

# Implementing Instructions for Executive Order 13834 Efficient Federal Operations

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## I. Introduction

## A. <u>Purpose</u>

This document provides Federal executive departments and agencies (agencies) with instructions regarding implementation of Executive Order (E.O.) 13834, *Efficient Federal Operations*, including agency planning, reporting requirements, and accountability.

## B. <u>Authority</u>

These Implementing Instructions (Instructions) are issued under the authority of E.O. 13834, including Sections 3(a), 3(d) and 4(b). E.O. 13834 authorizes the Chairman of the Council on Environmental Quality (CEQ), in coordination with the Director of the Office of Management and Budget (OMB), to issue instructions for the implementation of E.O. 13834 and guidance to assist agencies in such implementation.<sup>1</sup>

CEQ may update or amend these Instructions or issue additional guidance, as appropriate and necessary. Agencies may issue supplementary internal instructions or guidance regarding implementation of E.O. 13834 consistent with these Instructions and other guidance documents issued by CEQ or OMB.

In this document, "must" and "shall" convey statutory or regulatory requirements, "instruct" conveys directives to implement E.O. 13834, and "should" or "may" convey recommended best practices for efficient and effective implementation. While this document identifies a number of requirements, directives, and best practices, these Instructions do not alter or revise obligations agencies may have with respect to any statutory, regulatory, or other requirements not cited herein or established after issuance of these instructions.

## C. Overarching Policy

E.O. 13834 sets forth energy and environmental performance goals, based on statutory requirements, for agencies with respect to management of facilities, vehicles, and operations. Section 1 of E.O. 13834 establishes the following policy priorities for agency implementation:

[A]gencies shall meet such statutory requirements in a manner that increases efficiency, optimizes performance, eliminates unnecessary use of resources, and protects the environment. In implementing this policy, each agency shall prioritize actions that reduce waste, cut costs, enhance the resilience of Federal infrastructure and operations, and enable more effective accomplishment of its mission.

## D. Governance, Oversight, and Organization

## **1. Steering Committee**

The Federal Interagency Sustainability Steering Committee (Steering Committee), referenced in Section 4(a) of the E.O., is chaired by the Federal Chief Sustainability Officer and composed of

<sup>&</sup>lt;sup>1</sup> This document is intended solely to improve the internal management of the Executive Branch. 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.

Agency Chief Sustainability Officers (CSOs). The Steering Committee advises the Chairman of CEQ and Director of OMB on effectiveness of E.O. 13834 goals, provides input on implementation, and shares information regarding implementation practices and accomplishments with senior managers across the Federal community.

## 2. Agency Chief Sustainability Officers

Section 7(a) of E.O. 13834 directs the head of each agency to designate an agency CSO to perform duties to implement E.O. 13834. Agency CSOs are accountable for:

- Internal oversight, direction, and leadership to comply with E.O. 13834 and achieve goals outlined in Section 2 of the E.O.;
- Ensuring that agency policies and programs reflect the requirements of E.O. 13834;
- Coordinating with senior agency leaders, such as the Chief Information Officer (CIO), Chief Financial Officer (CFO), and Chief Acquisition Officer (CAO), as necessary, for effective implementation;
- Monitoring agency performance and providing information and progress reports as required by CEQ and OMB; and
- Representing the agency on the Steering Committee.

## **3. Principal and Contributing Agencies**

Principal agencies include agencies subject to the Chief Financial Officers Act (Pub. L. No. 101-576) and the OMB scorecard process referenced in Section 5(b) of E.O. 13834. They include:

Department of Agriculture (USDA) Department of Commerce Department of Defense (DOD) Department of Energy (DOE) Department of Education Department of Homeland Security Department of Homeland Security Department of the Interior Department of Justice Department of Labor Department of State Department of State Department of Transportation Department of the Treasury Department of Veterans Affairs Environmental Protection Agency (EPA) General Services Administration (GSA) Department of Health and Human Services Department of Housing and Urban Development National Archives and Records Administration National Aeronautics and Space Administration Office of Personnel Management Smithsonian Institution Social Security Administration Tennessee Valley Authority U.S. Army Corps of Engineers (USACE)

Additionally, the U.S. Postal Service is subject to many of the statutory requirements covered by E.O. 13834. It receives an OMB scorecard, and functions like a principal agency.

All other executive agencies, including Federal Boards, Commissions, and Committees, are considered contributing agencies. These agencies generally have smaller operational footprints and may not manage facilities or vehicle fleets, and therefore have lesser reporting requirements than principal agencies.

## 4. Interagency Working Groups

Federal interagency working groups provide a forum for exchange, collaboration, resource sharing, and coordination. CEQ or OMB may request input from interagency working groups to inform policy, guidance, metrics, reporting, tools, and resources to improve implementation of E.O. 13834 and related sustainability practices and policies. See Appendix C for a list of standing interagency working groups. CEQ may also establish and disband additional working groups, as necessary.

## **II.** Reporting and Planning

## A. <u>Progress and Performance Metrics</u>

Section 3(a) of E.O. 13834 authorizes CEQ and OMB to develop and issue requirements and streamlined metrics to assess agency progress and performance in achieving E.O. goals. The metrics and performance measures outlined in Section III of these Instructions may be updated, as necessary, to promote effective implementation of E.O. 13834 goals. Pursuant to 42 U.S.C. § 17144 and E.O. 13834 Section 5(b), OMB will incorporate performance measures into the agency Scorecards for Efficient Federal Operations/Management (OMB Scorecard).

## B. Data Collection and Reporting

To streamline reporting and analysis, monitor progress, and measure performance, agencies' fiscal year data will be obtained by CEQ and OMB through established Federal reports and data collection systems, primarily including:

- <u>Annual Energy Management Data Report</u> (Annual Energy Report) energy, renewable energy, and water use; investments in facility efficiency; new building design compliance; metering; and greenhouse gas (GHG) emissions data. This report is submitted to DOE's Federal Energy Management Program (FEMP) annually.
- <u>Federal Automotive Statistical Tool</u> (FAST) vehicle acquisition, fuel use, and mileage data.
- <u>Federal Real Property Profile Management System</u> (FRPP-MS) sustainable buildings status.
- <u>Federal Procurement Data System Next Generation</u> (FPDS-NG)<sup>2</sup> procurement data, including sustainable acquisition.

Agencies' supporting data may also be obtained through OMB's Integrated Data Collection (IDC) system and DOE's Energy Independence and Security Act of 2007 (EISA) Section 432 <u>Compliance Tracking System</u> (CTS) for Federal building evaluations. CEQ and/or OMB may identify other data collection and reporting tools, or request supplemental data, as appropriate. For a summary of current reporting requirements, systems, and deadlines, see Appendix D.

Agencies should review, monitor, and utilize the data, analysis, and reports available through these systems, as well as any agency-specific data sources, to track performance, identify strategies for improvement, and report results in the annual Sustainability Report and Implementation Plan ("Sustainability Plan") as described below.

## C. Annual Sustainability Report and Implementation Plan

Pursuant to section 7(b) of E.O. 13834, agencies are required to report to the Chairman of CEQ and the Director of OMB regarding agency implementation and progress toward the goals of E.O. 13834 and relevant statutory requirements.

Pursuant to Section 2(h) and 7(b) of E.O. 13834, principal agencies are instructed to develop and submit an annual Sustainability Plan that summarizes actions implemented to meet the goals of E.O. 13834, progress results, cost savings, and the agency's strategies for continued progress and performance improvements. Agencies will also identify yearly progress milestones in their Sustainability Plans, as indicated in these Instructions, as well as factors that have a material

<sup>&</sup>lt;sup>2</sup> Agencies may use alternative contracting data systems to evaluate their acquisition performance, where appropriate. See section III.C.1: Acquisition.

impact on agency implementation and progress, such as mission requirements or other organizational changes.

Contributing agencies are encouraged to develop and submit an annual Sustainability Plan, and may choose to submit an abbreviated plan, at their discretion, addressing those elements specific to agency operations.

CEQ will issue annual instructions and a template for the Sustainability Plan, which will be due to CEQ and OMB by June 30 of each year, unless otherwise specified. After CEQ review and OMB approval, CEQ will make plans publicly available through <u>www.sustainability.gov</u>.

#### **Implementation Actions:**

- To facilitate efficient implementation, progress tracking, and performance measurement, CEQ and OMB will coordinate with FEMP and GSA on an ongoing basis to identify opportunities to 1) further streamline data collection, 2) improve reporting and data analysis, 3) use data to inform cost-effective implementation, and 4) quantify cost savings.
- FEMP, in coordination with other agencies, as appropriate, should identify or develop tools and methodologies to assist agencies in developing progress milestones and projections for facility energy, water, performance contracting, and sustainable building goals.
- Agencies that provide government-wide technical support and information for Federal energy and environmental performance, including FEMP, GSA, EPA, and USDA, should ensure that relevant materials, trainings, and web resources are reviewed and regularly updated, as appropriate, to provide current information with regard to Federal policies, priorities, guidance, and best management practices.

#### **III.** Sustainability Goals

This section provides clarifying instructions for the goals under Section 2 of E.O. 13834 and important cross-cutting topics and is organized as follows:

- A. Building Efficiency and Management
  - 1. Energy Reduction
  - 2. Renewable Energy
  - 3. Water Management
  - 4. Performance Contracting
  - 5. Sustainable Buildings
  - 6. Waste Management
  - 7. Building Evaluations, Benchmarking, and Energy Management
- B. Fleet Management
- C. Cross-Cutting Goals
  - 1. Acquisition
  - 2. Electronics Stewardship
  - 3. Data Center Management
  - 4. Greenhouse Gas Management and Reporting

Each subsection contains, where applicable:

#### Goal:

E.O. 13834 goal statement or relevant policy requirements.

#### **Progress Metrics:**

Each goal includes a summary of metrics for tracking, measuring, and reporting progress.

Metrics:	Unit(s) of measurement for tracking progress
Performance Measures:	Numerical targets and criteria used for evaluating performance on the annual OMB Scorecard. Agencies will be accountable for achieving established
	targets and demonstrating annual improvement.
Progress Milestones:	Where indicated, agencies will identify planned or projected progress in annual Sustainability Plans to promote planning, transparency, and accountability.

Metrics, performance measures, and reporting criteria may be updated or revised, as appropriate, for effective implementation. Note that the OMB Scorecard also tracks various data as indicators to assist in assessing implementation strategies, program management, cost effectiveness, and results. Indicator data will be drawn from existing reports to provide transparency and insight into agency operations, and are not used for scoring agency performance. Examples of indicators are included in each Tracking and Reporting subsection.

#### **Requirements and Priority Strategies:**

Requirements include relevant statutory mandates and OMB and CEQ directives for implementation. Priority strategies are recommended best management practices to improve performance, enhance efficiency, and reduce costs. Further guidance issued by CEQ, OMB, or under the authority of a specific agency (e.g., DOE, GSA, EPA, or USDA), containing

requirements or instructions relevant to the goal area may be included. In addition, this section may cite key resources that can assist agencies in implementing strategies to achieve the goal, including Federal programs, websites, technical materials, and tools.

Generally, the priority strategies included in this section represent high-level, best management practices to guide agency implementation. Agencies are not limited to the best practices described and should consult current technical resources provided by FEMP, GSA, EPA, and other agencies; consider a range of cost-effective activities, measures, and technologies; and continue effective management strategies, such as Environmental Management Systems (EMS), that facilitate implementation and progress toward E.O. goals.

As indicated in Section 1 of E.O. 13834, agencies should prioritize strategies that reduce waste, cut costs, enhance resilience, and enable more effective accomplishment of agency missions. Resilience generally can be defined as the ability to anticipate, prepare for, and adapt to changing conditions and withstand, respond to, and recover rapidly from disruptions. Section 101(e) of title 10, U.S. Code establishes a specific definition for *military installation resilience* and defines *energy resilience* as "the ability to avoid, prepare for, minimize, adapt to, and recover from anticipated and unanticipated energy disruptions in order to ensure energy availability and reliability sufficient to provide for mission assurance and readiness, including mission essential operations related to readiness, and to execute or rapidly reestablish mission essential requirements."

Several agencies, including DHS, DOD, USACE, and GSA, have developed strategies and tools to improve resilience of facilities and operations, and FEMP is currently developing a systematic, comprehensive approach to resilience portfolio planning to assist agencies in identifying mission risk and prioritizing projects. Agency resilience planning resources and case studies will be available on FEMP's webpage for <u>Portfolio Resilience Planning and Implementation.</u>

#### **Implementation Actions:**

This section lists specific actions or follow-up activities for E.O. 13834 implementation, such as revisions to guidance, development of technical resources, or interagency coordination.

Agencies are required to complete the specific actions or follow-up activities as assigned in this section.

To the extent that these Instructions are updated or amended, CEQ will revise these sections to reflect any completed actions.

## A. Building Efficiency and Management

#### **1. Energy Reduction**

**E.O. 13834 Section 2(a):** Achieve and maintain annual reductions in building energy use and implement energy efficiency measures that reduce costs.

#### **Progress Metrics:**

Metrics:	British thermal units (Btu) used per gross square foot (GSF) of Federal building space (Btu/GSF).
Performance	Achieved 30 percent reduction in Btu/GSF relative to fiscal year (FY) 2003
<b>Measures:</b>	and demonstrates annual progress for each fiscal year.
Progress	Agencies will identify targeted reduction for the next fiscal year in the annual
Milestones:	Sustainability Plans.

#### **Requirements and Priority Strategies:**

Section 431 of the Energy Independence and Security Act of 2007 (EISA), titled *Energy Reduction goals for Federal buildings*, directed agencies to reduce energy intensity—the energy consumed per GSF of Federal building space—annually to achieve a 30 percent reduction by FY 2015, compared to a FY 2003 baseline (42 U.S.C. § 8253(a)).<sup>3</sup> Performance toward the energy reduction goal will be measured on whether the agency has achieved a 30 percent reduction in energy intensity from FY 2003 and has demonstrated continued progress in reducing energy intensity in the reporting year.

As performance is assessed at the agency level, rather than at the individual building level, agencies should evaluate opportunities across their building portfolios to maximize return on investment by implementing no cost, low-cost, and life cycle cost-effective energy reduction strategies.

To achieve and maintain annual reductions in total energy use and costs and continued reductions in energy intensity, agency strategies should emphasize optimizing building energy performance and implementing cost-effective energy conservation measures (ECMs)<sup>4</sup> identified through on-going energy and water facility evaluations (as discussed in further detail in <u>Section III.A.7, Building Evaluations, Benchmarking, and Energy Management</u>). Agencies are also encouraged to participate in available utility incentive programs to increase energy efficiency as well as energy demand management programs as described in 42 U.S.C. § 8256(c). With respect to new buildings and major renovations, strategies must ensure compliance with energy-efficiency performance standards (42 U.S.C. § 6834(a)(3)(A)) and design standards for new and existing buildings (42 U.S.C. § 6834(a)(3)(D)(i)(III)).

**Credits toward Annual Progress Calculations:** In accordance with ongoing practice, agencies may receive credit toward annual progress using methodologies contained in FEMP's <u>Reporting</u>

<sup>&</sup>lt;sup>3</sup> In accordance with 42 U.S.C. § 8253(a)(2) and established guidance, agencies may exclude certain Federal facilities from the energy intensity reduction requirements. See <u>Energy Performance Requirements of Section 543</u> of the National Energy Conservation Policy Act as Amended by the Energy Policy Act of 2005.

<sup>&</sup>lt;sup>4</sup> Energy conservation measures are measures that are applied to a Federal building that improve energy efficiency and are life cycle cost-effective and that involve energy conservation, cogeneration facilities, renewable energy sources, improvements in operations and maintenance, or retrofit activities (42 U.S.C. § 8259(4)).

<u>Guidance for Federal Agency Annual Report on Energy Management</u>. Adjustments to energy intensity calculations will be accounted for separately in annual progress data, to transparently show progress from the base year with and without the adjustments.

- i. **Energy Intensity Improvements in Goal-Excluded Buildings:** Agencies will be credited for verified energy efficiency improvements at goal-excluded buildings, in accordance with FEMP's reporting guidance for the Annual Report on Energy Management.
- ii. **Source Energy Savings Projects that Increase Site-delivered Energy:** Agencies may receive a "site/source credit" for projects that save source energy but increase site-delivered energy (e.g., on-site combined heat and power (CHP) is an optional credit that may be applied in a reporting year).
- iii. **On-Site Renewable Energy:** Agencies may receive credit toward annual progress for energy from renewable energy systems installed on a Federal facility, provided that the agency retains the renewable energy certificates (RECs), buys replacement RECs, or can otherwise confirm ownership of the environmental attributes as described in Section III.A.2: Renewable Energy.
- iv. Normalization for Weather: FEMP has developed methodologies<sup>5</sup> to measure impacts of localized weather on energy intensity of buildings using benchmarking data reported to DOE's web-based EISA 432 <u>Compliance Tracking System</u>. If weather-adjusted Btu consumption for benchmarked buildings is lower than unadjusted consumption, agencies may request that the adjusted Btu be used to assess annual progress.

## **Tracking and Reporting:**

Agencies are instructed to report energy intensity performance through the Annual Energy Report and identify yearly improvement targets in their Sustainability Plans, in accordance with annual instructions.

To assist with effective program management, data points tracked as indicators currently include:

- Average energy cost (cost per site-delivered million Btu).
- Total Btu (billions) and cost (in dollars) of energy consumed.

## **Guidance and Resources:**

- FEMP's Federal Comprehensive Annual Energy Reporting Requirements and Guidance (42 U.S.C. § 8258).
- See related guidance referenced in <u>Building Evaluations</u>, <u>Benchmarking</u>, and <u>Energy</u> <u>Management</u>.
- FEMP's <u>Facility and Fleet Optimization</u> website provides resources and information on practices and technologies for energy efficiency.
- <u>GSA's Proving Ground (GPG)</u> evaluates benefits and performance of next generation building technologies for energy and water savings in Federal facilities.
- FEMP's EISA 432 Compliance Tracking System website.

<sup>&</sup>lt;sup>5</sup> Contained in FEMP's <u>Reporting Guidance for Federal Agency Annual Report on Energy Management.</u>

#### 2. Renewable Energy

**E.O. Section 2(b):** *Meet statutory requirements relating to the consumption of renewable energy and electricity.* 

#### **Progress Metrics:**

<b>Metrics:</b>	Percent of total electricity consumed from renewable sources.
Performance	At least 7.5 percent of total electricity consumption.
<b>Measures:</b>	
Progress	Agencies will identify target percentage consumption for the next fiscal year
Milestones:	in annual Sustainability Plans.

## **Requirements and Priority Strategies:**

Section 203 of the Energy Policy Act of 2005 (EPAct), titled *Federal purchase requirement*, directed the Federal Government to consume a minimum percentage of renewable electricity each fiscal year (42 U.S.C. § 15852). To meet this requirement, each agency shall consume at least 7.5 percent of its total electricity from renewable sources. Renewable electricity is defined as electric energy generated from solar, wind, biomass, landfill gas, ocean (including tidal, wave, current, and thermal), geothermal, municipal solid waste, or new hydroelectric generation capacity achieved from increased efficiency or additions of new capacity at an existing hydroelectric project.<sup>6</sup>

Non-electric or thermal renewable energy, including geothermal heat pumps, does not count toward the statutory renewable electricity requirement, but is currently tracked as an indicator.

Agencies may use all of the following options for meeting the renewable electricity requirement, and should prioritize renewable energy strategies that enable on-site generation, enhance energy resilience of Federal facilities, and reduce costs:

- 1. Installing on-site renewable electricity generation at a Federal facility;
- 2. Purchasing electricity from renewable sources (produced either on- or off-site) with associated renewable energy certificates (RECs);<sup>7</sup> and
- 3. Purchasing RECs.

**Credit for Energy Produced at Federal Facilities or Federal or Indian Land**<sup>8</sup>: In accordance 42 U.S.C. § 15852(c), agencies will receive "bonus" credit equivalent to doubling the amount of renewable electricity used or purchased if the energy is:

- 1. Produced and used on-site at a Federal facility;
- 2. Produced on Federal lands and used at a Federal facility; or
- 3. Produced on Indian land and used at a Federal facility.

<sup>&</sup>lt;sup>6</sup> As defined in 42 U.S.C. § 15852(b)(2). For hydroelectric, "new" means placed in service after 1/1/1999, consistent with the definition of new hydroelectric generation capacity in 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 (10 U.S.C. § 2911(e)).

<sup>&</sup>lt;sup>7</sup> A REC represents ownership of the environmental and other non-power attributes associated with generation of one megawatt-hour (MWh) of renewable electricity.

<sup>&</sup>lt;sup>8</sup> As defined in title XXVI of the Energy Policy Act (EPAct) of 1992 (25 U.S.C. § 3501 et seq.).

A renewable energy source that converts renewable fuels into useful electricity qualifies as long as the primary equipment converting the fuel to electricity is located on Federal or Indian lands, even if all or a portion of the fuel is delivered from non-Federal lands.

• **On-site Renewable Electricity:** To count on-site energy consumption toward the renewable electricity requirement, an agency must retain ownership of associated RECs.<sup>9</sup> In cases where RECs are sold, agencies should obtain replacement RECs, also referred to as a "REC swap," in order to claim consumption of the renewable energy in accordance with the guidelines for purchased RECs below.

If an agency directly consumes electricity from an on-site renewable energy source, but registration of RECs is not available or practical, the agency may count consumption toward the target if the agency retains records verifying system operations (for unmetered systems), energy production (metered systems), and ownership of the environmental attributes.

- **Purchase of Renewable Electricity:** Agencies have various options to purchase renewable electricity, including from a utility provider or through a power purchase agreement (PPA). Electricity produced by a renewable energy source placed into service within 15 years prior to the start of the reporting fiscal year may be counted toward the renewable electricity requirement. All purchases of renewable electricity must be substantiated through the exclusive ownership of RECs by the reporting agency, or through records demonstrating that RECs have been retired on behalf of the agency by the supplier.
- **Purchasing RECs:** As with renewable energy purchases, RECs from projects placed in service within 15 years can be counted toward the renewable electricity requirement.

## **Tracking Progress and Reporting:**

Agencies report renewable energy consumption through the Annual Energy Report and will identify a yearly consumption target in their Sustainability Plans, in accordance with annual instructions.

To assist with effective program management, data points tracked as indicators currently include:

• Percent of total energy (electric and thermal) from renewable sources.

## **Guidance and Resources:**

- FEMP provides up-to-date information on renewable energy project implementation and purchasing, including best practice documents, templates, and tools, such as the:
  - <u>Guide to Integrating Renewable Energy in Federal Construction;</u>
  - Large-Scale Federal Renewable Energy Projects Guide;
  - Procuring Solar Energy: A Guide for Federal Facility Decision Makers;
  - <u>Energy Savings Performance Contract Energy Sales Agreements</u> website; and the
  - <u>REopt platform</u>, a decision support model to optimize energy systems for buildings, campuses, communities, and microgrids.

<sup>&</sup>lt;sup>9</sup> Agency retained RECs from renewable electricity generated on Federal or Indian land are exempted from the placed in service requirement.

- EPA's Green Power Partnership website.
- GSA, the Defense Logistics Agency (DLA), and DOE's Western Area Power Administration (WAPA) purchase renewable electricity and RECs on behalf of agencies. Agencies may also consult with FEMP regarding technical support and procurement options for on-site projects.

#### **Implementation Actions:**

• Within 180 days of these Instructions, FEMP, in consultation with CEQ and OMB, will issue a renewable energy resource guide, to include best practices and technical clarifications for meeting the renewable electricity requirement, in accordance with Energy Policy Act of 2005 (EPAct) (42 U.S.C. § 15852(a)) and E.O. 13834.

#### 3. Water Management

**E.O 13834 Section 2(c):** *Reduce potable and non-potable water consumption, and comply with stormwater management requirements.* 

#### **Progress Metrics:**

Metrics:	Potable water intensity, measured in gallons per GSF of Federal building
	space.
Performance	Achieved 20 percent reduction relative to FY 2007 and demonstrates annual
<b>Measures:</b>	progress for each fiscal year.
Progress	Agencies will identify targeted reduction for the next fiscal year in annual
Milestones:	Sustainability Plans.

#### **Requirements and Priority Strategies:**

**Reducing potable and non-potable water consumption:** Performance toward the water management goal will be assessed based on potable water intensity; however, agencies should implement a comprehensive water management strategy that prioritizes reducing potable and non-potable consumption from freshwater (groundwater and surface water) sources, eliminating unnecessary use, and increasing water use efficiency for Federal facility operations.<sup>10</sup> In addition, agencies should identify and implement measures to replace use of freshwater with alternative water<sup>11</sup> where feasible and consistent with State and local laws.

As performance is measured at the agency level, rather than at the individual building level, agencies should evaluate opportunities across their portfolios and implement no cost, low cost, and life cycle cost-effective measures to maximize return on investment. Metering (in accordance with Federal building <u>metering guidance</u>) and completing a water balance analysis<sup>12</sup> can both assist agencies in optimizing water management at the building, facility, or campus level. Agencies should also track use of non-potable freshwater and alternative water as part of an overall water management strategy to reduce consumption and costs.

To achieve and maintain annual reductions in total water use and costs and to continue reductions in potable water intensity, agency strategies should emphasize optimizing building water performance by implementing cost-effective water savings measures identified through on-going energy and water facility evaluations (as discussed in further detail in <u>Section III.A.7</u>, <u>Building Evaluations</u>, <u>Benchmarking</u>, and <u>Energy Management</u>).

<sup>&</sup>lt;sup>10</sup> E.O. 13834 does not affect water transfers, water rights, or water deliveries in response to official negotiated agreements; water used for wildland firefighting; or contracts to supply water for authorized uses from Federal projects.

<sup>&</sup>lt;sup>11</sup> Alternative water is water from non-freshwater sources, such as on-site harvested rainwater and stormwater, harvested sump pump/foundation water, gray water, air-cooling condensate, reject water from water purification systems, reclaimed wastewater, or water derived from other water reuse strategies.

 $<sup>^{12}</sup>$  A water balance analysis identifies the proportion of water consumption for specific end uses, compares total water supplied against the water consumed for each specific end use, and nets out total water loss (leaks) in a particular building, facility, or campus.

*Calculating potable water gallons/GSF* - Generally, buildings and associated GSF should be the same as that reported for both energy goal subject buildings and goal excluded facilities under 42 U.S.C. § 8253(a).

Agencies may take the following exclusions and adjustments when reporting water use data, consistent with methodologies provided in the annual reporting instructions issued by FEMP:

- Where potable freshwater is displaced with alternative water: Agencies may deduct alternative water gallons from total potable water consumption.
- **Non-water using facilities:** If a significant portion of an agency's building portfolio does not have potable water service (e.g., facilities that use energy, but are unoccupied),<sup>13</sup> the corresponding GSF may be deducted.
- Other exclusions: Consistent with reporting under previous guidance, agencies may exclude water use and/or GSF for central utility plants; certain leased spaces where the agency does not pay for water utilities; and buildings where energy use is skewed because the building is undergoing disposal or major renovations.

**Stormwater Management:** Agencies must meet statutory requirements related to stormwater management. Stormwater is water generated from rain and snowmelt events that flow over land or impervious surfaces, such as paved streets, parking lots, and building rooftops, and does not soak into the ground. Section 438 of EISA (42 U.S.C. § 17094) establishes 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 predevelopment hydrology.

## **Tracking and Reporting:**

Agencies are instructed to report potable water consumption data through the Annual Energy Report and identify yearly improvement targets in their Sustainability Plans, in accordance with annual instructions.

To assist with effective program management, data points tracked as indicators currently include:

- Average water cost (measured per thousand gallons).
- Total gallons (in thousands) and total cost (in dollars) of potable water consumed.

## **Guidance and Resources:**

- EPA's <u>Technical Guidance on Implementing the Stormwater Runoff Requirements for</u> <u>Federal Projects under Section 438 of the Energy Independence and Security Act.</u>
- FEMP's <u>Water Efficiency in Federal Buildings and Campuses</u> website provides resources on water conservation strategies, practices, training, and tools.
- EPA's <u>WaterSense</u> website provides list of certified water-efficient products, information, and water conservation strategies.
- EPA provides <u>resources</u> on use of natural infrastructure to address stormwater runoff.
- GSA provides <u>resources</u> and <u>best practices</u> for green roofs on Federal facilities.
- FEMP's Federal Building Metering Guidance (per 42 U.S.C. § 8253(e)).

<sup>&</sup>lt;sup>13</sup> An <u>unoccupied building</u> is considered a building occupied one hour or less per person per day on average.

#### **Implementation Actions:**

• Within 180 days of these Instructions, FEMP will consolidate previously issued guidance and technical materials into an integrated web resource, and issue a plan on developing an updated Federal water management resource guide that provides direction on how to design and optimize water use at Federal facilities, track and report water use, expand use of alternative water, use water balance methodologies, and implement water conservation measures that promote energy efficiency in accordance with 42 U.S.C. § 6834(a)(3).

## 4. Performance Contracting

**E.O. 13834 Section 2(d)**: *Utilize performance contracting to achieve energy, water, building modernization, and infrastructure goals.* 

#### **Progress Metrics:**

Metrics:	Investment value <sup>14</sup> of performance contracts awarded in dollars; and Number of contracts awarded.
Performance Measures:	Performance contracts awarded in the fiscal year.
Progress Milestones:	Agencies will identify planned investment in dollars and planned number of projects/contract awards for the next two fiscal years in annual sustainability plans.

## **Requirements and Priority Strategies:**

Performance contracts are public-private partnerships between an agency and either an energy services company (ESCO) or a utility to implement energy and water efficiency improvements in Federal facilities as authorized under 10 U.S.C. §§ 2866 and 2913, 42 U.S.C. § 8256(c), and 42 U.S.C. § 8287 *et seq*. Energy savings performance contracts (ESPCs) and utility energy service contracts (UESCs) can be cost-effective tools to increase facility efficiency, improve operations, and enhance resilience while also addressing needed capital improvements and maintenance backlogs.

Agencies should assess performance contracting opportunities as part of comprehensive facility portfolio planning. When evaluating projects, agencies should evaluate all identified energy and water conservation measures, including all energy related cost savings and any potential benefits from other ancillary savings, leverage performance contracts in combination with direct appropriations funding, and, where possible, bundle projects of varying paybacks into a combined project that is life cycle cost-effective to maximize efficiency and economic benefits.

#### **Federal Performance Contracting Vehicles:**

- Energy Savings Performance Contract (ESPC): A partnership with an ESCO for a term of up to 25 years. FEMP and the U.S. Army Corps of Engineers (USACE) provide streamlined turnkey procurement assistance for agencies with technical support throughout the life of the contract.
- **ESPC ENABLE**: A FEMP program on GSA's Schedule 84 that provides a turnkey, streamlined contracting process to implement small scale projects with a limited scope in six months or less, focusing on highly cost-effective ECMs such as lighting, water, heating, ventilation and air conditioning (HVAC) replacement or controls, solar photovoltaics (PV), and water conservation measures.
- Utility Energy Service Contract (UESC): A limited-source contract between a Federal agency and a serving utility for energy management services, including energy and water efficiency improvements and demand-reduction services.

<sup>&</sup>lt;sup>14</sup> Includes the cost of the equipment, labor for installation, and other direct project costs associated with the performance contract, but not the cost of financing.

## **Tracking and Reporting:**

Agencies are instructed to report performance contract data through the Annual Energy Report, and identify yearly planned investment and number of contract awards in their Sustainability Plans, in accordance with annual instructions.

Projects awarded using DOE's indefinite delivery, indefinite quantity (IDIQ) ESPC contract provide automated data collection and verification through <u>e-Project Builder</u>, a cyber-secure, web-based data management system maintained by the Lawrence Berkley National Laboratory (LBNL). Agencies should use e-Project Builder to improve tracking and accuracy of data for projects implemented through any ESPCs, UESCs, or funded through direct obligations. Data collected through e-Project Builder may be transmitted to FEMP to facilitate streamlined tracking of project savings and annual reporting.

To assist with effective program management, data points tracked as indicators currently include:

- Total dollar value of ECMs identified for potential investment in DOE's EISA 432 <u>Compliance Tracking System</u>.
- Number of performance contracts awarded in the reporting year.
- Agency direct investment for the reporting year.
- Annual energy saved (Btus) per \$1 of direct investment.

## **Guidance and Resources:**

- Federal Energy and Water Efficiency Project Financing
- Procuring Energy Management Services with the GSA Areawide Contract
- <u>Resources for Implementing Federal Energy Savings Performance Contracts</u>
- <u>Utility Energy Service Contracts for Federal Agencies</u>
- <u>Methods and Procedures for Energy Savings Performance Contracting</u> (10 CFR part 436, subpart B)

## **Implementation Actions:**

- Within 180 days of these Instructions, FEMP will develop a plan to update its ESPC guidance. In the interim, FEMP will provide clarifications on application and scope of available energy and water conservation measures, and options for combining performance contracting with other funding sources.
- FEMP will issue updated guidance for use of <u>e-Project Builder</u> for ESPCs, UESCs, and appropriated projects in order to streamline, automate, and improve data collection and tracking for investments and project performance.

## 5. Sustainable Buildings

**E.O. Section 2(e):** Ensure that new construction and major renovations conform to applicable building energy efficiency requirements and sustainable design principles; consider building efficiency when renewing or entering into leases; implement space utilization and optimization practices; and annually assess and report on building conformance to sustainability metrics.

## **Progress Metrics:**

	Percentage of buildings qualifying as sustainable buildings; and
<b>Metrics:</b>	Percentage of GSF qualifying as sustainable.
	For owned buildings $\geq$ 10,000 GSF.
Performance	At least 15 percent of buildings or GSF qualifying as sustainable; and
<b>Measures:</b>	Annual progress (either buildings or GSF).
Progress	Agencies will identify targeted percentage for the next fiscal year in annual
Milestones:	Sustainability Plans.

## **Requirements and Priority Strategies:**

There are a range of statutory requirements and references related to sustainable building design, construction, and operation. For E.O. 13834 implementation, a sustainable Federal building has the same meaning as a high-performance green building (42 U.S.C. § 17061(13)), which, when compared to similar buildings, reduces energy, water, and material use; improves occupant health and productivity; minimizes air and water pollution and waste generation; acquires sustainable products and services; increases reuse and recycling activities; and is located near multiple transportation modes.

Agencies may qualify sustainable buildings, including existing buildings, new construction, and major renovations, using one of the following:

- 1. The <u>Guiding Principles for Sustainable Federal Buildings and Associated Instructions</u> (*Guiding Principles*), developed in 2008 and updated in 2016; or
- 2. Third-party building certifications systems or standards identified by GSA's Office of High Performance Buildings.

Agencies that choose to use a third-party building certification system to certify *a new building or an existing building undergoing major renovation* must choose a system that meets criteria identified by DOE at 10 CFR part 433, subpart C and 10 CFR part 435, subpart C. For new construction and major renovations, agencies are required to meet energy efficiency and sustainable design standards established by DOE at 10 CFR part 433 and 10 CFR part 435.

**Threshold for calculating sustainable building progress:** Beginning in FY 2019, the calculation for percentage of sustainable buildings will be based on owned buildings of 10,000 GSF or greater. Any building qualified prior to FY 2019, regardless of size, will be "grandfathered" and included in annual calculations (added to both the numerator and denominator), provided that the building continues to meet any requirements for requalification.

Newly qualified buildings smaller than 10,000 GSF are eligible for bonus credit *toward the annual GSF progress calculation* only. GSF will be added to both the numerator and denominator.

**Leasing**: Agencies are required to lease space in ENERGY STAR qualified buildings unless excepted in accordance with 42 U.S.C. § 17091:

- No space is available in a building described in subsection (a) that meets the functional requirements<sup>15</sup> of an agency, including locational needs;
- The agency proposes to remain in a building that the agency has occupied previously;
- The agency proposes to lease a building of historical, architectural, or cultural significance (as defined in 40 U.S.C. § 3306(a)(4)) or space in such a building; or
- The lease is for not more than 10,000 gross square feet of space.

Agencies should also consider options to lease space in buildings that qualify as sustainable where cost effective and in accordance with the aforementioned parameters. Agencies may choose to track and report sustainability of leased space; however, these buildings will be tracked separately and will not count toward progress on sustainable building goals.

**Space Utilization and Optimization:** Agencies should optimize space usage to avoid unnecessary real property expenditures. Activities should be consistent with the <u>National</u> <u>Strategy for the Efficient Use of Real Property</u>, which aims to improve the utilization of Federal Government-owned buildings and improve the cost effectiveness and efficiency of the government-wide portfolio.

## **Tracking and Reporting:**

Agencies are to report annually on sustainable Federal building status in GSA's real property database and the <u>Federal Real Property Profile Management System (FRPP MS</u>), pursuant to 40 U.S.C. § 524.<sup>16</sup> Detailed instructions are issued annually by GSA in the FRPP MS Data Dictionary.

To assist with effective program management, data points tracked as indicators currently include:

- Number of sustainable buildings.
- Percentage of leased space, as identified in FRPP MS<sup>17</sup>, in sustainable buildings (if reported by the agency).

## **Guidance and Resources:**

- <u>Guiding Principles for Sustainable Federal Buildings and Associated Instructions</u>
- <u>GSA's Office of High-Performance Buildings</u> develops policy and guidance on high performance buildings, focusing on innovative strategies that reduce costs, enable agency missions, enhance human health and performance, and minimize environmental impacts.
- GSA's <u>Sustainable Facilities Tool.</u>
- FEMP's <u>Guiding Principles for Sustainable Federal Buildings</u> website provides access to training, tools, implementation resources, and technical support for agencies to implement sustainable design.

<sup>&</sup>lt;sup>15</sup> Cost competitiveness is a functional requirement.

<sup>&</sup>lt;sup>16</sup> Instructions for reporting building sustainability status and metrics are provided through GSA's annual Guidance for Real Property Inventory Reporting and the FRPP MS Data Dictionary, available on <u>GSA's Federal Real Property</u> <u>Profile Guidance Library website</u>.

<sup>&</sup>lt;sup>17</sup> Leased space is reported in FRPP MS as RSF or USF

- <u>ENERGY STAR Portfolio Manager</u> can be used to track building compliance with the *Guiding Principles*.
- Net-Zero Building Design: Net-zero energy, water, or waste strategies can drive innovation in building design and advance overall energy, water, and waste reduction goals. See FEMP's <u>Net Zero Energy, Water, and Waste for Federal Buildings</u> <u>Handbooks</u> for more information.
- The <u>Secretary of the Interior's Standards for Rehabilitation</u> and <u>Illustrated Guidelines on</u> <u>Sustainability for Rehabilitating Historic Buildings</u> provide guidance on improving sustainability for historic buildings in a manner that preserves their historic character.

## **Implementation Actions:**

- Within 180 days of these Instructions, GSA will review and, where appropriate, issue updated standards and practices to promote Federal sustainable buildings in accordance with 42 U.S.C. § 17092(c). GSA should: 1) identify appropriate standards and practices for new construction, modernization, and existing buildings; 2) recommend appropriate third-party certifications and standards for qualifying Federal sustainable buildings; 3) provide guidelines for periodic recertification/qualification; and 4) identify appropriate data collection element(s) to support streamlined reporting of sustainable building attributes in FRPP-MS.
- Pursuant to 42 U.S.C. § 6834, and to ensure a comprehensive and consistent approach to Federal sustainable buildings, DOE will establish energy efficiency and sustainable design criteria for construction of new Federal buildings.
- FEMP and GSA should coordinate in developing information, trainings, and technical resources to assist agencies in design, implementation, and tracking of sustainable buildings, with an emphasis on facilitating effective implementation of new standards, practices, or requirements developed pursuant to these Instructions.

### 6. Waste Management

**E.O. 13834 Section 2(f):** Implement waste prevention and recycling measures and comply with all Federal requirements with regard to solid, hazardous, and toxic waste management and disposal.

#### **Progress Metrics:**

Metrics:	Tons of non-hazardous solid waste <sup>18</sup> generated; and Percentage of non-hazardous solid waste sent to treatment and disposal facilities.
Progress Milestones:	Agencies will identify target for percentage reduction in non-hazardous solid waste and percentage reduction sent to treatment and disposal facilities in annual Sustainability Plans.

## **Requirements and Priority Strategies**

**Non-Hazardous Solid Waste:** Pursuant to 42 U.S.C. § 6961, agencies must comply with Federal as well as State, interstate, and local requirements for management and disposal of non-hazardous solid waste and hazardous waste. Agencies should pursue cost-effective waste prevention by first reducing overall waste generated, while also pursuing strategies that reduce disposal fees and minimize environmental impacts by diverting waste from treatment and disposal facilities, including landfill and incineration without energy recovery. Agencies should ensure that waste management service contracts have provisions for waste minimization and diversion in accordance with these Instructions, and that vendors report disposition to the agency, where feasible, to facilitate tracking of progress and compliance.

EPA's <u>Waste Management Hierarchy</u> prioritizes waste management approaches, from most to least environmentally preferred, as follows:

- 1. Source reduction and reuse;
- 2. Recycling and composting;
- 3. Energy recovery (e.g., waste-to-energy incinerators); and
- 4. Treatment and disposal.

## Special categories of solid waste:

- 1. *Construction and Demolition (C&D) waste and debris:* Agencies should track disposition of C&D waste separately from their non-hazardous solid waste streams and, where feasible and where data is available, may report on volume and disposition of C&D waste in annual Sustainability Plans.
- 2. *Food waste:* EPA has established best practices for reducing food loss and waste, available at its site for <u>Sustainable Management of Food.</u>
- 3. *Electronics:* GSA has established specific procedures for disposal of Federal electronic assets in <u>GSA FMR Bulletin B-34</u>. See Section III.C.2: Electronics Stewardship.

**Hazardous Waste:** Agencies are instructed to comply with the provisions set forth in sections 301 through 313 of the Emergency Planning and Community Right-to-Know Act (EPCRA), as

<sup>&</sup>lt;sup>18</sup> Solid waste, as defined in 42 U.S.C. § 6903. For the purpose of tracking progress under this section, Construction and Demolition (C&D) waste and debris is excluded.

amended, in light of applicable EPA guidance, and without regard to the Standard Industrial Classification (SIC) or North American Industrial Classification System (NAICS) delineations. Each agency reporting under EPCRA section 313 is instructed to do so using Internet reporting as provided in EPA's <u>EPCRA section 313 guidance</u>. The Internet reporting includes elements from the Pollution Prevention Act of 1990 Section 6607 (42 U.S.C. § 13106).

*Contractor Reporting:* In addition, each agency is instructed to require their contractors to provide the information needed by the Federal facility to comply with EPCRA.

Further information can be found on EPA's <u>Emergency Planning and Community Right-to-Know Act (EPCRA)</u> and <u>Toxics Release Inventory (TRI) Program</u> websites.

## **Tracking and Reporting:**

To assess progress on waste management under this goal, agencies are instructed to track disposition of non-hazardous solid waste, not including C&D waste and debris, and report waste generated and percentage going to treatment and disposal facilities (e.g., landfills or incinerators without energy recovery) in annual Sustainability Plans. For consistency with other tracking and reporting categories,<sup>19</sup> agencies should include waste from buildings 10,000 GSF or greater, where the agency is directly responsible for waste disposal services for the building (e.g., through a waste management service contract), but may include waste from smaller facilities at their discretion. Agencies are encouraged to consult EPA resources cited below for information on estimating waste quantities, if actual data is not available.

#### **Guidance and Resources:**

The EPA <u>Federal Green Challenge</u> (FGC) program's waste management resources provide information and best practices for Federal waste management as well as online tools to track waste disposal, diversion, and reduction and quantify savings. Agencies can use FGC tools to standardize waste tracking at the facility, campus, or agency level. Further information can be found at:

- <u>Resource Conservation and Recovery Act (RCRA) Resources;</u>
- <u>Pollution Prevention Resources;</u>
- <u>Sustainable Facilities Tool: Solid Waste Management;</u> and
- <u>Sustainable Materials Management Resources</u>.

#### **Implementation Actions:**

- EPA will update the FGC waste management resources to include recommended methodologies for Federal agencies to measure or estimate waste. The FGC site will also provide best practices for working with waste haulers to quantify waste, and include waste tracking in standard contracts.
- The Federal Sustainable Acquisition and Materials Management (SAMM) working group should coordinate with EPA's Office of Resource Conservation and Recovery (ORCR) to identify opportunities to further promote interagency coordination on waste minimization.

<sup>&</sup>lt;sup>19</sup> Waste diversion is a criterion for determining sustainable Federal building status.

#### 7. Building Evaluations, Benchmarking, and Energy Management

Agencies are subject to a range of statutory requirements with respect to energy and water conservation and cost-effective investments to ensure efficient management of facilities.

• Facility Evaluations: Section 432 of EISA 2007 (42 U.S.C. § 8253(f)) requires agencies to identify facilities that constitute at least 75 percent of their total facility energy use as subject to the requirements of the statute ("covered facilities"), and perform comprehensive evaluations at those facilities every four years to identify potential energy and water efficiency and conservation measures.

Agencies must meet the requirements for facility evaluations. Agencies should develop a portfolio-level plan to prioritize evaluations and efficiency investments, with consideration of energy and water use and costs, improving resilience of operations, and mission critical needs. Agencies should prioritize the implementation of energy- or water-saving measures on facilities that house energy- and water-intensive activities, such as laboratories, data centers, health care facilities, and food service and refrigeration facilities.<sup>20</sup>

Use of remote energy auditing technology is encouraged as a cost effective option to identify potential efficiency improvements in facilities that have existing advanced metering infrastructure and building energy monitoring and control equipment. Agencies are also encouraged to conduct energy and water audits in non-covered facilities, where appropriate, to identify opportunities for energy, water, and cost savings.

- **Metering:** Section 543 of the National Energy Conservation Policy Act (NECPA) (42 U.S.C. § 8253(e)) requires agencies to install energy (electricity, natural gas, and steam) meters and, to the maximum extent practicable, install advanced meters or advanced metering devices in Federal buildings. Agencies should install water meters in Federal buildings, where appropriate, and in accordance with FEMP metering guidance.
- **Benchmarking:** Per 42 U.S.C. § 8253(f)(8), agencies are required to benchmark metered buildings or facilities that are, or are part of, covered facilities. EPA's <u>ENERGY STAR</u> <u>Portfolio Manager</u> may be used to benchmark facilities.
- Energy Management Personnel and Training: Per 42 U.S.C. § 8253(f)(2), agencies must designate an energy manager to be responsible for implementing relevant requirements at each covered facility. In addition, all Federal agencies must maintain a program to ensure that facility energy managers are trained energy managers (42 U.S.C. § 8262c(c)). Under the requirements of the Federal Buildings Personnel Training Act (FBPTA), Pub. L. No. 111-308, GSA has identified core competencies for buildings personnel to optimize facility operations, including energy and water management (see GSA's Facility Management Institute).

Agencies are encouraged to take advantage of training programs identified by GSA and FEMP, such as the annual DOE Energy Exchange, to access facility-related training that aligns with Federal requirements.

<sup>&</sup>lt;sup>20</sup> U.S. Energy Information Administration, Commercial Buildings Energy Consumption Survey (CBECS), <u>Building</u> <u>Type Definitions</u>.

## **Tracking and Reporting:**

Agencies must report on building evaluations and energy conservation measures in DOE's EISA 432 <u>Compliance Tracking System</u>.

#### **Guidance and Resources:**

Pursuant to NECPA Sections 543 (42 U.S.C. § 8253(e)) and 548(a) (42 U.S.C. § 8258(a)), and EISA Section 432 (42 U.S.C. § 8253(f)(6)), as amended, FEMP has established guidance for implementation of these requirements. FEMP will update its guidance, as relevant and appropriate, to ensure alignment with E.O. 13834 goals and objectives.

- FEMP's <u>EISA Federal Facility Management and Benchmarking Reporting Requirements</u> <u>and Guidance</u> (per 42 U.S.C. § 8253(f));
- FEMP's Federal Building Metering Guidance (per 42 U.S.C. § 8253(e));
- EISA 2007 Section 432 Federal Covered Facility Management and Benchmarking Data;
- FEMP's Facility and Fleet Optimization website provides resources and information on practices and technologies for energy efficiency; and
- EPA's ENERGY STAR Portfolio Manager.

## **Implementation Actions:**

- Within one year of the issuance of these Instructions, FEMP will develop a plan to revise its resources on facility evaluations and identify best practices for portfolio-level facility planning.
- Within one year of the issuance of these Instructions, FEMP will issue an update to its Metering Guidance to ensure alignment with E.O. 13834 goals and objectives.

## B. <u>Fleet Management</u>

In accordance with E.O. 13834 Section 1, agencies are instructed to meet statutory requirements related to energy and environmental performance of vehicles in a manner that increases efficiency, optimizes performance, and reduces waste and costs.

#### **Progress Metrics:**

Metrics:	Reduction in petroleum consumption; and
	Increase in alternative fuel consumption.
Performance	Achieved 20 percent petroleum reduction relative to FY 2005 and demonstrate
Measures:	annual progress each fiscal year.
Progress	Agencies will identify targets for petroleum reduction and alternative fuel
Milestones:	increase for the next fiscal year in annual Sustainability Plans.

## **Requirements and Priority Strategies:**

Agencies are required to meet a range of statutory requirements related to fleet management, summarized below. As part of a comprehensive strategy to comply with statutory mandates while improving overall fleet efficiency, reducing costs, and meeting mission requirements, agencies should identify and implement strategies to:

- 1. Right-size the fleet;
- 2. Reduce vehicle miles traveled;
- 3. Replace inefficient vehicles with more fuel efficient vehicles; and
- 4. Align deployment of alternative fuel vehicles with fueling infrastructure.

## Vehicle Acquisition:

- Acquisition of alternative fuel vehicles (AFVs): At least 75 percent of light-duty vehicle (LDV) acquisitions by covered Federal fleets located in metropolitan statistical areas<sup>21</sup> must be AFVs, which include flex-fuel, electric, plug-in hybrid electric, compressed natural gas, low GHG-emitting, liquefied petroleum gas, liquefied natural gas, and fuel-cell vehicles (42 U.S.C. § 13212).
- Acquisition of low greenhouse gas (GHG) emitting vehicles: All light-duty vehicles and medium-duty passenger vehicles acquired by agencies must be low GHG-emitting vehicles unless they qualify for a functional needs exemption or the agency reduces emissions through alternative measures (42 U.S.C. § 13212(f)).

#### Fuel:

- *Reduce petroleum consumption and increase alternative fuel use:* Agencies must reduce annual petroleum consumption by 20 percent by 2015 and increase alternative fuel use by 10 percent annually, relative to a FY 2005 baseline (42 U.S.C. § 6374e(a)(2)).
- *Use alternative fuel in dual-fueled AFVs:* All Federal fleet dual-fueled AFVs must use alternative fuel only, unless granted a waiver by DOE (referred to as "Section 701" waiver under EPAct 2005) (42 U.S.C. § 6374(a)(3)(E)).
- *Alternative fuel infrastructure:* Every Federal fueling center without renewable fuel availability must install a renewable fuel pump (42 U.S.C. § 17053).

<sup>&</sup>lt;sup>21</sup> As defined in 42 U.S.C. § 13212.

#### **Operation and Management:**

- *Vehicle allocation methodology (VAM):* Agencies are required to conduct a study of all their fleet vehicles (vehicle allocation methodology or VAM) at least once every five years to identify opportunities to eliminate unnecessary vehicles, right-size vehicles for their mission, and deploy AFVs effectively (<u>GSA FMR Bulletin B-43</u>). Agencies are encouraged to conduct a VAM study more frequently if the agency's mission or resource requirements change.
- *Vehicle Classifications:* Agencies should ensure that their law enforcement (LE) and emergency vehicles are the smallest, most fuel efficient, and least GHG-emitting vehicles necessary to execute mission requirements (<u>GSA FMR Bulletin B-33</u>).

To measure performance on efficient fleet management, agency progress will be assessed based on the statutory requirement for petroleum reduction. Data points to be tracked to inform effective management currently include percentage increase in alternative fuel, alternative fuel as a percentage of total covered fuel consumption, compliance with statutory minimums for alternative fuel vehicle acquisitions, and annual progress on fleet-wide miles per gasoline gallon equivalent (GGE) of petroleum fuels.<sup>22</sup> Data for these indicators are obtained through FAST and require no additional reporting.

Fleet-wide miles per GGE of petroleum fuels considers progress and compliance with key fleet management drivers, including petroleum reduction, alternative fuel use, acquisitions of AFVs and low GHG-emitting vehicles, installation of alternative fuel infrastructure, and effective implementation of Federal motor vehicle management policies contained in the Federal Management Regulation.<sup>23</sup>

**Use of Federal Fleet Management Information Systems** (<u>GSA FMR Bulletin B-15</u>): Agencies are required to use a fleet management information system (FMIS) (40 U.S.C. §§ 17502 and 17503), which provides agencies the ability to identify, collect, and analyze motor vehicle data and capture all costs incurred during the motor vehicle life cycle. FMIS also facilitates asset-level data (ALD) management and serves as a critical tool for controlling costs, establishing utilization criteria, and ensuring effective fleet resource management.

Agencies should ensure all ALD collected through the agency FMIS is accurate and complete. Agencies that do not have an existing, compliant agency FMIS or motor pool management tool should use tools developed by GSA.<sup>24</sup>

**Telematics:** To the maximum extent practicable, and where life cycle cost-effective, agencies should adopt technology-based hardware tools to collect and record vehicle operational data. Agencies should use telematics to promote efficient driving, automate reporting to FMIS, assist in mandatory FAST reporting, and factor geolocation data into their vehicle allocation methodology (VAM) processes. Adoption of telematics will increase savings by providing information to reduce fleet size, fuel use, misuse of vehicles, and unnecessary or insufficient maintenance.

<sup>&</sup>lt;sup>22</sup> Includes the percentage of diesel used in B20 or any renewable diesel blends.

<sup>&</sup>lt;sup>23</sup> See GSA's FMR <u>Motor Vehicle Management Advisory Bulletins</u>.

<sup>&</sup>lt;sup>24</sup> See GSA's <u>Federal Fleet Management System</u> (FedFMS) website.

## **Tracking and Reporting:**

Agencies will annually report vehicle and fleet data through FAST and will identify yearly targets for progress on petroleum reduction and alternative fuel use in their Sustainability Plans, in accordance with annual instructions.

To assist with effective program management, data points tracked as indicators currently include:

- Alternative fuel increase: 10 percent annual increase from FY 2005 baseline.
- Alternative fuel as a percentage of total covered fuel consumption.
- AFV acquisitions as a percentage of vehicle acquisitions.
- Fleet-wide miles per gasoline gallon equivalent (GGE) of petroleum fuels.

#### **Guidance and Resources:**

- FEMP's <u>Alternative Fuels Data Center station finder</u> assists agencies in identifying and using alternative fuel.
- EPA's <u>Green Vehicle Guide</u> provides information on fuel efficient and alternative fuel vehicles.
- FEMP's <u>Federal Fleet Management</u> website helps agencies access the latest information, applications, and resources related to fleet efficiency.
- GSA's <u>Motor Vehicle Management Policy Overview</u> provides information on Federal motor vehicle policies, guidance, and data to improve management and enhance the performance of the motor vehicle fleets operated by Federal agencies.
- GSA's <u>Office of Fleet Management</u> website provides information on the identification and acquisition of Federal vehicles.

#### **Implementation Actions:**

- FEMP will consolidate resources to replace existing fleet guidance, and establish a single webpage of resources on agency fleet planning, data management, reporting, fuel use, and AFV purchasing.
- FEMP will streamline and automate the Section 701 waiver process utilizing DOE's Fleet Sustainability Dashboard (FleetDASH) system.
- GSA should review and, as appropriate, update its FMR <u>Motor Vehicle Management</u> <u>advisory bulletins</u> to provide any necessary clarifications, promote compliance, and facilitate achievement of E.O. 13834 goals and objectives, including:
  - FMR Bulletin B-43: Vehicle Allocation Methodology for Agency Fleets;
  - <u>FMR Bulletin B-33</u>: Alternative Fuel Vehicle Guidance for Law Enforcement and Emergency Vehicle Fleets;
  - FMR Bulletin B-35: Home to Work Transportation; and
  - <u>FMR Bulletin B-28</u>: Federal Employee Transportation and Shuttle Services.

## C. Cross-Cutting Goals

## 1. Acquisition

**E.O. 13834 Section 2(g):** Acquire, use, and dispose of products and services, including electronics, in accordance with statutory mandates for purchasing preference, Federal Acquisition Regulation (FAR) requirements, and other applicable Federal procurement policies.

## **Progress Metrics:**

Metrics:	Percentage of contract actions containing statutory environmental requirements; and Percentage of obligations (in dollars) containing statutory environmental requirements.
Performance Measures:	Increase in the percentage of contract actions and increase in percentage of obligations (in dollars) containing statutory environmental requirements, as compared to the previous fiscal year.
Progress Milestones:	Agencies will identify targets for the next fiscal year in annual Sustainability Plans.

## **Requirements and Priority Strategies:**

Agencies are accountable for ensuring that all contract actions and purchases comply with the statutory requirements below, where applicable to the product or service. Agencies should prioritize products and services that meet more than one of the applicable requirements and are encouraged to procure products and services in a cost-effective manner that advance achievement of energy and environmental performance goals. Agencies may also establish agency-specific standards, policies, programs, and incentives for sustainable acquisition, as long as they meet or exceed the requirements in these Instructions.

Mandates for Purchasing Preference: Agencies must give purchasing preference to products that:

- Meet minimum requirements for recycled content as identified by EPA's <u>Comprehensive</u> <u>Procurement Guideline (CPG) Program</u> (42 U.S.C. § 6962);<sup>25</sup>
- Are designated as biobased or <u>BioPreferred</u> by USDA. Agencies must also set yearly targets for number of biobased-only contracts awarded (7 U.S.C. § 8102);<sup>26</sup> and
- Are certified by <u>ENERGY STAR</u> or designated by <u>FEMP</u> as energy efficient products (42 U.S.C. § 8259b, 10 CFR part 436, subpart C).

<u>Procurement of Substitutes for Ozone-depleting Substances</u>: In accordance with 42 U.S.C. § 7671K and 7671L, agency procurement practices must maximize substitution of alternatives to ozone-depleting substances, identified under EPA's <u>Significant New Alternatives Policy</u> (SNAP) program.

<sup>&</sup>lt;sup>25</sup> Pursuant to the Farm Security and Rural Investment Act of 2002 (FSIRA), priority must be given to products that meet performance requirements and recycled content criteria in EPA's <u>Comprehensive Procurement Guideline</u> <u>Program</u> before consideration of other factors (7 U.S.C. § 8102).

<sup>&</sup>lt;sup>26</sup> Agencies should consult the <u>System for Award Management</u> (SAM) for contractor-reported data on biobased products delivered under service contracts.

<u>Use of Category Management and Government-wide Acquisition Vehicles</u>: In support of <u>The</u> <u>President's Management Agenda</u> to increase administrative efficiency, reduce duplicative efforts, and shift from low-value to high-value work, OMB's Office of Federal Procurement Policy (OFPP) is leading a government-wide <u>Category Management initiative</u>. Category Managers are instructed to ensure that new solutions in their categories include relevant sustainability requirements, and agencies are instructed to use Category Management solutions to the maximum extent practicable, which can help them meet their sustainability goals and better leverage the government's buying power.

## **Tracking and Reporting:**

Agency compliance with statutory requirements and procurement of environmentally preferable products and services will be assessed using data reported in the Federal Procurement Data System-Next Generation (FPDS-NG).<sup>27</sup> For procurements that are not tracked in FPDS-NG, agencies may report verified data from other sources, after consulting with CEQ and OMB. This may include purchases made through purchase cards or blanket purchase agreements.

Following CEQ sustainability plan template instructions, agencies will identify yearly sustainable acquisition targets, including biobased contracting targets, in annual Sustainability Plans.

To assist with effective program management, data points tracked as indicators currently include:

- Number of applicable contract actions containing sustainable clauses.
- Value of applicable contract actions containing sustainable clauses.
- Number of biobased-only contracts awarded.

## **Guidance and Resources:**

- GSA's <u>Green Procurement Compilation</u> is a comprehensive resource that helps the Federal acquisition workforce identify applicable sustainable acquisition requirements and provides information on sustainable acquisition by product and service category.
- EPA's <u>Sustainable Marketplace: Greener Products and Services</u> website includes EPA's <u>Recommendations of Specifications, Standards, and Ecolabels for Federal Purchasing</u>, which identify products and services that meet statutory purchasing requirements.
- EPA's <u>Comprehensive Procurement Guideline (CPG) Program</u> provides information on minimum recycled content for Federal purchasing.
- USDA's <u>BioPreferred</u> website provides information on minimum biobased content requirements.
- EPA's <u>ENERGY STAR</u> website and FEMP's <u>Energy-Efficient Products</u> provide information and resources for purchasing energy-efficient products and equipment.

## **Implementation Actions:**

• Within 180 days of these Instructions, GSA, EPA, FEMP, and USDA, in consultation with CEQ and OMB's Office of Federal Procurement Policy (OFPP), will coordinate in identifying opportunities to consolidate program information and guidance for Federal

<sup>&</sup>lt;sup>27</sup> See parameters for the FPDS-NG <u>Sustainability Report</u>.

purchasers and 2) leverage shared resources, government-wide platforms, and technologies to enable and increase sustainable acquisition and compliance.

- Within 180 days of these Instructions, USDA, in coordination with GSA, will develop recommended methodologies for agencies to establish yearly biobased-only contract targets.
- To support acquisition compliance, GSA, in consultation with CEQ and OFPP, will establish and coordinate with an advisory group of sustainable acquisition subject matter and technical experts from EPA, DOE, USDA, and other agencies, as appropriate, to assist Category Managers and contract owners in incorporating sustainability requirements and specifications.

## 2. Electronics Stewardship

Agencies are instructed to manage electronics to reduce energy and environmental impacts in accordance with E.O. 13834 goals for Energy Reduction (Section 2(a)), Waste Management (Section 2(f)), and Acquisition (Section 2(g)).

## **Requirements and Priority Strategies:**

Chief Information Officers (CIO), in coordination with CSOs, should ensure that appropriate life cycle management strategies for electronics assets are implemented in accordance with statutory requirements and E.O. goals. CIOs are instructed to:

- Acquire equipment that meets statutory requirements for energy efficiency;
- Identify and implement best life cycle management business practices for electronic equipment that minimize consumption of energy and supplies; and
- Ensure that equipment is appropriately managed in accordance with Federal guidance on reuse, donation, transfer, sale, de-manufacturing, and recycling of electronics.

#### Acquisition:

• Policies for acquisition apply to electronic equipment. See <u>Section III.C.1: Acquisition</u> for relevant requirements, strategies, tools, and resources.

#### Management and Use:

- *Power Management:* Agencies should enable power management on all computers and displays to put hardware into a low power mode after a period of inactivity, to the extent practicable and consistent with <u>ENERGY STAR</u> resources, to reduce energy use and costs. <u>ENERGY STAR</u> provides a calculator to quantify cost savings and environmental benefits of power management implementation (See EPA resource <u>Estimate your PC</u> power management savings).
- *Print Management*: Agencies should implement print management policies and practices, consistent with <u>GSA FMR Bulletin B-37</u>, *Federal Print Management Practice*, which establishes guidelines and best practices to reduce number of printers, total printer cost of ownership, ink/toner, and paper usage.

#### **Disposition and End of Life:**

Agencies are directed to dispose of electronics in accordance with E.O. 13834, Sections 2(f) and 2(g). <u>GSA FMR Bulletin B-34</u>, *Disposal of Federal Electronic Assets*, outlines guidance for the disposition of excess and surplus electronics or when returning leased electronics. FMR Bulletin B-34 identifies the following hierarchy:

- Reuse, either within an agency or through transfers, donations, and sales.
- Recycling, through manufacturer take-back programs or certified recyclers,<sup>28</sup> to include Federal programs offered by <u>UNICOR</u> and <u>U.S. Postal Service BlueEarth</u>.
- Disposal of excess and surplus electronics at appropriate facilities. Electronics, which may contain toxic or hazardous components, should not be disposed in landfills or incinerators.

<sup>&</sup>lt;sup>28</sup> Certified recyclers are electronics recyclers that have demonstrated to an accredited, independent third-party auditor that they meet specific standards to safely recycle and manage electronics.

## **Tracking and Reporting:**

Acquisition compliance may be tracked using acquisition and procurement data as described under Section III.C.1: Acquisition. Agencies may track disposition of electronics using data reported under <u>GSA FMR Bulletin B-27</u>, *Annual Executive Agency Reports on Excess and Exchange/Sale Personal Property*.

#### **Guidance and Resources:**

- FEMP's <u>Energy-Efficient Products</u> website provides information about energy-efficient products and energy-saving technologies that can help agencies meet Federal laws and requirements.
- EPA's <u>Recommendations of Specifications</u>, <u>Standards</u>, <u>and Ecolabels for Federal</u> <u>Purchasing</u> website helps agencies identify and procure environmentally preferable products and services.
- GSA's <u>Green Procurement Compilation</u> is a comprehensive resource that helps the Federal acquisition workforce identify applicable sustainable acquisition requirements and information on sustainable acquisition by product and service category.
- EPA's <u>ENERGY STAR</u> website provides information about energy efficient office equipment and technical assistance for implementing power management on computers and displays.
- GSA's <u>Personal Property Management Policy</u> provides information about handling ewaste.
- EPA's <u>Certified Electronics Recyclers</u> website provides information about how to locate third-party-certified electronics recyclers.

#### **3. Data Center Management**

Data centers are energy intensive operations that contribute to agency energy and water use and costs. OMB's Office of the Federal Chief Information Officer (OFCIO) leads development of policy and requirements for Federal data center management, including goals for consolidation, virtualization, optimization, efficiency, and transitioning to cloud-based solutions.

#### **Requirements and Priority Strategies:**

Agency CIOs and CSOs should ensure appropriate coordination between facility staff and data center managers to implement practices that promote energy efficient management of servers and Federal data centers, consistent with OMB's <u>Federal Cloud Computing Strategy</u>, <u>Data Center</u> <u>Optimization Initiative</u> memorandum, and any future data center management policies and optimization strategies. Agencies are encouraged to install sub-meters, including advanced energy meters, in data centers where cost effective and beneficial for tracking energy performance and improving energy management.

## **Tracking and Reporting:**

Data center energy use and savings will be reported in accordance with OMB guidance and instructions to agency CIOs. Reporting on data center metrics will be incorporated into OMB's Integrated Data Collection (IDC) for Federal information technology (IT) management on a quarterly basis, as well as the Capital Investment and Planning Control (CPIC) reporting on an annual basis. Data from the IDC are published to the <u>OMB IT Dashboard</u>.

#### **Guidance and Resources:**

- FEMP's website provides resources for <u>Energy Efficiency in Data Centers</u>, including links to the LBNL's Data Center Efficiency <u>Center of Expertise</u>.
- OMB's <u>IT Dashboard</u> website provides Federal agencies and the public with the ability to view details of Federal IT investments online and to track their progress over time.
- OMB's <u>Federal Cloud Computing Strategy</u> website provides information on the highlevel strategies to drive cloud adoption in Federal agencies.
- OMB's <u>Data Center Optimization Initiative</u> provides information on data center optimization for Federal agencies.

#### 4. Greenhouse Gas Management and Reporting

Pursuant to E.O. 13834 Section 2(h) and 42 U.S.C. § 17143, agencies are instructed to track and report on greenhouse gas (GHG) emissions and reductions.

#### **Progress Metrics:**

Metric:	Scope 1 and 2 GHG emissions in metric tons CO <sub>2</sub> e. <sup>29</sup>
Progress	Reduction in Scope 1 and 2 GHG emissions from FY 2008 baseline will be
Milestone:	reported annually.

#### **Requirements and Priority Strategies:**

Consistent with the requirements of E.O. 13834 Section 2(a-g), effective management of overall operations with respect to reducing facility energy consumption, meeting renewable energy targets, minimizing waste, increasing fleet efficiency, advancing sustainable buildings, and improving efficiency will drive reductions of corresponding GHG emissions.

GHG emissions are categorized as either direct (Scope 1) or indirect (Scope 2 or Scope 3):

- **Scope 1 emissions**: Direct emissions from sources that are owned or controlled by the Federal agency such as vehicles and equipment, stationary sources, on-site landfills, wastewater treatment facilities, and fugitive emissions.
- **Scope 2 emissions**: Indirect emissions resulting from the generation of electricity, heat, or steam purchased by a Federal agency.
- Scope 3 emissions: Emissions from sources not owned or directly controlled by a Federal agency, but related to agency activities, such as vendor supply chains, delivery services, and employee travel and commuting.

#### **Tracking and Reporting:**

Agencies are instructed to track and report Scope 1 and 2 GHG emissions<sup>30</sup> in accordance with CEQ's *Federal Greenhouse Gas Accounting Guidance (Accounting Guidance)*. FEMP's Annual Energy Report workbook will be used to collect associated data and automatically calculate emissions and reductions using the methodologies outlined in the *Accounting Guidance*. Agencies will report emission reductions and progress strategies in annual Sustainability Plans.

#### **Implementation Actions:**

- Within 120 days of these Instructions, GSA will propose methodologies to standardize and streamline Scope 3 reporting using data from GSA or other central sources.
- After review of GSA's proposed Scope 3 methodologies, CEQ may update the *Accounting Guidance* for reporting for FY 2019 and beyond.

<sup>&</sup>lt;sup>29</sup> Carbon dioxide equivalent.

<sup>&</sup>lt;sup>30</sup> Emissions covered in annual reporting are carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, nitrogen trifluoride, and sulfur hexafluoride.

#### **Appendix A – Definitions**

**Agency:** An executive agency as defined in 5 U.S.C. § 105, excluding the Government Accountability Office.

Alternative Fuel Vehicle (AFV): A dedicated vehicle or a dual-fueled vehicle (or other vehicles reference in statute) as defined by section 301 of the Energy Policy Act of 1992, as amended (42 U.S.C. § 13211).

Alternative Fuel: Includes fuels such as ethanol; natural gas; liquefied petroleum gas; hydrogen; fuels (other than alcohol) derived from biological materials; electricity; and any other fuel that is defined by statute (42 U.S.C. §6374 and 13211).

**Benchmarking:** The practice of accounting for and comparing a metered building's current energy performance with its energy baseline or historical performance, or comparing a metered building's energy performance with the energy performance of similar types of buildings.

**Biobased Product:** A product composed, in whole or in significant part, of biological products, including renewable domestic agricultural materials and forestry materials or an intermediate ingredient or feedstock.

**Construction and Demolition (C&D) materials and debris:** Waste materials and debris generated during construction, renovation, demolition, or dismantling of all structures and buildings and associated infrastructure.

**Covered Facility:** A facility that an agency has designated as subject to the requirements of section 432 of the Energy Independence and Security Act of 2007 (Pub. L. No. 110-140, as codified at 42 U.S.C. § 8253(f)), which requires agencies to designate covered facilities comprising at least 75 percent of their total facility energy use.

**Diversion or Diverting:** Redirecting materials from disposal in landfills or incinerators to recycling, composting, or recovery.

**FEMP Designated Product:** A product that is designated under the Federal Energy Management Program of the Department of Energy as being among the highest 25 percent of equivalent products for energy efficiency (42 U.S.C. § 8259b(a)(4)).

**Energy Conservation Measures (ECMs):** Measures that are applied to a Federal building that improve energy efficiency and are life cycle cost-effective and that involve energy conservation, cogeneration facilities, renewable energy sources, improvements in operations and maintenance, or retrofit activities (42 U.S.C. § 8259(4)).

**Energy Recovery:** The conversion of non-recyclable waste materials into usable heat, electricity, or fuel through a variety of processes, including combustion, gasification, pyrolization, anaerobic digestion, and landfill gas recovery. This process is often called waste-to-energy.

**Energy Savings Performance Contract (ESPC):** A contract that provides for the performance of services for the design, acquisition, installation, testing, operation, and, where appropriate, maintenance and repair of an identified energy conservation measure or series of measures at one or more locations. The contract must meet the requirements in 42 U.S.C. § 8287, *et seq.* 

**ENERGY STAR Certified:** A product that is rated for energy efficiency under EPA's ENERGY STAR program (42 U.S.C. § 8259b(a)(2)).

**Environmentally Preferable:** Products or services that have a lesser or reduced effect on human health and the environment when compared with competing products or services that serve the same purpose (48 CFR 2.101).

**Facility:** Any building, installation, structure, or other property (including any applicable fixtures) owned or operated by, or constructed or manufactured and leased to, the Federal Government. The term "facility" includes (I) a group of facilities at a single location or multiple locations managed as an integrated operation; and (II) contractor-operated facilities owned by the Federal Government. The term "facility" does not include any land or site for which the cost of utilities is not paid by the Federal Government.

**Federal building:** Any building, structure, or facility, or part thereof, including the associated energy consuming support systems, that is constructed, renovated, leased, or purchased in whole or in part for use by the Federal Government and consumes energy; such term also means a collection of such buildings, structures, or facilities and the energy consuming support systems for such collection (42 U.S.C. § 8259(6)).

**Freshwater:** Water obtained from a surface or groundwater source that has a total dissolved solids concentration of less than 1,000 milligrams per liter (1,000 ppm).

**High Performance Green Building:** A building that, when compared to similar buildings, reduces energy, water and material use; improves occupant health and productivity; minimizes air and water pollution and waste generation; acquires sustainable products and services; increases reuse and recycling activities; and is located near multiple transportation modes, consistent with the definitions at 42 U.S.C. § 17061(12) and (13).

**Landfill:** A land disposal site employing an engineered method of disposing of solid wastes on land in a manner that minimizes environmental hazards by spreading the solid wastes in thin layers, compacting the solid wastes to the smallest practical volume, and applying and compacting cover material at the end of each operating day.

**Life Cycle Cost-Effective:** The life cycle costs of a product, project, or measure are estimated to be equal to or less than the base case (i.e., current or standard practice or product) in accordance with 10 CFR part 436.

**Low Greenhouse Gas Emitting Vehicle:** A vehicle with CO<sub>2</sub>*e* emissions greater than one standard deviation of the mean emission rate of all light duty motor vehicles manufactured in the same model year.

**Non-hazardous Solid Waste:** Solid waste, as defined by 42 U.S.C. § 6903, that is determined not to be hazardous per EPA Hazardous Waste Guidance.

**Non-potable water**: Water that is not of sufficient quality or been treated for human consumption.

**Potable water**: Water from public or on-site water systems that is classified, permitted, and approved for human consumption. Potable water may also come from alternative water sources if properly treated.

**Power Purchase Agreement (PPA):** A contract where a Federal agency buys power from a developer at a negotiated rate for a specified term without taking ownership of the system; the developer owns, builds, operates, and maintains the system.

**Recovered Materials:** Waste material and byproducts that have been recovered or diverted from solid waste, but does not include those materials and byproducts generated from, and commonly reused within, an original manufacturing process.

**Renewable Energy Certificate (REC):** Represents ownership of the environmental and other non-power attributes associated with generation of one megawatt-hour (MWh) of renewable electricity.

**Renewable Energy:** Energy generated from solar, wind, biomass, landfill gas, ocean (including tidal, wave, current, and thermal), geothermal, municipal solid waste, or new hydroelectric generation capacity achieved from increased efficiency or additions of new capacity at an existing hydroelectric project (42 U.S.C. § 15852(b)(2)).

**Stormwater:** Water generated from rain and snowmelt events that flow over land or impervious surfaces, such as paved streets, parking lots, and building rooftops, and does not soak into the ground.

**Utility Energy Service Contract (UESC):** A limited-source contract between a Federal agency and serving utility for energy management services including energy and water efficiency improvements and demand-reduction services.

## Appendix B – List of Acronyms and Abbreviations

AFV	alternative fuel vehicle
ALD	asset level data
Btu	British thermal unit
C&D	construction and demolition
CAO	Chief Acquisition Officer
CEQ	Council on Environmental Quality
CFO	Chief Financial Officer
CFOA	Chief Financial Officers Act
CHP	combined heat and power
CIO	Chief Information Officer
CPG	Comprehensive Procurement Guidelines
CSO	Chief Sustainability Officer
CTS	DOE's EISA 432 Compliance Tracking System
DLA	Defense Logistics Agency
DOD	Department of Defense
DOD DOE	Department of Energy
E.O.	Executive Order
E.O. ECM	
ECM EISA	energy and water conservation measure
EISA EPA	Energy Independence and Security Act of 2007
	U.S. Environmental Protection Agency
EPAct	Energy Policy Act of 1992 or 2005
EPCRA	Emergency Planning and Community Right to Know Act
ESCO	energy service company
ESPC	energy savings performance contract
FAR	Federal Acquisition Regulation
FAST	Federal Automotive Statistical Tool
FBPTA	Federal Buildings Personnel Training Act
FGC	Federal Green Challenge
FEMP	DOE's Federal Energy Management Program
FESWG	Federal Electronics Stewardship Working Group
FleetDASH	Fleet Sustainability Dashboard
FMIS	Fleet Management Information System
FMR	Federal Management Regulation
FPDS-NG	Federal Procurement Data System – Next Generation
FRPP-MS	Federal Real Property Profile – Management System
FSIRA	Farm Security and Rural Investment Act of 2002
FY	fiscal year
GGE	gasoline gallon equivalent
GHG	greenhouse gas
GSA	General Services Administration
GSF	gross square foot
HVAC	heating, ventilation, and air conditioning
IDC	OMB's Integrated Data Collection
IDIQ	indefinite delivery, indefinite quantity

IEMTF	Interagency Energy Management Task Force
INTERFUEL	
ISWG	Interagency Sustainability Working Group
IT	information technology
LBNL	DOE's Lawrence Berkley National Laboratory
LDV	light-duty vehicle
MVEC	Motor Vehicle Executive Council
MWh	megawatt-hours
NAICS	North American Industrial Classification System
NECPA	National Energy Conservation Policy Act
OFCIO	OMB's Office of the Federal Chief Information Officer
OFPP	OMB's Office of Federal Procurement Policy
OMB	Office of Management and Budget
ORCR	EPA's Office of Conservation and Recovery
PPA	power purchase agreements
PV	photovoltaic
RCRA	Resource Conservation and Recovery Act
REC	renewable energy certificate
RSF	rentable square feet
RTF	reduce the footprint
SAMM	Federal Sustainable Acquisition and Materials Management Working Group
SIC	Standard Industrial Classification
SNAP	EPA's Significant New Alternative Policy
U.S.	United States
U.S.C.	United States Code
UESC	utility energy service contract
USACE	U.S. Army Corps of Engineers
USDA	U.S. Department of Agriculture
USF	useable square feet
VAM	vehicle allocation methodology
WAPA	DOE's Western Area Power Administration

## Appendix C – Interagency Working Groups

<u>Interagency Sustainability Working Group</u> (ISWG) serves as a forum for information exchange and promotes agency implementation of goals for Federal sustainable buildings.

Lead agencies: FEMP and GSA's Office of High Performance Buildings.

<u>Interagency Energy Management Task Force</u> (IEMTF) was created by the Federal Energy Management Improvement Act of 1988 to coordinate Federal Government activities that encourage energy conservation and energy efficiency.

Lead agency: FEMP. Chaired by the FEMP Director.

Interagency Committee on Alternative Fuels and Low Emission Vehicles (INTERFUEL) Working Group established in 1991 to help Federal agencies share fleet management best practices.

*Lead agency:* FEMP.

<u>Motor Vehicle Executive Council</u> (MVEC) performs activities to establish a long-term strategic vision for the management of government-wide motor vehicles.

Lead agency: GSA.

<u>Sustainable Acquisition and Materials Management Practices Working Group</u> (SAMM) provides recommendations on implementation of Federal sustainable acquisition and materials management policies and shares best practices among Federal agencies.

Lead agencies: GSA and EPA.

<u>Federal Electronics Stewardship Working Group</u> (FESWG) is dedicated to furthering progress on electronics stewardship among Federal agencies.

Lead agencies: GSA, EPA, and DOE.

#### **Appendix D – Reporting Requirements, Systems and Deadlines**

CEQ and OMB will obtain agencies' fiscal year data through established Federal reports and data collection systems, primarily:

	<b>Deadline for</b>
	Submission
Report or Data Source(s)	or Final Data
Sustainability Report and Implementation Plan	June 30
Annual Energy Management Data Report	January 31
(Annual Energy Report)	
Federal Automotive Statistical Tool (FAST)	December 15
Federal Real Property Profile Management System (FRPP-MS)	December 15
EISA 432 Compliance Tracking System (CTS)	June 30
Federal Procurement Data System - Next Generation (FPDS-NG)	N/A

CEQ and/or OMB may identify other data collection and reporting tools, or request supplemental data, as appropriate. Agencies should use the data, analysis, and reports available through these systems, as well as agency-specific data sources, to monitor and track performance, identify strategies for improvement, and assess results.