be achieved from FY17-FY18.
Enhance Arctic Operations and Exercises	Yes	<i>Arctic Shield</i> is an annual operation that requires months of planning each year. Coast Guard District 17 produces annual Operations Orders to coordinate this operation.	Following this annual event, lessons learned are created to further national interest and Coast Guard operations within the Arctic region.
Support AC and U.S. Chairmanship	Yes	This effort is ongoing. The Coast Guard will continue to work with the DOS led Arctic Policy Group and participate as appropriate on U.S. delegations to the various AC workgroups and taskforce.	Working with the DOS, the Coast Guard supports AC objectives.
Develop the Coast Guard Electronic Incident Management System	Yes	In coordination with DHS S&T and the Coast Guard R&D Center, continue plans to develop a Coast Guard Electronic Incident Management System. This will be completed by creating a singular Coast Guard Common Operational Picture (CGOneView) to mine services like the Environmental Response Management Application, WebEOC, and the DHS Common Operational Picture (COP).	Various information management systems are integrated into a single data system.

Updated Coast Guard Incident Management Policies and Processes	Yes	Update Coast Guard training to align with changes in consolidated response policy manual.	Date is TBD based on the completion of the policy manual in FY 2015 – FY 2016.
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*Goal 9 – Strategies Long Term (FY19 and beyond)*

**Table 9.3: Climate Change Resilience Strategies Long Term (FY19 and beyond)**

(A) Strategy Description	(B) Top Priority? Yes/No	(C) Strategy Implementation	(D) Specific targets/metrics to measure strategy success including milestones to be achieved from FY19 and beyond.
Enhance Arctic Operations and Exercises	Yes	<i>Arctic Shield</i> is an annual operation that requires months of planning each year. Coast Guard District 17 produces annual Operations Orders to coordinate this operation.	Following this annual event, lessons learned are created to further national interest and Coast Guard operations within the Arctic region.
Support the AC to promote U.S. interests.	Yes	This effort is ongoing. The Coast Guard will continue to work with the DOS lead Arctic Policy Group, and participation on U.S. delegations to the various AC workgroups and taskforce.	Working with the DOS, Coast Guard supports AC objectives.
Develop the Coast Guard Electronic Incident Management System.	Yes	In coordination with DHS S&T and the Coast Guard R&D Center, continue plans to develop a Coast Guard Electronic Incident Management System by developing a virtual data warehouse connection to interagency IT platforms (such as the DHS Homeland Security Information Network (HSIN), Federal Emergency Management Agency (FEMA) WebEOC, State Emergency Management Systems, and DoD Emergency Management Systems).	Complete development. The Coast Guard will be able to document and manage all incident response operations using the Coast Guard Electronic Incident Management software solution.
Training	Yes	Continue to update Coast Guard training to align with changes in consolidated response policy manual.	Training updates are TBD.

*Goal 9 – Challenges/Justifications*

**Table 9.4: Challenges and Justifications**

ID	Title	Description
1	Arctic Region	Conditions in the Arctic are dynamic, unpredictable, and altering due the changing climate. There is still much to learn about this harsh region. Over the next decade, the Coast Guard intends to take a “mobile and seasonal” approach to operations with actual and forecasted activity driving the Coast Guard’s presence in the region.
2	Western Hemisphere	Climate change will pose new threats to maritime security and will exacerbate transnational risks and threats within the Western Hemisphere.

*Goal 9 – Best Practices/Highlights*

**Table 9.5: Best Practices and Highlights**

ID	Title	Description
1	Annual Arctic Shield Operations	Conducting annual Arctic Shield operations is an important part of the Coast Guard ensuring it is prepared to operate in this seasonally accessible region. These seasonal operations allows the Coast Guard to provide strategic focus on various priorities within the region and is vital for building enduring relationships with state, local, and tribal partners.
2	National Ocean Council	The Coast Guard plays an active role as an independent member of the National Ocean Council, which the President established in 2010 to implement the nine priority objectives under the NOP. These priority objectives include: efforts to mitigate the effects of climate change, improve response to environmental challenges and economic opportunities in the Arctic, and implementing marine planning in nine regions. The Coast Guard co-chairs two interagency working groups (marine planning and the Arctic) to monitor the milestones involving.
3	Promulgation of the USCG Western Hemisphere Strategy	In September 2014, the Coast Guard promulgated its 10-year strategy for operating in the Western Hemisphere. This important strategy includes discussions on how the future impacts of climate change will pose new threats to maritime security.
4	2014 Coast Guard IMH Update	The IMH underwent a complete revision. These changes came as a result of lessons learned and after-action reports published since 2005. The IMH will be used to coordinate Coast Guard all hazard response actions, including severe weather events.
5	Incident Management Training, Certification and Qualification System Revision	The Coast Guard revised its Coast Guard Incident Management training, certification and qualification system. This system standardized Coast Guard response operations to catastrophic incidents and establishes qualification competency requirements for personnel participating in an Incident Command System response. This revision standardization improves unity of effort across the federal, state, tribal, local, and territorial governments and maritime industries.

6	Hampton Roads Sea-Level Rise and Preparedness Pilot Project	The Coast Guard is participating on a regional whole-of-government sea-level rise and preparedness pilot project established in FY 2014. The project goal is to promote intergovernmental coordination to begin to address sea-level rise challenges, with the expectation that the developed processes can become a template for other regions.
7	Hurricane Sandy Reconstruction	Hurricane Sandy reconstruction is being planned and designed with resiliency in mind. Coast Guard buildings, structures, and utilities are being raised above the revised FEMA 100-year flood plain. The Coast Guard is now using this as a standard for all new construction.

*Goal 9 – Lessons Learned*

Adapting to the changing conditions in the Arctic region is a challenge. The seasonal changes are dramatic with unpredictable weather, insufficient infrastructure, and great travel distances to remote areas. The Coast Guard’s Arctic Strategy is used to guide the Service in prioritizing its actions in the Arctic region. The annual Coast Guard Arctic Shield operation is one of the tools to ensure successful implementation of many of the actions outlined in both the Coast Guard and National Arctic strategies. The lessons learned from Arctic Shield are constantly being used to improve Coast Guard operations and capabilities, knowledge, and to improve overall Coast Guard preparedness to respond to emergencies within the region. Additionally, these lessons learned are used to inform development of future year Arctic Shield operations.

## Appendix 1: Acronyms and Abbreviations

AMS	Asset Management System
ACGF	Arctic Coast Guard Forum
AFV	Alternative Fuel Vehicle
ALC	Aviation Logistics Center
ALCOAST	All Coast Guard Message
AMDW	Asset Management Data Warehouse
AMI	Advanced Meters Initiative
AMP	Asset Management Plan
APB	Arctic Policy Board
APP	Affirmative Procurement Plan
ARRA	American Reinvestment and Recovery Act
ASD	Administration and Support Division
AWS	Alternative Work Schedule
B20	20% Biodiesel
BI	Background Investigation
BPA	Blanket Purchase Agreement
BTU	British Thermal Unit
C&D	Construction and Demolition
C4IT	Control, Communications, Computers, and Information Technology
CAO/CRSO	Chief Administrative Officer/Chief Readiness Support Officer
CARE	Cost Avoidance Reduction & Efficiency
CBP	Customs and Border Protection
CCAESC	Climate Change Adaptation Executive Steering Committee
CDC	Centers for Disease Control and Prevention
CDP	Center for Domestic Preparedness
CE	Civil Engineering
CEU	Civil Engineering Unit
CEQ	Council on Environmental Quality
CFC	Chlorofluorocarbon
CFL	Computer for Learning
CFO	Chief Financial Officer
CG-1	Assistant Commandant for Human Resources
CG-12	Director of Personnel Management
CG-4	Assistant Commandant for Engineering and Logistics
CG-4D	Deputy Assistant Commandant for Engineering and Logistics

CG-43	Office of Civil Engineering
CG-435	Fleet Vehicle Program
CG-46	Office of Energy Management
CG-47	Office of Environmental Management
CG-6	Assistant Commandant for Command, Control, Communications, Computers and IT
CG-8	Assistant Commandant for Resources
CG-9	Assistant Commandant for Acquisitions
CG-913	Office of Procurement Policy and Oversight
CG-DCMS	Deputy Commandant for Mission Support
CG-DCO	Deputy Commandant for Operations
CG IMH	Coast Guard Incident Management Handbook
CGLMS	Coast Guard Learning Management System
CLIN	Contractor Line Item Number
CGOneView	Coast Guard Common Operational Picture
CG-TERRA	Coast Guard Total Energy Resource Reporting and Accounting
CHCO	Chief Human Capital Officer
CHP	Combined Heat and Power
CIC	Commandant's Innovation Council
CIO	Chief Information Officer
CMTS	Committee on the Marine Transportation System
CO	Contracting Officer
COCO	Chief of Contracting Office
COE	Centers of Excellence
COMDTINST	Commandant Instruction
COP	Common Operational Picture
COTR	Contracting Officer's Technical Representative
COTS	Commercial Off the Shelf
CPG	Comprehensive Procurement Guidelines
CPO	Chief Procurement Officer
CPOP	Centralized Planned Obligations Prioritization
CP-Track	Compliance Process Track
CPU	Central Processing Unit
CSO	Chief Security Officer
CTS	Compliance Tracking System
DART	Development of Agency Reduction Targets
DC1	Data Center 1

DFSP	Defense Fuel Supply Point
DHS	Department of Homeland Security
DLA	Defense Logistics Agency
DoD	Department of Defense
DOE	Department of Energy
DOL	Director of Operational Logistics
DOS	Department of State
DST	Decision Support Tool
EA	Environmental Assessment
EB	Existing Buildings
EAGLE	Enterprise Acquisition Gateway for Leading Edge Solutions
ECE	Environmental Compliance Evacuation
EC&R	Environmental Compliance and Restoration
ECM	Energy Conservation Measure
EEBP	Enterprise External Business Portal
EFC	Energy Fusion Center
EIS	Environmental Impact Statement
EISA	Energy Independence and Security Act
ELS	Earnings and Leave Statement
ELSP	Energy Logistics Support Plans
ELE	Environmental Liability Estimates
EMD	Environmental Management Division
EMP	Environmental Management Plan
EMS	Environmental Management System
EO	Executive Order
EPA	Environmental Protection Agency
EPAct	Energy Policy Act
EPEAT	Electronic Product Environmental Assessment Tool
EPP	Environmentally Preferable Purchasing
EPPR	Emergency Prevention, Preparedness & Response
EPSS	Electronic Performance Support Solution
EPCRA	Emergency Planning and Community Right-to-Know Act
ERMA	Environmental Response Management Application
ESC	Executive Steering Committee
ESCO	Energy Services Company
ESPC	Energy Savings Performance Contract
FAR	Federal Acquisition Regulation

FASPP	Federal Aggregated Solar Procurement Program
FAST	Federal Automotive Statistical Tool
FEC	Federal Electronics Challenge
FEED	Federal Energy Efficiency Fund
FEMA	Federal Emergency Management Agency
FEMP	Federal Energy Management Program
FFS	Federal Financing Specialist
FFV	Flex-Fuel Vehicles
FINCEN	Financial Center
FLETC	Federal Law Enforcement Training Center
FMO	Fleet Management Office
FMR	Federal Management Regulation
FMS	Fleet Management System
FONSI	Finding of No Significant Impact
FORCECOM	Force Readiness Command
FPDS-NG	Federal Procurement Data System -Next Generation
FRPP	Federal Real Property Profile
FSC	Federal Supply Code
FY	Fiscal Year
Gal	Gallon
GFO	Golden Field Office
GGE	Gasoline Gallon Equivalent
GHG	Greenhouse Gas
GIS	Geographic Information System
GOCO	Government-Owned Contractor-Operated
GPP	Green Procurement Program
GPRA	Government Performance and Results Act
GSA	General Services Administration
GSF	Gross Square Feet
HazMat	Hazardous Material(s)
HCFC	Hydrochlorofluorocarbon
HEV	Hybrid Electric Vehicle
HP	High Priority
HQ	Headquarters
HSAM	Homeland Security Acquisition Manual
HSIN	Homeland Security Information Network
HtW	Home-to-Work

ICE	Immigration and Customs Enforcement
ICS	Incident Command System
IGA	Investment Grade Audit
ILA	Industrial, Landscaping, or Agricultural
IMAT	Incident Management Assistance Team
IMH	Incident Management Handbook
IMO	International Maritime Organization
IPG	Integrated Planning Guidance
IPT	Integrated Project Team
iRAPT	Invoicing, Receipting, Acceptance, and Property Transfers
ISO	International Organization for Standardization
IT	Information Technology
KPP	Key Performance Parameter
LAN	Local Area Network
LCC	Life-cycle Cost
LCCE	Life-cycle Cost Estimate
LE	Law Enforcement
LEED®	Leadership in Energy and Environmental Design
LED	Light Emitting Diodes
LOS	Law of the Sea
MARPOL	Prevention of Pollution from Ships
MBTU	One Thousand British Thermal Unit
MILCON	Military Construction
M&O	Management and Operations
MEK	Methyl Ethel Ketone
MPC	Maintenance Procedure Cards
M&V	Measurement and Verification
MRST	Maritime Security Response Team
MSW	Municipal Solid Waste
MSAM	Major Systems Acquisition Manual
mtCO <sub>2</sub> e	Metric tons of Carbon Dioxide Equivalent
MTS	Marine Transportation System
MWe	Megawatts Electric
MWh	Megawatt Hour(s)
NAC	Nebraska Avenue Complex
NAVSEA	Naval Sea Systems Command
NEPA	National Environmental Policy Act

NETC	National Emergency Training Center
NHLPA	National Historic Lighthouse Preservation Act
NICS	Next Generation Incident Command System
NOAA	National Oceanic and Atmospheric Administration
NOO	Notice of Opportunity
NOP	National Ocean Policy
NPPD	National Protection and Program Directorate
NREL	National Renewable Energy Laboratory
NRF	National Response Framework
NSAR	National Strategy for the Arctic Region
NUSTL	National Urban Security Technology Laboratory
O&M	Operations and Maintenance
OBMS	Office of Building and Management Services
OCAO/OCRSO	Office of the Chief Administrative Officer/Office of the Chief Readiness Support Officer
OCIO	Office of the Chief Information Officer
OCPO	Office of the Chief Procurement Officer
OER	Officer Evaluation Report
OFEE	Office of the Federal Environmental Executive
OFRES	Office of Field Real Estate Services
OIT	Office of Information Technology
OMB	Office of Management and Budget
OPM	Office of Personnel Management
OPO	Office of Procurement Operations
OSC	Operations Systems Command
OSEP	Occupational Safety and Environmental Program
OSHE	Occupational Safety, Health, and Environment
OSHE-EM	Occupational Safety, Health, and Environment Division Environmental Management
OSPP	Operational Sustainability Performance Plan
P2OA	Pollution Prevention Opportunity Assessments
P2	Pollution Prevention
P3	Public-Private Partnership
P3PL WG	Public-Private Partnership Petroleum Logistics Working Group
P Card	Purchase Card
PF	Project Facilitator
PHINICS	Portable Integrated Handheld Next Generation Incident Command System

PIADC	Plum Island Animal Disease Center
PLCY	Office of Policy
POP	Planned Obligation Prioritization
PPA	Power Purchase Agreement
PRMS	Program Reporting Management System
PSC	Product Service Code
PUE	Power Usage Effectiveness
PV	Photovoltaic
QRP	Qualified Recycling Program
R2	Responsible Recyclers
R&D	Research & Design
RDT&E	Research, Development, Test & Evaluation
REC	Renewable Energy Certificate
REM	Resource Efficiency Manager
RFP	Request for Proposal
ROD	Record of Decision
ROI	Return on Investment
RSAR	RSA Secure ID Recycling
RTC	Rowley Training Center
S&T	Science and Technology Directorate
SAMS	Shore Asset Management System
SAO	Senior Accountable Officer
SAP	Simplified Acquisition Process
SAR	Search and Rescue
SCCM	System Center Configuration Manager
SETF	Sustainability Efficiency Task Force
SEER	Sustainability, Energy, and Environmental Readiness
SEERSC	Sustainability, Energy, and Environmental Readiness Steering Committee
SF	Square Feet or Square Footage
SFLC	Surface Forces Logistics Center
SFLC-ESD	Surface Forces Logistics Center – Engineering Services Division
SFO	Solicitation for Offers
SFPDM	Shore Facilities Project Development Manual
SHEMS	Safety, Health and Environmental Management System
SHPO	State Historic Preservation Offices
SILC	Shore Infrastructure Logistics Center
SILC- ESD	Shore Infrastructure Logistics Center- Engineering Services Division

SMV	Slow Moving Vehicle
SNAP	Significant New Alternatives Policy
SOP	Standard Operating Procedure
SRPO	Senior Real Property Officer
SSO	Senior Sustainability Officer
SSPP	Strategic Sustainability Performance Plan
SWG	Sustainability Work Group
TBD	To Be Determined
T&D	Transmission and Distribution
TMIS	Travel Management Information Service
TSA	Transportation Security Administration
TSL	Transportation Security Laboratory
UAS	Unmanned Aircraft Systems
UESC	Utility Energy Service Contract
US	United States
USCG	United States Coast Guard
USCIS	United States Citizenship and Immigration Services
USDA	United States Department of Agriculture
USGBC	US Green Building Council
USGCRP	United States Global Change Research Program
USM	Under Secretary for Management
USSS	United States Secret Service
VAM	Vehicle Allocation Methodology
VAP	Voluntarily Abandoned Property
VMT	Vehicle Miles Traveled
VOC	Volatile Organic Compound
VTA	Vermont Avenue (S&T)
WLB	Seagoing Buoy Tender
WMEC	Medium Endurance Cutter
WMSL	National Security Cutter

UNITED STATES COAST GUARD  
OPERATIONAL SUSTAINABILITY  
PERFORMANCE PLAN



COMMANDANT (CG-4)  
OFFICE OF ENERGY MANAGEMENT (CG-46)  
U.S. COAST GUARD STOP 7714  
2703 MARTIN LUTHER KING JR. AVE SE  
WASHINGTON, DC 20593-7714