Office of the Assistant Secretary of Defense (Energy, Installations and Environment)



Department of Defense Guidance for Executive Order 13693: Planning for Federal Sustainability in the Next Decade

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I. Introduction

Executive Order (EO) Section 1: It is hereby ordered as follows...Federal leadership in energy, environmental water, fleet, buildings, and acquisition management will continue to drive national greenhouse gas (GHG) reductions and support preparations for the impacts of climate change... Through a combination of more efficient Federal operations such as those outlined in this Executive order...we have the opportunity to reduce agency direct GHG emissions by at least 40 percent over the next decade while at the same time fostering innovation, reducing spending, and strengthening the communities in which our Federal facilities operate...priority should first be placed on reducing energy use and cost, then on finding renewable or alternative energy solutions... Employing this strategy for the next decade calls for expanded and updated Federal environmental performance goals with a clear overarching objective of reducing GHG emissions across Federal operations and the Federal supply chain.

The mission of the Department of Defense (DoD) is to provide the military forces needed to deter war and protect the security of our country. To successfully execute the DoD mission, our Military Departments must have the energy, land, air, and water resources necessary to train and operate, today and in the future, in a world where there is increasing competition for resources. Sustainability is a mission imperative for DoD. The President's recent EO 13693, Planning for Federal Sustainability in the Next Decade, dovetails with DoD's commitment to sustainability through fiscal year (FY)2025 and beyond. Incorporating sustainability into planning, decision-making, and day-to-day operations assures resilience, enabling us to do our job in the face of current and emerging challenges, including those from a changing climate.

This DoD Guidance is designed to assist DoD in implementing EO 13696. EO 13693 builds on previous EOs, most notably EO 13514, which set goals through FY2020; it also captures the sustainability requirements in Presidential Memoranda issued since EO 13514. The new EO establishes a new set of goals for FY2025 with the intention of fostering innovation, reducing spending, and strengthening both Agency missions and the communities in which our Federal facilities operate.

This DoD guidance augments the Federal guidance issued by the White House Council on Environmental Quality (CEQ), to clarify how DoD Components should implement EO 13693 in order to comport with DoD policy, support our mission, and cost-effectively meet the intent of the EO requirements.

A. Overview and Purpose

EO 13693. On March 19, 2015, President Obama signed EO 13693, Planning for Federal Sustainability in the Next Decade, with the goal of maintaining Federal leadership in sustainability and setting targets for GHG emission reductions. EO 13693 calls for expanded and updated Federal environmental performance goals with a clear overarching objective of reducing GHG emissions across Federal operations and the Federal supply chain (see Table 1). The EO consolidates and updates previous requirements and goals, and revokes several previous EOs and presidential memoranda, including EO 13514 and EO 13423 (see Table 2). In addition to GHG emissions, the EO focuses on key areas in building energy management; data centers;

renewable and alternative energy; water efficiency; fleet management; sustainable buildings; sustainable acquisition; electronics stewardship; performance contracts; and pollution prevention.

Table 1: Goal Revisions and Extensions

Performance Metric	Old FY2020 Goal	New FY2025 Goal	
Energy – Facility Energy Intensity Reduction	37.5%	25%	
(baseline change from FY2003 to FY2015)	(FY2003)	(FY2015)	
Renewable Energy Use – All Types ((National Defense	18%	25%	
Authorization Act) (NDAA))	1070	2370	
Renewable Energy Use – Electric Only ((Energy Policy	20%	30%	
Act of 2005 (EPAct))	2070		
Vehicles – Petroleum Fuel Use Reduction	30%	30%	
(starting FY15, metric changes to GHGs/mile and baseline	(FY2005)	(FY2015)	
changes from FY2005 to FY2015)	(F12003)	(I ¹ I 2013)	
Potable Water – Facility Intensity Reduction	26%	36%	
Buildings - % High-Performance & Sustainable	15%	15%	
GHG Emissions – Scope 1 & 2 Reductions	34%	42%	
GHG Emissions – Scope 3 Reductions	13.5%	25%	
Solid Waste Diverted from Disposal – Domestic	50%	50%	
Solid Waste Diverted from Disposal – Construction and	600/	600/	
Demolition (C&D)	60%	60%	
Sustainable Procurement - % Compliant Contract Actions	95%	100%	
Teleworking - % of Eligible Employees	30%	30%	
Paper Reduction - % of Employees Covered by Policies	95%	95%	

CEQ Implementing Instructions. On June 10, 2015, the White House CEQ released Implementing Instructions for Executive Order 13693 (CEQ Implementing Instructions) which provides clarifying instructions and guidance to assist Federal agencies in implementing the requirements of EO 13693. The CEQ Implementing Instructions revokes and supersedes the Instructions for Implementing Executive Order 13423 issued by the CEQ on March 29, 2007.

Other Guidance. The following table presents instructions that remain in effect and those revoked by EO 13693.

Table 2: Status of Other Guidance
Remaining in Effect
Sustainable Locations for Federal Facilities of September 15, 2011
Sustainable Practices for Designed Landscapes of October 31, 2011, as supplemented on October 22,
2014
Federal GHG Accounting and Reporting Guidance [Revision 1] of June 4, 2012
Federal Agency Implementation of Water Efficiency and Management Provisions of Executive Order
13514 of July 10, 2013

Presidential Memorandum of December 2, 2011 (Implementation of Energy Savings Projects and Performance-Based Contracting for Energy Savings)

Section 1 of Presidential Memorandum of February 21, 2012 (Driving Innovation and Creating Jobs in Rural America through Biobased and Sustainable Product Procurement)

Remaining in Effect

Presidential Memorandum of December 5, 2013 (Federal Leadership on Energy Management)

Presidential Memorandum of May 24, 2011 (Federal Fleet Performance)

This DoD Guidance details the DoD requirements consistent with the most recent version of the CEQ Implementing Instructions and other instructions listed above, and supplements these materials by providing procedures and other information specific to DoD. Where DoD interpretation of EO and CEQ Implementing Instructions requirements wholly align with the EO and CEQ Implementing Instructions, this guidance simply references the relevant EO section and CEQ Implementing Instructions page number. Where other guidance exists or is forthcoming, this guidance provides a reference.

This document, the **DoD Guidance**, provides clarification regarding compliance with EO 13693, but does not supersede or invalidate any existing laws, regulations or other legal requirements. If there is any conflict between these Instructions and a statute, regulation, or EO, the statute, regulation, or EO governs. This document is intended solely to guide internal management within DoD. It is not intended to, and does not, create any right or benefit, substantive or procedural, enforceable by any party against the United States, its departments, agencies, or entities, its officers, employees, or agents, or any other person.

This is a **living document** and will be updated as necessary as new or revised requirements and guidance or other external tools become available. Contents of this guidance that are currently presented only to enhance situational awareness of EO 13693 will be revised to include more specific requirements and procedures, as such details become available.

B. Overarching Policy and Directives

EO 13693 Section III Sustainability Goals shall be implemented where life-cycle cost effective. This section establishes the context and scope of EO 13693, and describes overarching policy and directives that DoD shall apply when implementing each requirement of the EO.

Life-Cycle Cost Effectiveness. When in planning and in implementation of projects, DoD must consider full life-cycle cost effectiveness encompassing cost (including decommissioning and disposal), performance, mission, and availability. Where projects have net benefits, DoD must consider maintaining or expanding those projects where feasible and appropriate. DoD must reassess, alter, or discontinue unsuccessful or under-performing projects when they are deemed impracticable – legally impermissible, economically unjustifiable from a life-cycle cost perspective, unavailable within a reasonable timeframe, technically infeasible, or not otherwise meeting appropriate mission-critical performance standards or functional requirements of the program. In some cases, evaluation of life-cycle costs may show a higher up-front cost with significantly lower maintenance costs, or longer life. In assessing life-cycle cost effectiveness, DoD must systematically analyze relevant costs, excluding sunk costs not related to land or real estate, over a study period, relating initial costs to future costs by the technique of discounting future costs to present values (e.g., for energy efficiency projects, through the methodology presented at Title 10 Code of Federal Regulations (CFR) Part 436).

Feasibility and Appropriateness. EO 13693 and this Guidance must be implemented consistent with applicable law and international obligations, and subject to the availability of appropriations. Although there is an exemption to the EO for fueling, operation, and management of tactical or emergency vehicles and overseas activities or facilities, DoD should apply strategies and plans where feasible and appropriate when the DoD Component head determines that such application is in the United States (U.S.) interest.

Directives and Best Practices. In this document, as in the CEQ Implementing Instructions, all requirements described with "must" or "shall" are mandatory. All other tools, strategies, and guidance in the CEQ Implementing Instructions and this document not specifically described with "must" or "shall" are best practices and options available for Components to meet the requirements of the EO. These include actions or items described with "should," "may," or "can," and all items characterized as "Strategies and Tools." Where this document states "must consider," it describes a procedural requirement, but does not mandate a particular outcome.

C. Governance, Oversight and Organization

1. Federal Interagency Sustainability Steering Committee (EO 13693, Section 4) Refer to page 2 of CEQ's Implementing Instructions for more information.

2. Chief Sustainability Officers (EO 13693, Sections 6 and 9)

DoD does not intend to change its internal governance, oversight, and organization related to sustainability as a result of EO 13693.

DoD Chief Sustainability Officer. DoD designated the Assistant Secretary of Defense for Energy, Installations, and Environment (ASD(EI&E)) as the DoD's Chief Sustainability Officer (CSO) per the Deputy Secretary of Defense designation letters to the Office of Management and Budget (OMB) and CEQ dated 1 June 2015. The ASD(EI&E), as the CSO, is DoD's representation on the Steering Committee. The ASD(EI&E) also chairs the DoD Senior Sustainability Council (SSC).

Senior Sustainability Council. In accordance with the SSC Charter of 26 November 2010, the SSC promotes efforts to implement EO 13693 by:

- Supporting the annual updates to and execution of DoD's SSPP;
- Recommending policies and performance metrics to the Office of the Under Secretary of Defense for Acquisition, Technology and Logistics (OUSD(AT&L));
- Identifying and pursing opportunities and facilitating initiatives that cut across functional boundaries, through advocacy and outreach;
- Coordinating ongoing efforts and direct action in implementing departmental sustainability initiatives;
- Directing, overseeing, and supporting activities of the Sustainability Implementation Work Group;
- Advising Senior DoD leadership of business process impacts from and investments necessary to meet EO 13693, Energy Independence and Security Act of 2007 (EISA), and subsequent sustainability requirements; and

• Providing necessary support tools and structure.

The SSC members are or represent the following offices:

- Under Secretary of Defense (Comptroller) (USD(C))
- Under Secretary of Defense for Policy (USD(P))
- Under Secretary of Defense for Personnel and Readiness (USD(P&R))
- Assistant Secretary of the Army (Installations, Energy and Environment) (ASA(IE&E))
- Assistant Secretary of the Navy (Energy, Installations and Environment) (ASN(EI&E))
- Assistant Secretary of the Air Force (Installations, Environment and Logistics) (ASAF(I&E))
- Assistant Secretary of Defense for Networks and Information Integration/Deputy Department of Defense Chief Information Officer (ASD(NII)/Deputy DoD-CIO)
- Director, Defense Research and Engineering (DDR&E)
- Director, Defense Procurement and Acquisition Policy (D,DP&AP)
- Assistant Secretary of Defense (Logistics & Material Readiness) (ASD(L&MR))
- Director, Cost Assessment and Program Evaluation (D,CAPE)
- Director, Industrial Policy (D,IP)
- Director for Logistics, Joint Staff (D, J-4)
- Director, Defense Logistics Agency Installation Support (D, DLA(DS-E))
- Deputy General Counsel (Environment and Installations) (OGC(E&I))
- Assistant Secretary of the Army (Civil Works) (ASA(CW))

DoD Component Requirements. The DoD Components may, but are not required to, redesignate their representative on the SSC (e.g., to align with organizational changes made since the original SSC representative was designated). DoD Components are not required to designate Component-level CSOs or establish Component-level SSCs; however, the Office of the Secretary of Defense (OSD) encourages Components to internally manage EO 13693 and other sustainable requirements.

Refer to page 3 of CEQ's Implementing Instructions for more information.

3. Principal and Contributing Agencies (EO 13693, Sections 3, 7, 8, and 10-15)

DoD is considered a Principal agency under EO 13693, meaning that DoD will continue to annually update its full SSPP and be subject to the OMB scorecard process.

Also as a Principal agency, DoD shall support continual improvement by continuing to implement formal Environmental Management Systems (EMSs) where those systems have proven effective and deploying new EMSs where appropriate. DoD Components may define EMS effectiveness and make determinations about deploying new EMSs. DoD will continue to maintain fully-implemented EMSs at DoD appropriate facilities/organizations where the EMS has proven to be an effective framework to manage the environmental aspects of the DoD facility's/organization's operations, the impacts of the environmental conditions, and constraints on the mission, and where functions associated with the EO 13693 goals entail significant aspects. Existing energy and transportation management systems need not be replaced or

overtaken by the EMS, but rather contribute to and function in concert with the appropriate facility's EMS. Where DoD Components have determined a formal EMS has proven effective, the Component will sustain the EMS in accordance with accepted industry standards (i.e., International Organization for Standardization (ISO) 14001:2015 or equivalent) and DoD Instruction (DoDI) 4715.17, "Environmental Management Systems." The DoD Components should adopt the new ISO 14001:2015 standard consistent with existing Component EMS guidance, procedures, and instructions. Refer to DoDI 4715.17 for DoD policy, responsibilities, and procedures related to EMS.

DoD representation in the Interagency EMS Community of Practice includes ODASD(ESOH), Army, Navy, and Air Force.

Refer to page 3 of CEQ's Implementing Instructions for more information.

4. Working Groups (EO 13693, Section 4)

ODASD(ESOH)

Standing Interagency Working Groups. DoD will continue to contribute to the following standing working groups, as the Department has done prior to EO 13693, as a non-lead member agency through the offices indicated in Table 3.

Table 3: DoD Representation on Standing Working Groups

Standing Working Group
Interagency Sustainability Working Group
Interagency Energy Management Task Force
Interagency Committee on Alternative Fuels and Low Emission Vehicles (INTERFUEL)
Federal Sustainable Acquisition and Materials Management (SAMM) Practices Workgroup
Motor Vehicle Executive Council
Federal Electronics Stewardship Working Group
DoD Representation
Office of the Deputy Assistant Secretary of Defense for Environment, Safety, and Occupational Health
(ODASD(ESOH))
Office of the Assistant Secretary of Defense for Energy, Installations, and Environment (OASD(EI&E))
OASD(EI&E)
ODASD(ESOH) & Defense Procurement and Acquisition Policy (DPAP)
OUSD (AT&L), Acquisition Resources and Analysis (ARA)

Temporary Topical Interagency Working Groups. EO 13693 requires that CEQ establish and disband, as appropriate, several temporary interagency working groups to provide recommendations to the Chair of CEQ regarding the goals of the EO. Brief descriptions of these working groups follow; and, where applicable, DoD's representation on and role in the working group is identified.

• The *Advance Market Commitments Working Group* will design and implement advance market commitments (AMCs), among other "demand pull" procurement mechanisms, that accelerate clean energy technology commercialization. AMCs are commitments to purchase a certain quantity of a newly developed product at a fixed price once the

product meets pre-defined performance requirements. Using government procurement to structure AMCs and related activities across agencies could support innovation in many clean energy technology pathways, including advanced materials, batteries and storage, next-generation nuclear reactors, and resilient grid infrastructure. Beyond AMCs, related demand pull mechanisms include: contracts with milestone-based payments, non-binding purchase commitments, "buyers consortia" cooperative agreements, incentive prices, priority review vouchers, and exclusive access. OASD(EI&E) and DLA will represent DoD on this working group.

- The GHG Emissions Associated with Transportation of Federal Freight and Cargo Working Group will provide recommendations for the management and reduction of these emissions. The Federal Government is the world's largest purchaser of goods and services, with \$445 billion in contract spending in fiscal year 2014. Ground, air, and marine transport of goods purchased by Federal agencies contribute to indirect emissions associated with the Federal supply chain. In order to reduce supply chain emissions, as directed by EO 13693, the Federal Government needs greater understanding and insight into opportunities to reduce greenhouse gas emissions from transport of Federal freight and cargo. This working group is co-lead by DoD and GSA, with representation from the Deputy Director of Transportation Management, EI&E, LM&R
- The *Grid-Based Green Power Working Group* will explore opportunities for Federal agencies to use grid-based green power to meet the renewable energy targets specified in EO 13693. Specifically, the working group will: 1) identify optimal Federal contract vehicles for grid-based green power, 2) develop scope and milestones for large multiagency grid-based green power projects, and 3) propose mechanisms to ensure the resulting grid-based green power and its associated renewable energy attributes are available to Federal agencies. OASD(EI&E) and DLA represent DoD as members of the working group.
- The *Data Quality, Collection, and Reporting Working Group* will prepare recommendations and goals consistent with EO 13693 for optimizing data quality, collection, and reporting, including data related to Federal buildings, fleets, and procurement. To this end, the working group will form recommendations and goals addressing technological management, training, and coordination issues, data analytics and automation capabilities, and innovations that Federal agencies can realize to generate efficiencies, improve data access and accuracy, and meet performance goals.
- The *Valuing Resilience in Critical Agency Operations Working Group* provides recommendations for determining the value of sustainable resilience assets for ensuring energy and water security in order to meet critical resource protection demands. The working group is also responsible for assessing agency vulnerabilities to mission critical energy and water resources including supply chain disruptions associated with the loss of transportation and delivery infrastructure in temporary and long-term energy outages and/or water shortages as reasonably expected from the 2014 National Climate Assessment. In addition, the working group shall compare solutions across conventional and emerging technologies to address vulnerabilities identified and provide a cost and risk management assessment with consideration of the following: application of

- renewable, alternative and conventional energy systems; energy storage, electric vehicle-to-grid and microgrid systems; energy management control systems; time-of-use energy markets and ancillary services from energy assets; and water efficiency technologies and incorporation of alternative water sources. The deployment of energy and water resilience assets across the Federal portfolio holds significant value for enhancing mission capabilities by reducing risk exposure and presenting opportunities to adequately prepare for adverse conditions which pose threats to mission critical resources.
- The Supply Chain Climate Vulnerability Working Group will provide recommendations for improving Agency capabilities to evaluate and mitigate supply chain risks associated with climate change. Climate change has emerged as a significant risk to Federal supply chains. Severe weather, drought, extreme storms, and rising seas affect the availability of raw materials, production, transportation, and delivery of products and services. To better ensure access to mission critical goods and services, Federal Agencies need to assess climate-related risks and take steps to mitigate these risks in their own supply chains.
- The *Procurements to Reduce Supply Chain Greenhouse Gas Emissions Working Group* will work to identify best practices to incorporate contractor emissions into procurement practices and provide recommendations to assist each affected agency in implementing their strategies and procurement plans. Analysis conducted by the General Services Administration (GSA) in 2014 showed that indirect emissions from supply chain activities that provide goods and services to the Federal Government represent a substantial contribution to emissions associated with Federal operations. EO 13693 emphasizes the importance of addressing this source of emissions, directing each of the seven largest Federal procuring agencies, including DoD, to develop and execute a plan to implement at least five new procurements annually that consider contractor GHG emissions and/or GHG management practices. ODASD(ESOH) and DPAP co-lead this working group with GSA.
- The *Federal Recycled Content Paper Working Group* prepares recommendations and goals for a new minimum content standard for printing and writing paper. The current 30% minimum content standard for printing and writing paper was originally established in 1998. This standard was effective in driving the market and establishing 30% as de facto national standard, and it is due for reconsideration. Many proponents believe that 100% recycled, minimum 50% postconsumer content paper, and "process free chlorine" are achievable goals under the current market conditions. This working group will also be responsible for recommending any necessary revisions and improvements to the Federal Sustainability Plan.
- The *Carbon Uptake Accounting and Wood Products Working Group* will explore opportunities for Federal agencies to count sequestered carbon or reduced net GHG emissions resulting from carbon uptake and wood products utilization toward GHG reduction targets in EO 13693. Specifically, the working group will provide recommendations on: 1) possible sources of carbon sequestration and net GHG reduction that may be available to Federal agencies from carbon uptake and increased use of woodbased products, 2) reliable and accurate accounting methodologies agencies for

- estimating and reporting GHG reductions resulting from these activities, and 3) budget and contractual approaches agencies could use for carbon uptake and wood products use.
- The *Interagency Task Force on Bicycling and Active Transportation Working Group* will recommend updated steps for cost-effective creation of a bicycle-friendly environment at Federal facilities to reduce GHG emissions. In order to promote sustainable commuting, the working group will: 1) identify opportunities to optimize bicycling and active transportation consistent with EO 13693, including strategies to provide access for bicyclists to showers and lockers, when available on site; 2) develop recommendations for implementation and publish an update to the subject document; and 3) propose milestones and actions to achieve timely publication.
- The SAMM Practices Training Sub-Working Group provided input to the Office of Personnel Management (OPM) on employee training. Under EO 13693, the OPM, in coordination with other Federal agencies, will "initiate the inclusion of environmental sustainability and climate preparedness and resilience into Federal leadership and educational programs in courses and training," particularly for Senior Executive Service (SES) and GS-15 personnel, who provide critical leadership to direct and transform the Federal government. For many issues, such as personnel, budgets, and crisis management, SES and GS-15 personnel have been well-trained and equipped; however, training on climate change adaptation and resilience have not been systematically provided, limiting the ability of existing leadership in achieving maximum performance in addressing these challenges. The inclusion of employee education and training in EO 13693 emphasizes the immense benefits of a fully educated and trained federal workforce for meeting the goals of sustainability and climate preparedness. ODASD(ESOH), DPAP, and Defense Acquisition University (DAU) contributed to this working group.
- The *Green Infrastructure (GI) Working Group* will evaluate the potential for best practices for installing GI on federally owned property, and encourage and lead by example for greater national adoption of GI beyond federal property. It will also look for synergies between GI and other existing Federal policies and programs (e.g., pollinator work and climate resilience). ODASD(ESOH) will represent DoD on this working group.

DoD Internal Working Groups. DoD will maintain the following internal working groups.

The *Sustainable Procurement Program Working Group* identifies, discusses, provides recommendations, and resolves issues to support successful implementation of a Sustainable Procurement Program.

The *Sustainability Implementation Working Group* coordinates policies, programs and plans related to EO 13693 and EISA between multiple functional working groups. The Working Group drafts input to the SSPP.

The *Climate Change Adaptation Working Group* coordinates policies, programs and plans, related to EO 13653, *Preparing the United States for the Impacts of Climate Change*. The Working Group drafted and finalized the DoD 2014 Climate Change Adaptation Roadmap and DoD Directive 4715.21, *Climate Change Adaptation and Resilience*.

There are several *Environmental Media-Area Specific Working Groups and Committees* that provide recommendations on compliance, implementation, and requirements regarding EO 13693 goals, and include the:

- Clean Air Act Services Steering Committee, led by Department of the Navy;
- Clean Water Act Services Steering Committee, led by Department of the Navy;
- Safe Drinking Water Act Services Steering Committee, led by the Air Force;
- Combined Services Solid Waste and Recycling Work Group, led by ODASD(ESOH);
 and
- Emergency Planning and Community Right-to-Know Act (EPCRA)/Toxics Release Inventory (TRI) Working Group; led by ODASD(ESOH).

Refer to page 4 of CEQ's Implementing Instructions for more information.

5. Regional Coordination (EO 13693, Section 10)

EO 13693, Section 10 covers the need for Federal Agency regional coordination. The regional federal coordination occurs in four areas:

- Sustainable operations of Federal fleet vehicles, including identification and implementation of opportunities to use and share fueling infrastructure and logistical resources to support the adoption and use of alternative fuel vehicles, including E-85 compatible vehicles, zero emission and plug-in hybrid vehicles, and compressed natural gas powered vehicles;
- Water resource management and drought response;
- Climate change preparedness and resilience planning in coordination with State, local, and tribal communities; and
- Opportunities for collective procurement of clean energy to satisfy energy demand for multiple agency buildings.

A Federal agency workgroup is developing implementation details for regional coordination. OSD is working to identify specific regional contacts to address the above four areas. In the interim, OSD requests that the DoD Regional Environmental Coordinators attend scheduled regional Environmental Protection Agency (EPA)-GSA EO 13693 events. The intent is to ensure DoD stays informed of efforts while not committing the Department until further external guidance is provided. The DoD Regional Environmental Coordinators will inform OSD and the DoD Components of the outcome(s) of these meetings in accordance with DoDI 4715.02, "Regional Environmental Coordination." Where appropriate, the DoD Components will inform their commands, installations, or other internal organizations.

6. Employee Education and Training (EO 13693, Section 11)

While the Office of Personnel Management is considering, and if appropriate, will prepare and issue, a dedicated occupational series to enhance the Federal government's ability to recruit and hire professionals with relevant training and experience in areas such as environmental sustainability, GHG management, and climate preparedness and adaptation, DoD is not authorized to develop a similar career field.

Refer to page 7 of CEQ's Implementing Instructions for more information.

7. Revocations and Conforming Provisions; Limitations; Exemption Authority; and Definitions (EO 13693, Sections 16-20)

Sections 16 through 20 of EO 13693 are self-explanatory and no further instruction regarding those sections is necessary.

D. Planning (EO 13693, Sections 5 and 14)

DoD shall continue developing an annual SSPP by soliciting input from the Components and OSD subject matter leads. The process for developing DoD's SSPP will not change as a result of EO 13693 beyond incorporation of updated requirements and goals. Components should ensure that installation efforts to achieve EO 13693 goals are incorporated in the installation-level Master Plans.

Refer to DoD SSPP Guidance released annually for specific reporting requirements and deadlines, and page 7 of CEQ's Implementing Instructions for more information.

II. Agency Greenhouse Gas Emissions Reductions

EO section 2: Agency Greenhouse Gas Emission Reductions. The head of each agency shall...propose percentage reduction targets for agency-wide reductions of scope 1 and 2 and scope 3 greenhouse gas emissions in absolute terms by the end of the fiscal year 2025 relative to a fiscal year 2008 baseline.

EO 13693 extends the requirement to report an annual comprehensive inventory of progress towards GHG emissions goals to the CEQ Chair and the OMB Director. The annual deadline for Federal GHG reporting is 31 January. DoD has submitted inventories for the FY2008 baseline, and for every FY since FY2010, to the Department of Energy (DOE) Federal Energy Management Program (FEMP), which consolidates the input from all Federal agencies for CEQ and OMB.

Refer to page 8 of CEQ's Implementing Instructions for more information.

A. Scope 1 and 2 Greenhouse Gas Emissions

1. Setting Reduction Targets

In addition to a GHG inventory, EO 13693 requires agencies to establish and report percentage reduction targets for agency-wide reductions of scope 1, 2, and specified scope 3 GHG emissions relative to a FY2008 baseline. The DoD GHG reduction target for scope 1 and 2 combined is 42 percent by 2025 relative to its FY2008 GHG emissions baseline per the ASD(EI&E) letters to OMB and CEQ dated 17 June 2015.

Refer to page 8 of CEQ's Implementing Instructions for more information.

2. Reporting Nitrogen Trifluoride (NF₃)

Nitrogen trifluoride (NF₃) was added to the list of GHGs that must be reported by agencies beginning in FY2016 for Scope 1 Refrigerants and fluorinated gases (F-gases), but was incorporated into the FEMP Annual GHG and Sustainability Data Report, Version 6.1

Workbook for FY2015 Reporting. NF₃ is a potent GHG that is predominantly used in the cleaning of equipment that manufactures liquid-crystal displays and silicon-based thin-film solar cells. Because this is a new GHG required for reporting, OASD(EI&E) assumes that there may be data gaps associated with the reporting of this gas and encourages Components to investigate current uses and emissions of this gas in preparation for reporting in FY2016. Per the CEQ Implementing Instructions, the baseline for NF₃ emissions will be FY2008, but baseline quantities will not be established until agency reporting data provides a reasonable basis to do so.

Refer to page 9 of CEQ's Implementing Instructions for more information.

B. Scope 3 Greenhouse Gas Emissions

1. Setting Reduction Targets for Existing Reporting Categories

In addition to a GHG inventory, EO 13693 requires agencies to establish and report percentage reduction targets for agency-wide reductions of scope 1, 2, and specified scope 3 GHG emissions relative to a FY2008 baseline. The DoD GHG reduction target for scope 3 is 25 percent by 2025 relative to its FY2008 GHG emissions baseline per the ASD(EI&E) letters to OMB and CEQ dated 17 June 2015.

Refer to page 10 of CEQ's Implementing Instructions for more information.

2. Reporting on Energy Use and GHG Emissions in Leases

EO section 3(h)(iv)(B): Sustainability Goals for Agencies, improve building efficiency, performance and management by including in all new agency lease solicitations over 10,000 rentable square feet...requirements for building lessor disclosure of carbon emission or energy consumption data for that portion of the building occupied by the agency that may be provided by the lessor through sub-metering or estimation from prorated occupancy data, whichever is more cost effective.

Currently, the reporting of scope 3 leased spaces is voluntary under the CEQ GHG Guidance. In FY2016, reporting of all new agency lease solicitations for fully-serviced building leases above 10,000 square feet will become mandatory and shall be reported under EO 13693. A fully-serviced lease refers to a lease in which the monthly rent includes the cost of certain types of services (e.g., utility costs, janitorial services, trash collection, water and sewer charges). This does not apply to existing leases. For FY2015, DoD Components should continue to report the facility energy data associated with real property greater than 10,000 gross square feet that DoD leases and for which DoD does not directly pay the utility bill, if data are available. DoD Components will report these energy data and the GHG emissions associated with fully serviced leases in the separate FEMP Fully Serviced Leased Space Workbook and submit this to OASD(EI&E). If a DoD Component cannot provide data for fully serviced leased facilities, then the DoD Component shall provide a detailed explanation of the reason why data are unavailable and the barriers that exist to obtaining these data in its Inventory Qualitative Statement (IQS). This will allow DoD to continue to obtain data sources and quantity for this category, as well as identify assumptions and data gaps for mandatory reporting in FY2016.

The CEQ GHG Guidance requires that in cases where a Federal entity, including GSA, is the landlord, the Federal landlord should provide data to the tenant to enable the calculation of

emissions. This means that data for leases where GSA or another Federal entity is the landlord should be fairly straightforward to obtain. In preparation for mandatory reporting in FY2016, DoD Components should assess whether or not it is possible to provide energy consumption information to other Federal agencies in cases where DoD is the landlord. If DoD Components cannot provide this data to other Federal agencies, they should provide a detailed explanation of the barriers that exist in their IQS.

Refer to page 11 of CEQ's Implementing Instructions for more information.

3. Resources for Estimating Emissions for Leased Buildings

CEQ, in coordination with GSA, DoD, EPA, and DOE, will develop guidance and tools that can estimate agency emissions from leased space by major property building type and identify emissions reduction potential. CEQ, in coordination with GSA, DoD, EPA, and DOE, will also develop reasonable timelines for establishing baseline estimates of emissions associated with fully leased space. The tools and guidance developed will assist agencies in developing initial emissions estimates for FY2016, which agencies shall include in their scope 3 emissions reporting due on January 31, 2017. Agencies are not being asked to begin to set scope 3 reduction targets on fully-serviced leased buildings emissions until FY2016.

Refer to page 12 of CEQ's Implementing Instructions for more information.

4. GHG Accounting Guidance

Previous guidance from CEQ relevant to GHG reporting, specifically the document titled "Federal Greenhouse Gas Accounting and Reporting Guidance [Revision 1] of June 4, 2012" (CEQ GHG Guidance) and associated Technical Support Document (TSD) remain in effect through FY2015. There are no significant changes to reporting requirements for FY2015. The Department of Defense Guidance for Greenhouse Gas Reporting Under Executive Order 13693: FY2015 Data Cycle (27 July 2015) details the requirements for GHG reporting for FY2015 consistent with the most recent version of the CEQ GHG Guidance and CEQ Implementing Instructions, and supplements these materials by providing procedures and other information specific to DoD. It defines the GHG data elements and calculation methodologies, details the specific requirements related to the reporting of GHG data, and outlines the DoD approach to GHG reporting.

Refer to page 13 of CEQ's Implementing Instructions for more information.

C. Strategies and Tools

Note that these are recommended best practices and not specific requirements or procedures.

Refer to page 13 of CEQ's Implementing Instructions for more information.

¹ The June 4, 2012 document Federal Greenhouse Gas Accounting and Reporting Guidance [Revision 1] and associated TSD are available through the CEQ at the following website: https://www.whitehouse.gov/administration/eop/ceq/sustainability/fed-ghg.

III. Sustainability Goals for Agencies (EO 13693, Section 3)

A. Energy (EO Sections 3(a), (b), (c), (d), (e))

1. Energy Intensity

EO section 3(a)(i): reducing agency building energy intensity measured in British thermal units per gross square foot by 2.5 percent annually through the end of fiscal year 2025, relative to the baseline of the agency's energy use in fiscal year 2015 and taking into account agency progress to date, except where revised pursuant to section 9(f)

The DoD Annual Energy Management Report (AEMR) Fiscal Year 2015 Reporting Guidance (August 2015) provides direction to Components on reporting data used to complete the AEMR. Beginning in the FY2016 AEMR, Component reporting must be consistent with EO 13693. The Office of the Deputy Assistant Secretary of Defense for Installations Energy (ODASD(IE)) will work with the Components to incorporate the new EO into reporting during FY2016.

There will be minimal reporting changes as a result of EO 13693, and they will be captured in an update to FEMP's reporting tool and DoD AEMR guidance. The EO is largely leveraging already existing data and simply using the data to now account for new goals. OSD encourages the DoD Components to participate in the routine working groups held annually to develop reporting guidance. The working groups are used to update the AEMR guidance and also allow the DoD Components to coordinate on it.

To maintain alignment with EPAct 2005 and current reporting conventions, DoD defines a Federal building as:

Any building, structure, or facility, or part thereof, which is constructed, renovated, leased, or purchased in whole or in part for use by the Federal Government and consumes energy. This includes a collection of such buildings, structures, or facilities and the energy consuming support systems for such collections. Components should report energy consumption for all fuel types (e.g., electricity, natural gas, fuel oil, steam) for a building, facility, or structure that a Component controls and for which it pays utilities.

Other portions of this section of EO 13693 (e.g., demand management programs, EPA's ENERGY STAR Portfolio Manager, Green Button data access system) are *recommended tools that should be considered for achieving energy intensity goals where feasible* and are not requirements for DoD Components to implement. However, DoD Components should note the following related to these tools:

• The Government Accountability Office Report 14-594, "Electricity Markets: Actions Needed to Expand GSA and DoD Participation in Demand-Response (DR) Activities," recommends that DoD consistently track and assess current levels of participation in DR programs. Components should report all DR activities by installation for FY2015 through the AEMR Supplemental Workbook. This data will not be reported in the AEMR but will be used to "develop a strategy to expand economically beneficial participation" in DR.

- DoD Components must ensure compliance with Clean Air Act regulations prior to entering into demand management programs with utilities.
- EPA's ENERGY STAR Portfolio Manager is not compatible with DoD information technology (IT) systems, and DoD has its own tracking mechanism for this purpose.

Also, DoD Instruction 4170.11, "Installation Energy Management," implements policy established in DoD Directive 4140.25, "DoD Management Policy for Energy Commodities and Related Services," and provides guidance, assigns responsibilities, and prescribes procedures for DoD installation energy management.

Refer to page 13 of CEQ's Implementing Instructions for more information.

2. Data Center Efficiency

EO section 3(a)(ii) *improving data center energy efficiency at agency facilities by:*

- (A) ensuring the agency chief information officer promotes data center energy optimization, efficiency, and performance;
- (B) installing and monitoring advanced energy meters in all data centers by fiscal year 2018; and
- (C) establishing a power usage effectiveness target of 1.2 to 1.4 for new data centers and less than 1.5 for existing data centers

In February 2010, the Federal Government CIOs initiated a data center consolidation effort (see https://cio.gov/drivingvalue/data-center-consolidation/). The initial memo, dated February 26, 2010, required an inventory of data centers to be completed by April 30, 2010:

"INITIAL ASSET INVENTORY: Agencies will conduct an initial inventory of data center assets by April 30, 2010. This will provide a high-level understanding of the scale and size of existing data centers, information technology (IT) infrastructure assets, and applications supported by the data centers."

DoD adopted the OMB definition of a data center established in the March 19, 2012 OMB Memorandum for Chief Information Officers. That is, data centers include closets, rooms, floors, or buildings used for the storage, management, and dissemination of data and information. Such repositories house computer systems and associated components, such as database, application, and storage systems and data stores. Data centers generally include redundant or backup power supplies, redundant data communications connections, environmental controls (air conditioning, fire suppression, etc.), and special security devices housed in leased (including cloud providers), owned, collocated, or stand-alone facilities. Facilities exclusively devoted to communications and network equipment (e.g., telephone exchanges and telecommunications rooms) are not considered data centers.

DoD goals will remain consistent with the EO goals and CEQ's Implementing Instructions for power usage effectiveness for new and existing data centers as it relates to EO section 3(a)(ii). The purpose of the EO is to drive aggressive energy efficiency improvements in data centers.

Data centers are generally among the most energy-intensive facilities in the Federal Government and in DoD. They represent an immense target for aggressive, cost-effective energy conservation measures to reduce energy use and reduce cost. The following energy efficiency strategies or opportunities in data centers and server rooms should be considered for practical implementation:

- IT opportunities such as server virtualization; decommissioning of unused servers and consolidation of lightly utilized servers; best management of data storage; and purchasing of energy efficient servers, uninterruptible power supplies, and power distribution units.
- Airflow management strategies, such as hot aisle/cold aisle layout, contamination/enclosures, variable speed fan drives, and properly deployed airflow management devices.
- Heating, ventilation, and air conditioning (HVAC) adjustments, such as server inlet temperature and humidity adjustments, air-side economizers, and water-side economizers. HVAC designs for data processing centers and server rooms must follow DOE-FEMP "Best Practices for Energy-Efficient Data Center Design" unless specific manufacturer's guidance exceeds the criteria contained within.
- For more ways to save energy in data centers and server rooms, visit the ENERGY STAR site at http://www.energystar.gov/index.cfm?c=power_mgt.datacenter_efficiency.

EO 13693 implementation requires a partnership between the CIO/IT communities, who are responsible for the computing capabilities and data center consolidation requirements, and the energy/public works communities, who are responsible for facility maintenance, implementation of capital improvement projects (including Energy Savings Performance Contracts (ESPC) and Utility Energy Services Contracts (UESC)), payment of utilities bills, and meeting other federal and DoD energy-related goals. Both communities need to be substantially involved in and dedicated to implementing the principles the EO represents in order to succeed. IT offices will be involved in implementing and driving the culture change to one that allows accomplishment of required computing capability, while also being good stewards of government resources, including utility costs and meeting federal energy efficiency requirements and goals.

CIO will continue to report data regarding power usage effectiveness, contracted data centers or cloud services, and advanced energy metering through existing CIO/IT community data calls. CIO will share data with the EI&E community to satisfy EO 13693 reporting requirements.

Refer to page 17 of CEQ's Implementing Instructions for more information.

3. Clean Energy Target

EO section 3(b): ensure that at a minimum, the percentage of the total amount of building electric energy and thermal energy [that is] clean energy, accounted for by renewable electric energy and alternative energy, [meets targets specified in 3(b)(i), 3(b)(ii), 3(b)(iii), 3(b)(iii), 3(b)(iii), and 3(b)(v)]

Previous renewable energy consumption goals did not count the contributions of many alternative technologies such as thermal renewable. The reporting changes will result in data being reported for the inclusion of "alternative" energy sources (e.g., combined heat and power,

small modular nuclear reactors, etc.). These accounting changes will be incorporated into the FEMP reporting tool and included in the FY2016 AEMR guidance, as any reporting change through the normal reporting process. The AEMR guidance will also address combined heat and power credit transfer to tenant organizations on a military base.

Refer to page 20 of CEQ's Implementing Instructions for more information.

4. Renewable Electric Target

EO section 3(c): ensure that the percentage of the total amount of building electric energy consumed by the agency that is renewable electric energy [meets targets specified in 3(c)(i), 3(c)(ii), 3(c)(ii), 3(c)(iv), and 3(c)(v)]

See Appendix D, Renewable Energy Accounting Rules, of the FY2015 DoD AEMR Guidance (August 2015). There are no changes to the FEMP reporting tool or guidance for FY2015, but renewable energy credit (REC) guidance from CEQ is forthcoming.

Refer to page 25 of CEQ's Implementing Instructions for more information.

5. Alternative Energy

EO section 3(e): include in the alternative energy portion of the clean energy target established in subsection (b) of this section alternative energy as defined in section 19(c) of this order and associated with the following actions

EO section 3(e)(vii): including in the DoD accounting for alternative energy for this subsection, fulfillment of the requirements for DoD goals established under Section 2852 of the National Defense Authorization Act for Fiscal Year 2007 as amended by Section 2842 of the National Defense Authorization Act for Fiscal Year 2010

Page 30 of CEQ's Implementing Instructions incorrectly states "electricity" instead of "energy" and should read:

Energy produced from renewable energy projects on DoD land and from which DoD forgoes ownership of the RECs and does not obtain replacement RECs counts in DoD's alternative energy total.

Refer to page 28 of CEQ's Implementing Instructions for more information.

B. Water Efficiency (EO 13693, Section 3(f))

EO section 3(f): *improve agency water use efficiency and management, including stormwater management*

1. Potable Water Consumption

EO section 3(f)(i): reducing agency potable water consumption intensity measured in gallons per square foot by 36 percent by 2025 through reductions of 2 percent annually through fiscal year 2025 relative to a baseline of the agency's water consumption in fiscal year 2007

DoD Components should continue to use the *Implementing Instructions: Federal Agency Implementation of Water Efficiency and Management Provisions of EO 13514*, July 2013, for definitions, policies, estimating methodologies and other guidance on Federal water conservation

tracking and reporting, for both potable water and Industrial, Landscaping, and Agricultural (ILA) water. DoD guidance on ILA water was issued in December 2015. The Department also emphasizes the use of the Energy Conservation Investment Program and Utilities Privatization for increasing the use of renewable energy and water efficiency.

In CEQ's Implementing Instructions, it states alternative water can be used to offset both potable and non-potable water uses. According to DoD definitions, alternative water is water not obtained from a surface water source, not obtained from a ground water source, and not purchased reclaimed water from a third party. Alternative water can include rainwater harvested on-site, sump pump water harvesting, gray water, air cooling condensate, reject water from water purification systems, water reclaimed on-site, or water derived from other water reuse strategies.

Refer to page 30 of CEQ's Implementing Instructions for more information.

2. Metering and Water Balance Analysis

EO section 3(f)(ii): *installing water meters and collecting and utilizing building and facility water balance data to improve water conservation and management*

DoD Components should: 1) appropriately install water meters and sub-meters to improve data available for development of a "water balance" analysis in water use assessments; 2) to the extent appropriate and practical, use the water balance methodology, for 42 United States Code (U.S.C.) § 8253(f)(3) required water assessments, other Component water assessments, and as a part of water conservation strategic planning; and 3) use water balance information to prioritize lower cost and higher cost water savings projects, increase water conservation program efficiency, and identify new opportunities for water conservation. When planning and implementing projects, DoD must consider full life-cycle cost effectiveness encompassing cost, performance, mission, and availability. Where projects have net benefits, DoD must consider maintaining or expanding those projects where feasible and appropriate.

Refer to page 31 of CEQ's Implementing Instructions for more information.

3. Industrial, Landscaping, and Agricultural Water

EO section 3(f)(iii): reducing agency ILA water consumption measured in gallons by 2 percent annually through fiscal year 2025 relative to a baseline of the agency's ILA water consumption in fiscal year 2010.

DoD's goal is to use reclaimed water (even wastewater) whenever practicable and legal, to reduce the energy needed to create it, and to distribute it regardless of its source (where consistent with state laws and regulations). Additional DoD guidance regarding ILA Water was issued in December 2015.

Refer to page 32 of CEQ's Implementing Instructions for more information.

4. Green Infrastructure for Stormwater and Wastewater Management

EO section 3(f)(iv): *installing appropriate green infrastructure features on Federally owned property to help with stormwater and wastewater management.*

Section 438 of EISA (42 U.S.C. § 17094) places legal requirements on new agency construction projects (i.e., development and redevelopment projects involving a Federal facility with a footprint that exceeds 5,000 square feet) to manage stormwater and preserve and/or restore natural site hydrology. DoD is also currently updating Unified Facilities Criteria (UFC) 1-200-02, *High Performance and Sustainable Building Requirements*, with respect to green infrastructure and landscaping.

Refer to the DoD memorandum, *DoD Implementation of Storm Water Requirements under Section 438 of the Energy Independence and Security Act (EISA)*, January 19, 2010, and UFC 3-210-10, *Low Impact Development*, for additional information.

- To measure compliance with EISA Section 438, DoD Components must ensure all development and redevelopment projects greater than or equal to 5,000 square feet maintain pre-development hydrology to the maximum extent technically feasible. EISA is an independent statute and is not enforceable under the Clean Water Act. Accordingly, DoD will object to EISA 438 enforcement through Clean Water Act mechanisms. In September 2014, in order to meet EISA Section 438 requirements, the Deputy Assistant Secretaries of each of the Military Services agreed to provide additional EISA Section 438 compliance information for applicable military construction (MILCON) projects as part of their reporting. The reporting requirements that must be reported by each DoD Component for each applicable project beginning in FY2016 are: Project name, description, location, and authorized cost
- Fiscal Year of authorization
- Design Agent (USACE, NAVFAC, or AFCEC)
- EISA Section 438 scope (i.e., change in impervious surface area in square feet)
- LID feature(s) installed, cost
- Technical constraints (if any)
- Percent change in stormwater runoff

A project should be reported in the FY during which it was substantially complete, even if the project was not financially closed out.

Refer to page 32 of CEQ's Implementing Instructions for more information.

C. Fleet (EO 13693, Sections 3(g), 7, 10, 12, 14)

EO section 3(g): *if the agency operates a fleet of at least 20 motor vehicles, improve agency fleet and vehicle efficiency and management*

1. Fleet Classifications

DoD Components should refer to FEMP guidance on EO 13514 for additional information on fleet classifications until new FEMP guidance is issued.

Refer to page 34 of CEQ's Implementing Instructions for more information.

2. Exempted Vehicles Authority

EO section 18(c): The head of an agency may exempt law enforcement, protective, emergency response, or military tactical vehicle fleets of that agency from the provisions of this order other than this subsection. Heads of agencies shall manage fleets to which this paragraph refers in a manner consistent with the policy set forth in section 1 of this order to the extent they determine practicable.

DoD does not intend to exempt any vehicle unless reporting compromises national security. As such, the only DoD vehicles exempt from EO 13696 are military tactical vehicles. All DoD non-tactical vehicles' fleet management information data will continue to be processed through the Fleet Automotive Statistical Tool (FAST) for reporting, which will be used to reflect EO compliance. Law enforcement and emergency response vehicles are only exempt from the Vehicle Allocation Methodology (VAM) inventory reduction as outlined in the DoD 2011 VAM.

Note that the considerations described in the CEQ Implementing Instructions regarding alternative fuel vehicles, administrative use of vehicles, and technological advancement are not specific requirements or procedures, but are recommended strategies DoD Components have the discretion to pursue.

Refer to page 35 of CEQ's Implementing Instructions for more information.

3. Optimum Fleet Inventory

EO section 3(g)(i): determining, as part of the planning requirements of section 14 of this order, the optimum fleet inventory with emphasis placed on eliminating unnecessary or non-essential vehicles from the agency's fleet inventory

Fleet Management Plans (FMPs) and Vehicle Allocation Methodologies (VAMs) are tools used to determine the optimum fleet inventory. Beginning in FY2016, the DoD SSPP will include a combined FMP and VAM as an appendix.

Pursuant to GSA Federal Management Regulation (FMR) B-30, *Vehicle Allocation Methodology* (*VAM*) for Agency Fleets, and DoD Manual 4500.36, "Acquisition, Management, and Use of DoD Non-Tactical Vehicles," Component VAMs shall be completed and reported annually from FAST submissions of out-year Acquisitions and Disposal projections (i.e., the next three years). Components must input data in FAST by 31 May.

Component FMPs are required annually and are due in FAST no later than 31 May. A copy of the FMP must be submitted with the Component's input to the DoD SSPP.

GSA guidance on the criteria and structure of the VAM for the 2016 reporting cycle and supporting documents is forthcoming.

Refer to page 35 of CEQ's Implementing Instructions for more information.

4. Fleetwide per Mile GHG Emissions

EO section 3(g)(ii): taking actions that reduce fleet-wide per-mile GHG emissions from agency fleet vehicles, relative to a baseline of emissions in fiscal year 2014, to achieve the following percentage reductions:

- (A) not less than 4% by the end of fiscal year 2017;
- (B) not less than 15% by the end of fiscal year 2021; and
- (C) not less than 30% by the end of fiscal year 2025

The new fleetwide per mile GHG emissions metric does not result in changes to the data collection process or specific data elements collected, as the same data elements already collected in FAST will be used to calculate the new metric. The metric is intended to increase agency flexibility relative to the previous petroleum fuel use reduction goal.

Every vehicle reported to FAST will be used in the calculation of the fleetwide per mile GHG emissions metric. The DoD VAM has exempted law enforcement and emergency response vehicles only. However, for all "covered" vehicles, including law enforcement and emergency response vehicles, cost/mile is a required FAST input.

Updated FEMP guidance providing instructions on approaches to right size agency fleets and increase alternative fuel use, including calculating the efficiency of fuel types, is forthcoming.

Refer to page 36 of CEQ's Implementing Instructions for more information.

5. Telematics

EO section 3(g)(iii): collecting and utilizing as a fleet efficiency management tool, as soon as practicable but not later than two years after the date of this order, agency fleet operational data through deployment of vehicle telematics at a vehicle asset level for all new passenger and light duty vehicle acquisitions and for medium duty vehicles where appropriate

Telematics can facilitate cost savings for fleets by providing fleet managers with information that they can use to reduce fleet size, fuel use, misuse of vehicles, and unnecessary maintenance or lack of maintenance.

For activities where missions will be compromised by global positioning system "location data," DoD will continue to use garage data previously reported for those vehicles. DoD has two approved Fleet Management Information Systems, Defense Property Accountability System (DPAS) and Maximo, with which these telematics will interface, so OSD is working with vendors to develop several types of telematics from which Components can choose that meet the EO requirement while not jeopardizing mission or national security. DoD Component telematics shall meet DoD cyber security requirements.

Refer to page 37 of CEQ's Implementing Instructions for more information.

6. Fleet Data

EO section 3(g)(iv): ensuring that agency annual asset-level fleet data is properly and accurately accounted for in a formal agency Fleet Management System and any relevant data is submitted to the Federal Automotive Statistical Tool reporting database, the Federal Motor Vehicle Registration System, and the Fleet Sustainability Dashboard (FleetDASH) system

Asset (i.e., vehicle) level fleet data will provide fleet managers with information that they can use to improve utilization of the DoD fleet, including the ability to identify car sharing

opportunities and likely candidates for zero emission or plug-in hybrid vehicles, and compare fuel efficiencies of vehicles by model.

Updated FEMP guidance regarding data submittal to the Federal Automotive Statistical Tool is forthcoming.

Refer to page 38 of CEQ's Implementing Instructions for more information.

7. Zero emissions vehicle (ZEV) or Plug-in Hybrid Vehicle (PHV) Goal

EO section 3(g)(v): planning for agency fleet composition such that by December 31, 2020, zero emission vehicles or plug-in hybrid vehicles account for 20 percent of all new agency passenger vehicle acquisitions and by December 31, 2025, zero emission vehicles or plug-in hybrid vehicles account for 50 percent of all new agency passenger vehicles and including, where practicable, acquisition of such vehicles in other vehicle classes and counting double credit towards the targets in this section for such acquisitions

Within acquisition year FY2020/2021, 20% of passenger vehicles procured will be ZEV/PHV. Similarly, within acquisition year FY2025/2026, 50% of passenger vehicles procured will be ZEV/PHV. Law enforcement and emergency response passenger vehicles are not exempt from this ZEV/PHV goal because DoD expects that advancements in vehicle and fleet technology may render conventional practice regarding necessary vehicle size and fuel type outdated in the future.

Refer to page 39 of CEQ's Implementing Instructions for more information.

8. Planning for Fleet Charging Infrastructure

EO section 3(g)(vi): planning for appropriate charging or refueling infrastructure or other power storage for zero emission vehicles or plug-in hybrid vehicles and opportunities for ancillary services to support vehicle-to-grid technology

This charging infrastructure planning requirement pertains only to fleet vehicles, and does not apply to charging infrastructure for personally-owned vehicles.

Refer to page 39 of CEQ's Implementing Instructions for more information.

9. Agency Chief Sustainability Officer, Fleet Review and Approval Procedures Refer to page 40 of CEQ's Implementing Instructions for more information.

10. Multimodal Access Plan (MAP) for Commuters

Refer to page 41 of CEQ's Implementing Instructions for more information.

11. Regional Coordination

Refer to page 43 of CEQ's Implementing Instructions for more information.

12. Supporting the Federal Fleet

Refer to page 43 of CEQ's Implementing Instructions for more information.

13. Agency Strategic Sustainability Performance Plan

Refer to page 44 of CEQ's Implementing Instructions for more information.

D. Buildings (EO 13693, Section 3(h))

1. General

Refer to page 44 of CEQ's Implementing Instructions for more information.

2. New Buildings: Energy Net-Zero and Waste or Water Net-Zero

EO section 3(h)(i): improve building efficiency, performance, and management by ensuring, beginning in fiscal year 2020 and thereafter, that all new construction of Federal buildings greater than 5,000 gross square feet that enters the planning process is designed to achieve energy net-zero and, where feasible, water or waste net-zero by fiscal year 2030

Achieving net-zero within DoD means using existing and renewable resources in such a way that minimizes resources consumed by an installation. Examples include producing renewable energy to meet energy consumption; limiting the consumption of water and returning stormwater runoff back to the local watershed; and reducing, reusing, and recycling solid waste streams to minimize waste disposal at landfills.

DoD has not established an integrated net-zero policy, nor is net-zero a funded program in the DoD Components, however some DoD Components are developing their own net-zero programs. Therefore, there are no reporting requirements for DoD Components associated with net-zero implementation. DoD Components may pursue net-zero strategies at the installation-wide level, versus building level.

Where life-cycle cost effective, for new construction of buildings 5,000 square feet and larger, the DoD Component should include energy, waste, or water net-zero strategies in the planning of new construction.

Energy Net-Zero

Generally, this requirement is similar to what it was under EO 13514. For new construction, a "net-zero energy building" is designed, constructed, and operated such that the actual annual source energy consumption is balanced by on-site renewable energy. UFC 1-200-02, *High Performance and Sustainable Building Requirements*, provides the minimum requirements for both new construction and existing buildings regarding energy.

Water Net-Zero

For new construction, a "net-zero water building" is designed, constructed, and operated to greatly reduce total water consumption, use non-potable sources as much as possible, and return the equivalent amount of water as was withdrawn from all sources, including municipal supply to the same watershed without compromising groundwater and surface water quantity or quality.

For development and redevelopment projects, DoD is already implementing EISA §438 which requires maintaining or restoring pre-development site hydrology to the maximum extent technically feasible. Maintaining site hydrology does return water to the same watershed where the site is located. EPA's Office of Research and Development has recently started using a new term, blue infrastructure, to describe green infrastructure that is used for aquifer recharge. Green infrastructure supports the topmost part of the soil column where plants are located, while blue

infrastructure facilitates recharge to the first aquifer. Regardless of the term, the use of green/blue infrastructure is an effective way to keep more stormwater flow local rather than allowing it to flow out of the building site watershed across the surface and/or through subsurface.

CEQ's Implementing Instructions suggest performing "water balance assessments of building systems during design to identify unnecessary water uses" for new construction of a "net-zero water building" (page 46). This option should be coordinated with the applicable installation public works/utilities personnel.

The term water balance is defined differently by CEQ and DoD. For DoD, water balance refers to an entire installation in order to identify how much water is being used and where it is being used on an installation. The term water balance is not widely used in DoD or in any of the existing design guidance. UFC 1-200-02, *High Performance and Sustainable Building Requirements*, addresses indoor water use efficiency. The UFC is a design requirement agreed to by all Military Departments that already addresses CEQ's water balance approach.

Waste Net-Zero

A "net-zero waste building" is operated to reduce, reuse, recycle, compost, or recover solid waste streams (with the exception of hazardous and medical waste) thereby resulting in zero waste disposal. In accordance with DoDI 4715.06, "Environmental Compliance in the United States," and the forthcoming DoDI on integrated solid waste management, to be published in 2016, DoD Components should use the following pollution prevention hierarchy when considering waste net-zero strategies:

- (1) Prevent pollution at the source, focusing on elimination or substitution of materials early in the acquisition process.
- (2) Reuse materials that cannot be eliminated.
- (3) Recycle materials that cannot be reused.
- (4) Treat pollution that cannot be eliminated or recycled (on-site treatment of some waste streams may require permits).
- (5) Dispose or release pollution into the environment only as a last recourse and only where such disposal or release can be controlled and conducted in a manner that is safe and consistent with applicable legal requirements.
- (6) Consider waste-to-energy alternatives before disposal, where shown to be practical, environmentally beneficial, and allowed by State and locality.

Refer to page 45 of CEQ's Implementing Instructions for more information.

3. Existing Building Compliance with Guiding Principles

EO 13693 sets new environmental performance improvement metrics for Federal facilities through FY 2025. It requires that CEQ and OMB issue new "Guiding Principles for High Performance and Sustainable Federal Buildings" (Guiding Principles) to update Guiding Principles last issued in 2008. Revisions reflect developments in sustainable building practice since 2008 and incorporate new EO 13693 requirements including climate resilience.

CEQ's Office of Federal Sustainability, in conjunction with OMB, issued "Guiding Principles for Sustainable Federal Buildings and Associated Instructions," in February 2016. It included general implementation instructions, revised Guiding Principles for new construction/major renovations and existing buildings, and tables explaining how to evaluate a Federal building for compliance with these revised Guiding Principles.

DoD's Real Property Asset Database (RPAD) is the authoritative data source used to track each facility's compliance with the Guiding Principles. The data field entitled "Facility Sustainability Code" should be updated to reflect the appropriate Guiding Principles compliance status in order to accurately reflect each Component's progress.

Refer to page 47 of CEQ's Implementing Instructions for more information.

4. Existing Buildings: Energy, Waste or Water Net-Zero

EO section 3(h)(iii): improve building efficiency, performance, and management by identifying, as part of the planning requirements of section 14 of this order, a percentage of the agency's existing buildings above 5,000 gross square feet intended to be energy, waste, or water net-zero buildings by fiscal year 2025 and implementing actions that will allow those buildings to meet that target

Achieving net-zero within DoD means using existing and renewable resources in such a way that minimizes resources consumed by an installation. Examples include producing renewable energy to meet energy consumption; limiting the consumption of water and returning storm water runoff back to the local watershed; and reducing, reusing, and recycling solid waste streams to minimize waste disposal at landfills.

DoD has not established an integrated net-zero policy, nor is net-zero a funded program in the DoD Components, however some DoD Components are developing their own net-zero programs. DoD Components may pursue net-zero strategies at the installation-wide level, versus building level.

Where life-cycle cost effective, for existing buildings 5,000 square feet and larger, the DoD Component should include energy, waste, or water net-zero strategies in the planning of existing building retrofits and renovations.

Energy Net-Zero

Generally, this requirement is similar to what it was under EO 13514. For existing buildings, a "net-zero energy building" is renovated and operated such that the actual annual source energy consumption is balanced by on-site renewable energy. UFC 1-200-02, *High Performance and Sustainable Building Requirements*, provides the minimum requirements for both new construction and existing buildings regarding energy.

Water Net-Zero

For existing buildings, a "net-zero water building" is renovated and operated to greatly reduce total water consumption, use non-potable sources as much as possible, and return the equivalent amount of water as was withdrawn from all sources, including municipal supply to the same watershed without compromising groundwater and surface water quantity or quality.

For development and redevelopment projects, DoD is already implementing EISA §438 which requires maintaining or restoring pre-development site hydrology to the maximum extent technically feasible. Maintaining site hydrology does return water to the same watershed where the site is located. EPA's Office of Research and Development has recently started using a new term, blue infrastructure, to describe green infrastructure that is used for aquifer recharge. Green infrastructure supports the topmost part of the soil column where plants are located, while blue infrastructure facilitates recharge to the first aquifer. Regardless of the term, the use of green/blue infrastructure is an effective way to keep more stormwater flow local rather than allowing it to flow out of the building site watershed across the surface and/or through subsurface.

Waste Net-Zero

A "net-zero waste building" is operated to reduce, reuse, recycle, compost, or recover solid waste streams (with the exception of hazardous and medical waste) thereby resulting in zero waste disposal. In accordance with DoDI 4715.06, "Environmental Compliance in the United States," and the forthcoming DoDI on integrated solid waste management, to be published in 2016, DoD Components should use the following pollution prevention hierarchy when considering waste net-zero strategies:

- (1) Prevent pollution at the source, focusing on elimination or substitution of materials early in the acquisition process.
- (2) Reuse materials that cannot be eliminated.
- (3) Recycle materials that cannot be reused.
- (4) Treat pollution that cannot be eliminated or recycled (on-site treatment of some waste streams may require permits).
- (5) Dispose or release pollution into the environment only as a last recourse and only where such disposal or release can be controlled and conducted in a manner that is safe and consistent with applicable legal requirements.
- (6) Consider waste-to-energy alternatives before disposal, where shown to be practical, environmentally beneficial, and allowed by State or locality.

Refer to page 48 of CEQ's Implementing Instructions for more information.

- 5. Energy Efficiency Requirements and Energy and Emissions Reporting for Lease Solicitations Refer to page 50 of CEQ's Implementing Instructions for more information.
- 6. New Buildings Optimize Space Usage and Consideration of Existing Transportation and Infrastructure

In accordance with 10 U.S.C. §2864, the commander of each major military installation shall ensure that an installation master plan is developed to address environmental planning, sustainable design and development, sustainable range planning, real property master planning,

and transportation planning. Each installation master plan shall include consideration of planning for compact and infill development; horizontal and vertical mixed-use development; the full lifecycle costs of real property planning decisions; and capacity planning through the establishment of growth boundaries around cantonment areas to focus development towards the core and preserve range and training space.

The transportation component of the master plan for a major military installation shall be developed and updated in consultation with the metropolitan planning organization designated for the metropolitan planning area in which the military installation is located. Each installation master plan shall include consideration of ways to diversify and connect transit system.

Refer to page 51 of CEQ's Implementing Instructions for more information.

7. Building Design and Deployment, Fleet Charging Infrastructure

DoD must consider appropriate design and deployment of fleet charging infrastructure during new construction or major renovation, repair, or alteration of DoD facilities when the construction or major modification is relevant to the parking provisions of a facility.

Refer to page 52 of CEQ's Implementing Instructions for more information.

8. Incorporation of Climate-Resilient Design and Management Elements

Section 3(h)(viii): improve building efficiency, performance, and management by including the incorporation of climate-resilient design and management elements into the operation, repair, and renovation of existing agency buildings and the design of new agency buildings

In accordance with DoD Directive 4715.21, "Climate Change Adaptation and Resilience," DoD facilities should be designed and operated with an awareness and understanding of local conditions and potential vulnerabilities associated with changing climates, including increased risk of flooding, loss of power or other interruptions to building services. Facilities should comply with American Society of Civil Engineers (ASCE), Flood Resistant Design and Construction, ASCE 24, and DoD's February 11, 2014, policy, Floodplain Management on Department of Defense Installation. UFC 1-200-02, High Performance and Sustainable Building Requirements, and UFC 2-100-01, Installation Master Planning, both reference climate change in planning and design activities, as well.

Refer to page 53 of CEQ's Implementing Instructions for more information.

E. Acquisition and Procurement (EO 13693, Section 3(i))

EO section 3(i): promote sustainable acquisition and procurement by ensuring that each of the following environmental performance and sustainability factors are included to the maximum extent practicable for all applicable procurements in the planning, award, and execution phases of the acquisition

Refer to page 53 of CEQ's Implementing Instructions for more information.

1. Statutory Mandates

EO section 3(i)(i): *meeting statutory mandates that require purchase preference*

The EO and its implementing instructions amplify existing statutory mandates to purchase recycled content products, energy and water efficient products and services, and BioPreferred and biobased designated products. Unlike EO 13514, EO 13693 requires that **all** applicable procurements, rather than 95%, of purchases be environmentally sustainable.

Three new Federal Acquisition Regulation (FAR) clauses are under development for 2016 related to EO 13693. FAR Case 2015-033, "Sustainable Acquisition," implements EO 13693. The interim FAR rule is currently being drafted. FAR Case 2014-026, "High Global Warming Potential Hydrofluorocarbons," facilitates implementation of the President's Climate Action Plan and EO 13693. The final FAR rule is currently being drafted. FAR Case 2015-024, "Public Disclosure of Greenhouse Gas Emissions and Reduction Goals--Representation," creates an annual representation within the System for Award Management (SAM) for contractors to indicate if and where they publicly disclose GHG emissions and GHG reduction goals or targets. The proposed FAR rule is currently being drafted.

Refer to page 54 of CEQ's Implementing Instructions for more information.

2. Products and Services Identified by EPA Programs

EO section 3(i)(ii): purchasing sustainable products and services identified by EPA programs

After meeting statutory mandates discussed above, the DoD Components shall give preference to products and services identified by EPA's Significant New Alternatives Policy (SNAP), WaterSense, Safer Choice, and SmartWay programs.

Refer to page 55 of CEQ's Implementing Instructions for more information.

3. Non-Federal Specifications, Labels and Standards

EO section 3(i)(iii): purchasing environmentally preferable products or services that

- (A) meet or exceed specifications, standards, or labels recommended by EPA that have been determined to assist agencies in meeting their needs and further advance sustainable procurement goals of this order; or
- (B) meet environmental performance criteria developed or adopted by voluntary consensus standards bodies consistent with section 12(d) of the National Technology Transfer and Advancement Act of 1995 (Public Law 104-113) and OMB Circular A-119

EPA guidance is available at http://www2.epa.gov/greenerproducts/epas-recommendations-specifications-standards-and-ecolabels.

Refer to page 56 of CEQ's Implementing Instructions for more information.

4. BioPreferred and Biobased Purchasing

EO section 3(i)(iv): acting, as part of the implementation of planning requirements of section 14 of this order, until an agency achieves at least 95 percent compliance with the BioPreferred and biobased purchasing requirement in paragraph (i) of this subsection, to: (A) establish an annual target for the number of contracts to be awarded with BioPreferred and biobased criteria and dollar value of BioPreferred and biobased products to be delivered and reported under those

contracts in the following fiscal year. To establish this target, agencies shall consider the dollar value of designated BioPreferred and biobased products reported in previous years, the specifications reviewed and revised for inclusion of BioPreferred and biobased products, and the number of applicable product and service contracts to be awarded, including construction, operations and maintenance, food services, vehicle maintenance, and janitorial services

The FY2016 and subsequent DoD SSPPs will include biobased targets, compliance with which will be determined via the current semiannual contract compliance review process. In July 2015, OMB piloted an updated contract review template that OSD intends to use in January 2016 and every six months thereafter. While the template has been updated, the data collection process remains unchanged.

United States Department of Agriculture (USDA) guidance including best practices, lessons learned, and other analysis is forthcoming.

Pursuant to FAR Clause 52.223-2, DoD service or construction contracts must annually report the product types and dollar value of any USDA-designated biobased products purchased by the contractor during the previous FY through the SAM. When service or construction contracts include the clause at FAR 52.223-2, DoD Component contracting officers shall inform contractors of the reporting requirement and SAM, in accordance with the DPAP Memorandum of 1 November 2013.

Refer to page 57 of CEQ's Implementing Instructions for more information.

5. Copier and Printing Paper

EO section 3(i)(v): reducing copier and printing paper use and acquiring uncoated printing and writing paper containing at least 30 percent postconsumer recycled content or higher as designated by future instruction under section 4(e) of this order

Pursuant to 10 U.S.C. § 2378, DoD Components shall procure copying machine paper that is at least 50% post-consumer recycled content, unless such paper does not meet price, performance, or availability requirements.

Refer to page 58 of CEQ's Implementing Instructions for more information.

6. Implementation of Requirements in Procurements

Sustainable acquisition requirements are considered practicable, and therefore mandatory, unless there is a documented, allowable exemption based on cost, performance, availability, or other statutory exemption. DoD Components must establish procedures and approval authorities for determining and documenting sustainable procurement requirements, exemptions, and automatic substitution where appropriate and feasible.

An exemption based on cost must consider tradeoffs between price and sustainability requirements in the context of total life cycle. OSD encourages DoD Components to use existing tools and methodologies that support life cycle cost analysis as applicable to specific purchases (e.g., for procurements involving energy and water conservation measures, procedures are defined at 10 Code of Federal Regulations § 436).

Refer to page 58 of CEQ's Implementing Instructions for more information.

7. Training

OSD and DAU updated "CLC 046, DoD Sustainable Procurement Program," which identifies the objectives and background of DoD's Sustainable Procurement Program, to incorporate the requirements of EO 13693. OSD encourages contracting professionals, Contracting Officer Representatives (CORs), and program and project managers to enroll in CLC 046 as part of their annual refresher requirements.

GSA provided recommendations to OMB and CEQ on further developing and maintaining Federal sustainable acquisition training across the Federal government; guidance from OMB/CEQ is forthcoming.

The SAMM Practices Workgroup maintains a compilation of sustainable acquisition training resources developed or hosted by Federal agencies that are available to government employees at https://www.fedcenter.gov/programs/buygreen/.

Refer to page 60 of CEQ's Implementing Instructions for more information.

F. Waste and Pollution Prevention (EO 13693, Section 3(j))

EO section 3 (j)(i): advance waste prevention and pollution prevention by reporting in accordance with the requirements of section 301 through 313 of the Emergency Planning and Community Right-to-know Act of 1986 (42 U.S.C. §§ 11001 through 11023)

U.S. military installations must continue to comply with the provisions set forth in sections 301 through 313 of the EPCRA (42 U.S.C. § 116), as amended, in accordance with applicable EPA and DoD guidance.² For the purposes of calendar year (CY) 2014 reporting in the FY2016 SSPP, DoD will maintain its existing goal to reduce on-site releases and off-site transfers of toxic chemicals by 15% from CY2006 levels by FY2020. The DoD EPCRA/TRI Working Group will reassess this goal at a later date to determine its applicability for future reporting years.

However, according to DoDI 4715.06, "Environmental Compliance in the United States," DoD military installations are not required to comply with State and local right-to-know requirements, and must not pay for the right-to-know requirements of State or local governments, such as implementation plans. National Guard installations should consult with their legal offices to determine if they are required to comply with State and local right-to-know requirements and for a determination of appropriate fees paid to State or local governments and reporting requirements for State and local planning.

EO section 3(j)(ii): Diverting at least 50 percent of non-hazardous solid waste, including food and compostable material but not construction or demolition materials and debris, annually, and pursuing opportunities for net-zero waste or additional diversion opportunities

EO section 3(j)(iii): Diverting at least 50 percent of non-hazardous C&D materials and debris

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² Office of the Under Secretary of Defense (AT&L), Consolidated (EPCRA) Policy for DoD Installations, Munitions Activities and Ranges, (September 21, 2006).

DoD will maintain its current solid waste and C&D goals through FY2025 (i.e., by sustaining at least a 50% diversion rate for non-hazardous solid waste through FY2025 and sustaining at least a 60% diversion rate for non-hazardous C&D materials and debris through FY2025). DoD may revisit these goals periodically.

EO section 3(j)(iv): reducing or minimizing the quantity of toxic and hazardous chemicals and materials acquired, used, or disposed of, particularly where such reduction will assist the agencies in pursuing agency greenhouse gas reduction targets established in section 2 of this order.

This is a continuing requirement from previous EOs. Under EO 13423, DoD and each DoD Component prepared a Toxic and Hazardous Chemicals Reduction Plan to reduce or minimize the quantity of toxic and hazardous chemicals and materials acquired, used, or disposed. Each DoD Component must review their Toxic and Hazardous Chemicals Reduction Plan to determine their progress to date and to make recommendations to update their plan. In accordance with EO 13693, DoD Component's plans should focus special attention on chemicals, particularly refrigerants and other specialty gases that have global warming potentials much higher than carbon dioxide (CO₂). OASD(EI&E) will issue a memo with specific due dates and guidance on updating the DoD Component's plans in the near future.

Refer to page 60 of CEQ's Implementing Instructions for more information.

G. Performance Contracts for Federal Buildings (EO 13693, Section 3(k))

EO section 3(k)(i): Utilizing performance contracting as an important tool to help meet identified energy efficiency and management goals while deploying life-cycle cost effective energy efficiency and clean energy technology and water conservation measures

As part of the Presidential Performance Contracting Challenge (PPCC), DoD and other Federal Agencies must report their progress towards the PPCC goal of committing \$4 billion in ESPCs and UESCs by 2016. ESPC/UESC milestone reporting was expanded in January 2016 and will be reflected in the Annual ESPC/UESC Reporting Guidance issued in early CY2016. The expanded reporting will collect additional milestones' planned dates of completion and actual dates of completion to better inform the probability of the goal being met.

In addition to energy efforts, DoD should increase water efficiency investments in appropriate ESPCs/UESCs (see FEMP's analysis at http://energy.gov/sites/prod/files/2015/06/f23/water_efficiency_espcs.pdf). Recommendations were identified as a result of these findings to help FEMP better incorporate innovative water measures into ESPCs. FEMP will be developing a screening tool to help agencies identify the potential for effective water projects, and educate agencies in comprehensive water management strategies.

Refer to page 62 of CEQ's Implementing Instructions for more information.

H. Electronics Stewardship (EO 13693, Section 3(1))

EO section 3(1): promote electronics stewardship by establishing, measuring, and reporting by:

- (i) ensuring procurement preference for environmentally sustainable electronic products as established in subsection (i) of this section;
- (ii) establishing and implementing policies to enable power management, duplex printing, and other energy-efficient or environmentally sustainable features on all eligible agency electronic products; and
- (iii) employing environmentally sound practices with respect to the agency's disposition of all agency excess or surplus electronic products.

DLA Disposition Services is appointed by DoD to responsibly recycle and dispose of government-owned electronics in accordance with Federal, State, and local laws and DoD policies to protect national security, personally identifiable information, and the environment. As such, it is DoD policy that DoD Components shall dispose of DoD Agency electronic assets through DLA Disposition Services.

Personal electronics may be recycled through the United States Postal Service (USPS) BlueEarth Federal recycling program in accordance with the Memorandum of Understanding between DoD and USPS signed 1 August 2014. Personal electronics cannot be recycled through Qualified Recycling Programs.

Refer to page 64 of CEQ's Implementing Instructions for more information.

I. Supply Chain Greenhouse Gas Management (EO 13693, Section 15)

EO section 15(b): the seven largest Federal procuring agencies shall each submit for consideration, in conjunction with the planning requirements of section 14 of this order, a plan to implement at least five new procurements annually in which the agency may include, as appropriate, contract requirements for vendors or evaluation criteria that consider contractor emissions and greenhouse gas emissions management practices. The plans submitted for consideration may include identification of evaluation criteria, performance period criteria, and contract clauses that will encourage suppliers to manage and reduce greenhouse gas emissions, and shall be implemented as soon as practicable after any relevant administrative requirements have been met

DoD's FY2016 SSPP will include the first annual DoD Procurement Plan to Reduce Supply Chain Emissions ("Procurement Plan") that will identify at least five procurements to be implemented in FY2017. While the Components are not expected to develop their own Procurement Plans, the annual SSPP guidance will clarify OSD's expectations regarding Component input necessary to develop the DoD Procurement Plan.

Recommendations from the Supply Chain GHG Emissions Interagency Working Group were submitted to CEQ in December 2015 and are currently under review. Guidance from CEQ will clarify how many procurements will be targeted, how they will be selected, and sample contract language Components may use to encourage suppliers to manage and reduce GHGs.

OSD encourages the Components to implement pilot procurements in FY2016 that include contract requirements for vendors or evaluation criteria that consider contractor emissions and GHG emissions management practices.

Refer to page 68 of CEQ's Implementing Instructions for more information.

Appendix A. References

10 Code of Federal Regulations § 436, "Federal Energy Management and Planning Programs," 1999³

10 United States Code § 2378, "Procurement of copier paper containing specified percentages of post-consumer recycled content," 2010⁴

42 United States Code §§ 11001 et seq., "Emergency Planning and Community Right-to-Know Act of 1986," 2009⁵

42 United States Code § 8253, "Energy Management Requirements," 2010⁶

American Society of Civil Engineers (ASCE), "Flood Resistant Design and Construction, Standards ASCE/SEI 24-14," 2014

Assistant Deputy Under Secretary of Defense for Environment, Safety, and Occupational Health Memorandum, "Consolidated (EPCRA) Policy for DoD Installations, Munitions Activities and Ranges," September 21, 2006⁷

Council on Environmental Quality, "Guiding Principles for Sustainable Federal Buildings and Associated Instructions," February 2016⁸

Defense Procurement and Acquisition Policy Memorandum, "Update to Biobased Reporting Requirements," November 1, 2013⁹

DoD Directive 4140.25, "DoD Management Policy for Energy Commodities and Related Services," June 25, 2015¹⁰

DoD Directive 4715.21, "Climate Change Adaptation and Resilience," January 14, 2016¹¹

DoD Industrial, Landscaping, and Agricultural (ILA) water guidance, December 2015

DoD Instruction 4170.11, "Installation Energy Management," December 11, 2009¹²

DoD Instruction 4715.02, "Regional Environmental Coordination," August 28, 2009¹³

 $\underline{https://www.whitehouse.gov/sites/default/files/docs/guiding_principles_for_sustainable_federal_buildings_and_asso\underline{ciated_instructions_february_2016.pdf}.$

³ Available at http://www.gpo.gov/fdsys/pkg/CFR-1999-title10-vol3/pdf/CFR-1999-title10-vol3-part436.pdf.

⁴ Available at http://www.gpo.gov/fdsys/pkg/USCODE-2010-title10/pdf/USCODE-2010-title10-subtitleA-partIV-chap140-sec2378.pdf.

⁵ Available at http://www.gpo.gov/fdsys/pkg/USCODE-2009-title42/pdf/USCODE-2009-title42-chap116.pdf

⁶ Available at http://www.gpo.gov/fdsys/pkg/USCODE-2010-title42/pdf/USCODE-2010-title42-chap91-subchapIII-partB-sec8253.pdf.

⁷ Available at http://www.denix.osd.mil/epcratri/upload/TRI-Policy-Memo.pdf.

⁸ Available at

⁹ Available at http://www.acq.osd.mil/dpap/policy/policyvault/USA006158-13-DPAP.pdf.

¹⁰ Available at http://www.dtic.mil/whs/directives/corres/pdf/414025p.pdf.

¹¹ Available at http://www.dtic.mil/whs/directives/corres/pdf/471521p.pdf.

¹² Available at http://www.dtic.mil/whs/directives/corres/pdf/417011p.pdf.

DoD Instruction 4715.06, "Environmental Compliance in the United States," May 4, 2015¹⁴

DoD Instruction 4715.17, "Environmental Management Systems," April 15, 2009¹⁵

DoD Manual 4500.36, "Acquisition, Management, and Use of DoD Non-Tactical Vehicles," July 7, 2015¹⁶

DoD Memorandum, "DoD Implementation of Storm Water Requirements under Section 438 of the Energy Independence and Security Act (EISA)," January 19, 2010

Department of Energy Federal Energy Management Program, "Best Practices Guide for Energy-Efficient Data Center Design," March 2011¹⁷

Department of Energy Federal Energy Management Program Guidance Superseding "Guidance for Federal Agencies on EO 13514 Section 12, Federal Fleet Management," forthcoming

Deputy Secretary of Defense Chief Sustainability Officer Designation Letter, June 1, 2015¹⁸

Deputy Under Secretary of Defense for Installations and Environment Action Memorandum, "Senior Sustainability Council Charter," November 26, 2010¹⁹

Deputy Under Secretary of Defense for Installations and Environment Memorandum, "DoD Implementation of Storm Water Requirements under Section 438 of the Energy Independence and Security Act (EISA)," January 19, 2010²⁰

Deputy Under Secretary of Defense for Installations and Environment Memorandum, "Floodplain Management on Department of Defense Installations," February 11, 2014²¹

Executive Order 13423, "Strengthening Federal Environmental, Energy, and Transportation Management," January 24, 2007²²

Executive Order 13514, "Federal Leadership in Environmental, Energy, and Economic Performance," October 5, 2009^{23}

Executive Order 13653, "Preparing the United States for the Impacts of Climate Change," November 6, 2013²⁴

¹³ Available at http://www.dtic.mil/whs/directives/corres/pdf/471502p.pdf.

¹⁴ Available at http://www.dtic.mil/whs/directives/corres/pdf/471506p.pdf.

¹⁵ Available at http://www.dtic.mil/whs/directives/corres/pdf/471517p.pdf.

¹⁶ Available at http://www.dtic.mil/whs/directives/corres/pdf/450036m.pdf.

¹⁷ Available at http://energy.gov/sites/prod/files/2013/10/f3/eedatacenterbestpractices.pdf.

¹⁸ Available via the Assistant Secretary of Defense for Energy, Installations, and Environment front office.

¹⁹ Available via the Assistant Secretary of Defense for Energy, Installations, and Environment front office.

²⁰ Available at http://www.carson.army.mil/DPW/environmental/stormwater/documents/DUSD-IE-Section-438-EISA-2007-policy.pdf.

²¹ Available via the Assistant Secretary of Defense for Energy, Installations, and Environment front office.

²² Available at http://www.gsa.gov/portal/content/102452.

²³ Available at http://www.gpo.gov/fdsys/pkg/FR-2009-10-08/pdf/E9-24518.pdf.

²⁴ Available at http://www.gpo.gov/fdsys/pkg/FR-2013-11-06/pdf/2013-26785.pdf

Executive Order 13693, "Planning for Federal Sustainability in the Next Decade," March 19, 2015²⁵

Federal Acquisition Regulation Clause 52.223-2, "Affirmative Procurement of Biobased Products Under Service and Construction Contracts" ²⁶

General Services Administration FMR B-30, "Vehicle Allocation Methodology for Agency Fleets," August 22, 2011²⁷

General Services Administration guidance on the criteria and structure of the VAM, forthcoming

Government Accountability Office Report 14-594, "Electricity Markets: Actions Needed to Expand GSA and DoD Participation in Demand-Response (DR) Activities," July 11, 2014²⁸

Office of the Assistant Secretary of Defense for Energy, Installations and Environment, "DoD Annual Energy Management Report (AEMR) Fiscal Year 2015 Reporting Guidance," August 2015

Office of the Assistant Secretary of Defense for Energy, Installations and Environment, "Department of Defense Guidance for Greenhouse Gas Reporting Under Executive Order 13693: FY2015 Data Cycle," July 27, 2015

Office of the Assistant Secretary of Defense for Energy, Installations and Environment, Letters to the Managing Director of the White House Council on Environmental Quality and Director of the Office of Management and Budget submitting Proposed Greenhouse Gas Emissions Reduction Targets, June 17, 2015²⁹

Office of the Under Secretary of Defense for Acquisition, Technology, and Logistics, "Consolidated Emergency Planning and Community Right-to-Know Act (EPCRA) Policy for DoD Installation, Munitions Activities, and Ranges," September 21, 2006³⁰

Office of Management and Budget, "Federal Data Center Consolidation Initiative," February 26, 2010³¹

Office of Management and Budget, "Implementation Guidance for the Federal Data Center Consolidation Initiative (FDCII)," March 19, 2012³²

https://www.whitehouse.gov/sites/default/files/omb/assets/egov_docs/federal_data_center_consolidation_initiative_02-26-2010.pdf.

²⁵ Available at http://www.gpo.gov/fdsys/pkg/FR-2015-03-25/pdf/2015-07016.pdf.

²⁶ Available at http://www.gpo.gov/fdsvs/pkg/CFR-1998-title48-vol2/pdf/CFR-1998-title48-vol2-sec52-223-2.pdf.

²⁷ Available at http://www.gsa.gov/graphics/ogp/MotorVehBulletinFMRB-30.pdf.

²⁸ Available at http://www.gao.gov/products/GAO-14-594.

²⁹ Available via the Assistant Secretary of Defense for Energy, Installations, and Environment front office. (Letter to CEQ: http://www.denix.osd.mil/sustainability/upload/GHGs-FY25-CommitmentCEQ.pdf; Letter to OMB: http://www.denix.osd.mil/sustainability/upload/GHGs-FY25-CommitmentOMB.pdf)

³⁰ Available at http://www.denix.osd.mil/epcratri/upload/TRI-Policy-Memo.pdf

³¹ Available at

³² Available at

Public Law 109-58, "Energy Policy Act of 2005," August 8, 2005³³

Public Law 109–364, "John Warner National Defense Authorization Act for Fiscal Year 2007," October 17, 2006³⁴

Public Law 110-140, "Energy Independence and Security Act of 2007," January 4, 2007³⁵

Public Law 111–84, "National Defense Authorization Act for Fiscal Year 2010," October 28, 2009³⁶

Supply Chain GHG Emissions Interagency Working Group Guidance, forthcoming

Unified Facilities Criteria 1-200-02, "High Performance and Sustainable Building Requirements, Change 3," November 7, 2014³⁷

Unified Facilities Criteria 2-100-01, "Installation Master Planning," May 15, 2012³⁸

Unified Facilities Criteria 3-210-10, "Low Impact Development," July 1, 2015³⁹

Unified Facilities Criteria 3-410-01, "Heating, Ventilating, and Air Conditioning Systems," October 2015⁴⁰

United States Department of Agriculture guidance on biobased purchasing and compliance strategies, forthcoming

United States Postal Service, "Memorandum of Understanding between the United States Postal Service an" 1 August 2014⁴¹

White House Council on Environmental Quality, "Federal Greenhouse Gas Accounting and Reporting Guidance," June 4, 2012 and associated Technical Support Document⁴²

White House Council on Environmental Quality, "Implementing Instructions: Federal Agency Implementation of Water Efficiency and Management Provisions of EO 13514," July 10, 2013⁴³

 $\underline{https://www.whitehouse.gov/sites/default/files/omb/assets/egov_docs/cio_memo_fdcci_deliverables_van_roekel_3-\underline{19-12.pdf}.$

 $\underline{https://www.whitehouse.gov/sites/default/files/microsites/ceq/revised_federal_greenhouse_gas_accounting_and_rep_orting_guidance_060412.pdf$ and

https://www.whitehouse.gov/sites/default/files/federal greenhouse gas accounting and reporting guidance technical support document.pdf.

³³ Available at http://energy.gov/sites/prod/files/2013/10/f3/epact 2005.pdf.

³⁴ Available at http://www.gpo.gov/fdsys/pkg/PLAW-109publ364/pdf/PLAW-109publ364.pdf.

³⁵ Available at http://www.gpo.gov/fdsys/pkg/BILLS-110hr6enr/pdf/BILLS-110hr6enr.pdf.

³⁶ Available at http://www.gpo.gov/fdsys/pkg/PLAW-111publ84/pdf/PLAW-111publ84.pdf.

³⁷ Available at http://www.wbdg.org/ccb/DOD/UFC/ufc 1 200 02.pdf.

³⁸ Available at http://wbdg.org/ccb/DOD/UFC/ufc 2 100 01.pdf.

³⁹ Available at www.wbdg.org/ccb/DOD/UFC/ufc 3 210 10.pdf.

⁴⁰ Available at http://www.wbdg.org/ccb/DOD/UFC/ufc_3_410_01.pdf.

⁴¹ Available at http://www.denix.osd.mil/sustainability/upload/DoD-USPS-BlueEarth-MOU.pdf.

⁴² Available at

⁴³ Available at https://www.whitehouse.gov/sites/default/files/water implementing instructions.pdf.

White House Council on Environmental Quality, "Implementing Instructions for Executive Order 13693 - Planning for Federal Sustainability in the Next Decade," June 10, 2015⁴⁴

White House Council on Environmental Quality, "Implementing Instructions: Sustainable Locations for Federal Facilities," September 15, 2011⁴⁵

⁴⁴ Available at

https://www.whitehouse.gov/sites/default/files/docs/eo 13693 implementing instructions june 10 2015.pdf. 45 Available at https://www.whitehouse.gov/sites/default/files/microsites/ceq/implementing instructions -

sustainable locations for federal facilities 9152011.pdf.

Appendix B. List of Acronyms and Abbreviations

AEMR Annual Energy Management Report

AMC advanced market commitment

ASA(CW) Assistant Secretary of the Army (Civil Works)

ASA(IE&E) Assistant Secretary of the Army (Installations, Energy and Environment)
ASAF(I&E) Assistant Secretary of the Air Force (Installations, Environment and

Logistics)

ASD(EI&E) Assistant Secretary of Defense for Energy, Installations, and

Environment

ASD(L&MR) Assistant Secretary of Defense (Logistics & Material Readiness)

ASD(NII) Assistant Secretary of Defense for Networks and Information Integration ASN(E,I&E) Assistant Secretary of the Navy (Energy, Installations and Environment)

CAPE Cost Assessment and Program Evaluation

C&D construction and demolition

CEQ White House Council on Environmental Quality

CFR Code of Federal Regulations
CIO Chief Information Officer

CO₂ carbon dioxide

COR Contracting Officer's Representative

CSO Chief Sustainability Officer

CY calendar year D Director

DAU Defense Acquisition University
DLA Defense Logistics Agency

DLA(DS-E) Defense Logistics Agency Installation Support

DoD Department of Defense

DoDI Department of Defense Instruction

DOE Department of Energy

DPAP Defense Procurement and Acquisition Policy

DR Demand Response

DR&E Defense Research and Engineering

EO Executive Order

EISA Energy Independence and Security Act of 2007

EMS Environmental Management System EPA Environmental Protection Agency

EPAct Energy Policy Act of 2005

EPCRA Emergency Planning and Community Right to Know Act

ESPC Energy Savings Performance Contracts

FAR Federal Acquisition Regulation FAST Federal Automotive Statistical Tool

FEMP DOE's Federal Energy Management Program

FleetDASH Fleet Sustainability Dashboard

FMP Fleet Management Plan

FMR Federal Management Regulation

FY fiscal year GHG greenhouse gas ILA industrial, landscaping, and agricultural

INTERFUEL Interagency Committee on Alternative Fuels and Low Emission Vehicles

IP Industrial Policy

IQS Inventory Qualitative Statement

IT information technology

J-4 Joint Staff

MAP Multimodal Access Plan MILCON military construction

NDAA National Defense Authorization Act

NF₃ nitrogen trifluoride

OASD(EI&E) Office of the Assistant Secretary of Defense for Energy, Installations,

and Environment

ODASD(ESOH) Office of the Deputy Assistant Secretary of Defense for Environment,

Safety, and Occupational Health

ODASD(IE) Office of the Deputy Assistant Secretary of Defense for Installations

Energy

OGC(E&I) Deputy General Counsel (Environment and Installations)

OMB Office of Management and Budget OSD Office of the Secretary of Defense

OUSD(AT&L) Office of the Under Secretary of Defense for Acquisition, Technology

and Logistics

OUSD(AT&L)/ARA Office of the Under Secretary of Defense for Acquisition, Technology

and Logistics/Acquisition Resources and Analysis

PHV plug-in hybrid vehicle

PPCC Presidential Performance Contracting Challenge

REC renewable energy certificates
SAM System for Award Management

SAMM Sustainable Acquisition and Materials Management

SNAP Significant New Alternatives Policy SSC Senior Sustainability Council

SSPP Strategic Sustainability Performance Plan

TRI Toxics Release Inventory
TSD Technical Support Document

U.S. United States
U.S.C. United States Code

UESC Utility Energy Services Contracts

UFC Unified Facilities Criteria

USDA United States Department of Agriculture
USD(C) Under Secretary of Defense (Comptroller)
USD(P) Under Secretary of Defense for Policy

USD(P&R) Under Secretary of Defense for Personnel and Readiness

USPS United States Post Office

VAM Vehicle Allocation Methodology

ZEV Zero emissions vehicle