GUIDANCE FOR FY 2017 DOE SITE SUSTAINABILITY PLANS

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Introduction

This document provides guidance for DOE sites to complete FY 2017 Site Sustainability Plans (SSP), required by DOE Order 436.1, *Departmental Sustainability*. The SSP provides a platform to report on FY 2016 sustainability performance and plan for FY 2017 and beyond.

This guidance provides informational appendices on key reporting requirements and due dates, while the accompanying *Sustainability Dashboard User Guide* provides instructions on how to submit sustainability data. The Sustainability Dashboard (Dashboard) collects data needed to report DOE's progress on its sustainability requirements. Sites should ensure consistency between the SSP, reported sustainability data, and other major documents and initiatives. This includes such publications as the Integrated Facilities and Infrastructure Budget Crosscut, and related databases such as the Federal Automotive Statistical Tool (FAST) and Facilities Information Management System (FIMS). Sites shall submit their SSP and supporting documentation through their DOE Headquarters Program Offices for submission to the DOE Sustainability Performance Office (SPO). Program Offices should send electronic copies of each site's documentation to the SPO by December 9, 2016. Feedback on the SSPs will be issued to the Under Secretaries in March 2016.

Data provided in the SSP and other reports may be subject to disclosure under the Freedom of Information Act (FOIA). Also, with concurrence from Program Offices, active projects and success stories may be selected for inclusion in the Department's *Annual Energy Report* to Congress, the Strategic Sustainability Performance Plan (SSPP), sustainability scorecards, newsletters, annual Composite Sustainability Plans, and other documents.

Summarized below are major changes to this year's reporting as compared to last year.

SSP Content Changes

Executive Order (E.O.) 13693², *Planning for Federal Sustainability in the Next Decade*, was issued on March 19, 2015. The goal of E.O. 13693 is to maintain Federal leadership in sustainability and greenhouse gas emission reductions. This E.O. revokes the following:

- E.O. 13423 of January 24, 2007
- E.O. 13514 of October 5, 2009
- Presidential Memorandum of December 2, 2011 (Implementation of Energy Savings Projects and Performance-Based Contracting for Energy Savings); and
- Presidential Memorandum of May 24, 2011 (Federal Fleet Performance)

¹ DOE Order 436.1, *Departmental Sustainability*, May 2, 2011, https://www.directives.doe.gov/directives-documents/0436.1-BOrder.

²Executive Order 13693, Planning for Federal Sustainability in the Next Decade, March 19, 2015, https://www.whitehouse.gov/the-press-office/2015/03/19/executive-order-planning-federal-sustainability-next-decade

E.O. 13693 builds upon progress made against previous E.O.s and extends many current requirements through FY 2025. Please reference Appendix E for a crosswalk comparing E.O. 13693 with previous E.O.s and requirements.

Data Reporting Changes

Since 2009, the Sustainability Performance Office (SPO) has utilized the Consolidated Energy Data Report (CEDR) in Microsoft Excel to collect DOE site-level sustainability data and consolidate these data sets on behalf of the Department. In October 2014, the SPO launched the web-based DOE Sustainability Dashboard (Dashboard) to serve the same functions as the CEDR and added analysis capabilities for DOE sustainability data reporting. The Dashboard maintains historical data sets for each DOE site and national laboratory and collects current year data, consistent with processes established for the previous years' reporting cycles. The Dashboard also features analytics to provide DOE sustainability personnel with tools for managing sustainability at their site or within their program.

For the FY 2014 data reporting cycle, DOE sites were provided two options for reporting: (1) a CEDR only approach similar to reporting in FY 2013 and previous years and (2) a hybrid approach consisting of partial entry through the Dashboard with remaining data entry through the CEDR. Given the need to modify the Dashboard to account for the new reporting requirements associated with E.O. 13693, for FY 2015 reporting all data was collected through the CEDR.

For the FY 2016 reporting cycle, the Dashboard will be the sole official method of data reporting. The Dashboard has all data entry modules developed to capture required data elements.

SPO will host training sessions and open calls to answer questions on the FY 2016 sustainability data reporting process.

Specific Data Updates

- All data will be reported through the Dashboard.
- Energy use intensity goal subject and excluded square footage calculations will be completed in the Dashboard based on uploaded FIMS data.
- For renewable energy, additional information is requested on renewable energy purchase contracts to ensure compliance with the revised definition of "new" for Renewable Energy Certificates (RECs). See Section II Goal 3 of this guidance for more information.
- RECs are subject to a date limit and must come from systems placed in-service within 10 years prior to the start of the fiscal year.
- Metering requirements have been updated and expanded to collect data for the Agencywide Metering Plan. The Metering and Benchmarking section for the Dashboard will collect facility level prioritization data for facilities that are appropriate for metering, as defined in the updated Federal Building Metering Guidance.

Site Sustainability Plan Format and Instructions

The SSP is comprised of two main components: 1) the SSP narrative and 2) sustainability data via the Dashboard. Overarching guidance for the SSP narrative is described in this document. Supplementary information and instructions for entering data into the Dashboard can be found in the DOE Sustainability Dashboard User Guide.

The SPP narrative should adhere to the following general format:

- 1. Executive Summary
- 2. Performance Review and Plan narrative with subsections for each goal that include:
 - a. FY 2016 Performance Status
 - b. Plans and Projected Performance for FY 2017 and beyond

Pre-existing documentation may be referenced in lieu of writing new descriptions. For example, a current site-level Water Management Plan that addresses the Water Use Efficiency and Management goal (or elements therein) may be appropriate for inclusion or referencing. In such cases, please provide documentation as an attachment or link. Additionally, the use of graphs and tables is encouraged. Please contact the Sustainability Performance Office (sustainability@hq.doe.gov) with questions.

I. Executive Summary

This section provides an opportunity for sites to summarize their SSPs. The executive summary should be concise and no more than 3-5 pages. The content should consist of the following:

- 1. *Vision Statement:* Describe the site's sustainability aspirations and goals, including management commitment.
- 2. *Planning Synopsis:* Describe major planning assumptions, strategies, issues, and obstacles, along with the funding mechanisms used to achieve sustainability goals.
- 3. *People and Process:* Describe the overall sustainability planning and implementation approach, including the management system(s) used to support the site's sustainability program, senior executive engagement, integration of goals into personnel review and contractor performance determinations.
- 4. *Successes and Challenges:* Provide an overview of main successes and challenges as they pertain to sustainability goals, including traditional Triple Bottom Line activities (Social Responsibility, Economic Prosperity, and Environmental Stewardship). Include a synopsis of climate-related successes and challenges as appropriate.
- 5. *Funding:* Characterize and provide examples of efforts to integrate long-term sustainability goals into the budget process. This should include descriptions of the site's overall funding strategy, prioritization methodology, cost savings reinvestment programs, and third party financing opportunities.
- 6. Complete summary table of goal targets (as below):

- a. Performance Status: Baseline, current status, and progress toward the goal. Baseline and current status noted in the table should mirror that reported in the Dashboard.
- b. Planned Actions: Main planned actions and projected contribution towards goals.

Table 1 - Executive Summary Table of DOE Sustainability Goals based on the SSPP and **Executive Order 13693²**

SSPP Goal #	DOE Goal	Performance Status through FY 2016	Planned Actions & Contribution
Goal 1:	Greenhouse Gas Reduction		
1.1	50% Scope 1 & 2 GHG reduction by FY 2025 from a FY 2008 baseline (2016 target: 22%).		
1.2	25% Scope 3 GHG reduction by FY 2025 from a FY 2008 baseline (2016 target: 7%).		
Goal 2:	Sustainable Buildings		
2.1	25% energy intensity (Btu per gross square foot) reduction in goal-subject buildings, achieving 2.5% reductions annually, by FY 2025 from a FY 2015 baseline.		
2.2	EISA Section 432 energy and water evaluations.		
2.3	Meter all individual buildings for electricity, natural gas, steam and water, where cost-effective and appropriate ³ .		
2.4	At least 17% (by building count) of existing buildings greater than 5,000 gross square feet (GSF) to be compliant with the <i>revised</i> Guiding Principles for HPSB by FY 2025, with progress to 100% thereafter.		
2.5	Efforts to increase regional and local planning coordination and involvement.		
2.6a	Net Zero Buildings: 1% of the site's existing buildings above 5,000 gross square feet intended to be energy, waste, or water net-zero buildings by FY 2025.		

 $^{^2}$ See Appendix G - E.O. 13693 Crosswalk for clarification on the relevant regulations that set the targets described in Table 1. 3 Per NECPA (42 U.S.C Section 8253) the term "buildings" includes industrial, process, or laboratory facilities.

SSPP Goal #	DOE Goal	Performance Status through FY 2016	Planned Actions & Contribution
2.6b	Net Zero Buildings: All new buildings (>5,000 GSF) entering the planning process designed to achieve energy net-zero beginning in FY 2020.	ing	
Goal 3:	Clean & Renewable Energy		
3.1	"Clean Energy" requires that the percentage of an agency's total electric and thermal energy accounted for by renewable and alternative energy shall be not less than: 10% in FY 2016-2017, working towards 25% by FY 2025.		
3.2	"Renewable Electric Energy" requires that renewable electric energy account for not less than 10% of a total agency electric consumption in FY16-17, working towards 30% of total agency electric consumption by FY 2025.		
Goal 4:	Water Use Efficiency and Managen	nent	
4.1	36% potable water intensity (Gal per gross square foot) reduction by FY 2025 from a FY 2007 baseline (2016 target: 18%).		
4.2	30% water consumption (Gal) reduction of industrial, landscaping, and agricultural (ILA) water by FY 2025 from a FY 2010 baseline (2016 target: 12%).		
Goal 5:	Fleet Management		
5.1	30% reduction in fleet-wide permile greenhouse gas emissions reduction by FY 2025 from a FY 2014 baseline (2016 target: 3%; 2017 target: 4%).		
5.2	20% reduction in annual petroleum consumption by FY 2015 relative to a FY 2005 baseline; maintain 20% reduction thereafter (2016 target: 20%).		
5.3	10% increase in annual alternative fuel consumption by FY 2015 relative to a FY 2005 baseline; maintain 10% increase thereafter (2016 target: 10%).		

SSPP Goal #	DOE Goal	Performance Status through FY 2016	Planned Actions & Contribution
5.4	75% of light duty vehicle acquisitions must consist of alternative fuel vehicles (AFV) (2016 target: 75%).		
5.5	50% of passenger vehicle acquisitions consist of zero emission or plug-in hybrid electric vehicles by FY 2025 (2016 target: 4%).		
Goal 6:	Sustainable Acquisition		
6.1	Promote sustainable acquisition and procurement to the maximum extent practicable, ensuring BioPreferred and biobased provisions and clauses are included in 95% of applicable contracts.		
Goal 7:	Pollution Prevention & Waste Redu	uction	
7.1	Divert at least 50% of non- hazardous solid waste, excluding construction and demolition debris.		
7.2	Divert at least 50% of construction and demolition materials and debris.		
Goal 8:	Energy Performance Contracts		
8.1	Annual targets for performance contracting to be implemented in FY 2017 and annually thereafter as part of the planning of section 14 of E.O. 13693.		
Goal 9:	Electronic Stewardship		
9.1	Purchases – 95% of eligible acquisitions each year are EPEAT-registered products.		
9.2	Power management – 100% of eligible PCs, laptops, and monitors have power management enabled.		
9.3	Automatic duplexing – 100% of eligible computers and imaging equipment have automatic duplexing enabled.		
9.4	End of Life – 100% of used electronics are reused or recycled using environmentally sound disposition options each year.		

SSPP	DOR Goal	Performance Status through	Planned Actions &
Goal #		FY 2016	Contribution
9.5	Data Center Efficiency. Establish a power usage effectiveness target in the range of 1.2-1.4 for new data centers and less than 1.5 for existing data centers.		

Goal 10: Climate Change Resilience

10.1	Update policies to incentivize planning for, and addressing the impacts of climate change.	
10.2	Update emergency response procedures and protocols to account for projected climate change, including extreme weather events.	
10.3	Ensure workforce protocols and policies reflect projected human health and safety impacts of climate change.	
10.4	Ensure site/lab management demonstrate commitment to adaptation efforts through internal communications and policies.	
10.5	Ensure that site/lab climate adaptation and resilience policies and programs reflect best available current climate change science, updated as necessary.	

II. Performance Review and Plan Narrative

For each Department-level goal, sites should write two sections for the SSP narrative:

- 1. *Performance Status* Discuss FY 2016 performance by:
 - a. Referencing pertinent databases and/or workbooks associated with the goal for quantitative information;
 - b. Describing major initiatives or changes to missions or facilities that contribute in significant ways to goal performance;
 - c. Sharing success stories, accomplishments, lessons learned, and best management practices;
 - d. Noting baseline changes, impacts, and justifications in the SSP. Identifying, updating and justifying any changes to previously reported data, including the baseline year in the appropriate reporting tool. If you wish to change historical data in the Dashboard, please provide updates to your respective DOE HQ program office and SPO prior to

finalization of plan. Major changes are subject to approval by DOE HQ program offices and SPO.

- 2. *Plans and Projected Performance* Discuss plans and expectations for FY 2017 and beyond by:
 - a. Identifying planned activities (e.g. mission changes, conservation measures, renewable energy systems, new construction or deactivation and decommissioning (D&D), policy and procedures updates, training) and expected impact of planned activities;
 - b. Describing expected site contribution to the DOE goal(s);
 - c. Estimating additional funding needed beyond planned activities and typical operation costs for meeting the goal;
 - d. Listing site specific measurable goals and milestones (3-5) for the next Fiscal Year;
 - e. Requesting technical assistance, if needed; and
 - f. Documenting planned or needed training to increase awareness and encourage behavior change.

In addition to the general areas of discussion noted above, please provide a description of site efforts towards each goal specific areas noted below, as applicable, and update the optional policy status tables in the Dashboard. Goals should be discussed in the same numerical order as the executive summary table.

Goal 1: Greenhouse Gas Reduction

1.1 50% Scope 1 & 2 GHG reduction by FY 2025 from a FY 2008 baseline

- a. Describe an overall scope 1 & 2 GHG reduction strategy.
- b. Describe approaches to space management and alternative workplace arrangements to optimize office space.
- c. Discuss fugitive emissions, plans to reduce emissions and/or expected increases along with net impact. Specifically for sulfur hexafluoride (SF₆) discuss capture and storage equipment, leak detection and repair, and/or preventative maintenance programs used to minimize releases (note: per DOE 2010 SSPP, sites with SF₆ emissions were required to have a capture program by September 2012).
- d. Explain challenges with efforts to reduce GHG emissions at high energy mission specific facilities (HEMSF), as applicable (for definitions, contact DOE HQ Program Office.)

1.2 25% Scope 3 GHG reduction by FY 2025 from a FY 2008 baseline

- a. Describe an overall scope 3 GHG reduction strategy.
- b. Describe policies and/or programs that promote carpooling, vanpooling, use of public transit, telework, hoteling, and/or alternative work schedules.
- c. Discuss policies and/or programs to reduce business travel including teleconferencing/video conferencing.

- d. For employee commuting, provide a description of the methodology used for gathering information and a copy of the survey, if applicable.
- e. In regards to both contracted (off-site) waste water treatment and municipal waste disposal, discuss programs such as composting and recycling to reduce waste.
- f. Where a site leases and operates a facility, but does not directly pay the utility bill (i.e., a fully serviced lease), the site may report associated emissions as Scope 3. Section 3(h)(iv)(B) and section 3(h)(v) of E.O. 13693 initiate energy reporting and GHG emissions reporting for fully-serviced building leases. Be sure to enter known fully serviced lease information in the Dashboard.
 - **IMPORTANT:** Beginning in FY 2016, all new agency lease solicitations for fully-serviced building leases over 10,000 rentable square feet (RSF) shall include requirements for lessors to disclose energy consumption and carbon emissions data. Exercising an option within an existing lease to extend the term is not subject to the terms and conditions of E.O. 13693. However, any action that goes beyond simply exercising an option to extend the term of occupancy, or involves substantial changes in the operation conditions or tenant fit out, or requires more than a simple contract amendment document, shall comply with E.O. 13693. See E.O. 13693 Implementing Instructions, Section 2, for additional guidance on these FY 2016 reporting requirements (Appendix F of this guidance).
- g. Summarize site efforts to ensure planning for new Federal facilities or new leases includes consideration of sites that are pedestrian friendly, near existing employment centers, accessible to public transit, emphasize existing central cities and, in rural communities, existing or planned town centers.

Goal 2: Sustainable Buildings

2.1~25% energy intensity (Btu per gross square foot) reduction in goal-subject buildings, achieving 2.5% reductions annually, by FY 2025 from a FY 2015 baseline.

- a. Discuss the use of recommended tools listed in E.O. 13693 Section 3(a)(i):
 - Including using remote building energy performance assessment auditing technology,
 - Participating in demand management programs, ensuring that monthly performance data is entered into the Environmental Protection Agency (EPA) ENERGY STAR Portfolio Manager for covered buildings
 - o Incorporating where feasible, the consensus-based, industry standard Green Button data access system into reporting, data analytics, and automation processes
 - o Implementing space utilization and optimization practices and policies
 - Identifying opportunities to transition test-bed technologies to achieve the goals of this section
 - Conforming, where feasible, to city energy performance benchmarking and reporting requirements

- b. If excluding buildings from the goal, see Appendix C for completing the Excluded Buildings Self-Certification.
- c. Describe plans to reduce deferred maintenance while at the same time increasing energy efficiency.
- d. Discuss strategies for design in regards to EISA Section 433 fossil fuel reduction in new buildings.
- e. Describe efforts to ensure facility energy managers can demonstrate core competencies for facility managers as identified by the General Services Administration (GSA) per the Federal Buildings Personnel Training Act of 2010 (FBPTA).⁴
- f. Discuss mechanisms by which the sites does or plans to ensure all new construction is designed at 30% more energy efficient than the baseline established by ANSI/ASHRAE/IESNA Standard 90.1. As of September, 2016, the current version in effect is ASHRAE 90.1 2013.⁵

2.2 EISA Section 432 energy and water evaluations, benchmarking, project implementation, and measures follow up

- a. Describe overall strategy and plans for your site's current 4-year energy and water audit cycle, including mechanisms and procedures (e.g. combining audits with condition assessment surveys) along with re-/retro-commissioning. Discuss any potential issues with meeting deadlines. *If a site has an expired comprehensive evaluation a strategy with anticipated timeframe to complete remaining audits is required.*
- b. Describe efforts to benchmark buildings with ENERGY STAR Portfolio Manager (Portfolio Manager) by providing current status and future efforts.⁶
- c. Describe your site's strategy for prioritizing and implementing measures identified in the audits.
- d. Discuss measurement and verification (M&V) efforts of implemented measures. DOE encourages M&V of implemented measures and projects. However, it is understood that it may not be cost-effective to perform continuous M&V on all measures. Only projects that are financed under an ESPC have a statutory requirement to conduct M&V.
- e. Describe covered facilities selection along with plans to address inventory changes to ensure meeting the minimum requirement of having 75% of the site's total energy as covered. Note the covered facility requirement of EISA Section 432 is based on total energy usage and is indifferent to exclusions of the energy intensity goal. Covered facility status can be reviewed and updated in March 2017. SPO is working on bringing EISA 432 reporting into the Dashboard in early 2017.

⁵ Federal Register, Tuesday, July 9, 2013, *Energy Efficiency Design Standards for New Federal Commercial and Multi-Family High-Rise Residential Buildings*, http://www.gpo.gov/fdsys/pkg/FR-2013-07-09/pdf/2013-16297.pdf.

⁷ Federal Buildings Personnel Training Act of 2010, <a href="http://www.gpo.gov/fdsys/pkg/BILLS-111s3250enr/pdf/BILLS-111s3250enr/

⁶ Keep in mind, Executive Order 13693 makes Portfolio Manager the official Federal benchmarking reporting tool. The FY 2015 benchmarking data must be entered in Portfolio Manager and released to the Compliance Tracking System (CTS) no later than March 31, 2016.

2.3 Meter all individual buildings for electricity, natural gas, steam and water, where cost-effective and appropriate.

- a. Describe your site's strategy and plans to improve metering infrastructure and use of associated data:
 - Funding & Personnel Estimated amount of funding and personnel required to implement the metering plan.
 - Personnel Identification of titles of personnel who will analyze the meter data and what the responsibilities of the personnel include.
 - Available Energy Tracking Systems Description of energy tracking systems that are made available to facility managers. The cost-effectiveness of metering is dependent on the data that is provided by the meter, therefore it is important to discuss the systems that will provide actionable data from meters (e.g. benchmarking, verifying utility bills, measurement and verification of savings, education and behavior change, energy system diagnostics and maintenance, time-of-use and demand response, cost allocation). Also discuss how any standard meter data will be incorporated into energy tracking systems and, where applicable, benchmarking systems on a monthly basis
 - Green Button Data Utilization of Green Button data, where available and appropriate. More information about the utilities offering Green Button is available at http://energy.gov/data/green-button
 - o Implementation Barriers Description of implementation barriers and how they are being addressed or additional resources needed.

2.4 At least 17% (by building count or gross square feet) of existing buildings greater than 5,000 gross square feet (GSF) to be compliant with the *revised* Guiding Principles for HPSB by FY 2025, with progress to 100% thereafter

- a. Summarize the site's plans to achieve at least 17% GP by FY 2025 discuss and ensure FIMS sustainability fields are accurate. Note the Federal definition of "not applicable" has been expanded to include unoccupied, low/no energy use (< 20.9 BTU/GSF), and low/no water use (< 2 GPD).⁷ Ensure that FIMS data reflects this change and discuss the impact.
- b. Describe approach and analyze progress toward 100% conformance with GP for entire building inventory.
- c. Describe incorporation of Federal Guiding Principles and sustainable practices into institutional documents to include, but not limited to, site planning documents, policies, procedures, processes, and specifications.
- d. Describe plans to incorporate climate-resilient design and management elements into the operation, repair, and renovation of existing agency buildings.

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⁷ Federal Real Property Council, 2016 Guidance for Real Property Inventory Reporting, http://www.gsa.gov/portal/mediaId/141286/fileName/FY_2016_FRPP_Data_Dictionary_Version_2_July_27__2016.action

2.5 Efforts to increase regional and local planning coordination and involvement

- a. Discuss site participation in regional transportation planning, recognition of existing community transportation infrastructure, and incorporation of such efforts into site policy and guidance documents.
- b. Provide a description of how the *Principles for Sustainable Federal Location Decision* has been incorporated into agency site selection and lease procurement procedures.⁸
- c. Describe coordination efforts with regional programs for Federal, state, tribal, and local organizations for ecosystem, watershed, and environmental management.
- d. Identify regional transportation planning, ecosystem, watershed, and environmental management initiatives affecting sites as well as any opportunities to work with local authorities to align energy policies, the siting of renewable energy infrastructure, and climate preparedness.
- e. Summarize site efforts to ensure planning for new Federal facilities or new leases includes consideration of sites that are pedestrian friendly, near existing employment centers, accessible to public transit, emphasize existing central cities and, in rural communities, existing or planned town centers.

2.6a Net Zero Buildings

Existing Buildings: Energy Net-Zero and Waste or Water Net-Zero

a. Beginning in FY 2025 and thereafter, DOE will be required to ensure 1% of existing buildings above 5,000 gross square feet are energy, waste, or water net zero buildings. As part of the June 2016 SSPP, DOE will be required to identify the percentage of existing buildings, by number or by GSF that will, by FY 2025, be: 1. net zero energy, and 2. net zero water or 3. net zero waste. Discuss the process and strategies to identify specific buildings, facilities, or installations targeted to achieve net zero status where possible to meet the goal. Strategies to move existing buildings toward net zero energy, waste, or water status should take an integrative, whole building perspective, to identify innovative approaches that will not be apparent from a more step-by-step standpoint or a traditional building system by building system design process.

2.6b Net Zero Buildings

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

a. Beginning in FY 2020 and thereafter, all new construction of buildings greater than 5,000 gross square feet that enters the planning process shall be designed to achieve energy netzero and, where feasible, water or waste net-zero by FY 2030. Discuss any planned new construction beginning in FY 2020 that will achieve net-zero energy by FY 2030. Strategies to move the design, construction, and operation of new buildings toward netzero energy, waste, or water status should take an integrative, whole building perspective,

https://www.whitehouse.gov/sites/default/files/docs/eo 13693 implementing instructions june 10 2015.pdf

⁸ Implementing Instructions - Sustainable Locations for Federal Facilities, http://www.whitehouse.gov/sites/default/files/microsites/ceq/implementing instructions sustainable_locations_for_federal_facilities_9152011.pdf.

⁹ EO 13693 Implementing Instructions,

to identify innovative approaches that will not be apparent from a more step-by-step standpoint or a traditional system by system design process.

Goal 3: Clean & Renewable Energy

3.1 "Clean Energy" requires that the percentage of an agency's total electric and thermal energy accounted for by renewable and alternative energy shall be not less than: 10% in FY 2016-2017, working towards 25% by FY 2025.

- a. Summarize the site's strategy to increase and prioritize on-site renewable and alternative energy generation.
- b. If RECs from on-site renewable systems are sold, note if replacement RECs are purchased or not and provide REC contract details. EPAct 2005 Section 203 provides for a double bonus if the renewable energy is produced on-site and the RECs are retained.
- c. Explain the most recent renewable and alternative energy assessments and outcomes, if applicable.
- d. Chronicle the utilization of third party suppliers to purchase RECs. RECs are subject to a date limit and must come from systems placed in-service within 10 years prior to the start of the fiscal year.¹⁰
- e. Describe the incorporation of DOE Procurement Policy Guidance on Purchase of Electricity, Energy Products and Energy By-Products from Indian Tribes which gives preference to tribes and tribal majority-owned businesses for the purchase of electricity produced by renewable resources, renewable energy products, and renewable energy by-products as long as it is no more costly than the prevailing market rate.¹¹
- f. Describe how the installation of renewable energy systems in new buildings is considered and initialized; especially solar hot water heaters (per EISA Section 523).

3.2 "Renewable Electric Energy" requires that renewable electric energy account for not less than 10% of a total agency <u>electric</u> consumption in FY16-17, working towards 30% of total agency <u>electric</u> consumption by FY 2025.

- a. Summarize the site's strategy to increase and prioritize on-site renewable energy generation.
- g. If RECs from on-site renewable systems are sold, note if replacement RECs are purchased or not and provide REC contract details. EPAct 2005 Section 203 provides for a double bonus if the renewable energy is produced on-site and the RECs are retained.
- h. Explain the most recent renewable energy assessment and outcomes, if applicable.

¹⁰ Federal Renewable Energy Certificate Guide,

https://www.sustainability.gov/Resources/Guidance_reports/Federal-Renewable-Energy-Certificate-Guide-June-16-2016-Final-Version.pdf

¹¹DOE Draft Procurement Policy Guidance on *Purchase of Electricity, Energy Products and Energy By-Products from Indian Tribes*,

http://energy.gov/sites/prod/files/PDF_FINAL%20DOE%20Indian%20Energy%20purchase%20preference%20policy%20guidance.pdf.

- i. Chronicle the utilization of third party suppliers to purchase RECs.
- j. Describe the incorporation of DOE Procurement Policy Guidance on Purchase of Electricity, Energy Products and Energy By-Products from Indian Tribes which gives preference to tribes and tribal majority-owned businesses for the purchase of electricity produced by renewable resources, renewable energy products, and renewable energy by-products as long as it is no more costly than the prevailing market rate.¹²
- k. Describe how the installation of renewable energy systems in new buildings and new major renovations is considered and initialized (per EISA Section 523).

Goal 4: Water Use Efficiency and Management

4.1 36% potable water intensity (gallons per gross square foot) reduction by FY 2025 from a FY 2007 baseline.

- a. The Dashboard expands on the CEDR and captures additional water supply details. Be sure to provide accurate FY 2016 data.
- b. Discuss major water consuming end-uses, such as cooling, heating, plumbing, irrigation, and laboratory equipment. If a water balance has been performed within the last five years, provide results. Indicate if no water balance has been performed within that timeframe and if a future water balance is planned.
- c. Discuss operational issues related to water consumption such as system leaks or equipment maintenance problems and plans to remedy or improve.
- d. Describe current and future planned water efficiency projects and best practices for water-consuming equipment such as cooling and heating, plumbing, laboratory equipment, and leak detection.
- e. Summarize the site's water metering strategy. Note: EO 13693 Section 3(f)(ii) recommends the implementation of water meters for collecting and utilizing building water use data.
- f. Summarize the site's efforts in identifying and implementing alternative water sources. Alternative water sources offset the use of fresh surface and groundwater sources and are used in non-potable applications such as cooling tower makeup and irrigation. Types of alternative water include onsite gray water, harvested rainwater, process discharge water, and reclaimed wastewater.
- g. Note whether the site has a water management plan. If the site has a current water management plan, include as an attachment or provide web address.
- h. If replenishing water supplies, provide documentation on quality and quantity.

 Depending on the quality of water being replenished, it may be possible to receive credit towards water use. Upon review of documentation, SPO will determine whether or not a

http://energy.gov/sites/prod/files/PDF_FINAL%20DOE%20Indian%20Energy%20purchase%20preference%20policy%20guidance.pdf.

¹²DOE Draft Procurement Policy Guidance on *Purchase of Electricity, Energy Products and Energy By-Products from Indian Tribes*.

- credit can be received and progress will be adjusted accordingly. Water that is returned to a water source at the same quality as the water source is considered non consumptive.
- i. Sites with locations in drought-affected areas are also encouraged to discuss water reduction efforts.

4.2 30% consumption reduction of industrial, landscaping, and agricultural (ILA) water by FY 2025 from a FY 2010 baseline.

- a. Summarize current ILA water uses (if applicable to the site) and specify the water supply source. (Note: CEQ guidance defines ILA water as all non-potable freshwater (surface and groundwater sources) used for ILA purposes plus potable water used in ILA applications that is not already included in the 2007 potable water intensity baseline. Onsite alternative water used in industrial, landscaping, and agricultural applications is not considered ILA water use. Previous DOE reporting included all potable water under the water intensity goal, based on the CEQ guidance, sites should continue to report in that manner.)
- b. Summarize the site's efforts to measure and reduce ILA usage including:
 - i. Description of the reporting year's implementation of water-efficient equipment and best practices.
 - ii. Description of the site's effort to identify and implement alternative water sources to offset the use of ILA water (non-potable freshwater).
 - iii. Future planned implementation of water-efficient equipment and best practices with required investment and water savings potential.
- c. Provide status of adopting and incorporating various Federal management practices, such as landscape management, storm water runoff, siting for facilities, and disposition of unneeded property. ^{13,14,15, 16}

Goal 5: Fleet Management

5.1 30% reduction in fleet-wide per-mile greenhouse gas emissions by FY 2025 from a FY 2014 baseline (2016 target: 3%; FY 2017 target: 4% reduction)

- a. State FY 2014 baseline and FY 2016 performance using Federal Automotive Statistical Tool (FAST) Report G "EO 13693 GHG/mile Progress and Compliance Report"
- b. Describe approach/vision for addressing fleet-wide greenhouse gas emission goal, considering strategies used to reduce petroleum use and increase alternative fuel use.

http://www.fedcenter.gov/kd/Items/actions.cfm?action=Show&item_id=15263&destination=ShowItem.

¹³Guidance for Federal Agencies on Sustainable Practices for Designed Landscapes, http://www.whitehouse.gov/sites/default/files/microsites/ceq/recommendations_on_sustainable_landscaping_practices.pdf?CFID =1129164&CFTOKEN=71705061.

¹⁴Technical Guidance on Implementing the Stormwater Runoff Requirements for Federal Projects under Section 438 of the Energy Independence and Security Act, http://www.epa.gov/owow/NPS/lid/section438/pdf/final_sec438_eisa.pdf.

¹⁵ Recommendations on Sustainable Siting for Federal Facilities,

¹⁸ Presidential Memorandum, *Disposing of Unneeded Federal Real Estate*, June 10, 2010, http://www.whitehouse.gov/the-press-office/presidential-memorandum-disposing-unneeded-federal-real-estate

5.2 20% reduction in annual petroleum consumption by FY 2015 relative to a FY 2005 baseline: maintain 20% reduction thereafter

a. Describe strategies for reducing petroleum use, such as, fleet optimization, vehicle rightsizing, expanded use of alternative fuel, anti-idling measures, and use of vehicle telematics to assess fleet performance.

5.2 10% increase in annual alternative fuel consumption by FY 2015 relative to a FY 2005 baseline; maintain 10% increase thereafter

a. Describe strategies for increasing alternative fuel use, such as, increasing acquisition of alternative fuel vehicles, evaluating alternative fueling options through available locator tools, and siting vehicles to match available fueling locations

5.4 75% of light duty vehicle acquisitions must consist of alternative fuel vehicles (AFV) by 2015 and each year thereafter

- a. Describe plans to meet AFV acquisition requirement.
- b. Describe plans for increasing use of biodiesel fuel. Per EPAct 1992, the use of every 450 gallons of neat biodiesel fuel grants one biodiesel fuel use credit, which counts as one AFV acquisition for the purposes of this goal.
- c. If AFVs will be acquired that will not have access to alternative fuel, explain why.

5.5 20% of passenger vehicle acquisitions consist of zero emission or plug-in hybrid electric vehicles by 2020, working towards a goal of 50% by 2025

- a. Describe plans to meet zero emission/plug-in hybrid acquisition goal.
- b. Describe efforts to install on-site vehicle charging infrastructure.

Goal 6: Sustainable Acquisition

6.1 Promote sustainable acquisition and procurement to the maximum extent practicable, ensuring BioPreferred and biobased provisions and clauses are included in 95% of applicable contracts.

a. Describe efforts to maximize acquisition of sustainable products. Sustainable acquisition includes procurement of energy efficient (ENERGY STAR or FEMP-designated); water efficient (WaterSense); biobased (USDA BioPreferred); environmentally preferable (including EPEAT-registered products); non-ozone depleting (Significant New Alternative Policy (SNAP)) chemicals or other alternatives to ozone-depleting substances and high global warming potential hydrofluorocarbons; recycled content, including paper containing 30% post-consumer fiber; non-toxic or less toxic alternatives products (Safer Choice labeled); and fuel efficient products and services (SmartWay Transport partners and SmartWay products).¹⁷

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¹⁷ The Farm Security and Rural Investment Act of 2002 established the BioPreferred program to increase the procurement of biobased products, http://www.whitehouse.gov/the-press-office/2012/02/21/presidential-memorandum-driving-innovation-andcreating-jobs-rural-ameri.

- b. Detail efforts to include BioPreferred and biobased provisions or clauses in eligible contract actions, striving toward a goal of 95% for applicable contacts, per E.O. 13693.
 In addition, describe efforts to reach 100% compliance for biobased and construction contract compliance by FY 2020, per FY 2016 DOE SSPP.
- c. To support Section 15(b) of EO 13693, describe the site's current efforts, if any, to monitor or improve supply chain GHG emissions management. Discuss contract selection criteria or the inclusion of specific contract language or requirements (e.g., GHG emission disclosure), as applicable. Please reference the E.O. 13693 Implementing Instructions for strategies and tools for selecting procurements and establishing contract requirements.
- d. Describe plans to review and implement EPA's recommendations for specifications, labels, and standards that designate environmentally preferable products and services.

Goal 7: Pollution Prevention and Waste Reduction

7.1 & 7.2 Municipal Solid Waste (MSW) and Construction & Demolition (C&D) recycling and waste diversion (50%)

- a. Summarize the site's pollution prevention, waste reduction efforts, and recycling programs.
- b. Discuss efforts for to meet diversion rate goal of 50% for both non-hazardous solid waste diversion and construction and demolition waste.
- c. Describe the initiation, expansion, or end of composting programs and the expected impact on waste stream.
- d. Explain the anticipated impact of site population change, construction, D&D activities, etc. on recycling and waste generation rates and volumes.
- e. If a waste-to-energy system is used, provide amount of waste diversion associated with the system(s).
- f. Explain how the site has been able to increase the use of acceptable non-toxic or less toxic alternative chemicals and processes while minimizing acquisition of hazardous chemicals and materials (such as ozone-depleting substances and fluorinated gases).
- g. Discuss the integration of pest management and landscape management practices (as applicable).
- h. Discuss plans to review clearance of property procedures to identify materials that cannot be cleared for unrestricted release along with quantity of materials affected by this review and timeframe for conducting the review.

Goal 8: Energy Performance Contracts

8.1 Energy Performance Contracts

a. Per Section 3(k)(iii) of EO 13693, DOE set targets for energy performance contracts to be implemented in FY 2017 and FY 2018 in the 2016 SSPP. To support this effort, characterize and provide examples of efforts to leverage alternative financing such as

- ENABLE, ESPC, UESC, and PPA. (Note: Progress on the President's Performance Contracting Challenge should be reported to the SPO on a monthly basis.)
- b. Describe the site's approach for evaluating project potential, noting projects that have been evaluated (and either awarded or not awarded) in the past 5 years. Please indicate if no projects have been considered in the past 5 years.
- c. Describe challenges to use of alternative finance vehicles and provide recommended solutions.

Goal 9: Electronic Stewardship

9.1 Purchases – 95% of eligible acquisitions each year are EPEAT-registered products

a. Describe policies and procedures that require and ensure acquisition of EPEAT registered (95%), ENERGY STAR qualified (100%), and FEMP designated (95%) electronic office products when procuring electronics in eligible product categories. In 2014, EPEAT was expanded to include imaging equipment and televisions. Furthermore, the Federal Acquisition Regulation (FAR) has been updated to reflect this change.¹⁸

9.2 Power management - 100% of eligible desktops, laptops, and monitors have power management enabled

- a. Describe the establishment and implementation of policies, guidance, and tools to ensure the use of power management on all eligible electronic products. Electronics are considered to be using power management if ENERGY STAR power management features (e.g. sleep, standby, hibernate) are enabled. Individual electronics can be considered exempt from the power management goal if they are used for mission critical functions, such as site security or uninterruptable laboratory experiments. Please review the Sustainability Dashboard User Guide Document for more information on power management and exemptions.
- b. Discuss how power management is currently being implemented (policies, guidance, etc.), tracked, and reported. Describe methods for exempting equipment.
- c. If power management has not been fully implemented, discuss plans on how the requirement will be met along with estimated data of compliance.

9.3 Automatic duplexing – 100% of eligible computers and imaging equipment have automatic duplexing enabled

- a. Describe plans to implement best practices of the *DOE Sustainable Print Management Guide* and if the site has Print Management Policy.
- b. Describe policies and procedures that require and ensure automatic duplexing is enabled on all eligible electronic products. Automatic duplexing is enabled if a computer is set to automatically print jobs double-sided by default. Automatic duplexing is enabled if

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¹⁸ FAR Case 2013–016; Item I; Docket 2013–0016, Sequence 1, Federal Acquisition Regulation; EPEAT: http://www.gpo.gov/fdsys/pkg/FR-2015-09-03/pdf/2015-21748.pdf
Items

- imaging equipment (e.g., copiers, printers, scanners, multifunction/all-in-one devices, and fax machines) are set to automatically print double-sided by default. End users may be given the option to manually select single-sided printing for individual jobs, either on their computers or on individual imaging equipment.
- c. If automatic duplexing has not been fully implemented, discuss plans on how the requirement will be met along with estimated data of compliance.

9.4 End of Life – 100% of used electronics are reused or recycled using environmentally sound disposition options each year

a. Describe policies and procedures that require and ensure used electronic assets are disposed through environmentally sound disposition practices such as GSAXcess; donation through GSA's Computer for Learning (CFL) program or to other eligible State and non-profit organizations; recycling through Unicor or USPS BlueEarth; and/or recycling through a private recycler certified under the Responsible Recycling (R2) program or the e-Stewards® program.

9.5 Data Center Efficiency – Establish a power usage effectiveness target in the range of 1.2 – 1.4 for new data centers and less than 1.5 for existing data centers

a. Describe your site's strategy for meeting the goals and requirements of the Data Center Optimization Initiative (DCOI) as established in the August 1, 2016 Memorandum.¹⁹ The DCOI requires agencies to develop and report on data center strategies to consolidate inefficient infrastructure, optimize existing facilities, improve security posture, achieve cost savings, and transition to more efficient infrastructure, such as cloud services and inter-agency shared services.

Goal 10: Climate Change Resilience

10.1 Update policies to ensure planning for, and addressing the impacts of, climate change.

- a. Describe efforts to define risk, take action to build resilience, and establish regional and local coordination.
- b. Characterize plans to conduct a site specific detailed risk or vulnerability assessment to identify climate-related impacts and risks to site mission, operations, and personnel.
- c. Discuss actions to identify climate risks; affected policies, plans, or programs; and milestones or timelines to determine progress and success.
- d. Describe plans to incorporate climate-resilient design and management elements into the design of new agency buildings.

-

¹⁹ https://www.whitehouse.gov/sites/default/files/omb/memoranda/2016/m_16_19_1.pdf

10.2 Update emergency response procedures and protocols to account for projected climate change, including extreme weather events.

a. Describe measures taken over the course of the previous year that revised, enhanced, or modernized emergency response procedures.

10.3 Ensure workforce protocols and policies reflect projected human health and safety impacts of climate change.

a. Characterize how site/lab workforce protocols have been adapted to reflect advancements in understanding of climate change impact over the course of the past year.

10.4 Ensure site/lab management demonstrates commitment to adaptation efforts through internal communications and policies.

a. Provide a synopsis on management communication practices that encourage the adoption of adaptation policies.

10.5 Ensure that site/lab climate adaptation and resilience policies and programs reflect best available current climate change science, updated as necessary.

a. Discuss how site/lab policies or programs have been changed in the past year to reflect advancements in climate change science or on-site analyses of climate change related risks posed to the site. Utilize most up-to-date National Climate Assessment from the USGCRP and most recent IPCC reports as necessary.

10.6 Complete Dashboard climate change resiliency survey

a. Discuss answers from the climate change resiliency survey that was completed in the Dashboard.

III. Fleet Management Plan

Provide a brief overview of your organization's fleet management program and the related policies that govern fleet procurement, utilization, and disposition. Discussion points may include:

- Fleet Management Organizational Structure
- Fleet Procurement
 - O How are vehicles chosen?
 - What approvals are required at the site and from DOE HQ?
- Fuel Infrastructure
 - o How does currently available fueling infrastructure dictate vehicle acquisitions?
 - o Are there plans to develop on-site alternative fuel infrastructure?
- Vehicle Use Policies
 - o Does the site have employee check-out standards?
 - o Does the site employ vehicle telematics to track use and performance?
 - O Does the site have an anti-idling policy?
 - Are drivers provided education/training on proper driving behavior and fueling requirements?
- Additional fuel reduction, alternative fuel use, and vehicle reduction activities and policies

If your site already prepares a fleet management plan that addresses these issues, please include as an attachment with the SSP in lieu of writing a new section. Site-level fleet plans may be used to inform the DOE Vehicle Allocation Methodology (VAM) and Fleet Management Plan.

Appendix A – Reporting Schedule

The schedule for DOE databases and reports pertinent to DOE sustainability goals is presented below. These databases and reports are considered to be the official, exclusive sources of DOE sustainability data. Moreover, as this information is used for Congressional and OMB reporting, it is important to ensure the accuracy of database entries. The timely reporting and closing of these reports and databases is important in meeting Departmental reporting requirements. For each database or report, the closing or reporting deadline is highlighted.

- Facilities Information Management System (FIMS): Collects real property attributes and use. The database also stores data on buildings that have been assessed or are planned to be assessed against the High Performance Sustainable Building goals. Please note Dashboard will now be collecting information on facility status in regards to the energy intensity reduction goal.
- Federal Automotive Statistical Tool (FAST): Collects Federal fleet fuel use, vehicle inventory, and vehicle acquisitions data and projections.
- EMS Status Reporting (on FedCenter): Collects information on status of Environmental Management Systems.
- Integrated Data Collection (IDC) process: DCOI reporting is conducted through the IDC on a quarterly basis. Coordinate with site and headquarters OCIO points of contact.
- EISA Section 432 Compliance Tracking System (CTS): Collects evaluation progress on covered facilities, implemented measures and project savings and cost information, measurement and verification results of implemented measures and projects, and benchmarking results.
- Presidential Performance Contracting Challenge: Headquarters Program Offices provide monthly status updates sent via email to the SPO detailing milestones of current potential performance-based energy contracts.

 $Table \ A.1-Sustainability \ Dashboard$

Date(s)	Action/Event
August 26, 2016	Dashboard opens for FY 2016 data entry.
October 3, 2016 to October 7, 2016	SPO to upload locked FIMS data (basic facility information, EUI, metering, and GB) into the Dashboard.
November 1, 2016 to December 8, 2016	SPO to QA/QC data and work with sites to finalize FY 2016 data for December 9th data entry closing of Dashboard.
November 11, 2016	FY 2016 energy and water intensity square footage snapshot and Dashboard Excluded Buildings List report generated for Self-Certification.
December 9, 2016	Dashboard closes for FY 2016 data entry.
December 23, 2016	Dashboard snapshot for OMB/CEQ/FEMP annual reporting.
February 1, 2017	Dashboard will reopen for FY 2017 reporting.

 $Table \ A.1 - Facilities \ Information \ Management \ System \ (FIMS)$

Date(s)	Action/Event
September 30, 2016	FY 2016 Deferred Maintenance and Repair Needs due in FIMS.
October 3, 2016	FIMS data entry will be locked for the following fields: 1. Energy Consuming Bldg/Facilities 2. Energy Consuming Metered Process (Excluded) Facilities, including square footage, Exclusion Part, and Justification Comments 3. Metering
	The information for the above FIMS data fields will be pulled into the Dashboard from October 3 rd to October 7th. Afterwards, updates to these data fields can be made in the Dashboard until November 10, 2016 before the FY 2016 snapshot of November 11, 2016.
October 3, 2016	Begin input of FY 2016 Actual Maintenance and operating cost. Previous Actual Maintenance and operating cost values will be blanked out at 6am.
October 3, 2016	FY 2016 Deferred Maintenance and Repair Needs HQ Snapshot.
November 7, 2016	All FY 2016 data element updates are due in FIMS. This includes the FRPC data elements. Please ensure that the Estimated Disposition Year has been updated and the FY 2016 Actual Maintenance is 100% populated. In addition, ensure green building data is up to date and accurate.
November 8, 2016	FY 2016 year-end HQ Snapshot.
December 15, 2016	Federal Real Property Profile (FRPP) Reporting Deadline.

Table A.2 - Federal Automotive Statistical Tool (FAST)

Date(s)	Action/Event
June 1, 2016 to June 30, 2016	Enter EPACT Section 701 waivers and EISA Section 246 fueling center data information.
August 1, 2016 to August 31, 2016	OMB Circular A-11 data call for fleet budget submission.
October 1, 2016	FAST opens for FY 2016 data entry of actual inventory, disposal, cost, fuel, and mileage along with future acquisition, disposal, and cost projections.
November 18, 2016	FAST closes for FY 2016 data entry.
November 21, 2016 to December 12, 2016	FAST FY 2016 data is reviewed for inconsistencies by NNSA and DOE's Federal Fleet Managers.
December 15, 2016	FAST snapshot.

Table A.3 - Environmental Management System Reporting (EMS)

Date(s)	Action/Event
December 1, 2016	FedCenter opens for FY 2016 data entry.
January 29, 2017	FedCenter closes for FY 2016 data entry.

Table A.5 - EISA Section 432 Compliance Tracking System (CTS)

Date(s)	Action/Event
Monthly	On a monthly basis: 1. Benchmark with EPA Energy Star Portfolio Manager and upload to CTS. 2. Upload implemented projects.
December 30, 2016	Sites export Portfolio Manager benchmarking to CTS for weather adjustment EUI credit.
March 17, 2017	SPO uploads "covered" facility characteristic – square footage, energy usage, water usage. Sites export Portfolio Manager benchmarking to CTS.
June 16, 2017	All required EISA Section 432 information due to the SPO for review.
June 30, 2017	Deadline for EISA Section 432 evaluation, implemented project, M&V findings, and benchmarking reporting for mid-year OMB Scorecard snapshot.

Table A.6 - Presidential Performance Contracting Challenge (PPCC)

Date(s)	Action/Event
10 th of Each Month	Participating programs/sites provide status update with milestones via email to SPO (<u>Emily.Stoddart@hq.doe.gov</u>).
15 th of Each Month	SPO submits progress report to OMB.

Appendix B – Dashboard Data Accuracy Self-Certification

This appendix provides a template for self-certifying the FY 2016 data entered in the Dashboard.

To fulfill the Department's sustainability reporting requirements, data was previously collected through the CEDR and verified by a Site's manager or Program Office through the SSP submission process. The CEDR has been retired and a new system for data collection, the Dashboard, has been created as the official DOE sustainability reporting tool.

The Dashboard has an approval process built into the system, allowing Site managers and HQ Program officials to certify the accuracy and completeness of the data submission. If certifying the data though the Dashboard approval process is a burden based on site characteristics, Dashboard familiarity, or other challenge, Sites or Programs may verify Dashboard data submission with this self-certification letter. The self-certification letter is meant to maintain the integrity of the data submitted. The signed self-certification letter should be included as part of the SSP.

DOE SUSTAINBILITY DASHBOARD DATA SELF-CERTIFICATION FORM FY 2016

FROM: Name of DOE Site Lead Program Office TO: Sustainability Performance Office DATE: MM/DD/YYYY SELF-CERTIFICATION FORM FOR DASHBOARD DATA ACCURACY **SUBJECT:** VERIFICATION The Department of Energy (DOE) annually reports the agency's greenhouse gas emissions, energy and water use, fleet optimization, green buildings, and renewable energy to comply with the sustainability goals mandated in E.O. 13693 and DOE Order 436.1 Departmental Sustainability Directive. To fulfill the Department's sustainability reporting requirements, data was previously collected through the Consolidated Energy Data Report (CEDR) and verified by a Site's manager or Program Office through the SSP submission process. The CEDR has been retired and a new system for data collection, the DOE Sustainability Dashboard (Dashboard), has been created as the official DOE sustainability reporting tool. I certify that the data submitted for FY 2016 through the Dashboard as of (Insert Date) for (Name of DOE Site) has been accurately entered and completed to the best of my knowledge and expertise. DOE Site Office Official – printed name

Contact Information:

DOE Site Office Official – signature

Last, First Name Title: Job Title Phone:

Date

Appendix C – Excluded Buildings Self-Certification Process

This appendix provides guidance and a template for self-certification of the FY 2016 Excluded Buildings List, which is included in the *Annual Energy Report* to Congress.

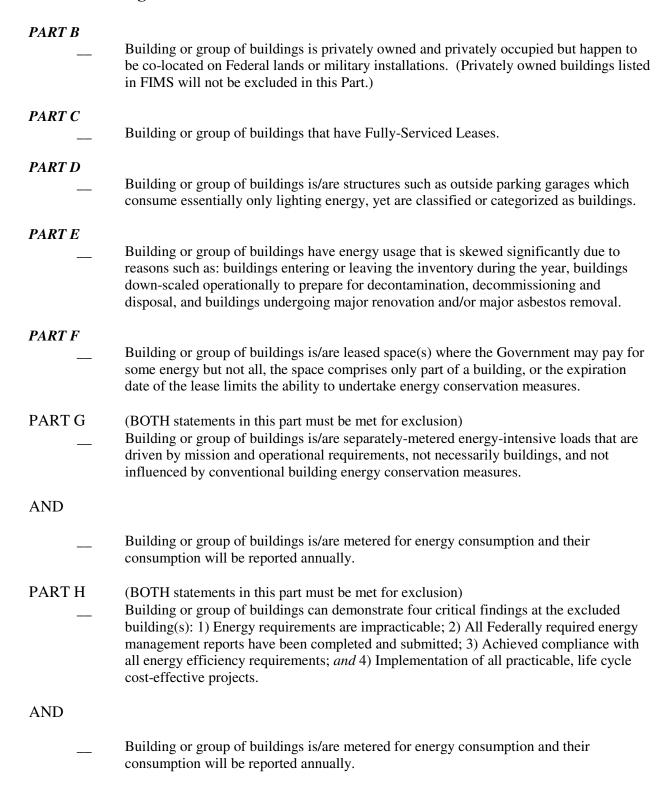
Background: FEMP provides general guidance for identifying buildings that are to be excluded from the calculation of energy intensity for meeting the energy intensity reductions goals established by the Energy Independence and Security Act of 2007. Sites identify such buildings in the Dashboard by assigning the square footage portion of such buildings into the Energy Consuming Metered (Excluded) category. Sites are to classify such buildings in the Dashboard by the end of October. From the end of October until November 11, sites may make needed adjustments to the Dashboard in coordination with SPO and their respective Program Office.

Self-Certification: On the snapshot date (November 11th for FY 2016 reporting) the Dashboard will produce a final master Excluded Buildings List. Site should download a copy of their Excluded Buildings List include it as part of their SSP narratives along with their Self-Certifications.

The Self-Certification by the DOE Site Office serves as notification to DOE that the site management agrees that the buildings listed on the Excluded Buildings List meet the qualifications to be excluded from the calculation of energy intensity for the fiscal year.

The following pages provide definition for the various exclusion parts, a sample self-certification statement, and answers to some frequently asked questions.

Definitions of Exclusions Allowed Under the Energy Intensity Reduction Goal PART B through PART H



DOE BUILDING EXCLUSION SELF-CERTIFICATION FORM FY 2016

FROM: Name of DOE Site

Program Office Landlord

TO: Sustainability Performance Office

DATE: MM DD, YYYY

SUBJECT: SELF-CERTIFICATION FORM FOR THE ENERGY INTENSITY GOAL OF

EISA 2007

Each buildings or group of buildings excluded under the criteria for a Part G or Part H exclusion is/are metered for energy consumption and their consumption is reported annually.

If any building has been excluded under the criteria for Part H for impracticability then all practicable energy and water conservation measures with a payback of less than 10 years have been installed. A justification statement that explains why process-dedicated energy in the facility may impact the ability to meet the goal has been provided in the Dashboard Energy Exclusions Report.

I certify that the buildings listed on the Excluded Buildings List produced by the Dashboard as dated 11 November 2016 for Name of DOE Site on pages XX through XX meet the exclusion criteria in *Guidelines Establishing Criteria for Excluding Buildings* published by FEMP on January 27, 2006.

DOE Site Office Official – printed 1	name
DOE Site Office Official – signatur	e
Date	

Contact Information: First, Last Name

Title

Phone: (000) 000 - 0000 eMail: abc@de.fgh

Frequently Asked Questions for PART G and PART H

The following section lists frequently asked questions regarding the use of Parts G and H for excluding facilities. It is assumed that the reader is already familiar with *Guidelines Establishing Criteria for Excluding Buildings from the Energy Performance Requirements of Section 543 of the National Energy Conservation Policy Act as Amended by the Energy Policy Act of 2005* [http://www1.eere.energy.gov/femp/pdfs/exclusion_criteria.pdf].

PART G

Part G applies to exclusions for separately metered loads within a building or a group of buildings. These process loads should be driven by mission and operational requirements. Such loads should not be influenced by conventional building energy conservation measures.

Q. I have a meter that exclusively measures energy use of a process load driven by mission and operational requirements. However, there are other spaces in the process load vicinity that are not metered. How should I account for the energy use of these spaces?

A. If a mission and operational driven process load is metered exclusively, this energy usage may be excluded. However, if there are areas in the process load vicinity that are not metered and have a non-process load, neither the load nor the related square footage can be excluded. Federal mandates from which Part G is derived only allow for process loads to be excluded if they are separately metered. Loads not metered may not be excluded under Part G.

Q. My meter collects data for an entire building, within which there is a process load driven by mission and operational requirements. The area of the process is less than the area of the entire building. Can I exclude the entire building?

A. No. If the area of a building supporting the process loads is less than that of the entire building, while the energy metering is for the entire building, then the building may not be excluded under Part G because the load is not separately metered. If there are parts of the building used for general administration, warehousing, or some other purpose not directly associated with the load (and not separately metered) then the Part G exclusion does not apply. Only when the process load is separately metered can it be excluded. Part H should be considered for justification for exclusion instead.

Q. I have a meter that measures a process load, such as a particle accelerator, but also includes a nominal amount of conventional but process-related loads, such as the lighting and space conditioning of the particle accelerator building. Can I exclude both the process load and the nominal load?

A. Yes. If the separately metered load includes both the process load and a nominal amount of process-related lighting and space conditioning energy, then both the metered energy and square footage may be excluded.

PART H

The four critical findings are based on the Guidelines above.

Q. Do the four critical findings in Part H apply to the exclusion of separately metered process loads under Part G or the other parts?

A. No. The four critical findings necessary under Part H do not apply to exclusions of separately-metered process loads under Part G or any of the other parts.

Q. How should I justify an exclusion under the "impracticable" critical finding?

A. In applying the exclusion of impracticability based on energy intensiveness, the site must demonstrate using standard energy engineering techniques that an overwhelming proportion of the building energy usage is process dedicated energy and that efficiency measures are not practicable because they would significantly impact mission requirements or would not be lifecycle cost effective. If a building is excluded under Part H Exclusion the justification must describe how the load is mission related and how it meets operations requirements. If process loads are not separately metered, sites can exclude the entire building. However, building level metering is required. Allocation algorithms and modeling should not be used to determine the amount of energy being used by the building.

Q. How do audits needed for Part H differ from the audits required under the Energy Independence and Security Act (EISA) of 2007?

A. EISA requires that facilities amounting to 75% of a site's energy use be audited every four years. Part H is derived from Sections 543 and 548(a) of the National Energy Conservation Policy Act (NECPA) as amended by the Energy Policy Act of 2005. To qualify for the fourth critical finding, a site may include an energy audit conducted within the last five years per NECPA identifying no potential cost-effective energy efficiency measures or a list of energy efficiency measures implemented in cases where an energy audit does identify potential measures. Accordingly, if a building continuously uses Part H exclusions, it should be audited at least every five years. In addition, sites may use the audits required in EISA to also fulfill audit requirements for Part H.

NOTE: Definition of Metered Data. Metered data means that energy is directly or indirectly measured at least annually and that estimated algorithms to determine energy usage are not used.

(If only part of the process load is measured, then only that part of the energy usage can be excluded.)	

Appendix D – Verification Data Request

DOE's greenhouse gas (GHG) inventory must be verified and subsequently certified by the agency Chief Sustainability Officer prior to submission to OMB/CEQ. To aid in certifying the data, a second-party verification team will be assembled to conduct an audit that compares reported data with source records while evaluating overall data collection methodologies.

Site-specific documentation may consist of invoices, inventory records, or other records that correlate to totals reported through site Dashboard submissions. All requested documentation should be traceable to reported totals through a rough guide and may be accompanied by documented assumptions, calculations (including material balances associated with fugitive emissions), and data tabulation resulting in reported data.

Additionally, the following items are also requested:

- Documented policies and procedures addressing data gathering and reporting, and associated Quality Assurance/Quality Control.
- Documentation of the site's Environmental Management System (EMS), if elements of GHG inventory related procedures are already incorporated

Selected sites will be notified in early October. If your site is selected, please ensure the requested data is submitted to the SPO along with Dashboard data and SSP narratives by December 9, 2016.

Appendix E – E.O. 13693 and Previous Requirements Crosswalk

Goal	Existing Goal Details	E.O. 13693 Status
Scope 1&2 GHG	Reduce Scope 1&2 GHG emissions by 28% by FY 2020 compared to FY 2008.	Extended to FY 2025 with same baseline. New goal % and interim targets TBD. E.O. cites opportunity for 40% reduction over next 10 years.
Scope 3 GHG	Reduce Scope 3 GHG emissions by 13% by FY 2020	Extended to FY 2025 with same baseline. New goal % and interim targets TBD. Reporting for newly solicited leases over 10,000 gross square feet now mandatory instead of optional.
Energy Intensity	Reduce energy intensity of goal subject buildings by 30% by 2015 compared to FY 2003.	Extended to FY 2025 and baseline changed. Now -25% by FY 2025 compared to a FY 2015 baseline. Interim target of a 2.5% reduction each year.
Renewable Electric Energy	Utilize 20% renewable electricity by FY 2020	Extended to FY 2025. Now 30% by FY 2025. Interim targets of 10% (FY16-17), 15% (FY18-19), 20% (FY20-21), 25% (FY22-23).
Clean Energy	N/A - New Goal.	Utilize 25% renewable energy (combined electric and thermal) by FY 2025. Interim targets of 10% (F16-17), 13% (FY18-19). 16% (FY20-21), 20% (FY22-23).
Water Intensity	Reduce water intensity by 16% by FY 2015 compared to FY 2007.	Extended to FY 2025 with same baseline. Now -36% by FY 2025. Interim target of a 2% reduction each year. Install water meters and collect water balance data.
ILA Water	Reduce ILA water use by 10% by FY 2015 compared to FY 2010.	Extended to FY 2025 with same baseline. Now -30% by FY 2025. Interim target of a 2% reduction each year.
HPSB	Ensure 15% of applicable buildings meet all of the Guiding Principles by FY 2015.	Extended to FY 2025. New goal and interim targets % TBD, with guidance that it is 15% at a minimum.
Net zero buildings	By FY 2030, achieve zero-net-energy in buildings entering planning process after FY 2020	Mentioned in EO. Original requirement remains. New requirement of identifying percentage of buildings that will be net-zero energy, water, or waste by FY 2025.
Leases	N/A	All leases should include efficiency criteria as a selection factor, and require lessor to disclose carbon emissions or energy consumption for the portion occupied.
Infrastructure Planning	Regional and Local Planning	Include transportation and transit considerations in new location planning, as well as optimized space utilization. Include appropriate electric vehicle charging infrastructure in new major building projects.
Fleet GHG	N/A - New Goal.	Reduce fleet-wide per-mile GHG emissions from fleet vehicles by 30% by FY 2025 compared to FY 2014. Interim targets of 5% (by FY17) and 20% (by FY21).
Zero Emission Passenger Cars	N/A - New Goal.	50% of new passenger vehicles shall be zero emission vehicles or plug-in hybrid vehicles by FY 2025. A double credit may be available for this goal, with details TBD. Interim target of 20% (FY20).
Petroleum	Reduce fleet petroleum fuel use by 30% by FY 2020 compared to FY 2005.	20% fleet petroleum consumption reduction by FY 2015, and each year thereafter, relative to a FY 2005 baseline (2015 target: 20%)
AFV	100% of passenger vehicles procured must be alternative fuel vehicles	75% of light duty vehicle acquisitions must consist of alternative fuel vehicles (AFV) (2015 target: 75%). 20% of passenger vehicle acquisitions consist of zero emission or plug-in hybrid electric vehicles by 2020 (2015 target: N/A; 2020 target: 20%; 2025 target: 50%)
Other Fleet Items	N/A	Determine optimum fleet inventory with emphasis on eliminating unnecessary vehicles. Include telematics in all new passenger vehicle acquisitions within two years.
Data Centers	100% of data centers must be individually metered by FY 2015, with an average PUE of 1.4	Extended. Install advanced meters in all data centers by FY 2018. New PUE of 1.2-1.4 for new data centers and 1.5 for existing.
Sustainable Acquisition	All requirements of E.O. 13514 & E.O. 13423 carry over into E.O. 136943, except for changes noted in next column.	100% of contract actions must include Sustainable Acquisition requirements (previous requirement was 95%). EPA will issue recommendations for non-Federal specifications, labels, and standards for us to use beginning FY2016. While EO13693 revokes EO13514 and EO13423, the FAR, DEAR, DOE Order 436.1 and your DOE contract are still in effect. Present FAR requirements (including EPEAT) are in effect until new FAR cases denote otherwise.

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