

Subject: SUSTAINABLE FEDERAL BUILDINGS POLICY

1. PURPOSE. This Order conveys policy, delegates authority, and assigns responsibility to ensure that the United States Department of Transportation (DOT or Department) and its Operating Administrations meet all requirements related to the Energy Act of 2020; the Energy Independence and Security Act of 2007 (EISA); the Energy Policy Act of 2005 (EPAct); the National Energy Conservation Policy Act of 1978 (NECPA), as amended; the Federal Buildings Personnel Training Act of 2010 (FBPTA); Executive Order (EO) 14057; *Catalyzing Clean Energy Industries and Jobs Through Federal Sustainability* and other applicable requirements set forth in law, regulations, or executive actions. With this Order, the Department will prioritize actions that elevate building performance, improve occupant health and productivity, reduce waste, cut costs, enhance resilience, and enable more effective accomplishment of its mission.
2. CANCELLATION AND EFFECTIVE DATE. This Order cancels and supersedes: DOT Order 4353A, *Sustainable Buildings Policy*, issued December 23, 2020. This Order is effective upon issuance.
3. APPLICABILITY. This Order applies to internal DOT actions and activities (e.g., all phases of administration, planning, programming, budgeting, training, management, and acquisition) that affect the siting, design, construction, renovation, demolition, operation, and maintenance of DOT-owned and DOT-leased facilities (direct-leases and General Services Administration (GSA) leases).
 - a. For the purpose of this Order, Operating Administration (OA) refers to the Operating Administrations, the Office of the Secretary, and the Office of Inspector General.
 - b. OAs are responsible for sustainable Federal building requirements within all DOT buildings including leased buildings (e.g. direct-leases and GSA leases) where DOT is directly responsible for building operations and maintenance, including payment for building management services, utilities and waste management.
 - c. OAs must comply with all relevant laws, regulations, executive actions, and other directives, including those set forth in Appendix I of this Order, along with any legal requirements not cited herein, or established after issuance.
 - d. The requirements of this Order are not intended to restrict or inhibit DOT's ability to fulfill its mission or adversely affect in a material way the Department's operations or the safety of the traveling public.
 - e. This Order is intended solely to improve the internal management of the Department. It is not intended to and does not create any right or benefit, substantive or procedural,

enforceable by any party against the United States, the Department, or its entities, officers, employees, or agents, or any other person.

- f. For the actions contained in this Order, “must” and “shall” conveys statutory or regulatory requirements or Departmental directives, and “should” or “may” convey recommendations for efficient and effective implementation.
4. REFERENCES. See Appendix I for a list of authorities and references documents.
 5. DEFINITIONS. See Appendix II for a list of key terms.
 6. POLICY. It is the policy of the Department to pursue cost-effective, innovative strategies to meet sustainable Federal building requirements for the 30 million square feet of DOT owned and leased facilities, in a manner that increases efficiency, optimizes performance, eliminates unnecessary use of resources, and protects the environment.
 - a. The Department will implement a comprehensive sustainable Federal building strategy and comply with all relevant requirements in the following areas:
 - 1) Implementing and Maintaining Building Sustainability;
 - 2) Certification of Sustainable Federal Buildings;
 - 3) EISA Section 432 Evaluations and Energy Conservation Measures;
 - 4) Utility Metering; and
 - 5) Funding Building Efficiency Improvements.
 - b. Sections **Error! Reference source not found.–Error! Reference source not found.** of this Order cover specific requirements, exclusions, and suggested practices for effective and sustainable building management.
 - c. Under Section 503 of EO 14057, DOT must develop and submit a Sustainability Plan, consistent with Council on Environmental Quality (CEQ) guidance, which will set the annual timeline for reporting. Section 11 of this Order sets forth reporting requirements.
 - d. Appendix I of this Order lists guidance and resources pertinent to sustainable buildings, including: Sustainable Federal Building certification, EISA Section 432 evaluations and benchmarking, metering, funding building efficiency improvements, reporting, renewable energy, and acquisitions.
 - e. OAs should also follow requirements related to this Order in DOT’s Overarching Sustainability, Energy and Water Management, Sustainable Acquisition, Climate Change Adaptation and Resilience, Greenhouse Gas Emissions, and Pollution Prevention and Waste Management Policies, or any subsequent updates that supersede them.
 7. RESPONSIBILITIES. The following personnel are responsible for implementing this Order.

- a. **DOT Assistant Secretary for Administration and Chief Sustainability Officer (CSO):** The Secretary of Transportation has delegated to the Assistant Secretary of Administration the duties of CSO pursuant to 49 CFR § 1.38(c)(2). The CSO serves as the senior official responsible for the day-to-day management, implementation, performance, and compliance with all applicable energy, environmental, and sustainability statutes, regulations, executive actions, and other requirements. Related to the requirements of this Order, the CSO will:
- 1) Represent DOT on sustainability matters with officials from the Federal Executive Branch, Congress, and all other external stakeholders;
 - 2) Communicate all energy, environmental, and sustainability requirements to the OAs and report to the Secretary and Deputy Secretary of Transportation on the adequacy and effectiveness of DOT's implementation;
 - 3) Coordinate with all appropriate Secretarial Offices and OAs to implement this Order;
 - 4) Submit the DOT Annual Energy Management Data Report and supporting documentation to the OMB and DOE; and
 - 5) Develop and implement the annual DOT Sustainability Plan.
 - 6) Attend management reviews with the Chair of CEQ and the Director of OMB to assess implementation and progress on agency plans, goals, and targets developed pursuant to EO 14057.
- b. **DOT Assistant Secretary for Budget and Programs/Chief Financial Officer (CFO):** Serves as the principal advisor to the Secretary of Transportation on the development, review, and presentation of the Department's budget resource requirements and allocations. The CFO provides oversight of the Department's program performance and is responsible for all aspects of financial management.
- c. **DOT Office of the Senior Procurement Executive (OSPE):** Facilitates the accomplishment of DOT's mission by providing effective and sustainable business policies, practices, and services in acquisition, and competitive sourcing.
- d. **DOT Senior Real Property Officer:** Oversees the siting, acquisition, and operations of DOT facilities and the integration into regional and local planning initiatives. Responsible for updating the DOT's "Sustainable Federal Building" performance within the Federal Real Property Profile (FRPP) management system.
- e. **DOT Office of the Secretary of Transportation (OST); Office of Facilities, Information, and Asset Management; Energy and Resource Efficiency Program (EREP):** Related to the requirements of this Order, EREP will:
- 1) Develop energy, environmental, and sustainability policies to improve efficiency, reduce waste, and reduce costs for DOT facilities;
 - 2) Provide strategy development, oversight, evaluation, methodology, and assistance for implementation of sustainability policy;
 - 3) Assist the CSO in communicating all energy, environmental, and sustainability requirements to the OAs; and,

- 4) Aggregate and assemble data for DOT-wide internal and external sustainability reports.
- f. **DOT Office of the General Counsel (OGC):** Interprets and provides guidance at a Departmental level on new and existing environmental and sustainability statutes, regulations, executive actions, and other requirements. Reviews contracts and ensures they meet all applicable statutes, regulations, executive actions, and other requirements for OST or other OAs as requested.
- g. **OA Administrator:** Ensures OA conforms to and implements all applicable requirements for sustainable buildings set forth in this Order. The OA Administrator may delegate responsibilities as necessary to meet the requirements. Related to the requirements of this Order, the OA Administrator will:
 - 1) Issue data collection requests and analyze data for reporting progress milestones;
 - 2) Incorporate sustainability goals into performance plans and appraisals;
 - 3) Ensure employees with sustainability and/or facility responsibilities receive appropriate training;
 - 4) Communicate new requirements throughout OA;
 - 5) Ensure that building sustainability information is tracked and reported to the appropriate systems at the minimum intervals;
 - 6) Submit requests, if appropriate, for exemptions from sustainable building requirements to the CSO; and
 - 7) Ensure that OAs evaluate performance contracts for building renovations and upgrades, and pursue such contracts when they provide the most appropriate financing mechanism.
- h. **Energy Managers or other positions designated by the OA Administrator:** Implement the requirements of 42 U.S.C. § 8253(f) and reduce energy use at the facility or facilities under their purview. Related to the requirements of this Order, energy managers or designated personnel will:
 - 1) Ensure facility compliance with other applicable energy efficiency laws and regulations;
 - 2) Demonstrate relevant core competencies that GSA identifies pursuant to FBPTA (40 U.S.C. § 581) and ensure that other personnel (including contractors) also demonstrate relevant competencies if they perform building operations and maintenance, energy management, safety, or design functions;
 - 3) Evaluate climate change risk to infrastructure and operations and implement actions to improve resilience; and
 - 4) Facilitate completion of energy and water audits and implement the building performance measures recommended in this Order.
- i. **OA Senior Procurement Official (Chief Acquisition Officer or Federal Aviation Administration (FAA) Acquisition Executive):** Awards and administers contracts and ensures compliance with the Federal Acquisitions Regulations (FAR), Transportation Acquisitions Regulations (TAR), Transportation Acquisition Manual (TAM), and other

Departmental policies related to acquisition¹. For a full description, refer to the DOT Sustainable Acquisition Policy. Related to the requirements of this Order, the OA Senior Procurement Official will:

- 1) Consider building efficiency and resilience when renewing or starting new leases;
- 2) Support contracting and financing for building efficiency and resilience improvements;
- 3) Ensure appropriate sustainability and resilience clauses are included in construction and operations and maintenance contracts;
- 4) Lead OA efforts to achieve net zero emissions from Federal procurement, including a “buy clean” policy; and
- 5) Confirm that relevant DOT contract actions, including procurements with best-in-class (BIC) and government wide contracts, have required sustainability clauses.

8. IMPLEMENTING AND MAINTAINING BUILDING SUSTAINABILITY. There are a range of requirements and best practices related to sustainable building design, construction, and operation that apply to all DOT buildings, new construction, or leased buildings. Refer to DOT’s Energy and Water Management, Pollution Prevention and Waste Management, and Climate Resilience Policies for a detailed description of requirements in each respective sustainability goal area. The requirements of this section are applicable for all DOT buildings (including leased buildings where DOT pays utilities separately from lease payments).

a. OAs shall integrate CEQ's Guiding Principles for Sustainable Federal Buildings (Guiding Principles) in building design, construction, and operation of new Federal buildings and renovated existing buildings, unless otherwise exempted by CEQ.

1) OAs should strive to meet the goals of the Guiding Principles in all buildings.

b. OAs shall pursue multiple sustainability requirements and best practices in DOT buildings, such as:

1) Employ Integrated Design Principles

a) **Reducing Emissions:** Per EO 14057, OAs shall achieve net-zero emissions (NZE) across their building portfolios by 2045, including a 50 percent emissions reduction by 2032 from 2008 levels, prioritizing improvement of energy efficiency and the elimination of onsite fossil fuel use.

i. OAs shall transition to 100 percent carbon pollution-free electricity (CFE) on a net annual basis by 2030.

2) Optimize Energy Performance

¹ For FAA, this requirement applies to the extent the policy herein is consistent with 49 U.S.C. § 106(f)(2)(D).

- a) **Energy efficiency:** Per EO 14057, DOT shall increase facility energy efficiency and establish targets for fiscal year 2030 for agency wide facility energy use intensity (EUI) in accordance with agency wide targets.
 - i. OAs must complete deep energy retrofits, prioritizing reductions of on-site emissions to achieve net-zero or near net-zero emissions at the building level where technically practicable, in at least 30 percent of covered facilities, as defined in Section 432 of the Energy Independence and Security Act of 2007, by 2030.
 - ii. OAs shall advance the energy security of DOT buildings by integrating on-site energy generation and energy storage options to the maximum extent possible.
 - iii. As part of the annual Sustainability Plan, OAs must develop a performance contracting strategy and integrate it into comprehensive facility portfolio planning and emissions reduction efforts.
 - iv. OAs shall track energy efficiencies from all major projects in DOE's Compliance Tracking System (CTS) for covered facilities as per Section 10 of this Order, and where appropriate, in eProject Builder or another data system.
 - v. OAs should pursue additional measures to improve energy efficiency, such as:
 - (i) Implementing traditional energy efficiency measures (e.g., lighting upgrades, controls optimization, increasing insulation, equipment upgrades) in conjunction with efficient electrification and demand management.
 - vi. OAs shall also follow related requirements, energy intensity exceptions, and caveats as detailed in DOT's Energy Management Policy.
- b) **Comprehensive Energy and Water Evaluations:** Comprehensive facility evaluations identify cost-effective energy conservation measures (ECM) to optimize building performance. Requirements for facility energy project management and benchmarking is prescribed by 42 U.S.C. § 8253(f), Use of Energy and Water Efficiency Measures in Federal Buildings and can be found in DOT's Energy and Water Management Policy Order.
 - i. OAs must designate an energy manager for each "covered facility".
 - ii. OAs must identify and report "covered facilities," which are subject to the requirements of Section 432 of EISA).
 - (i) OAs must designate "covered facilities" in accordance with DOE's Facility Energy Management Guidelines and Criteria for Energy and Water Evaluations in Covered Facilities (42 U.S.C. § 8253(f), Use of Energy and Water Efficiency Measures in Federal Buildings).

- iii. OAs must benchmark “covered facility” performance annually within ENERGY STAR® Portfolio Manager.
- iv. OAs must complete comprehensive energy and water evaluations of “covered facilities” at least once every four years (ideally by evaluating approximately 25 percent per year).
- v. OAs must assess recommissioning measures (or, if the facility has never been commissioned, retrocommissioning measures) as part of building evaluations, unless excepted per 42 U.S.C. § 8253(f).
- vi. OAs should implement, within two years or soon thereafter, any life cycle cost-effective ECM identified as part of a completed EISA Section 432 evaluation under 42 U.S.C. § 8253(f).
- vii. Section 11 of this Order contains a detailed schedule of reporting requirements.

c) **Utility Metering:** Utility meters can help OAs improve efficiency and reduce costs in Federal facilities. Building-level sub-meters support EISA evaluations (Section 10 of this Order) by providing accurate and specific utility consumption data to identify and prioritize conservation opportunities.

- i. Pursuant to 42 U.S.C. § 8253(e), OAs must install energy (electricity, natural gas, and steam) and water meters in all Federal buildings, unless building can be excluded based on DOE Federal Metering Guidance.
- ii. OAs must incorporate meter data into existing Federal energy tracking systems and make it available to energy managers.
- iii. In accordance with the OMB Memorandum M-19-19, OAs must pursue automated monitoring and management tools for data centers, such as advanced energy metering and sub-metering, sufficient to accurately estimate power usage effectiveness, for all data centers over 100 kW.
 - (i) OAs can request an exemption for individual data centers where it is too costly to install this monitoring, or if they plan to close the center.
- iv. OAs must develop and implement five-year metering plans that are consistent with current DOE Federal Building Metering Guidance. Metering plans should address the elements in Section 11(a) above.
- v. OAs must report annually on their progress toward the electric, natural gas, steam, and water metering requirements of 42 U.S.C. § 8253(e) within the Annual Energy Management Report and Energy Data Report.
 - (i) Section 11 of this Order contains a schedule of reporting requirements.

3) Protect and Conserve Water

- a) **Water Conservation:** Implementation of successful water management practices in DOT facilities can increase efficiency, optimize performance,

improve resilience, eliminate unnecessary use of resources, and protect the environment.

- i. Per EO 14057, DOT shall increase facility water efficiency and establish targets for fiscal year 2030 for agency wide facility water use intensity (WUI). Additionally, where feasible, agencies must ensure all new construction and modernization projects greater than 25,000 gross square feet entering the design phase in fiscal year 2022 and beyond are designed to be net zero water buildings.
- b) **Stormwater Management:** Stormwater management provides many benefits, such as reducing water demand and minimizing or avoiding polluted stormwater runoff protecting lakes, rivers, and watersheds.
 - i. All OAs must comply with statutory requirements related to stormwater management, in accordance with Section 402 of CWA (33 U.S.C. § 1342), Section 438 of EISA (42 U.S.C. § 17094), and EO 14057.
 - ii. For any development or redevelopment projects at a Federal facility with a footprint greater than 5,000 GSF, OAs must use site planning, design, construction, and maintenance strategies in order to maintain or restore the pre-development hydrology of the property with regard to temperature, rate, volume, and duration of flow (42 U.S.C. § 17094).
 - iii. Section 402 of CWA requires that stormwater, which contributes to a violation of a water quality standard or is a significant contributor of pollutants to waters of the United States, comply with all National Pollutant Discharge Elimination System (NPDES) requirements (see Section 11b of this Order).
 - iv. For facilities that fall within the definition of 40 CFR § 122.26(b)(14)(i)-(xi), OAs must prepare a written Stormwater Pollution Prevention Plan as required by the EPA Multi- Sector General Permit or the state administrated the National Pollutant Discharge Elimination System (NPDES).
 - v. OAs must report releases of toxic or hazardous substances due to runoff, including stormwater runoff, in the Toxic Release Inventory as surface water discharges. Section 11 of this Order contains a summary of stormwater reporting requirements.
 - vi. OAs shall reduce stormwater runoff impacts to the maximum extent possible, through retrofits to existing sites wherever economically feasible opportunities exist, including:
 - (i) Green roofs and cisterns for harvesting rainwater;
 - (ii) Permeable pavements; and
 - (iii) Removing curbs from paved lots and allowing stormwater to sheet-flow into adjacent vegetation.
 - vii. OAs shall give high priority for retrofits to existing sites out of compliance with stormwater management regulations.

- (i) As a best practice, OAs are encouraged to develop stormwater management plans for sites that are not regulated.
 - viii. OAs shall ensure that new facility construction and acquisitions use stormwater management approaches such as low-impact development or green infrastructure, where life cycle is cost-effective.
 - ix. Further information and guidelines for meeting the stormwater runoff requirements of EISA can be found in EPA's Technical Guidance on Implementing the Stormwater Runoff Requirements for Federal Projects (2009).
 - x. For any new construction or modernization, OAs must meet or exceed EISA Section 438 stormwater management requirements to certify the building as compliant.
- c) **Wastewater Management:** The CWA established the basic structure for regulating pollutant discharges into the waters of the United States. Effective wastewater management prevents degradation of water quality to protect human health and ecosystems.
- i. OAs must comply with all Federal, state, territorial, interstate, and local requirements and administrative authorities for the control and abatement of water pollution, pursuant to Section 313 of CWA.
 - ii. Section 402 of CWA requires that all municipal, industrial, and commercial facilities that discharge wastewater directly from a point source (a discrete conveyance, such as a pipe, ditch, or channel) into a water of the United States (such as a lake, river, or ocean), must obtain a NPDES permit. NPDES permit requirements also apply to stormwater that contributes to a violation of a water quality standard or which is a significant contributor of pollutants to waters of the United States. To comply with the CWA OAs must:
 - (i) Ensure that all facilities obtain a NPDES permit when required;
 - (ii) Conduct chemical and/or biological tests on wastewater samples, maintain records, and submit Discharge Monitoring Reports to the EPA, as required;
 - (iii) Operate and maintain facility system equipment to ensure that all discharges meet each respective facility's NPDES permit requirements and limitations;
 - (iv) Manage domestic treatment works in accordance with sludge requirements;
 - (v) Manage discharges to a Publicly-Owned Treatment Works in accordance with established Federal, state, and local pretreatment standards; and
 - (vi) As appropriate, apply for Section 404 dredge and fill permits for construction and development projects.

- iii. OAs must comply with Section 311(b)(2) of CWA (33 U.S.C. § 1321), which sets forth requirements for the discharge of oil and hazardous substances, where applicable. Hazardous substances, as defined in 33 U.S.C. § 3121 are designated at 40 CFR part 116, and 40 CFR part 117 establishes the reportable quantity for each substance.
 - (i) OAs must notify EPA and the state regulatory agency of any facility discharges equal to or in excess of the reportable quantity, following requirements set forth in 33 CFR § 153.203.
 - (ii) This requirement does not apply to facilities that discharge the substance under an NPDES permit or a CWA Section 404 permit, as long as the facility has met any applicable effluent limitations or pretreatment standards.
- iv. OAs shall identify and implement opportunities to reclaim and reuse greywater, where life cycle cost-effective and consistent with Federal, state, and local regulations. In addition to reducing potable water use, this approach has the supplemental benefit of reducing wastewater discharge from the site.
- d) OAs must track water efficiencies from all major projects in CTS for covered facilities and where appropriate, in eProject Builder or another data system.
- e) Section 11 of this Order contains a summary of water efficiency, wastewater, and stormwater reporting requirements.
- f) OAs shall also follow the requirements related to water efficiency, wastewater, and stormwater management that are found in the DOT Energy Management, the Pollution Prevention and Waste Management Policy orders.

4) Enhance the Indoor Environment

- a) OAs shall follow the requirements from the Guiding Principles for Sustainable Federal Buildings, to enhance the indoor environment, unless otherwise exempted by CEQ.
- b) OAs shall implement indoor environment best practices to the maximum extent possible, including:
 - i. Actions to enhance ventilation and thermal comfort, daylight and lighting controls,
 - ii. Acquisition of low-emitting materials and products,
 - iii. Performing radon mitigation, moisture and mold control activities, testing indoor air quality during construction and operations,
 - iv. Designate employee smoking areas and appropriate controls, implementing integrated pest management, and advancing occupant health and wellness.

5) Reduce the Environmental Impacts of Materials

- a) Per Section 4.5.3 of the EO 14057 Implementing Instructions, DOT shall divert 50 percent of non-hazardous municipal solid waste (MSW) from landfill by FY 2025 and achieve a 75 percent diversion by FY 2030. Additionally, DOT shall achieve a 50 percent diversion of non-hazardous construction and demolition (C&D) debris by FY 2025 and a 75 percent diversion by FY 2030.
 - i. OAs shall first strive to reduce all types of waste generated and then pursue strategies that divert waste from treatment and disposal facilities. OAs shall follow EPA's Waste Management Hierarchy, which prioritizes waste management approaches, from most to least environmentally preferred, as follows:
 - (i) Source reduction;
 - (ii) Reuse;
 - (iii) Recycling and composting;
 - (iv) Energy recovery (e.g., waste-to-energy combustion facilities);
 - (v) Treatment; and
 - (vi) Disposal, such as landfill.
 - ii. As part of the Waste Management Hierarchy, OAs shall implement organic food waste bans that prohibits facilities from sending organic waste to the landfill and utilize an organics collection service, compost food waste onsite or send food waste to a compost or anaerobic digestion facility.
 - iii. While pursuing the path to net-zero emissions by 2050, OAs shall work to also achieve net zero waste by implementing methods to reduce, reuse, or recover solid waste streams resulting in more than 90 percent diversion to landfill or incinerators.
 - iv. Pursuant to 42 U.S.C. § 6961, OAs must comply with all Federal, state, interstate, and local requirements for the control and abatement of non-hazardous solid waste and hazardous waste.
 - v. OAs must comply with EO 12088 for pollution control standards.
 - vi. DOT shall follow CEQ guidance for reporting agency level data on waste generated and diverted.
 - vii. OAs shall also follow related requirements, waste management exceptions, and caveats as detailed in DOT's Pollution Prevention and Waste Management Policy.
- b) OAs must reduce the environmental impact of materials by specifying recycled, bio-based, and energy-efficient products and eliminating the use of ozone-depleting compounds.
- c) Lower Carbon
 - i. In accordance with Section 303 of EO14057 and DOT DASH 2022-06:

- OAs shall increase the acquisition and use of products and materials with lower carbon embodied emissions such as concrete, asphalt, steel, glass and furniture in modernization and new construction projects.
- ii. Embodied carbon refers to the GHG emissions associated with building construction, including extraction, manufacturing, transport, construction, and disposal over the entire lifecycle of the building. OAs shall increase the acquisition and use of products and materials with lower carbon embodied emissions such as concrete, asphalt, steel, glass and furniture in Federal procurement and federally funded projects.
- iii. OAs shall refer to the DOT Sustainable Acquisitions within the Transportation All Acquisition Portal (TAAP) as well as the Building Decarbonization and Embodied Carbon resources from the GSA's Sustainable Facilities Tool.
- iv. OAs shall refer the DOT Sustainable Acquisition Policy Order for more information.

6) Assess and Consider Building Resilience

- a) **Climate Resiliency:** Per EO 14008, DOT and its OAs must ensure that mission critical assets are resilient to climate change, including current and future flood risk, through the implementation of adaptation strategies and activities.
 - i. OAs must identify critical assets to include buildings and other operational assets essential to the fulfilment of the Department of Transportation's mission.
 - (i) OAs must indicate the asset type, location, and function defined as mission critical, and include the asset identification number from the Real Estate and Asset Management Enterprise System (FRAMES) if applicable.
 - (ii) OAs must validate or update lists of mission critical assets every four years, or sooner if new mission critical assets (as determined by the OA) are designated, or if designated assets are no longer considered mission critical.
 - (iii) OAs must include an assessment of mission criticality in the planning and design of new buildings and infrastructure as well as when making major renovations to existing buildings.
 - ii. OAs must assess vulnerability to potential future impacts from climate change for all mission critical assets identified.
 - iii. DOT has developed the Climate Hazard Exposure and Risk (CHER) Tool to guide OAs through vulnerability and risk assessments for mission critical operational assets. OAs must use the CHER Tool, or future assessment tools approved by EREP, to develop a vulnerability rating and climate risk score for each mission critical asset or group of assets.

- iv. See the Climate Change Adaptation and Resiliency Policy for DOT Operational Assets for additional guidance.
- b) Federal Flood Risk Management System (FFRMS)
 - i. OAs shall utilize the Federal Flood Risk Management Standard to establish the base floodplain when evaluating current and future flood risk for mission critical assets.
 - ii. Ensure that new buildings and major renovations meet or exceed DOT and Federal policies on flood plain risk management, including EO 13690 and the associated Federal Flood Risk Management Standard (reinstated through EO 14030); DOT Policy Order 5620.2, Floodplain Management and Protection; and other requirements).
 - iii. OAs shall also comply with EOs 11988 and 11990 if proposing to use sites located in floodplains or wetlands.
- c) Sustainable Siting
 - i. In selecting locations for leased space, OAs shall apply the principles of sustainable and equitable siting set forth in Section 4.4.11 of the EO14057 Implementing Instructions to advance:
 - (i) Sustainable land use that promotes conservation of natural resources, reduced GHG emissions, and increased resilience to the impacts of climate change
 - (ii) Efficient use of and integration with existing local infrastructure;
 - (iii) Expanded use of and broad access to public transportation;
 - (iv) Equitable development that promotes environmental justice and spurs economic opportunity for disadvantaged communities that historically have been marginalized and overburdened by pollution and underinvestment; and
 - (v) Coordination and alignment with the development plans of Tribal, State, and local governments that advance these and related goals.
 - ii. Tools such as the DOT Equitable Transportation Community (ETC) Explorer and the CEQ Climate and Economic Screening Tool (CEJST) identify disadvantaged communities to support OA siting decisions.

7) General Provisions

- a) Existing Buildings
 - i. Pursuant to the Fixing America's Surface Transportation (FAST) Act of 2015 (Pub. L. No. 114-94), the Department should:
 - (i) Where appropriate, consider utilizing existing Federal fleet plug-in

- electric vehicle (PEV) charging stations for privately owned PEVs in parking areas used by Federal employees and authorized users, or install operate and maintain new charging stations for such vehicles where there is demand; and
 - (ii) Seek reimbursement from employees for services provided to recharge batteries of privately owned PEVs consistent with 42 U.S.C. § 6364 and associated guidance documents related to workplace charging.
 - ii. OAs shall incorporate these best practices that support building sustainability to the maximum extent possible:
 - (i) Optimize space usage in accordance with OMB Memorandum No. 2015-01 to avoid unnecessary real property expenditures and promote more efficient use of the Department's real property assets; consistent with accessibility standards;
 - (ii) Consider sustainability in all phases of a building asset's lifecycle, including design, operation, deconstruction and/or reuse, and set performance goals;
 - (iii) Advance regional and local integrated planning, including watersheds and airsheds; and
 - (iv) Ensure that rehabilitation of historic buildings utilizes best practices and technologies in retrofitting to promote long-term viability of the buildings, pursuant to 54 U.S.C. § 300101.
- b) New Construction and Major Renovations
 - i. Pursuant to the requirements of the National Strategy for the Efficient Use of Real Property, the Federal Property Management Reform Act, and OMB Memorandums M-20-10 and M-2024-01, OAs shall:
 - (i) Before planning construction and major modernization projects, review the GSA inventory of Federal facilities and indicate the reasons to acquire new space instead of using existing Federal space.
 - (ii) Optimize space usage to avoid unnecessary real property expenditures and reduce emissions, energy and water usage, and waste, consistent with accessibility standards.
 - ii. OAs should consider the principles of sustainable and equitable siting set forth in Section 4.4.11 of the EO 14057 Implementing Instructions and described above when selecting locations for new construction.
 - iii. Consistent with EO 14057, all new construction and major modernization projects greater than 25,000 GSF entering the planning stage will be designed, constructed, and operated to be net-zero emissions by 2030, and where feasible, net-zero water and waste.
 - iv. OAs must meet energy efficiency and sustainable design and construction

- standards where applicable in 10 CFR Part 433 or 10 CFR Part 435, pursuant to 42 U.S.C. § 6834.
- v. OAs must also meet at least 30 percent of hot water demand through the use of solar hot water heaters, if life cycle cost-effective compared to other reasonably available technologies, pursuant to 42 U.S.C. § 6834(a);
 - vi. Consistent with EO 14057, all new construction and modernization projects greater than 25,000 GSF must apply the Guiding Principles. All renovation projects must apply the Guiding Principles, to the greatest extent technically feasible.
 - vii. Consistent with EO 14057, and associated Implementing Instructions, M-22-06, and Sections 201 and 219 of EO 14008, it is the policy of the Federal Government to promote sustainable locations for Federal workplaces and strengthen the vitality and livability of the communities in which they are located. When making siting decisions for Federal workplaces, DOT should advance:
 - (i) Sustainable land use that promotes conservation of natural resources, reduced GHG emissions, and increased resilience to the impacts of climate change
 - (ii) Efficient use of and integration with existing local infrastructure;
 - (iii) Expanded use of and broad access to public transportation;
 - (iv) Equitable development that promotes environmental justice and spurs economic opportunity for disadvantaged communities that historically have been marginalized and overburdened by pollution and underinvestment; and
 - (v) Coordination and alignment with the development plans of Tribal, State, and local governments that advance these and related goals.
 - viii. New construction and modernization projects must include requirements to reduce and divert construction and demolition debris from treatment and disposal facilities, landfill, combustion and incineration, and track diversion in accordance with Section 4.5 of the EO 14057 Implementing Instructions.
 - (i) OAs should also recycle and salvage construction and demolition waste and track separately from non-hazardous solid waste.
 - ix. In addition, OAs should incorporate these other best practices that support building sustainability for new construction and major modernization projects:
 - (i) Use commissioning, recommissioning, or retrocommissioning, as appropriate, to ensure that building systems perform as intended; and
 - (ii) Enhance indoor environmental quality such as thermal comfort, day lighting, and use of low-emitting materials (during construction and occupancy).

c) Leased Buildings

- i. Consistent with Section 4.4.13 of the EO 14057 Implementing Instructions, all new lease solicitations for at least 25,000 rentable square feet (RSF) where the Federal Government occupies at least 75 percent of a building are to be green leases.
- ii. A green lease is a lease for space in a privately owned, commercial building that includes environmental and sustainability criteria for the building and operations to:
 - (i) Reduce energy, water, material resource use, and emissions;
 - (ii) Improve indoor environmental quality;
 - (iii) Reduce negative impacts on the environment;
 - (iv) Increase the use of sustainable products and services;
 - (v) Increase reuse and recycling opportunities;
 - (vi) Reduce impacts of transportation through building location;
 - (vii) Consider the effects of the building on human health and the environment; and
 - (viii) Track impacts of emissions, energy, water and waste.
- iii. Under Section I.F.2 of M-22-06, and consistent with Section 207 of EO 14057, agencies must track municipal solid waste (MSW) generated from operations in leased spaces and construction and demolition (C&D) debris generated during tenant improvement.
- iv. OAs must lease space in ENERGY STAR® qualified buildings when renewing or entering into leases, unless excepted in accordance with 42 U.S.C. § 17091.
- v. OAs should consider options to lease space in certified sustainable buildings, where cost-effective (as described in Section 9 of this Order).
- vi. OAs shall consider the role of Scope 3 emissions for the full lifecycle of leased buildings. OAs shall refer to the New Construction and Modernization Section of this order for more detail.

9. CERTIFICATION OF SUSTAINABLE FEDERAL BUILDINGS. Sustainable Federal Buildings help the Department reduce energy, water, and material use; improve occupant health and productivity; protect the environment; and support employees and communities.

- a. OAs should qualify applicable sustainable Federal buildings, including existing buildings, new construction, and major renovations, in accordance with Section 4.4.15 of the EO 14057 Implementing Instructions.
 - 1) OAs should refer to Section 3.2 of the Federal Building Performance Standard for Applicable Facilities criteria.

- 2) OAs may certify using the Guiding Principles for Sustainable Federal Buildings (Guiding Principles) or third-party building certification systems or standards identified by GSA's Office of Federal High-Performance Buildings.
 - (a) OAs should ensure that sufficient evidence and documentation are available to demonstrate compliance for each building they certify.
 - 3) If OAs use the Guiding Principles, certified Sustainable Federal Buildings must meet the requirements of the most current version.
 - (a) At the issuance of this Order, the 2020 Guiding Principles are the most current version.
 - (b) To assess compliance, OAs should refer to the Guiding Principles, the companion document, Determining Compliance with the Guiding Principles for Sustainable Federal Buildings, and the associated checklists.
 - 4) If OAs use third party certifications, OAs must follow CEQ and GSA guidance and ensure all requirements are met, including 10 CFR Part 433, Subpart C and 10 CFR Part 435, Subpart C, to be considered a certified Sustainable Federal Building.
- b. OAs may choose to track and report the sustainability of leased space; however, OAs should track this separately, as leased buildings (except for shared ownership sites) do not count toward progress for certified Sustainable Federal Buildings.
- 1) As approved by OMB, FAA may count the Mike Monroney Aeronautical Center (MMAC) shared ownership sites in existence as of June 2018, for meeting sustainable Federal building mandates.
- c. Pursuant to 40 U.S.C. § 524, OAs should update the Real Estate and Asset Management Enterprise System (FRAMES) within 30 days of a change in a building's certification status in alignment with the annual scorecard, to ensure that the DOT Senior Real Property Officer can effectively update the Federal Real Properties Profile (FRPP). The "sustainability" data element identifies a building's certification status.
- 1) The FRPP data dictionary identifies the buildings for which certification is an applicable and reportable element.
 - (a) OAs must report the certification status of all non-disposed buildings that meet all the following conditions:
 - (i) Greater than or equal to 25,000 GSF;
 - (ii) Located in the United States and U.S. territories; and
 - (iii) Legal interest of owned (G) or museum trust (M).
 - (b) OAs should report "not applicable" if a building meets all of the following conditions:

- (i) The building is occupied one hour or less per person per day on average;
 - (ii) Total energy consumption from all sources is less than 12,700 British thermal units per GSF per year; and
 - (iii) Water consumption is less than two gallons per day on average.
- (c) OAs may optionally report for owned or direct leased buildings less than 25,000 GSF.
 - (d) OAs should not report certification status for non-building assets, buildings located outside the United States and U.S. territories, or buildings that have a status indicator of: report of excess (ROE) submitted, ROE accepted, Determination to Dispose, Cannot Currently be Disposed, Surplus, or Disposed.

d. Section 11 of this Order contains a detailed schedule of reporting requirements.

10. FUNDING BUILDING EFFICIENCY IMPROVEMENTS. Strategic use of appropriated funds and/or third-party financing can help the Department to increase facility efficiency, improve operations, enhance resilience, and address needed capital improvements and maintenance. OAs should assess all funding opportunities as part of a comprehensive building portfolio planning process.

- a. For building efficiency projects, OAs should select the mix of funding and implementation mechanisms that are most practicable, life cycle cost-effective, and supportive of facility management goals, including appropriated funds, performance contracts, grants and rebates.
 - 1) Appropriated funds:
 - (a) In accordance with 42 U.S.C. § 8255, OAs must identify funds that they are requesting for ECMs in annual budget justifications.
 - 2) Performance contracts:
 - (a) In accordance with EO 14057, OAs should assess performance contracting opportunities for building renovations and upgrades and pursue such contracts to help meet the requirements set forth in this Order, when they provide the most appropriate financing mechanism.
 - (b) Performance contracts include energy savings performance contracts (ESPCs), such as ESPC ENABLE and ESPC energy sales agreements (ESPC ESAs); utility energy service contracts (UESCs); and power purchase agreements (PPAs).
 - (i) More information on these contract types is available at the DOE website on Energy and Project Procurement Development Services.
 - (ii) OAs must use DOE's indefinite-delivery, indefinite-quantity (IDIQ) contract to award ESPCs and must ask multiple energy services companies to submit preliminary assessments for the planned project.

(c) ESPCs must include and UESCs should include:

- (i) Guarantees of the savings that the ECMs will generate, covering the full cost of the Federal payments; and
 - (ii) Annual measurement and verification of savings.
- (d) OAs may score the costs of performance contracts on an annual basis (obligate the distributed costs each year, rather than fully obligating the total capital costs in the first year of the contract), consistent with OMB Memoranda M-98-13 and M-12-21.
- (e) OAs must use eProject Builder to report on ESPC projects implemented through the current DOE IDIQ contract.
- (i) OAs should use eProject Builder to improve tracking and accuracy of data for all efficiency projects, regardless of funding mechanism.
- (f) OAs must report performance contract energy and water reductions and associated savings to meet energy and water management requirements in the Annual Energy Management Report and Energy Data Report and identify yearly planned investment and number of contract awards for the Annual Sustainability Report and Implementation Plan, in accordance with annual instructions.

3) Grants and Rebates:

- (a) OAs should consider using utility grants, rebates, and other incentives to fund building efficiency projects, in accordance with 42 U.S.C. § 8256.
- (b) OAs should consider DOE grants such as the Assisting Federal Facilities with Energy Conservation Technologies (AFPECT) grant program.

b. When evaluating projects, OAs should:

- 1) Evaluate all identified ECMs, including all cost savings and any potential benefits from other ancillary savings;
- 2) Leverage performance contracts, grants, and rebates in combination with direct appropriations funding; and
- 3) Bundle projects of varying paybacks into a combined project that is life cycle cost-effective, where possible, to maximize efficiency and economic benefits.

c. Under 42 U.S.C. § 8256(e), OAs may retain any funds appropriated for energy expenditures, water expenditures, or wastewater treatment expenditures that the OA does not actually expend due to energy savings or water savings measures.

- 1) Except as otherwise provided by law, such funds may be used only for energy efficiency, water conservation, or unconventional and renewable energy resources projects.
- 2) Such projects are subject to the requirements of 40 U.S.C. § 3307.

- d. Section 11 of this Order contains a schedule of reporting requirements.
- e. OAs should also follow related requirements found in DOT's Energy Management, Water Management, and Sustainable Acquisition Policies.

11. **SUMMARY OF REPORTING REQUIREMENTS.** OAs must use the monitoring and documentation systems listed in the following table to meet the requirements of this Order. These systems are generally web-based and proprietary to the Federal government.

| Reporting Module | Purpose | Data Attributes to Report | Reporting Frequency |
|--|--|--|--|
| Real Estate and Asset Management Enterprise System (FRAMES) | Records DOT real property inventory data and the Field #25 field attributes for input into the FRPP Management System (MS) | Field #25 'Sustainable Building' attributes for FRPP. Instructions for reporting building sustainability status and metrics are in GSA's annual Guidance for Real Property Inventory Reporting and the FRPP MS Data Dictionary | Within 30 days of a change in Sustainable Federal Building certification status, but no less than once a year (September 30) |
| Internal OA Sustainability Scorecard | Report OA progress on energy management requirements for the OMB Scorecard for Efficient Federal Operations/Management | Energy data and performance metrics from the OA-level Annual Energy Management Report | As needed to support DOT and internal OA reporting requirements |
| OMB Scorecard for Efficient Federal Operations/Management | Report DOT progress on sustainable buildings and efficiency investments | Total number and GSF of DOT certified Sustainable Federal Buildings; the number and costs of new performance contracts | Annually, by date specified by OMB. Data are derived from Federal reporting systems |
| Toxics Release Inventory Reporting via EPA's TRI-MEweb online reporting tool | Report on releases of toxic and hazardous materials as stormwater runoff, or through discharge of wastewater | Quantity of toxic chemicals entering the environment, transferred annually, disposed of, or otherwise released | Annually, no later than July 1 |

| Reporting Module | Purpose | Data Attributes to Report | Reporting Frequency |
|---|---|---|-------------------------------|
| 33 CFR 153.203 - Procedure for the notice of discharge | Notice of discharge of reportable quantity of hazardous substances | Follow procedure outlined in 33 CFR 153.203 | As required |
| Discharge Monitoring Reports (EPA Form 3320-1 or NetDMR electronic reporting) | Report sample collection and analytical results required by effective NPDES permits | Consult EPA Form 3320-1 | As specified in NPDES permits |

12. POLICY UPDATES AND/OR REVISIONS. This Order must be reviewed to determine whether updates or revisions are necessary at least once every three years. In the interim, all applicable laws revised by Congress and all new executive actions or guidance related to sustainable buildings are considered incorporated by reference.
13. POLICY EXCEPTION REQUIREMENTS. OA Administrators may submit a request for an exception to the CSO, through EREP. Approvals for exceptions should be coordinated with DOT's OGC.

Philip A. McNamara
Assistant Secretary for Administration,
Chief Sustainability Officer

APPENDIX I: AUTHORITIES AND REFERENCES.

1. Public Laws and Statutes

- a. [Energy Independence and Security Act of 2007](#) (EISA), Pub. L. No. 110-140 ([42 U.S.C. § 8253](#), [42 U.S.C. § 8258\(a\)](#), [42 U.S.C. § 6834](#), [42 U.S.C. § 17091](#), [42 U.S.C. § 17094](#), [42 U.S.C. § 17112\(b\)](#), [42 U.S.C. § 17143](#)).
- b. [Energy Policy Act of 1992](#) (EP Act), Pub. L. No. 102-486, as amended by the [Energy Policy Act of 2005](#), Pub. L. No. 109-58 ([42 U.S.C. § 8253](#), [42 U.S.C. § 8254](#), [42 U.S.C. § 6834](#), [42 U.S.C. § 6835](#), [42 U.S.C. § 8262c](#), [42 U.S.C. § 8262k](#), [42 U.S.C. § 15852](#)).
- c. [Fixing America's Surface Transportation \(FAST\) Act of 2015](#), Pub. L. No. 114-94, ([42 U.S.C. § 6364](#)).
- d. [Federal Buildings Personnel Training Act of 2010](#) (FBPTA), Pub. L. No. 111-308, ([40 U.S.C. § 581](#)).
- e. [Federal Water Pollution Control Amendments of 1972](#) (Clean Water Act), Pub. L. No. 92-500 ([33 U.S.C. §§ 1311-1346](#)).
- f. [National Energy Conservation Policy Act of 1978](#), Pub. L. No. 95-619, as amended ([42 U.S.C. §§ 8251-8287d](#)).
- g. [National Historic Preservation Act](#), Pub. L. No. 89-665, as amended ([54 U.S.C. § 300101](#)).
- h. Resource Conservation and Recovery Act of 1976 (RCRA), ([42 U.S.C. §§ 6901–6992k](#)).

2. Regulations

- a. DOE Regulations, [10 CFR Parts 433-436](#).
- b. [FAR at 48 CFR § 23.205, Energy-Savings Performance Contracts](#) (not applicable to the FAA).
- c. [Federal Acquisition Regulations \(FAR\) at 48 CFR Part 41, Acquisition of Utility Services](#) (not applicable to the FAA).

3. Executive Actions

- a. [EO 14008, Executive Order on Tackling the Climate Crisis at Home and Abroad](#), January 2021.
- b. [EO 14057, Catalyzing America's Clean Energy Industries and Jobs through Federal Sustainability](#), December 2021.
- c. [EO 13212, Actions to Expedite Energy-Related Projects](#), 66 Fed. Reg. 28357, May 2001, as amended.
- d. [EO 13327, Federal Real Property Asset Management](#), 69 Fed. Reg. 5897, February 2004.
- e. [EO 13589, Promoting Efficient Spending](#), 76 Fed. Reg. 70863, November 2011.
- f. EOP: [Presidential Memorandum, Disposing of Unneeded Federal Real Estate](#), June 2010.
- g. [Implementing Instructions for EO 14057, Catalyzing Clean Energy Industries and Jobs Through Federal Sustainability](#), CEQ, August 2022

- h. OMB: [Memorandum M-22-06, Catalyzing Clean Energy Industries and Jobs Through Federal Sustainability](#), December 2021.
- i. OMB: [Circular No. A-11, Preparation, Submission, and Execution of the Budget](#), June 2019.
- j. OMB: [Data Center Optimization Initiative](#).
- k. OMB: [Memorandum M-19-19, Update to Data Center Optimization Initiative](#), June 2019.
- l. OMB: [Federal Cloud Computing Strategy](#)
- m. OMB: [Memorandum M-20-10, Addendum to the National Strategy for Real Property](#), March 2020.
- n. OMB: [Management Procedures Memorandum No. 2015-01, Reduce the Footprint Policy](#), March 2015.
- o. OMB: [Memorandum M-98-13, Federal Use of Energy Savings Performance Contracting](#), July 1998.
- p. OMB: [Memorandum M-12-21, Addendum to OMB Memorandum M-98-13 on Federal Use of Energy Savings Performance Contracts and Utility Energy Service Contracts](#), September 2012.
- q. OMB/CEQ: [Memorandum, Supporting Energy and Sustainability Goal Achievement through Efficiency and Deployment of Clean Energy Technology](#), OMB, August 2011.

4. Guidance, Directives, and Online Resources

- a. Implementing and Maintaining Building Sustainability and Related References
 - 1) CEQ: [Climate and Economic Justice Screening Tool \(CEJST\)](#)
 - 2) CEQ: [Guidance for Federal Agency Implementation of Workplace Charging Pursuant to the Fixing America's Surface Transportation Act: Level 1 Charging Receptacles](#), June 2016.
 - 3) CEQ: [Guidance for Federal Agency Implementation of Workplace Charging Pursuant to the Fixing America's Surface Transportation Act: Electric Vehicle Supply Equipment](#), October 2016.
 - 4) DOE FEMP: [Facility and Fleet Optimization](#)
 - 5) DOE FEMP: [Federal Buildings and Campuses Handbooks for Net Zero Energy, Water, and Waste](#), August 2017.
 - 6) DOE FEMP: [Portfolio Resilience Planning and Implementation](#).
 - 7) DOE FEMP: [Water Efficiency in Federal Buildings and Campuses](#)
 - 8) DOT: [Equitable Transportation Community Explorer \(ETC\)](#)
 - 9) DOT: [DOT DASH 2022-04, Lower Carbon Procurement Pilot](#)
 - 10) EPA: [Federal Green Challenge](#)
 - 11) EPA: [Green Infrastructure](#)
 - 12) EPA: [Technical Guidance on Implementing the Stormwater Runoff Requirements for Federal Projects under Section 438 of the Energy Independence and Security Act](#), December 2009.
 - 13) EPA: [Clean Water Act \(CWA\) and Federal Facilities](#)
 - 14) Federal Buildings Personnel Training Act Resources
 - 1) GSA: [Core Competencies](#)
 - 2) GSA: [Facilities Management Institute](#)

- 15) FEMA: [Federal Flood Risk Management Standard](#), February 2015
 - 16) GSA: [Office of Federal High-Performance Buildings](#)
 - 17) GSA: [Sustainable Facilities Tool](#)
 - 1) [Building Decarbonization](#)
 - 2) [Embodied Carbon](#)
 - 3) [Operational Carbon](#)
 - 18) GSA: [GSA's Proving Ground \(GPG\)](#)
 - 19) GSA: [Resources for green roofs on Federal facilities](#)
 - 20) NPS: [Secretary of the Interior's Standards for Rehabilitation](#) and [Illustrated Guidelines on Sustainability for Rehabilitating Historic Buildings](#)
- b. Certification of Sustainable Federal Buildings and Related References
- 1) CEQ: [Guiding Principles for Sustainable Federal Buildings](#), December 2020.
 - 2) CEQ: [Determining Compliance with Guiding Principles for Sustainable Federal Buildings](#), February 2016.
 - 3) DOE FEMP: [Guiding Principles for Sustainable Federal Buildings](#)
 - 4) DOE FEMP: [Guiding Principles Checklists for New Construction and Modernization and Existing Buildings](#)
- c. EISA Section 432 Energy Evaluations and Benchmarking
- 1) DOE: [EISA Section 432 Federal Covered Facility Management and Benchmarking Data](#)
 - 2) DOE: [EISA Federal Facility Management and Benchmarking Reporting Requirements and Guidance \(42 U.S.C. § 8253 Subsection \(f\)\)](#).
 - 3) DOE: [Facility Energy Management Guidelines and Criteria for Energy and Water Evaluations in Covered Facilities \(42 U.S.C. § 8253 Subsection \(f\), Use of Energy and Water Efficiency Measures in Federal Buildings\)](#), November 2008.
 - 4) DOE: [Federal Building Energy Use Benchmarking Guidance](#), August 2014.
 - 5) DOE: [FEMP EISA 432 CTS](#)
 - 6) DOE: [Guidance for the Implementation and Follow-up of Identified Energy and Water Efficiency Measures in Covered Facilities \(per 42 U.S.C. § 8253\(f\), Use of Energy and Water Efficiency Measures in Federal Buildings\)](#), September 2012.
 - 7) EPA: [ENERGY STAR® Portfolio Manager](#)
- d. Utility Metering
- 1) DOE: [Federal Building Metering Guidance \(per 42 U.S.C. § 8253\(e\), Metering of Energy Use\)](#), October 2022.
 - 2) GSA: [Sustainable Facilities Submetering Wizard](#)
- e. Funding Building Efficiency Improvements
- 1) DOE: [Energy and Project Procurement Development Services](#)
 - 2) DOE: [Resources for Implementing Federal ESPCs](#)
 - 3) DOE: [UESCs for Federal Agencies](#)
 - 4) GSA: [Procuring Energy Management Services with the GSA Areawide Contract](#), August 2015.

- f. Reporting
 - 1) CEQ: [Federal Greenhouse Gas Accounting and Reporting Guidance](#), January 2016.
 - 2) DOE: [Reporting Guidance for Federal Agency Annual Report on Energy Management \(per 42 U.S.C. § 8258\)](#).
 - 3) GSA: [Federal Real Property Profile Guidance Library website](#), including instructions.
- g. Renewable Energy
 - 1) CEQ: [Federal Renewable Energy Certificate Guide](#), June 2016.
 - 2) DOE: [Federal Renewable Energy Requirements: EPL Act 2005 § 203 and Executive Order 13834 Renewable Energy Resource Guide](#), June 2020.
 - 3) DOE FEMP: [ESPC Energy Sales Agreements](#)
 - 4) DOE FEMP: [Guide to Integrating Renewable Energy in Federal Construction](#), 2013.
 - 5) DOE FEMP: [Large-Scale Federal Renewable Energy Projects](#)
 - 6) [Procuring Solar Energy: A Guide for Federal Facility Decision Makers](#), 2010.
 - 7) DOE NREL: [REopt platform](#)
 - 8) EPA: [Green Power Partnership](#)
- h. Acquisitions
 - 1) EPA: [ENERGY STAR](#)
 - 2) FAA: [Federal Aviation Administration Acquisition Management System](#)
- i. Data Centers
 - 1) DOE FEMP: [Energy Efficiency in Data Centers](#)
 - 2) DOE Lawrence Berkeley National Laboratory (LBL): [Data Center Efficiency Center of Expertise](#)

APPENDIX II. KEY TERMS.

- 1. **Advanced Meter:** Advanced meters have the capability to measure and record utility interval data hourly or more frequently and communicate the data daily or more frequently to a central collection point. See also “meter.”
- 2. **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.
- 3. **Building:** Any building, structure, or facility, or part thereof, including the associated energy consuming support systems, which is constructed, renovated, leased, or purchased in whole or in part for use by the Federal government and consumes energy; also a collection of such buildings, structures, or facilities and the energy consuming support systems for such

collection. Building is used interchangeably with facility throughout this Order, based on the original statutory or guidance language.

4. **Commissioning:** A systematic process of using appropriate verification and documentation to ensure that all facility systems perform interactively in accordance with the design documentation and intent of the facility and operational needs. The primary goal is to ensure optimum performance of a facility, in accordance with design or current operating needs, over the useful life of the facility, while meeting building occupancy requirements.
5. **Comprehensive Energy and Water Evaluation (Evaluation):** An inspection, survey, and analysis of energy and water consumption in a building, process, or system to identify conservation opportunities as required by 42 U.S.C. § 8253(f)(3)(A).
6. **Covered Facility:** A facility that DOT has designated as subject to the requirements of Section 432 of EISA (Pub. L. No. 110-140, as codified at 42 U.S.C. § 8253(f)), which requires agencies to designate facilities that collectively comprise at least 75 percent of their total facility energy use as “covered.” See also the definition of “facility.”
7. **Data Center:** Any facility that primarily contains electronic equipment used to process, store, and transmit digital information, which may be: (A) a free-standing structure; or (B) a facility within a larger structure that uses environmental control equipment to maintain the proper conditions for the operation of electronic equipment.
8. **Energy Conservation Measure (ECM):** Energy and water efficiency and conservation measures identified during the comprehensive evaluation conducted pursuant to 42 U.S.C. § 8253(f)(3)(A) or otherwise. For the purpose of this Order, the acronym “ECM” will always represent both water and energy efficiency measures.
9. **Energy Intensity:** The energy consumed per gross square foot of Federal building space including direct combustion of fuel sources and/or indirect energy use via purchased electricity, steam, hot water, or chilled water.
10. **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 ECM or series of measures at one or more locations. The contract must meet the requirements in 42 U.S.C. § 8287, et seq.
11. **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; heating, ventilation and air conditioning replacement or controls; solar photovoltaics (PV); and water conservation measures.
12. **Energy Savings Performance Contract Energy Sales Agreement (ESPC ESA):** A project structure similar to a PPA that uses the multiyear ESPC authority to implement distributed energy projects—referred to as ESA ECMs—on Federal buildings or land. The ESA ECM is

initially privately owned for tax incentive purposes, and the Federal agency purchases the electricity it produces with guaranteed cost savings. An ESPC can be used for the acquisition of utility services per 48 C.F.R. 41.102(b)(7) (2015).

13. **Evaluation:** See “Comprehensive Energy and Water Evaluations.”
14. **Executive Action:** Includes EOs, presidential memoranda, implementing instructions, and other documents issued by the Executive Office of the President.
15. **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. “Facility” is used interchangeably with “building” throughout this Order, based on the original statutory or guidance language.
16. **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 Subpart A.
17. **Major Renovation:** See “modernization” definition below. This Order uses both terms interchangeably based on the original language in statute and guidance.
18. **Meter:** An electromechanical or solid state device that cumulatively measures and records aggregated utility usage data for use in customer billing or energy management. See also “advanced meter.”
19. **Modernization:** A project in an existing building that is essentially a comprehensive replacement or restoration of virtually all major systems, interior work (such as ceilings, partitions, doors, floor finishes, etc.), and building elements and features. The 2016 Guiding Principles provide this definition to clarify which projects should use the “modernization” criteria to certify Sustainable Federal Buildings. See also “major renovation” above. This Order uses both terms interchangeably based on the original language in statute and guidance.
20. **Performance Contract:** A contract that identifies expected deliverables, performance measures, or outcomes, and makes payments contingent on their successful achievement. Performance contracts also use techniques, such as consequences or incentives, to ensure that the agency receives the agreed-upon value. Any qualified contractor, including utilities, can conduct performance contracts, which include ESPCs and UESCs.
21. **Recommissioning:** Commissioning a facility or system beyond the project development and warranty phases of the facility or system. The primary goal is to ensure optimum performance of a facility, in accordance with design or current operating needs, over the useful life of the facility, while meeting building occupancy requirements. See also “commissioning.”
22. **Retrocommissioning:** Commissioning a facility or system that was not commissioned at the time of construction of the facility or system. See also “commissioning.”

23. ***Shared Ownership Sites:*** Lease arrangement between the Oklahoma City Airport Trust (OCAT) and the FAA for multiple buildings in Oklahoma. OCAT (building owner) is responsible for the major building systems (i.e. replacement of mechanical systems, roofs, etc.), typically when the system has reached the end of its useful life. In addition to rent, FAA (lessor) pays separately, for the building utilities (i.e. energy, water, waste, etc.) and the general operations and maintenance (i.e. building conditions, janitorial, fire protection, etc.) of buildings leased from OCAT. FAA has control of operational improvements and upgrades to building systems (those not associated with end of useful life).
24. ***Sustainable Federal Building:*** Equivalent to 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.
25. ***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.

