

**SUBJECT: DEPARTMENTAL SUSTAINABILITY**

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1. PURPOSE. This Order establishes an agency-wide integrated, performance-based approach to implement sustainability in the Department of Energy (DOE) operations. The Order ensures the Department conducts its missions in a sustainable manner that addresses national energy security and global environmental challenges; advances sustainable, efficient, reliable, and resilient energy for the future; promotes the conservation of natural resources; and ensures DOE achieves sustainability goals pursuant to applicable laws, regulations, and Executive Orders (EOs).
2. CANCELS/SUPERSEDES. DOE O 436.1, *Departmental Sustainability*, dated 05-02-11. Cancellation of a directive does not, by itself, modify or otherwise affect any contractual or regulatory obligation to comply with the directive. Contractor Requirements Documents (CRDs) that have been incorporated into a contract remain in effect throughout the term of the contract unless and until the contract or regulatory commitment is modified to either eliminate requirements that are no longer applicable or substitute a new set of requirements.
3. APPLICABILITY.
  - a. Departmental Applicability.
    - (1) This Order applies to all DOE elements responsible for the management and operation of the Department's sites and facilities except for the exemptions identified in paragraph 3.c. None of the requirements of this Order will be implemented in a manner that would conflict with federal laws and regulations, other DOE directives, and existing legal agreements and associated requirements.
    - (2) The Administrator of the National Nuclear Security Administration (NNSA) must ensure that NNSA employees comply with their responsibilities under this directive. Nothing in this directive will be construed to interfere with the NNSA Administrator's authority under section 3212(d) of Public Law (P.L.) 106-65 to establish Administration specific policies, unless disapproved by the Secretary.
  - b. DOE Contractors. Except for the equivalencies/exemptions in paragraph 3.c., the CRD, Attachment 1, sets forth requirements of this Order that will apply to contracts for the management and operation (M&O) of DOE sites and facilities, or other contracts under which the contractor manages a site and/or facility in support of Government operations.

c. Equivalencies/Exemptions for DOE O 436.1A.

- (1) Equivalency. In accordance with the Department of Energy Organization Act of 1977, Section 302, the Secretary operates and maintains the Power Marketing Administrations (PMAs) electric power transmission systems by and through the PMAs. PMAs will submit required information regarding sustainability efforts and requirements and are encouraged to work closely with the Office of Sustainability and Asset Management (MA-50), Sustainability Performance Division on assisting the Department in achieving its sustainability goals.
- (2) Equivalency. In accordance with the responsibilities and authorities assigned by EO 12344, codified at 50 United States Code (U.S.C.) sections 2406 and 2511, and to ensure consistency throughout the joint Navy/DOE Naval Nuclear Propulsion Program, the Deputy Administrator for Naval Reactors (Director) will implement and oversee requirements and practices pertaining to this directive for activities under the Director's cognizance, as deemed appropriate.

4. REQUIREMENTS. The Department must take a life cycle cost effective, data-driven, risk-informed, performance-based approach that aligns sustainability requirements with mission needs to ensure DOE operations address the sustainability of its land, natural resources, and facilities including resilience to disruptions from extreme weather and other conditions associated with a changing climate. The Department must comply with applicable Federal, state, and local laws and regulations.

The Department must implement an agency-wide approach that: minimizes or eliminates emissions of greenhouse gases and other pollutants at DOE-owned and operated sites and facilities; reduces energy and water use; increases adaptation and resilience to the impacts of climate change; protects public and worker health; minimizes waste; addresses anticipated harm from emerging contaminants of concern; conserves and restores ecosystems and preserves native landscapes, watersheds, and biodiversity; and delivers environmental justice.

Sustainability activities will apply industry leading practices and voluntary consensus standards.

The following paragraphs set forth the requirements for Departmental sustainability management, performance measurement, and progress reporting.

- a. Planning, Budgeting and Funds Management. The Department must prepare plans and reports required by Federal laws, regulations, and EOs<sup>1, 2</sup> and submit budget requests to implement sustainability activities. DOE elements must:

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<sup>1</sup> EO 14057, *Catalyzing Clean Energy Industries and Jobs Through Federal Sustainability*, December 8, 2021.

<sup>2</sup> EO 14008, *Tackling the Climate Crisis at Home and Abroad*, January 27, 2021.

- (1) Ensure sites prepare and submit Site Sustainability Plans (SSPs), Vulnerability Assessment and Resilience Plans (VARPs), and support development of Program-specific plans as may be required in accordance with approved DOE MA-50 instructions.
  - (2) Identify and request funding to implement sustainability and resilience activities as required by the Department's annual budget instructions, including the development of a five-year projection of investments required for sustainability and resilience activities.
  - (3) Ensure ratepayer incentives and rebates from public benefit funds or utilities are utilized to enhance energy and water conservation,<sup>3</sup> including reducing initial project costs or returning to the budgeted account through which the project was funded to be included in estimated cost savings.
  - (4) Ensure verified savings from a facility's energy and water conservation projects are reinvested (in accordance with the DOE Financial Management Handbook) at that facility consistent with the site sustainability plan, as appropriate, to further the energy and water conservation and operations and maintenance efforts at that facility.<sup>4</sup>
- b. Acquisition and Supply Chain Management. The Department's acquisition of products and services must include contract specifications to support sustainability and a resilient supply chain. DOE elements must:
- (1) Use procurement and supply chain performance contract management processes and other contract mechanisms such as Federal Acquisition Regulation (FAR) clauses to maximize sustainability.<sup>5</sup>
  - (2) Use performance contracts, such as Energy Savings Performance Contracts (ESPCs) and Utility Energy Service Contracts (UESCs) to address at least 50 percent of life cycle cost effective energy- or water-saving measures identified in evaluations of covered facilities.<sup>6</sup>
  - (3) Maximize, to the extent feasible, the procurement of sustainable products and services such as those recommended by the U.S. Environmental Protection Agency (EPA), the U.S. Department of Agriculture,<sup>7</sup> and the Federal Energy Management Program (FEMP).<sup>8</sup>
  - (4) Maximize, to the extent feasible, the procurement of materials and contractor operations with lower embodied emissions and alternatives to

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<sup>3</sup> 42 U.S.C. Section 8256, *Incentives for Agencies*.

<sup>4</sup> 42 U.S.C. Section 8256, *Incentives for Agencies*.

<sup>5</sup> FAR Section 52.223, *Sustainable Products and Services*.

<sup>6</sup> Energy Act of 2020; 42 U.S.C. Section 8253, *Energy and Water Management Requirements*.

<sup>7</sup> 7 U.S.C. Section 8102, *Biobased Markets Program*.

<sup>8</sup> 42 U.S.C. Section 8259b, *Federal Procurement of Energy Efficient Products*.

ozone-depleting substances and high global warming potential hydrofluorocarbons.

- (5) Minimize the procurement of materials and contractor operations that introduce the use or release of chemicals that are identified as an emergent contaminant of concern as documented by the DOE Office of Environment, Health, Safety and Security (EHSS).
- (6) Maximize, to the extent feasible, the inclusion of provisions to increase renewable energy and carbon pollution-free electricity generation and use as a component in all DOE solicitations for electricity and include the Tribal Preference Policy.<sup>9</sup>
- (7) Prioritize purchases to support transition to a circular economy.<sup>10</sup>
- (8) Diversify and prioritize the use of domestic supply chains.
- (9) Invest in small and disadvantaged businesses<sup>11</sup> to support American jobs.
- (10) Conduct mission critical supply chain vulnerability assessments and incorporate the results in procurement processes.

c. Fleet Management. The Department must develop, annually update, and submit to the White House Council on Environmental Quality (CEQ) and the Office of Management and Budget (OMB) a zero-emission fleet strategic plan (as required by OMB) that optimizes the acquisition and retention of vehicles to support program requirements and mission; deploys zero-emission vehicle (ZEV) refueling infrastructure; and maximizes the acquisition and deployment of zero emission light-, medium-, and heavy-duty vehicles where the General Services Administration (GSA) offers one or more ZEV options for that vehicle class.<sup>12</sup> The Department must implement a Fleet Management Information System (FMIS) to support the collection and management of asset-level data (ALD), including importing data from vehicle telematics and exporting ALD to support government-wide reporting systems such as the Federal Automotive Statistical Tool (FAST) and GSAFleet.gov.<sup>13</sup> DOE elements must:

- (1) Ensure that prior to approval, fleet increases are supported by a mission need, business case analysis, and a current utilization survey.<sup>14</sup>

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<sup>9</sup> Department of Energy *Tribal Preference Policy*.

<sup>10</sup> EO 14057, *Catalyzing Clean Energy Industries and Jobs Through Federal Sustainability*, December 8, 2021.

<sup>11</sup> FAR Part 19, *Small Business Programs*.

<sup>12</sup> EO 14057, *Catalyzing Clean Energy Industries and Jobs Through Federal Sustainability*, December 8, 2021.

<sup>13</sup> 41 CFR Part 102-34, *Motor Vehicle Management*.

<sup>14</sup> 48 CFR Part 7.401, *Acquisition Considerations*.

- (2) Deploy and expand vehicle fleet fueling/charging infrastructure to support new ZEVs, including when building or renovating existing Federal facilities and parking areas.<sup>15</sup>
  - (3) Annually support development and submission of a Departmental ZEV strategic plan for transformation of the fleet to ZEVs, including annual targets.<sup>16</sup>
  - (4) Plan for effective and efficient fleet management including budget submissions that identify and prioritize opportunities to transition to ZEVs, including the cost of ZEVs and the cost of associated necessary infrastructure.<sup>17</sup>
- d. Environmental Stewardship, Waste Minimization, and Environmental Justice. The Department must incorporate the principles of environmental stewardship, waste minimization, and environmental justice into sustainability activities. DOE elements must:
- (1) Ensure sites use a certified or conforming Environmental Management System (EMS)<sup>18</sup> as a management framework to implement programs to meet sustainability goals and support the fulfillment of environmental compliance obligations in accordance with approved instructions from DOE EHSS.
  - (2) Ensure disadvantaged communities and adverse impacts on those communities that may be exacerbated by DOE operations are identified and documented in site EMSs.<sup>19</sup>
  - (3) Develop and implement environmental justice programs and activities to secure environmental justice for disadvantaged communities<sup>20</sup> that have been historically marginalized and overburdened by climate-related impacts.<sup>21</sup>
  - (4) Develop a fugitive emission management program, if not already covered under an existing air quality program, to ensure minimization of high Global Warming Potential fugitive emissions through inventory tracking; preventative maintenance; leak detection and repair; and continuous

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<sup>15</sup> Federal Sustainability Plan, *Clean Energy Industries and Jobs*, December 2021.

<sup>16</sup> Office of Management and Budget Memorandum M-22-06, *Catalyzing Clean Energy Industries and Jobs Through Federal Sustainability*, December 8, 2021.

<sup>17</sup> Federal Sustainability Plan, *Clean Energy Industries and Jobs*, December 2021.

<sup>18</sup> International Standards Organization's (ISO) 14001 International Standard, *Environmental Management Systems: Requirements with Guidance for Use* (2015).

<sup>19</sup> EO 13985, *Advancing Racial Equity and Support for Underserved Communities Through the Federal Government*, January 25, 2021.

<sup>20</sup> U.S. Environmental Protection Agency, *Environmental Justice Screening and Mapping Tool*.

<sup>21</sup> EO 14008, *Tackling the Climate Crisis at Home and Abroad*, January 27, 2021.

process improvements. Target fugitive emissions gases<sup>22</sup> include carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF<sub>6</sub>), and nitrogen trifluoride (NF<sub>3</sub>).

- (5) Develop and maintain non-radioactive waste management procedures and program and project plans that comprehensively address and minimize non-radioactive waste generation and risks associated with waste disposal and in accordance with documented goals,<sup>23</sup> including:
  - (a) Planning for source reduction as a first principle and reviewing and documenting improvements for established waste processes.
  - (b) Implementing operational methods and process improvements to minimize waste generation.
  - (c) Minimizing municipal solid waste, hazardous waste, and construction and demolition waste that incorporate pollution prevention; reuse and recycling; and composting of organic waste.
  - (d) Minimizing the purchase and use of products with toxic and hazardous characteristics, and minimize the generation of toxic and hazardous waste, to the maximum extent practicable.
  - (e) Minimizing the purchase and use of compounds or substances containing chemicals of emerging concern or chemicals that are candidates for regulation; requiring storage and disposal methods of such chemicals as hazardous waste or substances to minimize future liability to the Department; and reporting environmental releases to DOE's Occurrence and Reporting Processing System (ORPS) where ORPS reporting criteria are specified.
- e. Facility, Energy, Water, and Utilities Management. The Department must incorporate the principles of sustainability into facility, energy, water, and utility management mission operations.
  - (1) Facility Site Selection, Design, and Construction. DOE elements must:
    - (a) Incorporate the principles of sustainability early in the project planning and design process equivalent to Critical Decision 1 or earlier in accordance with DOE O 413.3, *Program and Project Management for the Acquisition of Capital Assets*, current version.

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<sup>22</sup> The American Innovation and Manufacturing Act of 2020; 42 U.S.C. Section 7675, *American Innovation and Manufacturing*, and 40 CFR Part 84, *Phasedown of Hydrofluorocarbons*.

<sup>23</sup> EO 14057, *Catalyzing Clean Energy Industries and Jobs Through Federal Sustainability*, December 8, 2021, and 42 U.S.C. Section 6901, *Solid Waste Disposal*.

- (b) Incorporate location-specific resilience design criteria for new construction and major renovations.
- (c) Design new construction projects to meet the requirements of 10 Code of Federal Regulations (CFR) 433 including achieving energy savings levels that are at least 30 percent below the latest ANSI/ASHRAE/IES Standard 90.1 baseline, if life-cycle cost effective.<sup>24, 25</sup>
- (d) Design new construction, renovation, and modernization projects, greater than 25,000 gross square feet, in accordance with the Guiding Principles for Sustainable Federal Buildings.
- (e) Design new construction and modernization projects, greater than 25,000 gross square feet, to be net-zero emission by 2030.<sup>26</sup>
- (f) Consider implementing renewable distributed energy systems in new construction or retrofit projects, where life-cycle cost-effective and/or when such a system enhances energy reliability, resilience, or security.
- (g) Ensure the sustainable and equitable siting of new and leased facilities to promote local infrastructure, public transportation, and equitable economic development.<sup>27</sup>
- (h) Protect water resources by reducing stormwater runoff from development projects.<sup>28</sup>
- (i) Ensure lease space is in a building that at a minimum has earned an Energy Star label,<sup>29</sup> or prior to signing the lease, negotiate a lease agreement that requires the owner, within one-year after signing the lease, to renovate the facility for all energy efficiency and conservation improvements that would be cost effective over the life of the lease.

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<sup>24</sup> 42 U.S.C. Section 6834, *Federal Building Energy Efficiency Standards*, and 10 CFR Part 433, *Energy Efficiency Standards for the Design and Construction of New Federal Commercial and Multi-Family High-Rise Residential Buildings*.

<sup>25</sup> National Institute of Standards and Technology Guidance.

<sup>26</sup> EO 14057, *Catalyzing Clean Energy Industries and Jobs Through Federal Sustainability*, December 8, 2021

<sup>27</sup> 41 CFR Part 102, *Federal Management Regulation*.

<sup>28</sup> 42 U.S.C. Section 17094, *Storm Water Runoff Requirements for Federal Development Projects*.

<sup>29</sup> 42 U.S.C. Section 17091, *Leasing*.

- (2) Facility Operations and Maintenance. DOE elements must:
- (a) Analyze the life-cycle cost-effectiveness of identified energy and water conservation opportunities;<sup>30</sup> consider the opportunities as stand-alone projects or bundle multiple opportunities into directly funded projects or performance contracts (e.g., ESPCs and UESCs); implement the efficiency and conservation measures within two years; and use performance contracts to implement at least 50 percent of these measures, in accordance with statutory requirements.<sup>31</sup>
  - (b) Evaluate existing facilities for compliance with Guiding Principles for Sustainable Federal Buildings as required and report in the Sustainability Dashboard.
  - (c) Ensure covered metered facilities<sup>32</sup> are benchmarked, preferably using ENERGY STAR® Portfolio Manager.<sup>33</sup>
  - (d) Implement Federal Building Metering Guidance<sup>34</sup> including:
    - 1 meter all buildings for electricity, water, natural gas, and steam except for allowed exclusions; ensure all meters are advanced meters to the maximum extent practicable;
    - 2 input metering data into the DOE Sustainability Dashboard;
    - 3 ensure all advanced meter operations meet site and DOE cybersecurity standards; and
    - 4 ensure compliance with DOE metering plan and relevant instructions.
  - (e) Consider implementation and maintenance of an ISO 50001 or 50001 Ready Energy Management System (EnMS) to systematically track, analyze, and improve energy efficiency.
  - (f) Develop, implement, and update a Water Management Plan at least every 5 years that documents current water use, projected water use, planned water efficiency improvements and conservation activities, and water-reduction goals.

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<sup>30</sup> Energy Independence and Security Act of 2007, Section 432, *Management of Energy and Water Efficiency in Federal Buildings*.

<sup>31</sup> Energy Act of 2020, Section 1002, *Use of Energy and Water Efficiency Measures in Federal Buildings*.

<sup>32</sup> Energy Independence and Security Act of 2007, Section 432, *Management of Energy and Water Efficiency in Federal Buildings*.

<sup>33</sup> 42 U.S.C. Section 8253, *Energy and Water Management Requirements*.

<sup>34</sup> 42 U.S.C. Section 8253, *Energy and Water Management Requirements*.



- (g) Adopt best practices from smart building accelerator,<sup>35</sup> smart labs, and grid-interactive efficient building initiatives in support of a sustainable, data-driven, optimized operations, and maintenance program.
- (3) Carbon Pollution-Free Electricity and Renewable Energy. DOE elements must:
- (a) Maximize consumption of CFE and/or renewable energy through on-site installation of systems, inclusion of non-power attributes of purchased CFE and/or renewable energy sources (i.e., renewable energy certificates or energy attribute certificates), and support the transition to a clean electricity sector.
  - (b) Leverage DOE real property assets for onsite implementation of renewable energy and CFE systems, including energy storage capacity.<sup>36</sup>
  - (c) Support the adoption, use, and expansion of renewable energy and CFE by developing public and private partnerships (e.g., States, Tribes, municipalities, co-operatives, consumers, private sector).
- (4) Data Centers. DOE elements must evaluate data centers once every four years by a certified Data Center Energy Practitioner and implement design and operations best practices to improve data center and server operations energy efficiency.<sup>37</sup>
- (5) Utility Contract Management. DOE elements must:
- (a) Provide annual funding to FEMP for Program related mission costs, which are used to retain a utilities management support service contractor that provides technical expertise and support for regulatory intervention activities and is a requirement to maintain DOE's delegation of authority from the GSA.<sup>38</sup>
  - (b) Ensure sites consult with FEMP to develop a Utility Services Procurement Plan to receive support from the utilities management support services contractor, and for FEMP to review and provide concurrence on contracts prior to award for natural gas and electricity including renewable and carbon pollution-free requirements for contracts, agreements, and modifications to such.

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<sup>35</sup> 42 U.S.C. Section 17064, *Smart Building Acceleration*.

<sup>36</sup> EO 14057, *Catalyzing Clean Energy Industries and Jobs Through Federal Sustainability*, December 8, 2021.

<sup>37</sup> Energy Act of 2020, Sections 1003, *Energy Efficient Data Centers*.

<sup>38</sup> FAR Part 41.103, *Acquisition of Utility Services*.

- (c) Ensure sites provide notice to FEMP within 60 days of the completion of an Investment Grade Audit of a proposed performance contract so FEMP can provide an assessment of the utility service impacts that may result from the proposed performance contract for review by sites prior to contract award.
- f. Climate Adaptation and Resilience. The Department must develop and implement policies and processes that support resilience to climate change. DOE elements must:
  - (1) Conduct climate adaptation analysis and resilience planning in consideration of relevant DOE VARP instructions and DOE Directives, including the current versions of DOE O 420.1, *Facility Safety*, and DOE G 151.1-1, *Comprehensive Emergency Management System Guide*, for climate-informed financial and management decisions and program implementation.<sup>39, 40, 41</sup>
  - (2) Use the most recent Federal agency tools such as the U.S. Climate Resilience Toolkit and climate science information to assess climate change impacts.
  - (3) Assess vulnerabilities to protect DOE assets from climate change impacts, take action to adapt to the changing environment, reduce facility energy and water disruptions, and make resilience a cornerstone of operations to ensure DOE sites are climate-ready.
  - (4) Review existing and new contracts for opportunities for Sustainable Resilient Remediation.
  - (5) Demonstrate innovative climate adaptation and mitigation technologies and practices at DOE sites.
  - (6) Build climate literacy and knowledge of DOE employees, DOE contractor employees, and local communities through engagement, education, and training.
  - (7) Partner with local communities to share in the benefits of DOE's climate adaptation, resilience, and energy and environmental justice initiatives.

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<sup>39</sup> EO 14008, *Tackling the Climate Crisis at Home and Abroad*, January 27, 2021.

<sup>40</sup> EO 14057, *Catalyzing Clean Energy Industries and Jobs Through Federal Sustainability*, December 8, 2021.

<sup>41</sup> Secretary of Energy Departmental Climate Adaptation Policy Statement.

- g. Land and Natural Resource Management. DOE elements must:
- (1) Manage land and natural resources to ensure the protection of land, water, and biodiversity (including pollinators and migratory birds), including deployment of nature-based solutions, recognizing the co-benefit of resilience enhancement such as wildfire risk reduction, preservation of ecosystem services, carbon sequestration, and minimization of regulatory restrictions associated with endangered and threatened species.<sup>42,43,44</sup>
  - (2) Use the expertise of National Laboratories and National Environmental Research Parks, where possible, to access and apply relevant site-specific biological and ecological research to inform conservation-based land use planning and decisions, including construction of remediation projects or similar operations decisions that may adversely affect land and ecosystem health.<sup>45</sup>
  - (3) Engage with Tribal authorities regarding DOE operations that affect Tribal cultural resources or lands of ancestral, ceremonial, or other Tribal significance, and collaborate with Tribal authorities to address concerns and leverage resources using applicable Indigenous Knowledge.<sup>46</sup>
- h. Performance Measurement and Reporting. The Department must measure and report the performance of sustainability activities across all DOE elements.
- (1) The Department must:
    - (a) Use the Sustainability Dashboard and other information systems to collect data and support reporting.
    - (b) Prepare and update plans and reports required by Federal laws, regulations, and EOs in accordance with Federal instructions from CEQ and OMB.
    - (c) Adhere to the inventory and reporting requirements of Section 301 through 313 (including implementing regulations) of the Emergency Planning and Community Right-to-Know Act, the Pollution Prevention Act of 1990 at DOE facilities, related statutory and administrative requirements.

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<sup>42</sup> EO 14008, *Tackling the Climate Crisis at Home and Abroad*, January 27, 2021.

<sup>43</sup> EO 14072, *Strengthening the Nation's Forests, Communities, and Local Economies*, April 22, 2022, and White House Roadmap on Opportunities for Accelerating Nature-Based Solutions, November 2022.

<sup>44</sup> Presidential Memorandum on Ecological Connectivity and Wildlife Corridors, March 21, 2023.

<sup>45</sup> The Energy Reorganization Act of 1974.

<sup>46</sup> White House *Guidance for Federal Departments and Agencies on Indigenous Knowledge*, 2022.

- (2) DOE elements must ensure sites develop, implement, and submit sustainability plans based on instructions. DOE elements must:
  - (a) Submit the SSP and other plans and related data through the Sustainability Dashboard or other information systems.
  - (b) Account for each individual site's contribution to meeting the sustainability goals and commit appropriate personnel resources and establish a timeline for execution coupled with specific performance measures and deliverables.
  - (c) Ensure the accuracy and completeness of annual site data is verified and validated by appropriate internal processes.
- (3) DOE elements must ensure that sites develop, implement, and report their EMS status, including progress toward incorporation of sustainability objectives and targets and submit through the Sustainability Dashboard or other information systems.

## 5. RESPONSIBILITIES.

### a. Deputy Secretary.

- (1) Designate a Departmental Chief Sustainability Officer.
- (2) Provide oversight of Departmental sustainability activities and ensure compliance with applicable laws, regulations, and EOs.

### b. Chief Sustainability Officer (as designated by the Deputy Secretary).

- (1) Leads the Department's planning, implementation and related actions including establishing internal metrics and performance management systems to achieve DOE sustainability goals.
- (2) Submits to the CEQ Chair and the OMB Director the Department's Sustainability Plan (SP), Climate Adaptation and Resilience Plan (CARP), and the annual inventory of GHG emissions, as required.
- (3) Reports the Department's sustainability performance and progress to the CEQ Chair and the OMB Director and their staff on such schedule and in such format as they require and reports to the Secretary on the adequacy and effectiveness of the SP and CARP and other sustainability related goals and initiatives.
- (4) Chairs the DOE Sustainability Steering Committee (SSC) or designates a representative. The SSC establishes the strategic direction for DOE's sustainability efforts, makes related policy decisions and aligns DOE's business practices with sustainability goals and requirements.

- (5) Participates in the Steering Committee on Federal Sustainability or designates a representative.

c. Director, MA-50.

- (1) Serves as the Department's principal point of contact relating to sustainability.
- (2) Supports the Chief Sustainability Officer (CSO) in the execution of duties regarding sustainability including monitoring performance, developing instructions, reporting, data collection and analysis, and implementing and updating the SP and CARP.
- (3) Reports on DOE sustainability matters in coordination with other Departmental elements, as appropriate.
- (4) Serves on interagency workgroups, councils, boards, and in interactions with other Federal agencies, including OMB and CEQ, or designates DOE's delegate, on sustainability matters.
- (5) Develops and maintains policies and directives for fleet, real property acquisition, maintenance, operations, disposition, and personal property.
- (6) Develops and maintains climate awareness training for DOE personnel in collaboration with DOE EHSS including a professional development program for Departmental facility managers that includes resource conservation requirements and sustainability practices.
- (7) Works with the Chief Financial Officer (CFO) to ensure sustainability is considered and represented in Departmental budget instructions.
- (8) Chairs the DOE Sustainability Working Group (SWG), which provides a forum for sustainability discussions, strategies and best practice sharing in support of DOE's sustainability efforts. The SWG sanctions all DOE corporate sustainability related workgroups.
- (9) Chairs the DOE ESPC Review Board, which ensures that interested offices have an opportunity to review a proposed Energy Savings Performance Contract from their respective points of view and resolve any potential issues, increasing the probability of success.
- (10) Provides technical assistance to support Departmental elements on sustainability issues, including providing data summaries, analysis, and projections.
- (11) Maintains the DOE Sustainability Dashboard for capturing Departmental sustainability information.

- (12) Coordinates review of Site Sustainability Plan instructions with Program Secretarial Officers.

d. Under Secretaries, and the Administrators of the PMAs.

- (1) Implement sustainability goals and the requirements of this Order through the Program Secretarial Officers (PSOs) and Field Managers, by executing assigned sustainability duties, as applicable.
- (2) Provide oversight of PSOs to ensure sustainability reporting is conducted in accordance with requirements.
- (3) Plan, resource, implement, monitor, report and manage the achievement of DOE's sustainability goals. PMAs should plan, resource, implement and manage as applicable.
- (4) Ensure reinvestment of verified savings associated with sustainability projects, consistent with Federal regulations and DOE instructions, to further sustainability goal achievement. Reinvestment does not apply to PMAs.
- (5) Ensure the development, review, submission, and implementation of SSPs and VARPs as defined in the SP and SSP Instructions.

e. Program Secretarial Officers (PSOs).

- (1) Designate a program lead to support their Under Secretary in the implementation of sustainability goals, targets, milestones, projects, and this Order as appropriate and assigned by PSO/NNSA management.
- (2) Work with Field Managers to establish sustainability goals, targets, and milestones.
- (3) Request through the annual internal budgetary processes, as feasible, funding and resources needed to carry out these requirements that are not performed or contracted through ESPCs, UESCs, or other financing.
- (4) Ensure all personnel whose actions are affected by this Order receive proper training on its requirements.
- (5) Provide funding to FEMP to support program related utilities management costs.
- (6) Provide funding to support MA-50's maintenance and operation of the Sustainability Dashboard Management Information System.

f. Field Managers.

- (1) Prepare, submit, and implement the SSP and associated required data, including coordination among multiple government elements and contractors. Ensure appropriate quantifiable sustainability and energy goals/targets are integrated into contracting documents, such as the Performance Evaluation and Measurement Plans (or equivalent).
- (2) Ensure that EMSs, covering all site activities are certified to or conform with the International Organization for Standardization's (ISO) 14001, *Environmental Management Systems: Requirements with Guidance for Use* (2015), in accordance with the accredited registrar provisions of the International Standard or the self-declaration instructions provided by EHSS.
  - (a) At sites with multiple contractors, where appropriate, designate a lead coordinating contractor to maintain a site-wide EMS that accounts for all site operations.
  - (b) At sites with multiple EMSs, ensure the sustainability objectives and targets established in each are provided for in a consolidated SSP.
  - (c) Monitor site performance in implementing the requirements of this Order and make such information available annually to their PSO/Associate Administrator.
- (3) Request through the annual internal budgetary processes funding and resources needed to carry out these requirements that are not otherwise financed.
- (4) Seek opportunities at multi-program sites to achieve synergistic and beneficial results towards meeting sustainability goals.
- (5) Ensure that sites under their purview provide FEMP all contracts for utilities services and modifications to such contracts (excluding administrative or incremental funding modifications) prior to execution for review and concurrence by FEMP and the Office of General Counsel (OGC). For NNSA utility services contracts, FEMP provides expert analysis to NNSA, including their opinion on the acceptability of the contract action.
- (6) Utilities services must be awarded via DOE prime contract or may be secured through direct agreements, and DOE elements must ensure that all applicable Federal, State, and local laws and regulations are followed.
- (7) Communicate to FEMP notice of any forthcoming regulatory actions on the part of their utility service providers. It is the responsibility of the

OGC jointly with FEMP to represent all DOE consumer interests by intervening, or otherwise participating in, hearings or proceedings before regulatory bodies for utilities when these proceedings affect DOE operations. Site personnel support OGC and FEMP in these intervention activities.

(8) Notify Contracting Officers of those contracts that must include the CRD.

g. Director, Office of Environment, Health, Safety and Security.

- (1) Develops and maintains policies and directives for environmental protection, including the conservation and preservation of natural and cultural resources.
- (2) Provides technical assistance and issues instructions to support the implementation and maintenance of sites' EMSs.
- (3) Maintains technical assistance programs, topical working groups, and communities of practice to support Departmental sustainability, environmental compliance and stewardship, and natural and cultural resource protection.
- (4) Maintains, for the purposes of this Order, a list of chemicals of emerging concern and chemicals that are candidates for federal regulation and develops criteria for reporting of environmental releases of such chemicals within DOE's Occurrence and Reporting Processing System.<sup>47</sup>
- (5) Coordinates the Department's implementation of DOE's policy on emerging contaminants and chemicals of concern, including Perfluoroalkyl and Polyfluoroalkyl Substances (PFAS), and leads associated coordinating committees and workgroups.
- (6) Maintains and administers reporting related to environmental conservation and natural resource management activities, including preparation of updates to DOE's Conservation Action Plan, as required by EO 14008.

h. Federal Energy Management Program.

- (1) Manages the Department's utility acquisition and management in coordination with the appropriate line management organizations.
- (2) Represents all DOE consumer interests by intervening, or otherwise participating in, hearings or proceedings before regulatory bodies for utilities when these proceedings affect DOE operations.

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<sup>47</sup> The Director maintains the lists of chemicals of emerging concern and chemicals that are candidates for regulation in the Director's capacity as Designated Agency Health and Safety Officer under 29 CFR §1960.6(b).



i. Chief Information Officer.

- (1) Serves as the Department's lead on the Data Center Optimization Initiative (DCOI) and the Federal Information Technology Acquisition Reform Act (FITARA), or subsequent laws, regulations, and instructions on data center efficiency.
- (2) Establishes policies and directives that support electronics stewardship, data energy efficiency, and related information technology (IT) sustainability best practices.

j. Chief Financial Officer.

- (1) Ensures funding for sustainability efforts are prioritized during the formulation of DOE's annual budget request consistent with annual budget instructions and DOE direction.
- (2) Develops and implements cost savings reinvestment instructions with assistance from the MA-50.
- (3) Coordinates budget data calls related to sustainability with the assistance from the MA-50.

k. Senior Procurement Executive.

- (1) Develops language on sustainability and environmental stewardship for inclusion in solicitations and contract clauses.
- (2) Develops training on sustainability and contracting for DOE employees with responsibilities for sustainability.

l. Contracting Officers.

- (1) For existing M&O contracts, after being notified by the Field Manager or his or her designee, the Contracting Officer (CO) shall provide the contractor the opportunity to assess the effect of incorporating the CRD on contract cost, funding, schedule, and technical performance, and to provide input on the appropriately tailored set of requirements for the contract. All associated activities will be accomplished in a timely manner and, if applicable, in accordance with the timelines established in DEAR 970.5204-2. The CO will incorporate the CRD without alteration unless the directive permits alteration, and the appropriate process is followed.
- (2) For existing non-M&O contracts, after being notified by the Field Manager or his or her designee, the CO shall provide the contractor the opportunity to assess the effect of incorporating the CRD on contract cost, funding, schedule, and technical performance, and to provide input on the appropriately tailored set of requirements for the contract. Non-M&O

contracts do not give the CO the unilateral right to modify them. Therefore, the CO shall attempt to incorporate the CRD bilaterally. If attempts to negotiate the requirement into the contract bilaterally are not successful, the CO shall consult with the Head of Contracting Activity (HCA), Headquarters program office, and General Counsel. The CO shall incorporate the CRD without alteration unless the CRD or directive permits alteration, and the appropriate process is followed.

- (3) Ensure the inclusion of sustainable acquisition clauses in relevant contracts for products, services, and construction.

m. Sustainability Steering Committee.

- (1) Assists the CSO in reviewing proposed new initiatives, policies, plans, and requirements.
- (2) De-conflicts organizational roles and responsibilities to support sustainability activities.
- (3) Ensures Program-specific mission priorities are considered and addressed in the Sustainability Plan and execution plans.

n. Sustainability Working Group.

- (1) Evaluates strategies for successful implementation of sustainability initiatives.
- (2) Coordinates and provides feedback and recommendations on requirements and responsibilities for planning, budgeting, managing, and reporting on the DOE sustainability goals.
- (3) Discusses and resolves sustainability issues.
- (4) Reviews and analyzes upcoming sustainability policies and data requests; exchanges lessons learned and best practices; and shares technical and management information.

- o. Office of General Counsel. Jointly with FEMP, represent all DOE consumer interests by intervening, or otherwise participating in hearings or proceedings before regulatory bodies for utilities when these proceedings affect DOE operations.

6. INVOKED STANDARDS. The following DOE technical standards and industry standards are invoked as required methods in this Order in accordance with the applicability and conditions described within this Order. Any technical standard or industry standard that is mentioned in or referenced by this Order, but is not included in the list below, is not invoked by this Order. Note: DOE O 251.1, current version, provides a definition for “invoked technical standard.”

- a. ISO 14001 International Standard, *Environmental Management Systems: Requirements with Guidance for Use (2015)*. This technical standard provides the requirements for an environmental management system to be used by DOE sites to improve their environmental performance through more efficient use of resources and reduction of waste.
- b. ANSI/ASHRAE/IES Standard 90.1, *Energy Standard for Buildings Except Low-Rise Residential Buildings*, as it pertains to 10 CFR 433. This technical standard provides the minimum requirements for energy-efficient design of most buildings and includes the minimum energy efficiency requirements for design and construction of new buildings and their systems, new portions of buildings and their systems, and new systems and equipment in existing buildings, as well as criteria for determining compliance with these requirements.

## 7. DEFINITIONS.

- a. Adaptation. Adjustment in natural or human systems to a new or changing environment that exploits beneficial opportunities or moderates negative effects.
- b. Advanced Meter. An advanced meter records energy or water consumption data hourly or more frequently and provides for daily or more frequent transmittal of measurements over a communication network to a central data collection point. Advanced meters are generally able to record other physical quantities in addition to consumption.
- c. Carbon Pollution-Free Electricity. Electrical energy produced from resources that generate no carbon emissions, including marine energy, solar, wind, hydrokinetic (including tidal, wave, current, and thermal), geothermal, hydroelectric, nuclear, renewably sourced hydrogen, and electrical energy generation from fossil resources to the extent there is active capture and storage of carbon dioxide emissions that meets EPA requirements.
- d. Circular Economy. An economy that uses a systems-focused approach and involves industrial processes and economic activities that are restorative or regenerative by design, enable resources used in such processes and activities to maintain their highest value for as long as possible, and aim for the elimination of waste through the superior design of materials, products, and systems (including business models).
- e. Climate Adaptation and Resilience Plan. An annual plan that sets Departmental strategy for climate action, adaptation, and resilience planning.
- f. Covered Facility/Facilities. Facilities that constitute 75 percent of the Department's facility energy or water use.
- g. Disadvantaged Communities. Communities that experience disproportionately high and adverse economic, human health, climate-related, environmental, and other cumulative impacts.

- h. Distributed Energy Systems. A diverse array of generation, storage, and energy monitoring and control solutions that can be tailored to specific requirements and user applications including cost reduction, energy efficiency, security of supply, and carbon reduction.
- i. DOE Elements. Headquarters elements or first-tier organizations as listed in the Correspondence Style Guide, Office of the Executive Secretariat.
- j. DOE Site. The DOE entity which conducts operational activities including contractor operated DOE owned or leased facilities as discrete locations across the U.S. In the case of Government Owned Government Operated (GOGO) facilities (including PMAs), it refers to the DOE operating organization.
- k. Ecosystem Services. Welfare contributions from biotic (living) and abiotic (non-living) elements of nature that are enjoyed, consumed, or used in a manner that affects human well-being.
- l. Embodied Emissions. The GHG emissions associated with the production of goods and services including manufacturing, transportation, installation, maintenance, and disposal of materials.
- m. Energy Savings Performance Contract. A budget-neutral approach to make building improvements that reduce energy and water use and increase operational efficiency. By partnering with an energy service company (ESCO), a facility owner can use an ESPC to pay for facility upgrades with future energy savings without tapping into capital budgets.
- n. Energy Savings Performance Contract Review Board. A DOE review board comprised of various technical experts, which operates in an advisory capacity to review ESPC proposals, identify potential issues, and increase the probability of a successful ESPC.
- o. Environmental Management System. A management framework to enable an organization of any size or type to:
  - (1) Identify and control the environmental impact of its activities, products, or services;
  - (2) Manage its compliance obligations, and address the risks and opportunities to the environment and its EMS performance;
  - (3) Improve its environmental performance continually; and to
  - (4) Implement a systematic approach to setting, achieving, and demonstrating achievement of environmental objectives, evaluating environmental compliance performance, and identifying and implementing corrective actions and opportunities for improvement.

- p. Environmental Justice. The fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. Fair treatment means that no population bears a disproportionate share of negative environmental consequences resulting from industrial, municipal, and commercial operations or from the execution of federal, state, and local laws; regulations; and policies. Meaningful involvement requires effective access to decision makers for all, and the ability in all communities to make informed decisions and take positive actions to produce environmental justice for themselves.
- q. Facility. A discrete or identifiable structure, device, item, equipment, or enclosure that constitutes or contains a stationary source, including appurtenances other than emission control equipment.
- r. Federal Net Zero Emissions Building. An efficient, all electric building that is designed and operated so scope 1 and scope 2 GHG emissions from all facility energy use equal zero on an annual basis, when connected to on-site renewable energy or a regional grid that provides 100 percent CFE on a net annual basis.
- s. Field Managers. The terms “field office” and “field managers” are used interchangeably to indicate the DOE field office with direct management and oversight of operational activities. “Field” may have various other designations, including operations office, site office, service centers, and project office.
- t. Fugitive Emissions. Emissions which could not reasonably pass through a stack, chimney, vent, or other functionally equivalent opening.
- u. Indigenous Knowledge. A body of observations, oral and written knowledge, innovations, practices, and beliefs developed by Tribes and Indigenous Peoples through interaction and experience with the environment. It is applied to phenomena across biological, physical, social, cultural, and spiritual systems. Indigenous Knowledge can be developed over millennia, continues to develop, and includes understanding based on evidence acquired through direct contact with the environment and long-term experiences, as well as extensive observations, lessons, and skills passed from generation to generation.
- v. Nature-Based Solutions. Actions to protect, sustainably manage, or restore natural or modified ecosystems to address societal challenges, simultaneously providing benefits for people and the environment.
- w. Renewable Energy. Energy produced from marine energy, solar, wind, biomass, landfill gas, geothermal, municipal solid waste, or new hydroelectric generation capacity achieved from increased efficiency or additions of new capacity at an existing hydroelectric project.
- x. Resilience. The ability to anticipate, prepare for, and adapt to changing conditions and withstand, respond to, and recover rapidly from disruptions.

- y. Sustainability. To create and maintain conditions, under which humans and nature can exist in productive harmony, that permit fulfilling the social, economic, and other requirements of present and future generations. For purposes of this Order, sustainability is broadly defined as those actions taken to maximize energy and water efficiency; minimize chemical toxicity and harmful environmental releases, particularly GHG; promote renewable and other clean energy development; enhance climate adaptation and resilience, and conserve natural resources while sustaining assigned mission activities.
- z. Sustainability Plans. Plans that communicate performance and progress toward meeting Departmental sustainability, environmental, and climate goals in support of applicable laws, Executive Orders, and Memorandums.
- aa. Sustainable Resilient Remediation. An optimized solution to cleaning up and reusing a hazardous waste site that limits negative environmental impacts, maximizes social and economic benefits, and creates resilience against increasing threats.
- bb. Sustainability Steering Committee. A DOE committee of senior program leaders that works with the CSO on DOE's proposed sustainability policy, plans, and initiatives.
- cc. Sustainability Working Group. A forum comprised of program elements, support elements, and M&O contractors to further intra-departmental communications for sustainability discussions, strategies, and best practice sharing in support of DOE's sustainability efforts and goal achievement. The working group is chaired by the DOE Sustainability Performance Division.
- dd. Vulnerability Assessment and Resilience Plan. A plan required to be completed every four years by DOE sites to identify, prepare for, and meet the challenges posed by climate change, and build upon other existing DOE risk assessments processes.

## 8. REFERENCES.

- a. Energy Act of 2020.
- b. Energy Independence and Security Act of 2007.
- c. The American Innovation and Manufacturing Act of 2020.
- d. Energy Policy Act of 2005.
- e. Energy Policy Act of 1992.
- f. National Defense Authorization Act of 2020, Title XXXII, National Nuclear Security Administration, as amended.

- g. National Energy Conservation Policy Act.
- h. National Environmental Policy Act.
- i. Resource Conservation and Recovery Act.
- j. Pollution Prevention Act.
- k. Department of Energy Organization Act of 1977.
- l. 7 U.S.C. Section 8102, *Biobased Markets Program*.
- m. 42 U.S.C. Section 6834, *Federal Building Energy Efficiency Standards*.
- n. 42 U.S.C. Section 6901, *Solid Waste Disposal*.
- o. 42 U.S.C. Section 7675, *American Innovation and Manufacturing*.
- p. 42 U.S.C. Section 8253, *Energy and Water Management Requirements*.
- q. 42 U.S.C. Section 8256, *Incentives for Agencies*.
- r. 42 U.S.C. Section 8259b, *Federal Procurement of Energy Efficient Products*.
- s. 42 U.S.C. Section 11001, *Emergency Planning and Community Right-to-Know Act*.
- t. 42 U.S.C. Section 17064, *Smart Building Acceleration*.
- u. 42 U.S.C. Section 17091, *Leasing*.
- v. 42 U.S.C. Section 17094, *Storm Water Runoff Requirements for Federal Development Projects*.
- w. 10 CFR Part 433, *Energy Efficiency Standards for the Design and Construction of New Federal Commercial and Multi-Family High-Rise Residential Buildings*.
- x. 40 CFR Part 84, *Phasedown of Hydrofluorocarbons*.
- y. 41 CFR Part 102, *Federal Management Regulation*.
- z. 41 CFR Title 41 Part 102-34, *Motor Vehicle Management*.
- aa. 48 CFR Part 7.401, *Acquisition Considerations*.
- bb. 48 CFR Part 970.5204-2, *Laws, Regulations and DOE Directives*.
- cc. 48 CFR Part 970.5223-7, *Sustainable Acquisition Program*.

- dd. FAR Section 41.103, *Acquisition of Utility Services*.
- ee. FAR Section 52.223, *Sustainable Products and Services*.
- ff. EO 12344, *Naval Nuclear Propulsion Program*.
- gg. EO 13985, *Advancing Racial Equity and Support for Underserved Communities Through the Federal Government*, January 25, 2021.
- hh. EO 14008, *Tackling the Climate Crisis at Home and Abroad*, January 27, 2021.
- ii. EO 14057, *Catalyzing Clean Energy Industries and Jobs Through Federal Sustainability*, December 8, 2021.
- jj. EO 14072, *Strengthening the Nation's Forests, Communities, and Local Economies*, April 22, 2022.
- kk. White House Memorandum, *Indigenous Traditional Ecological Knowledge and Federal Decision Making*, November 15, 2021.
- ll. White House Memorandum, *Guidance for Federal Departments and Agencies on Ecological Connectivity and Wildlife Corridors*, March 21, 2023.
- mm. White House Nature-Based Solutions Roadmap, *Opportunities to Accelerate Nature-Based Solutions: A Roadmap for Climate Progress, Thriving Nature, Equity & Prosperity: A Report to the National Climate Task Force*, November 2022
- nn. Federal Sustainability Plan, *Clean Energy Industries and Jobs*, December 2021.
- oo. Office of Management and Budget Memorandum M-22-06, *Catalyzing Clean Energy Industries and Jobs Through Federal Sustainability*, December 8, 2021.
- pp. ANSI/ASHRAE/IES Standard 90.1 *Energy Standard for Buildings Except Low-Rise Residential Buildings*, as it pertains to 10 CFR 433.
- qq. International Standards Organization's (ISO) 14001 International Standard, *Environmental Management Systems: Requirements with Guidance for Use* (2015).
- rr. DOE O 251.1, *Departmental Directives Program*, current version.
- ss. DOE O 413.3, *Program and Project Management for the Acquisition of Capital Assets*, current version.
- tt. DOE O 420.1, *Facility Safety*, current version.
- uu. DOE O 430.1, *Real Property Asset Management*, current version.



- vv. DOE G 151.1-1, *Comprehensive Emergency Management System Guide*, current version.
  - ww. DOE 2021 *Climate Adaptation and Resilience Plan*, August 2021.
  - xx. Secretary of Energy Departmental Climate Adaptation Policy Statement.
  - yy. DOE 2020 Sustainability Report and Implementation Plan, August 2020, and subsequent annual reports and plans.
  - zz. Federal Energy Management Program Metering Guidance.
  - aaa. Department of Energy Environmental Management System Declarations of Conformance to ISO 14001 (2015).
  - bbb. Department of Energy, *Tribal Preference Policy*.
9. CONTACT. Sustainability Performance Division, MA-50, 202-586-8645.

BY ORDER OF THE SECRETARY OF ENERGY:



DAVID M. TURK  
Deputy Secretary



## APPENDIX A ACRONYMS

|        |   |
|--------|---|
| ALD    | Asset Level Data  |
| ANSI   | American National Standards Institute                                     |
| ASHRAE | American Society of Heating, Refrigerating and Air-Conditioning Engineers |
| CARP   | Climate Adaptation and Resilience Plan                                    |
| CEQ    | Council on Environmental Quality  |
| CFE    | Carbon Pollution-Free Electricity   |
| CFO    | Chief Financial Officer   |
| CFR    | Code of Federal Regulations   |
| CRD    | Contractor Requirements Document  |
| CSO    | Chief Sustainability Officer  |
| DCOI   | Data Center Optimization Initiative                                       |
| DEAR   | Department of Energy Acquisition Regulation                               |
| DOE    | U.S. Department of Energy   |
| EAC    | Energy Attribute Certificate  |
| EHSS   | Environment, Health, Safety and Security                                  |
| EMS    | Environmental Management System   |
| EnMS   | Energy Management System  |
| EO     | Executive Order   |
| EPA    | Environmental Protection Agency   |
| ESPC   | Energy Savings Performance Contract                                       |
| FAR    | Federal Acquisition Regulation  |
| FAST   | Federal Automotive Statistical Tool                                       |
| FEMP   | Federal Energy Management Program   |
| FITARA | Federal Information Technology Acquisition Reform Act                     |
| FMIS   | Fleet Management Information System                                       |
| GHG    | Greenhouse Gas  |
| GOGO   | Government-Owned Government-Operated                                      |
| GSA    | General Services Administration   |
| GWP    | Global Warming Potential  |
| IES    | Illuminating Engineering Society  |
| ISO    | International Organization for Standardization                            |
| IT     | Information Technology  |
| M&O    | Management and Operation  |
| MA-50  | Office of Sustainability and Asset Management                             |
| NNSA   | National Nuclear Security Administration                                  |
| OGC    | Office of General Counsel   |
| OMB    | Office of Management and Budget   |
| PFAS   | Perfluoroalkyl and Polyfluoroalkyl Substances                             |
| PMA    | Power Marketing Administration  |
| PSO    | Program Secretarial Officer   |
| REC    | Renewable Energy Certificate  |
| SCRS   | Sustainable Climate-Ready Sites   |
| SP     | Sustainability Plan   |

|      |  |
|------|--|
| SSC  | Sustainability Steering Committee            |
| SSP  | Site Sustainability Plan                     |
| SWG  | Sustainability Working Group                 |
| UESC | Utility Energy Service Contract              |
| USC  | United States Code                           |
| VARP | Vulnerability Assessment and Resilience Plan |
| ZEV  | Zero Emission Vehicle                        |

**ATTACHMENT 1**  
**CONTRACTOR REQUIREMENTS DOCUMENT**  
**DOE O 436.1A, *DEPARTMENTAL SUSTAINABILITY***

The provisions of the Contractor Requirements Document (CRD) apply to Department of Energy (DOE) contractors in accordance with Section 3.b. of this Order. Regardless of the performer of the work, the contractors at each site are collectively responsible for complying with the requirements of this CRD and flowing down the CRD requirements to subcontracts to the extent necessary to ensure contractor compliance with these requirements.

The Contractor must comply with the following:

1. Planning, Budgeting and Funds Management.
  - a. Prepare and submit Site Sustainability Plans (SSPs), Vulnerability Assessment and Resilience Plans (VARPs) and support development of Program-specific plans.
  - b. Use ratepayer incentives and rebates from public benefit funds or utilities to enhance energy and water conservation, including to reducing initial project costs or returning to the budgeted account through which the project was funded to be included in estimated cost savings.
  - c. Reinvest verified savings from a facility's energy and water conservation projects, as appropriate, to further the energy and water conservation and operations and maintenance efforts at that facility.
2. Acquisition and Supply Chain Management.
  - a. Implement procurement and supply chain performance contract management processes and other contract mechanisms such as Federal Acquisition Regulation (FAR) clauses to maximize sustainability.
  - b. Consider use of performance contracts, such as Energy Savings Performance Contracts (ESPCs) and Utility Energy Service Contracts (UESCs) to address life cycle cost effective energy- or water-saving measures identified in evaluations of covered facilities.
  - c. Maximize, to the extent feasible, the procurement of sustainable products and services such as those recommended by the U.S. Environmental Protection Agency (EPA), the U.S. Department of Agriculture, and the Federal Energy Management Program (FEMP).
  - d. Maximize, to the extent feasible, the procurement of materials and operations with lower embodied emissions and alternatives to ozone-depleting substances and high global warming potential hydrofluorocarbons.

- e. Minimize, to the extent feasible, the procurement of materials and operations that introduce the use or release of chemicals that are identified as an emergent contaminant of concern by the Department.
- f. Maximize, to the extent feasible, the inclusion of provisions to increase renewable energy and carbon pollution-free electricity generation and use as a component in all solicitations for electricity.
- g. Support the prioritization of purchases for transition to a circular economy.
- h. Support diversification and prioritization of the use of domestic supply chains.
- i. Support investment in small and disadvantaged businesses to support American jobs.
- j. Conduct mission critical supply chain vulnerability assessments and incorporate the results in procurement processes.

3. Fleet Management.

- a. Ensure that prior to approval, fleet increases are supported by a mission need, business case analysis, and a current utilization survey.
- b. Deploy and expand vehicle fleet fueling/charging infrastructure to support new ZEVs, including when building or renovating existing Federal facilities and parking areas.
- c. Annually support development and submission of a Departmental ZEV strategic plan for transformation of the fleet to ZEVs, including annual targets.
- d. Plan for effective and efficient fleet management including supporting budget submissions that identify and prioritize opportunities to transition to ZEVs, including the cost of ZEVs and the cost of associated necessary infrastructure.

4. Environmental Stewardship, Waste Minimization, and Environmental Justice.

- a. Use a certified or conforming Environmental Management System (EMS) as a management framework to implement programs to meet sustainability goals and support the fulfillment of environmental compliance obligations.
- b. Ensure disadvantaged communities and adverse impacts on those communities that may be exacerbated by DOE operations are identified and documented in site EMSs.
- c. Support implementation of environmental justice programs and activities to secure environmental justice for disadvantaged communities that have been historically marginalized and overburdened by climate-related impacts.

- d. Develop a fugitive emission management program, if not already covered under an existing air quality program, to ensure minimization of high Global Warming Potential fugitive emissions through inventory tracking, preventative maintenance, leak detection and repair, and continuous process improvements. Target fugitive emissions gases include carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF<sub>6</sub>), and nitrogen trifluoride (NF<sub>3</sub>).
- e. Develop and maintain non-radioactive waste management procedures and program and project plan that comprehensively address and minimize non-radioactive waste generation and risks associated with waste disposal and in accordance with documented goals, including:
  - (1) Planning for source reduction as a first principle and reviewing and documenting improvements for established waste processes.
  - (2) Implementing operational methods and process improvements to minimize waste generation.
  - (3) Minimizing municipal solid waste, hazardous waste, and construction and demolition waste that incorporate pollution prevention; reuse and recycling; and composting of organic waste.
  - (4) Minimizing the purchase and use of products with toxic and hazardous characteristics, and minimize the generation of toxic and hazardous waste, to the maximum extent practicable.
  - (5) Minimizing the purchase and use of compounds or substances containing chemicals that are candidates for regulation; requiring storage and disposal methods of such chemicals as hazardous waste or substances to minimize future liability to the Department; and reporting environmental releases to DOE's Occurrence and Reporting Processing System (ORPS) where ORPS reporting criteria are specified.

5. Facility, Energy, Water, and Utilities Management.

- a. Incorporate the principles of sustainability early in the project planning and design process equivalent to Critical Decision 1 or earlier in accordance with DOE O 413.3, *Program and Project Management for the Acquisition of Capital Assets*, current version.
- b. Incorporate location-specific resilience design criteria for new construction and major renovations.
- c. Design new construction projects to meet 10 CFR 433 or if applicable the requirements of the latest ANSI/ASHRAE/IES Standard 90.1, and if life-cycle cost-effective, achieve energy savings levels that are at least 30 percent below the Standard 90.1 baseline.

- d. Design new construction, renovation, and modernization projects, greater than 25,000 gross square feet, in accordance with the Guiding Principles for Sustainable Federal Buildings.
- e. Design new construction and modernization projects, greater than 25,000 gross square feet, to be net-zero emission by 2030.
- f. Consider implementing renewable distributed energy systems in new construction or retrofit projects, where life cycle cost effective and/or when such a system enhances energy reliability, resilience, or security.
- g. Ensure the sustainable and equitable siting of new and leased facilities to promote local infrastructure, public transportation, and equitable economic development.
- h. Protect water resources by reducing stormwater runoff from development projects.
- i. Analyze the life-cycle cost-effectiveness of identified energy and water conservation opportunities and propose potential projects as either stand-alone projects or bundled projects to be accomplished either through direct funding or performance contracts (e.g., ESPCs and UESCs).
- j. Evaluate existing facilities for compliance with Guiding Principles for Sustainable Federal Buildings as required and report in the Sustainability Dashboard.
- k. Ensure covered metered facilities are benchmarked, preferably using ENERGY STAR® Portfolio Manager.
- l. Implement Federal Building Metering Guidance including: (1) meter all buildings for electricity, water, natural gas, and steam except for allowed exclusions; (2) ensure all meters are advanced meters to the maximum extent practicable; (3) input metering data into the DOE Sustainability Dashboard; (4) ensure all advanced meter operations meet site and DOE cybersecurity standards; and (5) ensure compliance with DOE metering plan and relevant instructions.
- m. Consider implementation and maintenance of an ISO 50001 or 50001 Ready Energy Management System (EnMS) to systematically track, analyze, and improve energy efficiency.
- n. Develop, implement, and update a Water Management Plan at least every 5 years that documents current water use, projected water use, planned water efficiency improvements and conservation activities, and water-reduction goals.
- o. Adopt best practices from smart building accelerator, smart labs, and grid-interactive efficient building initiatives in support of a sustainable, data-driven, optimized operations and maintenance program.



- p. Maximize consumption of CFE and/or renewable energy through on-site installation of systems, inclusion of non-power attributes of purchased CFE and/or renewable energy sources (i.e., renewable energy certificates or energy attribute certificates), and support the transition to a clean electricity sector.
- q. Leverage DOE real property assets for onsite implementation of renewable energy and CFE systems, including energy storage capacity.
- r. Support the adoption, use, and expansion of renewable energy and CFE by developing public and private partnerships (e.g., States, Tribes, municipalities, co-operatives, consumers, private sector).
- s. Evaluate data centers once every four years by a certified Data Center Energy Practitioner and implement cost-effective design and operations best practices to improve data center and server operations energy efficiency.
- t. Support development of the site Utility Services Procurement Plan and support coordination with FEMP to receive concurrence on contracts prior to award for natural gas and electricity including renewable energy and CFE requirements for contracts, agreements, and modifications.
- u. Communicate to FEMP notice received of any regulatory action on the part of their utility service provider so that FEMP jointly with the Office of General Counsel (OGC) can determine whether to intervene, or otherwise participate, in hearings or proceedings on behalf of DOE before the regulatory body for the utility service provider. Absent written direction from the cognizant Contracting Officer, in consultation with OGC and FEMP concerning a specific matter, a DOE contractor does not have the authority to participate in utility regulatory proceedings on behalf of DOE.

6. Climate Adaptation and Resilience.

- a. Develop and implement climate vulnerability assessments and resilience plans (VARPs) in accordance with the DOE VARP instructions, using current Federal agency tools such as the U.S. Climate Resilience Toolkit and climate science information. Use VARPs to assess climate change impacts and inform financial and management decisions, and to protect DOE assets from climate change threats and impacts, take action to adapt to the changing environment, reduce facility energy and water disruptions, and make resilience a cornerstone of operations to ensure DOE sites are climate ready. Update VARPS at least every four years.
- b. Review existing and new contracts for opportunities for Sustainable Resilient Remediation.
- c. Support the demonstration of innovative climate adaptation and mitigation technologies and practices.

- d. Build climate literacy and knowledge of contractor employees and local communities through engagement, education, and training.
- e. Partner with local communities to share in the benefits of DOE’s climate adaptation, resilience, and energy and environmental justice initiatives.

7. Land and Natural Resource Management.

- a. Manage land and natural resources to ensure the protection of land, water, and biodiversity (including pollinators and migratory birds), including deployment of nature-based solutions, recognizing the co-benefit of resilience enhancement such as wildfire risk reduction, preservation of ecosystem services, carbon sequestration, and minimization of regulatory restrictions associated with endangered and threatened species.
- b. Use the expertise of National Laboratories and National Environmental Research Parks, where possible, to access and apply relevant site-specific biological and ecological research to inform conservation-based land use planning and decisions, including construction of remediation projects or similar operations decisions that may adversely affect land and ecosystem health.
- c. Engage with Tribal authorities regarding DOE operations that affect Tribal cultural resources or lands of ancestral, ceremonial, or other Tribal significance, and collaborate with Tribal authorities to address concerns and leverage resources using applicable Indigenous Knowledge.

8. Performance Measurement and Reporting.

- a. Develop, implement, and submit an annual Site Sustainability Plan (SSP) and other plans along with related data. At the minimum, the SSPs must: be completed and submitted through the Sustainability Dashboard; account for each individual site’s contribution to meeting the sustainability goals; commit appropriate personnel resources; and establish a timeline for execution coupled with specific performance measures and deliverables.
- b. Enter performance data into the Sustainability Dashboard or other information systems. Sites may use internal process to ensuring accuracy and completeness of data.
- c. Report on EMS implementation status, including progress toward incorporation of sustainability objectives and targets that are identified in SSP instructions and submit through the Sustainability Dashboard or other information systems.
- d. Adhere to the inventory and reporting requirements of Section 301 through 313 (including implementing regulations) of the Emergency Planning and Community Right-to-Know Act; the Pollution Prevention Act of 1990 at DOE facilities; and related statutory and administrative requirements.