U.S. Department of Energy
Washington, D.C.

ORDER

DOE O 430.2B

Approved: 2-27-08

SUBJECT: DEPARTMENTAL ENERGY, RENEWABLE ENERGY AND TRANSPORTATION MANAGEMENT

1. PURPOSE. To provide requirements and responsibilities for managing Department of Energy (DOE) energy, buildings, and fleets including:

   a. To meet, lead or exceed the goals of all applicable laws, Executive Orders, and Federal Regulations with respect to continuous energy efficiency and water conservation improvements, increased and pervasive use of on-site, distributed renewable and clean energy resources, increased development/deployment (using private sector and other sources of funding) of innovative, utility-scale renewable and clean energy sources on DOE and other Federal land, increased number of sustainable buildings, optimized utilization of alternative fuel, hybrid, and plug-in electric vehicles, and the expansion and maintenance of an alternative fuel infrastructure at all DOE facilities, laboratories, and sites. Site refers to the DOE entity which conducts operational activities. In most cases this refers to the contractor(s) operating DOE owned or leased facilities at discrete locations across the United States. In the case of Government-Owned-Government Operated (GOGO) facilities (including Power Administrations), it refers to the DOE operating organization.

   b. To accomplish on a Department-wide basis and through the maximum utilization of private sector, third-party financing, particularly from Energy Savings Performance Contracts (ESPC) and Utility Energy Services Contracts (UESC) applied in a life cycle cost effective manner, the following leadership goals:

      (1) By FY 2015, reduce energy intensity by no less than 30 percent on average across the entire Department, relative to the Department's energy use in FY 2003. Energy intensity means energy consumption per gross square foot of building space, including industrial and laboratory facilities.

      (2) By FY 2015, reduce potable water use by no less than 16 percent, relative to the Department's potable water use in FY 2007.

      (3) The installation of advanced electric metering systems at all Department sites in accordance with the DOE metering plan for site monitoring of electric energy. Standard metering systems for steam, natural gas and water must also be installed and centrally monitored at all Department sites for steam, natural gas and water consumption. Advanced meters are defined as having the capability to measure and record interval data (at least hourly for electricity) and communicate the data to a remote location in a format that can be easily integrated into an advanced metering system.

(4) The installation of on-site renewable energy (electric and thermal) generation at all Department sites.

(5) The installation of sustainable building materials and practices throughout the Department's existing building assets and the attainment of the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) Gold certification for all new construction and major building renovations in excess of $5 million. All buildings falling below this threshold are required to comply with the Guiding Principles for Federal Leadership in High Performance and Sustainable Buildings (Guiding Principles).

(6) The meeting of the 15 percent goal in Executive Order 13423 dated January 24, 2007 (E.O. 13423) section 2(f)(ii) for incorporating the sustainable practices of the Guiding Principles for energy and water and related principles into the Department's capital asset building inventory.

(7) The utilization of standardized operations and maintenance (O&M) and measurement and verification (M&V) protocols coupled with real-time information collection and centralized reporting capabilities.

(8) The commissioning of new equipment or retrofit construction to be performed to ensure that systems are designed, installed, functionally tested and capable of being operated and maintained to perform in conformity with the project intent.

(9) The retro-commissioning (Retro-Cx) to review the condition of building systems to be performed and return equipment that has fallen out of desired operating parameters back into appropriate tolerances. Retro-Cx is the process of optimizing an existing building's operation and maintenance through the implementation of low-cost and no-cost improvements, and does not involve equipment replacement. Retro-Cx focuses on energy using equipment such as mechanical systems, controls, and sometimes lighting.

(10) The provision of access to alternative fuel infrastructure throughout the Department to ensure that all alternative fuel vehicles will operate on alternative fuels to the greatest extent practicable, and the replacement of DOE conventional-fuel vehicles with alternative fuel and hybrid technology vehicles, including plug-in hybrid electric vehicles as they become available.

(11) The increase in development, generation and consumption of electric and steam, natural gas from renewable energy sources and combined heat and power sources.

(12) The increase in the use of non-potable water sources such as reclaimed, recycled and grey water for appropriate applications.

(13) The expedited improvement in the quality, consistency and centralization of data collected and reported through the use of commercially available software.

c. To develop and commit to an Executable Plan for each Site that identifies their respective contributions toward meeting all of the Department wide goals stated above. An Executable Plan is defined to mean an action plan setting forth a binding obligation of the applicable Site or Departmental element that commits appropriate personnel resources, establishes a financing plan that prioritizes the use of life-cycle cost effective private sector financing and optimizes the application of appropriations and budgeted funds, and establishes a time line for execution coupled with specific performance measures and deliverables designed to achieve the listed requirements set forth in Section 1(b) in FY 2008 and 2009. In the event that additional personnel, financing, or time is required, Executable Plans must address how the site will achieve compliance with applicable statutory, regulatory and executive order requirements, and deadlines while also applying good faith efforts and/or the site specific goals as agreed to by DOE to meet and exceed the additional requirements of this Order, as reasonably practicable.

2. CANCELLATIONS. DOE O 430.2A, *Departmental Energy and Utilities Management*, dated 4-15-02. Cancellation of an Order does not, by itself, modify or otherwise affect any contractual obligation to comply with the Order. Canceled Orders that are incorporated by reference in a contract remain in effect until the contract is modified to delete the references to the requirements in the canceled Orders.

3. APPLICABILITY.

a. All Departmental Elements.

(1) This Order applies to all Departmental elements that are responsible for the management and operation of the Department's facilities and activities, including elements of the National Nuclear Security Administration (NNSA) and the Power Marketing Administrations. (Go to http://www.directives.doe.gov/pdfs/reftools/org-list.pdf for the current listing of Departmental elements.)

(2) The Administrator of the National Nuclear Security Administration (NNSA) will assure that NNSA employees and contractors comply with their respective responsibilities under this Order. Nothing in this Order 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. The Contractor Requirements Document (CRD), Attachment 1, sets forth requirements of this Order that will apply to contractors responsible for the management and operation of the Department-owned facilities whose contracts include the CRD.

c. Exclusions. Services obtained by Power Marketing Administrations that are directly incident to their marketing or transmission programs. Naval Nuclear Propulsion facilities and activities under Executive Order 12344 as set forth in Public Law 106-65.

4. REQUIREMENTS.

a. Reporting. The Department is required to submit an annual report to Congress in accordance with the National Energy Conservation Policy Act (NECPA) and a report to the Chairman of the Council on Environmental Quality (CEQ) in accordance with E.O. 13423, *Strengthening Federal Environmental, Energy, and Transportation Management*.

(1) Section 543(c)(3) of NECPA as amended by the Energy Policy Act of 2005, states that the Secretary of Energy shall issue guidelines that establish criteria for exclusions of Federal buildings or collections of Federal buildings from the energy performance requirements for a fiscal year, within the statutory framework provided by law. The Department issued guidelines for excluding buildings from the Energy Performance Requirements of Section 543 of NECPA on January 27, 2006. This guidance can be found at http://www1.eere.energy.gov/femp/pdfs/exclusion_criteria.pdf.

(2) Any Site seeking to use the Excluded Building category must submit annual Exclusion Self-Certification in electronic spreadsheet format to the Federal Energy Management Program (FEMP) within the Office of Energy Efficiency and Renewable Energy, and to the site's Program Secretarial Officer, by November 15 of each year.

(3) An Excluded Building should, to the extent practicable, still be separately metered and the Site should also provide third party verification to FEMP that each Excluded Building has undergone a comprehensive energy audit and implemented all practicable, life cycle cost-effective energy conservation measures within the past four years.

(4) An exclusion applies to a single building and not the entire facility in which the building is located.

b. TEAM Initiative. Each Site must develop, maintain and annually update an Executable Plan that will define the respective Site's energy, sustainable buildings and fleet management program designed to promptly achieve the Department wide goals as specified below, the objectives set forth in paragraph 1 and to

comply with E.O. 13423, the Instructions for Implementation of E.O. 13423 dated March 28, 2007, as well as all Guidance Documents issued in accordance thereto and any modifications or amendments that may be issued from time to time. Site Executable Plans must be in place by December 31, 2008.

Whenever life cycle cost-effective energy savings and other capital improvements can be achieved through the application of private sector financing through contracting vehicles such as ESPCs, such opportunities must receive priority over the application of any appropriated funding.

Each energy, buildings and fleet management program must, to the greatest extent possible, ensure the achievement of the following leadership goals established by the Secretary's Transformational Energy Action Management (TEAM) Initiative:

(1) Achieve no less than a 30 percent energy intensity reduction across the agency relative to the baseline of the Department's energy use in FY 2003, on or before FY 2015 in accordance with the Executable Plans in place for all Department sites.

(2) Maximize installation of on-site renewable energy projects at all Sites where technically and economically feasible to acquire at least 7.5 percent of each site's annual electricity and thermal consumption from on-site renewable sources by FY 2010.

(3) Require that DOE's entire fleet operate any Alternative Fuel Vehicles exclusively on alternative fuels to the maximum extent practicable.

(4) Baseline, implement and monitor a Department-wide plan to reduce potable water consumption at least 16 percent by FY 2015, relative to the baseline of the agency's potable water consumption in FY 2007. Sites must have Executable Plans in place to meet their water reduction goals no later than December 31, 2008.

(5) Achieve a LEED Gold certification for all new construction, and major building renovations in excess of $5 million.

c. Energy and water management. The Department must use a variety of energy and water management strategies and tools to meet the goals of this Order. Strategies and tools include, but are not limited to, the following:

(1) Funding. The following instruments should be utilized to the maximum extent practicable to implement energy efficiency management projects, water management projects, and renewable energy projects with energy conservation measures (ECMs) having long- and short-term payback periods that can be incorporated into life-cycle cost effective contracts. To the extent appropriate, appropriated funds may be combined with ESPCs and UESCs to leverage government funding and optimize project scope

and reductions in energy use and cost of facility operations. Renewable energy and high performance sustainable buildings measures must be considered in each ESPC or UESC proposal and be implemented where practical.

(a) ESPCs. ESPCs can facilitate and accelerate completion of large projects that can incorporate ECMs with long- and short-term payback periods, through life-cycle cost-effective performance contracts.

(b) UESCs. UESCs, where permissible, enable DOE facilities to contract for a broad array of energy management services (including project financing) on a sole source basis from the local serving electric, natural gas or water utility.

(c) Direct Appropriated Funding. Appropriations should continue to be requested in annual budget requests and prioritized for application in projects or measures that cannot be done through private sector financing or for application as cost share to ESPCs/UESCs where permitted by statute so that larger, more comprehensive projects can be undertaken. It is anticipated that private financing will fund major portions of this Order and therefore, sites must maximize the use of all available private financing options.

(d) Ratepayer Incentives. Incentives and rebates from public benefit funds or utilities should be utilized at every opportunity to enhance energy reduction. Such rebates must either be used to reduce initial project cost or returned to the budgeted account through which the project was funded and may be included in estimated project savings for financed projects.

(e) Retention of Funds. Verified savings from a facility's energy and water conservation projects must be reinvested, consistent with Federal regulations, to further the energy and water conservation and operations and maintenance efforts at that facility.

(2) On-site Renewable Energy. The Department will maximize the use of on-site renewable energy to meet Federal renewable energy requirements. Each site must install a renewable energy project or show that renewable energy is not feasible at the site because of economic or renewable resource barriers. If the Department manager responsible for a site believes that meeting the renewable energy requirement through on-site renewable generation is not feasible, the manager must submit a waiver request in accordance with Section 5(a)(1) of this Order. A waiver request must include a documented evaluation of the site's potential for both distributed and utility-scale renewable energy development considering

first measures that are life-cycle cost-effective, then measures that cost the same as fossil energy and could be used as a substitute, and then projects that are not competitive but that have attributes that could justify development, such as providing a more secure energy supply for the site or a hedge against electricity price uncertainty. Site analyses conducted in the course of implementing the TEAM initiative can serve as documentation for a waiver request and should be reflected in the Executable Plan. If on-site projects are inadequate to meet the renewable energy goal, sites are allowed to increase the use of electricity from renewable energy to meet the renewable energy goal by purchasing renewable energy credits (RECs) or electricity from renewable energy generators. All sites will include provisions for such renewable energy purchases as a component in all future DOE competitive solicitations for electricity.

(3) Distributed Generation. Where life-cycle cost effective, the Department must implement distributed generation systems in new construction or retrofit projects, including renewable systems such as solar electric, solar lighting, geo (or ground coupled) thermal, small wind turbines, as well as other generation systems such as fuel cell, cogeneration, or highly efficient alternatives. In addition, the Department must use distributed generation systems when a substantial contribution is made toward enhancing energy reliability or security. To the extent authorized by Federal and State law, excess renewable power generated by a site can be sold to other power users. Distributed generation projects using private financing should be life cycle cost-effective, but in cases where they provide other benefits they may be combined with other energy conservation measures in larger energy conservation projects that are cost effective in the aggregate.

(4) Metering. To the maximum extent practicable, all Sites must install metering devices that measure consumption of potable water, electricity, steam, and natural gas in each building and other facilities and grounds. A Departmental centralized tracking system for collecting advanced metering data for electrical energy will be developed following a feasibility study. Once developed, data from all Departmental advanced metering devices must be collected for incorporation into this centralized tracking system. Access to this system will be made available to facility personnel and senior agency official responsible for compliance with this Order. All facilities must incorporate the inclusion of metering requirements in all ESPCs and UESCs, as appropriate.

(5) Auditing. All DOE elements must ensure that by December 31, 2008, all major site facilities have been audited over the last five years. After December 31, 2008, facilities should continue to be audited every four years. This audit requirement can be met by audits done in the last five years in conjunction with the site’s energy management program or under

ESPC or UESC projects. Facilities/sites that meet current exemption guidelines will not have to comply with this requirement.

(6) New Buildings. The Department must meet the requirements of 10 CFR Part 433 which indicate Federal commercial buildings be designed to achieve energy saving of at least 30 percent below ANSI/ASHRAE/IESNA Standard 90.1-2004, if cost-effective. Moreover, the Department must meet or exceed ENERGY STAR® Building criteria, and score the energy performance of buildings using the ENERGY STAR® Portfolio Manager rating tool as part of comprehensive facility audits. When evaluating the ENERGY STAR® target for a new building, apply the more stringent standard set forth in the Table of Target Energy Performance Results and the values required under 10 CFR Part 433 or 435 (as applicable). A Table of Target Energy Performance Results by building type and climate required for this evaluation may be found at http://www.eere.energy.gov/buildings/highperformance/pdfs/energy_use_intensity_targets.pdf.

(7) Labs21. The Department must use programs such as the Labs21 partnership to encourage the development of sustainable, high performance, and low-energy laboratories.

(8) Energy Purchasing. The Department must purchase, to the maximum extent possible, electricity, steam, and natural gas from sources that use high efficiency and low-carbon generating technologies in order to reduce greenhouse gas intensity.

(9) Water Efficient Products. Where available, the Department must purchase WaterSense^{SM} labeled products and other water efficient products and choose irrigation contractors who are certified through a WaterSense^{SM} labeled program.

(10) Demand Response. Each DOE facility must examine the cost effectiveness of participation in local demand response programs. To the extent the facility receives energy cost savings or payments they shall be reinvested in accordance with paragraph 4.c.(1).(e) above.

(11) Data Centers. Reduce the energy consumption of data center and server operations by specifying the acquisition of energy efficient electronic equipment for data centers, operating the equipment to improve load management and server innovation, and configuring the cooling operations to maximize energy efficiency opportunities.

d. Sustainable Design/High Performance Buildings. All new buildings will incorporate the Guiding Principles of E.O. 13423 to the extent practical and life cycle cost effective. As of October 1, 2008, all new buildings and major buildings renovations at Critical Decision One (CD-1) or lower with a value exceeding $5

million, must implement the Guiding Principles of the Executive Order and attain U.S. Green Building Council (USGBC) LEED Gold certification. All new construction or major renovation projects must incorporate renewable energy equipment into building design to the maximum extent feasible. In the event that a project manager has compelling reasons for attaining a certification other than LEED Gold or believes that a certification can be attained from a nationally recognized certification program that exceed LEED Gold requirements, such project manager may seek to obtain a waiver from the LEED Gold requirement from the Acquisition Executive made in consultation with the Senior Agency Official (SAO) . The process and procedures required for obtaining such waiver shall be set forth by a guidance document issued by the Department's intra-agency High Performance Sustainable Buildings working group. In no case will a waiver permit any construction or renovation project that does not meet or exceed statutory goals, including the achievement of credits to exceed the ASHRAE 90.1-2004 standard by at least 30 percent, and address each of the five elements of the Guiding Principles. Progress in meeting this requirement will be tracked by the cognizant Acquisition Executive.

(1) Existing buildings. All programs that own or lease real property must develop and implement a plan, as part of the Executable Plan, to ensure that 15 percent of their enduring buildings are compliant with the guiding principles of Executive Order 13423. Implementation of the plan must be documented within the programs' Ten Year Site Plans and through the appropriate LEED building credits. Progress in meeting this requirement will be tracked within the Department's Facilities Information Management System.

(2) High performance building plans. On August 15 of each year, the Department must submit a plan to the Office of Management and Budget (OMB) and the Office of the Federal Environmental Executive (OFEE) that addresses how the Department will ensure that (1) all new construction and renovation projects implement design, construction, and maintenance and operation practices in support of the sustainable design/high-performance buildings goals of E.O. 13423 and statutory requirements and (2) existing facilities' maintenance and operation practices in support of the goals of E.O. 13423. Such plans must also align with E.O. 13327 and the Department's real property asset management plan. At a minimum, the plans must address the following:

(a) Employment of integrated design principles, optimization of energy efficiency and use of renewable energy, protection and conservation of water, enhancement of indoor environmental quality, and reduction of environmental impacts of materials in accordance with the Guiding Principles and the other building and construction-related E.O. 13423 goals and instructions.

(b) Procurement of ENERGY STAR®-qualified or FEMP-designated products when purchasing energy consuming products. This includes incorporation into the specifications for all procurements involving energy consuming products and systems, including guide specifications, project specifications, and construction, renovation, and services contracts that include provision of energy consuming products and systems, and into the factors for the evaluation of offers received for the procurement, criteria for energy efficiency that are consistent with the criteria used for rating ENERGY STAR®-qualified products and FEMP-designated products.

(c) An assessment of policy, criteria, contracts, and other areas, identifying gaps in the Department's sustainable building program.

(d) Key action items, including major milestones and responsible parties.

(3) Database. The Department will maintain a Departmental High Performance Federal Buildings Database designed to document the planning, execution and maintenance of the requirements set forth in Section d. All such information must be available on the web. At least one project per year must be showcased in the existing High Performance Federal Buildings Database on the web at http://www.eere.energy.gov/femp/highperformance/index.cfm.

(4) Leased facilities. Starting in FY 2008, all procurement specifications and selection criteria for acquiring new leased space, including build-to-suit lease solicitations are to include a preference for buildings certified as LEED Gold. When entering into renegotiation or extension of existing leases, the Department must include lease provisions that support the Guiding Principles.

(5) DOE Headquarters. The Forrestal and Germantown headquarters facilities are hereby designated as Department "showcase facilities" and are required to prominently feature, and periodically upgrade, the application and use of state-of-the-art energy and water efficiency, high performance sustainable buildings, and renewable energy technologies.

(6) Petroleum based fuels. The use of petroleum-based fuels will be minimized in DOE-owned buildings and facilities by switching to a less greenhouse gas intensive, non-petroleum-based energy source such as natural gas or renewable energy source as measured at the end source. For buildings and facilities that use petroleum-based fuel systems, provide dual-fuel capability where life cycle cost-effective and practicable.

e. Transportation/Fleet Management.

(1) To achieve the petroleum reduction goal of Section 2(g) of E.O. 13423, the Department must:

(a) Reduce vehicle miles traveled through such methods as trip consolidation practices, increased use of videoconferencing and web conferencing, and the use of mass transportation/agency shuttles.

(b) Increase overall fleet fuel economy through acquisition of higher fuel economy vehicles (e.g., smaller sized vehicles, hybrid-electric vehicles, and other advanced technology vehicles).

(c) "Right-size" its fleet, employing the most fuel-efficient vehicle for the required task and having the appropriate number of vehicles relative to need.

(d) Employ efficiency strategies that reduce energy such as low rolling resistant tire or synthetic oil which allow for extended replacement frequencies, and other technologies.

(e) Consider the use of plug-in hybrid electric vehicles (PHEVs) and the use of electric drive vehicles to the extent feasible and in accordance with applicable statutes, regulations, executive orders and Departmental guidance.

(2) To achieve the goals of the Secretary's TEAM Initiative, and ensure that the Department remains a leader in sustainable transportation management, each Departmental Element must:

(a) By the end of December 31, 2008, ensure that each of its sites with alternative-fuel and diesel vehicles has adopted as part of its Executable Plan the requirement that all alternative fuel vehicles operate on alternative fuel to the maximum extent possible. The procedure for each site to arrange alternative fuel access should be executed as follows:

1 Potential existing alternative fuel infrastructure must be investigated, using, among other tools, DOE's Alternative Fueling Station Locator.

2 Where no infrastructure currently exists within five miles, DOE and NNSA fleet management and the site shall investigate possible solutions through private-sector alternative fuel distributors, including existing fuel vendors and stations. Where possible, collaborations should be

sought with nearby Federal, State or local governments to aggregate demand for alternative fuel. Sites must work with DOE's Clean Cities program to coordinate these teaming arrangements.

3 When these options have been exhausted, DOE sites must initiate a procurement process for the installation of on-site alternative fueling infrastructure including fuel pumps. On-site fueling should be pursued when cost-effective. Headquarters and NNSA fleet management should work with sites to develop proposals and seek private fuel vendors able to meet each site's specific need.

(b) Each Departmental element must arrange for the procurement of alternative-fuel vehicles to replace the existing conventional-fuel fleet to the extent practicable, with the goal of replacing the existing fleet with alternative fuel and/or hybrid technology vehicles by the end of FY 2010.

(c) For the purposes of the TEAM Initiative, "alternative fuel vehicles" are defined according to Section 301 of EPAct 1992.

f. Data and Tracking.

(1) Annual reports. The Department must provide compliance data to FEMP no later than December 1 of each year or as otherwise required by FEMP. The Department must implement internal policies that will ensure accurate tracking of the vehicle acquisitions and inventory, mileage, fuel consumption by fuel type, and other relevant data. FEMP must specify the reporting format and collection methods for data to be submitted. FEMP will continually update and maintain FAST to reflect the goals of the TEAM Initiative and E.O. 13423.

(2) Monthly reports. Upon the monthly receipt from GSA of the Department's vehicle tag numbers, fuel use data (by fuel type for all petroleum and alternative fuels) for covered GSA-leased vehicles, the Department must track these data to ensure its accuracy and also track comparable data for all covered Department-owned and commercially leased vehicles.

(3) Credits. Alternative fuel vehicle (AFV) acquisition requirements are set forth in section 303 of EPAct 1992. Vehicles acquired under section 303 means (i) new purchase, (ii) a newly leased vehicle, or (iii) a leased vehicle that replaces an existing leased vehicle. In calculating AFV

acquisition compliance, the Department must receive the following credits:

(a) One credit for each dual-fuel AFV (flexible fuel or bi-fuel), regardless of vehicle size class as long as the vehicle meets the AFV definition of EPAct 1992, as amended by EPAct 2005.

(b) Two credits for each dedicated light-duty AFV.

(c) Three credits for each dedicated medium-duty AFV.

(d) Four credits for each dedicated heavy-duty AFV.

g. Utilities Acquisition and Management.

(1) Every Site will be supported by a Headquarters program office that will coordinate its utilities acquisition and management program to provide a consistent corporate approach to utilities acquisition and management, especially at multi-program sites.

(2) Utilities management performance measures will be commensurate with the value and importance of the asset.

(3) Utilities acquisition and management performance measures must ensure formal, comprehensive, integrated, documented planning and control methods. These measures will address, but not be limited to, the following:

(a) a planning process for utilities acquisition and management.

(b) ensuring that each facility complies with the renewable and clean energy utility acquisition requirements of this order.

(c) ensuring electric, gas, and water loads are met and managed to minimize cost of utilities maximize reliability, and mitigate the impact of supply disruptions.

(d) maximizing the use of clean and renewable energy resources (procured from off-site sources or generated on-site) to minimize environmental impacts and green houses gas emissions. Excess renewable power generated or procured by a site can be sold to other power users.

(4) The process for operation and maintenance of physical assets at the site must ensure efficient and effective management and use of on-site utility distribution systems and supply contracts.

(5) Utilities services shall be acquired and disposed of via prime contract awarded to the energy supplier by DOE, the General Services Administration (GSA), or by the Defense Energy Support Center (DESC).

(6) In the acquisition and management of utilities, DOE elements must ensure that all applicable Federal, State, and local laws and regulations are followed.

(7) The installation of advanced meters to the maximum extent practicable at all buildings and participation in the centralized data collection, reporting and management system.

h. Personnel Management.

(1) Train personnel at each site to direct energy and water management programs and dedicate all or a substantial portion of their time to the effective implementation of energy and water management plans.

(2) Ensure accountability by including the successful implementation of this order in the performance evaluations for the Senior Agency Official and relevant staff such as facility managers, energy managers, vehicle fleet managers, contracting officials and facility managers and others as appropriate.

(3) Implement employee incentive programs to reward exceptional individual and team performance in increasing energy efficiency and water conservation, deploying renewable energy, minimizing waste, reducing utility costs, and reducing greenhouse gas emissions.

(4) Implement outreach programs to motivate employees to become more efficient in their use of energy, water, and green products and services, and to minimize waste.

i. Environmental Management System. Each DOE site must develop and implement an environmental management system in accordance with the latest version of DOE Order 450.1 that includes measurable environmental, energy, and transportation objectives and targets that are reviewed annually, are updated when appropriate, and contribute to achieving the sustainable practice goals established in this order.

5. RESPONSIBILITIES.

a. Senior Agency Official (SAO).

(1) As designated by the Secretary, in accordance with the requirements of E.O. 13423, ensure the requirements of this Order are implemented within the Department. The SAO has the authority to convene and chair any

meetings among the Department's Under Secretaries and members of any executive or steering committees specifically tasked with oversight responsibilities related to this Order (or their respective designees) addressing:

(a) Policy and guidance requirements associated with this Order.

(b) Individual Site compliance with the requirements of this Order, including review, and modification of Executable Plans.

(c) The grant of any waiver or exemption to any Site unable to meet or exceed the requirements of this Order.

(d) Any other matters or issues associated with this Order as may be requested by the Secretary or the Deputy Secretary, from time to time.

(e) In the event that the SAO, the Under Secretaries or a member of any executive or steering committee specifically tasked with oversight responsibilities related to this Order (or their respective designees) are unable to reach concurrence on any matter placed before them in accordance with this provision, the SAO is authorized to elevate any such matter to the Secretary or Deputy Secretary, as appropriate, for final determination.

(2) Provide progress reports, as requested, on the Department's implementation of EO 13423 to the Secretary, the Chairman of the Council on Environmental Quality (CEQ), the Director of the Office of Management and Budget (OMB), and the Federal Environmental Executive (OFEE).

(3) Coordinate with the Program Secretarial Officers (PSO), the Administrator for the NNSA, Administrators of the Western Area Power Administration and the Southwest Power Administration, DOE Field Office Managers, and the Office of Human Capital Management to promote the implementation of E.O. 13423 and the environmental, energy and transportation goals of this Order and the latest version of Order 450.1 in performance standards and performance evaluations of relevant DOE personnel, such as Field Office Managers, environmental and energy program managers, vehicle fleet managers, contracting officials, and others as appropriate.

(4) Work with the PSOs and Administrator of NNSA in facilitating timely responses to guidance or instruction requests from the CEQ, OFEE and OMB.

(5) Issue guidance to ensure each site retain and reinvest verified savings from energy and water conservation projects to further the energy and water conservation projects at that facility.

(6) Establish leadership awards to recognize outstanding environmental, energy, or transportation management performance.

b. Office of Federal Energy Management Programs.

(1) Develop DOE policies on energy efficiency, water conservation, renewable energy and utilities supplies and services, sustainable buildings, and fleets.

(2) Provide technical assistance, as resources permit, and support the planning and budgeting process of DOE elements.

(3) Act as the DOE point of contact for external activities and issues relating to:

(a) Utilities and energy management at DOE facilities.

(b) High performance and sustainable buildings.

(c) Energy Policy Act 2005, E.O. 13423, and OMB Scorecard goal tracking and reporting.

(4) Develop and verify in conjunction with the field elements and PSOs the performance objectives, measures, and expectations for management of energy utilities, sustainable buildings and fleets.

(5) Convene a board of Program Energy Management Officials (PEMO) as necessary to review the Department's objectives and accomplishments, and to provide recommendations to meet TEAM Initiative goals. Convene a working group meeting under the direction of the PEMOs as necessary to discuss and resolve issues related to the implementation of this Order, other guidance and recommendations from the PEMOs.

(6) With respect to energy management:

(a) Develop, implement, monitor, and report on the Secretary's TEAM Initiative.

(b) Prepare and update the Department's Annual Energy Management Implementation Plans.

(c) Evaluate the performance of field elements against the objectives, measures, and expectations of the TEAM Initiative.

(d) Convene the Energy Savings Performance Contract (ESPC) Review Board to coordinate concurrences from the DOE Program Office, FEMP, the Office of the General Counsel, Office of the Chief Financial Officer and the Office of Management for all ESPCs and conveys the concurrence input to the relevant site office for consideration. The purpose of the Review Board is to assure that Department projects have included all permissible measures designed to meet or exceed the requirements set forth in the TEAM Initiative and to facilitate and expedite project approvals.

(e) Supports the SAO in processing and reviewing all waiver requests made to the SAO in accordance with the provisions of this Order.

(7) With respect to utilities management:

(a) With the Office of the General Counsel, jointly represent DOE consumer interests by intervening, or otherwise participating in, hearings or proceedings before regulatory bodies for utilities when these proceedings affect DOE operations.

(b) For the acquisition and sale of utilities services, review documents, concur on and coordinate concurrences from the DOE Program Office, the Office of the General Counsel, the Office of Management, and the Office of the Chief Financial Officer for DOE actions. For NNSA actions, recommends approval to NNSA.

(c) Coordinate between program offices and field elements to support a life cycle cost-effective approach to utilities planning, acquisition, and management and participation in power purchase agreements and utility energy service contracts where available.

(d) Develop and oversee the implementation of a Department wide system for the collection of energy and water use data at Sites for reporting and analysis purposes and making such data available to PSO and field personnel as requested and permitted.

(8) With respect to sustainable buildings:

(a) Provide guidance and support the Department's Intra-Agency High Performance Sustainable Buildings working group tasked with

accomplishing the TEAM initiative and maintaining the Department's High Performance Building Implementation Plan.

(b) Provide support for the design and construction of laboratories and other high technology facilities such as data centers through the Laboratories for the 21st Century and similar programs.

(c) Provide recommendations to the SAO for approval of waivers for new construction and major renovations.

(9) With respect to fleets:

(a) Support and facilitate Headquarters communication and coordination with DOE Field elements.

(b) Convene a Fleets Working Group in order to execute the goals of the TEAM Initiative and provide information to the DOE sites. The working group must assist in coordination of alternative fuel infrastructure installation and report regularly to the SAO on its progress.

c. Program Secretarial Officers/Administrator NNSA.

(1) Ensure implementation of programs at their sites that will achieve the goals and objectives of the TEAM Initiative as well as other Department key energy, utilities, sustainable building, and fleet management objectives as provided from time to time by the Secretary or the SAO.

(2) Ensure the development of Executable Plans that define how each Site will achieve the goals and objectives of the TEAM Initiative and ensure that these plans are integrated into the contractors Performance Evaluation and Measurement Plan.

(3) Support DOE field element management of utilities, energy, sustainable building, and fleet management in a manner to ensure that planned facility use is consistent with the goals and objectives of the TEAM Initiative and other DOE policy and utilities management and energy management goals, while ensuring that the core mission of any facility is not compromised and protecting the safety and health of workers.

(4) Verify that field elements have utilities, energy, sustainable building, and fleet management performance criteria and measures in place to effectively achieve the TEAM Initiative goals and other DOE policy and utilities management and energy management goals as provided from time to time by the Secretary or the SAO.

(5) Support funding for life cycle cost-effective energy efficiency improvements in existing facilities based on the Guiding Principles and for the design and construction of new facilities meeting the LEED Gold rating, and a life cycle cost-effective analysis of alternatives.

(6) Lead in defining, planning, and budgeting for utilities, energy, sustainable building, and fleet program needs.

(7) Evaluate the performance of sites against the objectives, measures, and expectations with respect to utilities, energy, sustainable buildings, and fleet management as defined in the Site's Executable Plan.

(8) Support FEMP in the development and implementation of a system for the collection of energy and water use data at DOE facilities for reporting and analysis purposes and coordinating with FEMP on which field and PSO representatives should have access to such data.

d. DOE Field Elements.

(1) Lead in negotiating performance objectives, measures, and annual expectations for management of energy, utilities, sustainable buildings and fleets with their contractors. These objectives, measures and annual expectations will be reflected in the Site's Executable Plan and as appropriate in the Site's environmental management system.

(2) Evaluate, at least annually, the performance of the contractors against the Site's Executable Plan, field and FEMP established performance objectives and the TEAM Initiative, other Department leadership goals and E.O. 13423 requirements set forth in this Order.

(3) Incorporate performance objectives using a graded approach into energy, utilities, sustainable buildings and fleets management processes.

(4) Prepare annual budget requests and planning, as necessary, for their site(s) to meet the E.O. 13423 and DOE requirements in their respective Ten Year Site Plan(s)/Executable Plans. Support budgets at their sites to accomplish management objectives for management of energy, utilities, sustainable buildings and fleets including compliance with LEED Gold certification for new construction and major renovations and the Guiding Principles for existing building assets.

(5) Promptly inform Contracting Officers of procurement actions affected by this Order so that the CRD will be included in affected contracts as soon as possible. Prompt action is necessary because of deadlines imposed on

DOE elements for amendment of affected contracts, and there are also deadlines imposed on contractors within the CRD.

(6) Provide timely reporting as required by this Order and pertinent input into guidance or other information requests as appropriate.

(7) Integrate the requirements of this Order with the facilities management plan and align with the activities required under Executive Order 13327 (real property).

(8) With respect to energy management:

(a) Set individual site goals that contribute to the Department achieving the TEAM Initiative leadership goals. These site goals will be reflected in the Site's Executable Plan.

(b) Demonstrate implementation of the requirements and achievement of the goals in section 4 of this Order at the sites by ensuring that the sites participate in the Department's centralized data collection efforts for the TEAM initiative and providing FEMP with the input for reports required by statute and regulation.

(c) Submit all ESPC proposals to FEMP, in coordination with their line management, for coordination of comments and concurrences from DOE's ESPC Review Board before signing the contract.

(9) With respect to utilities management:

(a) Lead the verification of a life cycle cost-effective approach to utilities planning, acquisition, and management in coordination with program offices and FEMP.

(b) With the Office of the General Counsel and FEMP, participate in DOE's utilities intervention process.

(c) Submit to FEMP, in coordination with their line management, for concurrence or recommendation for approval to NNSA, all contracts, contract modifications (excluding administrative or incremental funding modifications), or other arrangements with a utility company for the acquisition and sale of utility services.

(d) Support FEMP in the development of a system for the collection of energy and water use data from all advanced metering devices at DOE facilities for reporting and analysis purposes and coordinating with FEMP on which field and PSO representatives should have access to such data.

(e) Ensure that water reduction goals are included in the Executable Plans.

(10) With respect to sustainable buildings:

(a) Identify a sustainability coordinator for each facility who has responsibility to meet the requirements of the TEAM Initiative and ensure that site infrastructure plans and plans for new buildings comply with the Guiding Principles.

(b) Ensure that budget submissions for new buildings and major renovations are adequate to ensure a rating of LEED Gold with compliance to the Guiding Principles.

(c) Ensure that site specifications for architectural, engineering, construction, and maintenance services and products specify compliance with the Guiding Principles.

(d) Beginning in FY 2008 and annually thereafter, submit to FEMP in coordination with their line management, and the DOE Intra-agency Sustainable Building Working Group, an inventory of new construction buildings entering CD-1.

(e) Beginning in FY 2008 and annually thereafter, submit to FEMP, in coordination with their line management, and the DOE Intra-agency Sustainable Building Working Group, an inventory of new and existing buildings certified as LEED Gold and in compliance with the High Performance Sustainable Buildings MOU.

(f) Demonstrate implementation of the requirements and achievement of the sustainability goals by ensuring that the sites participate in the Department's centralized data collection efforts for the TEAM Initiative and providing FEMP with the input for reports required by statute and regulation.

(g) Submit all ESPC proposals to FEMP, in coordination with their line management, for coordination of comments and concurrences from DOE's ESPC Review Board for consideration of sustainability goals before signing the contract.

(11) With respect to transportation/fleet management:

(a) Lead the verification of a cost-effective approach to transportation/fleet management in coordination with program offices and FEMP.

(b) Set individual site goals that contribute to the Department achieving the petroleum reduction and TEAM Initiative leadership goals.

(c) Demonstrate implementation of the requirements and achievement of the transportation/fleet goals by ensuring that the sites participate in the Department's data and tracking efforts and provide FEMP with the compliance data for the annual reports.

e. Chief Health Safety and Security Officer.

(1) Develop new, or revise existing, DOE environmental protection directives, policies, requirements, procedures, and guidance to ensure Departmental implementation of environmental management system requirements of E.O. 13423.

(2) Submit to the Federal Environmental Executive, the required annual report for the Department on the status of implementation of the environmental management system requirements of E.O. 13423, as well as required reports on the sustainable environmental practices and goals for which the SAO has delegated responsibility to the Chief Health, Safety, and Security Officer.

f. Contracting Officers. Modify all Department M&O and major site and facility management contracts to incorporate the CRD into all M&O and other appropriate contracts. Notification of this impending change, under the Laws, regulations and directives clause [48 CFR 970.5204-2], must be sent to affected contractors by May 1, 2008 and the contract change must be made or completed by July 1, 2008. This prompt action is necessary to ensure that contractors will have sufficient time to meet the deadlines imposed in the CRD, and that DOE elements will meet the deadlines imposed in paragraph 4 of the Order.

6. NECESSITY FINDING STATEMENT. In compliance with Sec. 3174 of P.L. 104-201 (50 U.S.C. 2584 note), DOE hereby finds that this Order is necessary for the protection of human health and the environment or safety, fulfillment of current legal requirements, or conduct of critical administrative functions.

7. REFERENCES.

a. Executive Order 13423, *St*rengthening Federal Environmental, Energy and Transportation Management, January 24, 2007. http://ofee.gov/eo/EO_13423.pdf

b. Instructions for Implementing Executive Order 13423, Strengthening Federal Environmental, Energy and Transportation Management, March 28, 2007. http://ofee.gov/eo/eo13423_instructions.pdf

c. Federal Leadership in High Performance and Sustainable Buildings Memorandum of Understanding (MOU), January 2006. This MOU includes the Guiding Principles for Federal Leadership in High Performance and Sustainable Buildings that were later incorporated by reference into E.O. 13423. http://www.wbdg.org/references/mou.php

d. Public Law 102-486, Energy Policy Act of 1992, October 24, 1992. Document can be found through search at http://thomas.loc.gov/.

e. Public Law 109-58, Energy Policy Act of 2005, August 8, 2005. Document can be found through search at http://thomas.loc.gov/.

f. Public Law 110-140, Energy Independence and Security Act of 2007, December, 19, 2007. Document can be found through search at http://thomas.loc.gov/.

g. Title XXXII of Public Law 106-65, National Nuclear Security Administration Act. Document can be found through search at http://thomas.loc.gov/.

h. Executive Order 13221, Energy Efficient Standby Power Devices, August 2, 2001. http://www.ofee.gov/eo/eo13221.pdf

i. Secretary of Energy Memorandum, Greening the Government Through Efficient Energy Management - Utility Cost Reductions Applied to Renewable Energy Premiums, September 7, 2000. Online text not available.

j. Deputy Secretary of Energy Memorandum, Energy Savings Performance Contracting at DOE Sites, June 29, 2000. Online text not available.

k. Public Law 94-163, Energy Policy and Conservation Act, December 22, 1975, 42 United States Code (U.S.C.) 6361. Document can be found through search at http://thomas.loc.gov/.

l. Public Law 95-619, National Energy Conservation Policy Act (NECPA), November 9, 1978, 42 U.S.C. 8201. Document can be found through search at http://thomas.loc.gov/.

m. Public Law 99-272, Omnibus Budget Reconciliation Act of 1985, April 7, 1986, 42 U.S.C. 8287. Document can be found through search at http://thomas.loc.gov/.

n. Public Law 100-615, *Federal Energy Management Improvement Act of 1988*, November 5, 1988, 42 U.S.C. 8251. Online text not available.

o. 10 CFR Part 433, *Energy Efficiency Standards for the Design and Construction of New Federal Commercial and Multi-family High-Rise Residential Buildings*, December 21, 2007. http://www.access.gpo.gov/nara/cfr/waisidx_07/10cfr433_07.html

p. 10 CFR Part 436, *Federal Energy Management and Planning Programs*. http://www.access.gpo.gov/nara/cfr/waisidx_07/10cfr436_07.html

q. 41 CFR Subpart 101-20.107, *Energy Conservation*. http://www.access.gpo.gov/nara/cfr/waisidx_05/41cfrv2_05.html

r. 48 CFR Subpart 970.0470, *Department of Energy Directives*. http://www.access.gpo.gov/nara/cfr/waisidx_07/48cfr970_07.html

s. 48 CFR Subpart 923.4, *Use of Recovered Materials*. http://www.access.gpo.gov/nara/cfr/waisidx_07/48cfr923_07.html

t. 48 CFR Subpart 970.41, *Acquisition of Utility Services*. http://www.access.gpo.gov/nara/cfr/waisidx_07/48cfr970_07.html

u. 48 CFR Subpart 970.72, *Facilities Management*. http://www.access.gpo.gov/nara/cfr/waisidx_07/48cfr970_07.html

v. DOE P 450.4, *Safety Management System Policy*, October 15, 1996, establishes the Secretary's policy for conducting work safely and integrating safety with the conduct of all phases of work. Throughout the Policy, the term 'safety' is used synonymously with 'environment, safety, and health' to encompass protection of the public, the workers, and the environment. The Policy is implemented by DOE Manual 450.4-1 Integrated Safety System Manual, and by Department of Energy Acquisition Regulation (DEAR), 48 CFR Subpart 970.5223-1, Integration of Environment, Safety and Health into Work Planning and Execution (DEAR clause). In the DEAR clause, 'safety' encompasses environment, safety and health, including pollution prevention and waste management. The DEAR clause requires contractors to develop and implement an integrated system for all work (including any activities associated with pollution prevention, waste minimization, or energy management). http://www.directives.doe.gov/pdfs/doe/doetext/neword/450/p4504.pdf

w. 42 U.S.C. 2204, section 164, *Atomic Energy Act of 1954*. Online text not available.

x. 40 U.S.C. 481(a)(3) and (4), section 201(a)(3), *Federal Property and Administrative Services Act of 1949*. Online text not available.

y. 48 CFR Chapter 1, Federal Acquisition Regulation (FAR), Part 41, *Acquisition of Utility Services*. http://www.access.gpo.gov/nara/cfr/waisidx_02/48cfr41_02.html

z. Letter of February 12, 1987, whereby GSA delegated to the Secretary of Energy, in accordance with sections 201(a)(3) and 205(d) of the *Federal Property and Administrative Services Act of 1949*, as amended [40 U.S.C. 481(a)(3) and

486(d)], the authority to enter into long-term utilities contracts, for a period not to exceed 10 years, for all utilities services (i.e., electric, natural gas, water, sewage, and steam). Online text not available.

aa. DOE O 450.1, *Environmental Protection Program*, January 3, 2007, which implements the environmental management system requirements and sustainable environmental practices and goals of EO 13423 and its Implementing Instructions. http://www.directives.doe.gov/pdfs/doe/doetext/neword/450/o4501admc1.pdf

8. IMPLEMENTATION. This Order must be implemented by December 31, 2008 at each site with Site-specific Executable plans, performance measurement systems containing performance objectives, measures, and expectations.

9. CONTACT. Questions concerning this Order should be addressed to FEMP at 202-586-5772.

BY ORDER OF THE SECRETARY OF ENERGY:

CLAY SELL
Deputy Secretary

CONTRACTOR REQUIREMENTS DOCUMENT

DOE O 430.2B, *Departmental Energy, Renewable Energy and Transportation Management*

Major facilities contractors managing and operating Department of Energy (DOE), including National Nuclear Security Administration (NNSA), facilities or subcontracting the operation and maintenance of DOE facilities must have a documented energy management program and an energy management plan. Major facilities contractors are responsible for (1) compliance with the requirements of this Contractor Requirements Document (CRD) regardless of the performer of the work and (2) flowing down the requirements of the CRD of the Order to subcontracts to the extent necessary to ensure contractors' compliance with the requirements. The following items are required of the contractor organization using a graded approach:

1. ENERGY MANAGEMENT PROGRAM.

   a. The energy management program must be performance oriented and demonstrate continuous life cycle cost-effective improvements to increase the energy efficiency and effective management of energy, water and vehicle fleets within DOE's buildings, laboratories, and production facilities while increasing the use of clean energy sources.

   b. The contractor shall assist the Department through direct participation and other support in achieving the Department's energy efficiency goals and objectives in electricity, water, and thermal consumption, conservation, and savings, including goals and objectives contained in E.O.13423. The contractor shall maintain and update, as appropriate, its Ten Year Site Plan/Executable Plan (as required elsewhere in the contract) to include detailed energy management programs and milestones for achieving site-specific energy efficiency goals and objectives. With respect to this paragraph, the energy management program shall consider all potential sources of funds, in the following order: 1) the maximum use of private sector, third-party financing applied on a life-cycle cost effective basis, particularly from Energy Savings Performance Contracts and Utility Energy Services Contracts awarded by the Department; and 2) only after third-party financing options are evaluated, in the event that energy efficiency and water conservation improvements cannot be effectively incorporated into a private sector financing arrangement that is in the best interests of the Government, then Department funding and funding from overhead accounts can be utilized.

   c. The energy management program must be sufficiently staffed with trained energy managers to accomplish life cycle cost-effective energy efficiency improvements at the site and report progress toward statutory, regulatory and departmental requirements. The site will dedicate all or a substantial portion of the energy or facility managers time to the effective implementation of energy, water and fleet management plans.

   d. The energy management program as described in the Executable Plan must be integrated with Ten Year Site Planning, operations, and acquisition systems.

Management systems must be in place to report the site's energy consumption and cost for fuels by fuel type and energy category through the Department's data energy management system. Such systems must be updated to DOE standards, which will include the real time collection of such data. The data energy management system is a Web-based data collection and reporting system. Management systems must be in place to document and measure progress toward the Department's energy efficiency leadership goals and requirements and to confirm that renewable energy infrastructure development, energy and utilities management, water conservation, and fleet performance expectations are being met or exceeded.

e. The energy management program must be integrated with the site's Integrated Safety Management System to optimize the efficient use of energy and water, while minimizing waste and protecting the safety and health of workers.

2. ENERGY MANAGEMENT PLAN.

a. Each contractor must develop, maintain, and annually update their energy, buildings, and fleet management programs as defined in their Executable Plan in order to assist DOE in meeting its obligations under E.O.13423 dated January 24, 2007, the Instructions for Implementation of such Executive Order dated March 28, 2007, as well as all Guidance Documents issued in accordance thereto and any modifications or amendments that may be issued from time to time. This program must have a special focus on the Department's Transformational Energy Action Management (TEAM) objectives and an Executable Plan in place by 12/31/08.

b. The energy management plan must contain an emergency conservation component to mitigate the effects of a sudden disruption in the supply of fuel oil, natural gas, electricity, and other critical energy supplies.

3. ENVIRONMENTAL MANAGEMENT SYSTEM (EMS). Each DOE contractor must develop and implement an environmental management system that includes measurable environmental, energy, and transportation objectives and targets that are reviewed annually, are updated when appropriate, and contribute to achieving the sustainable practice goals established in this CRD. [See the latest version of DOE Order 450.1.]

4. REPORTING. Each contractor is required to submit an annual report to the DOE Program/Site Office in order to assist DOE in meeting its obligations under the National Energy Conservation Policy Act (NECPA) and in accordance with E.O. 13423, *Strengthening Federal Environmental, Energy, and Transportation Management*.

a. Section 543 (c)(3) of NECPA as amended by the Energy Policy Act of 2005, states that the Secretary of Energy shall issue guidelines that establish criteria for exclusions of any Federal building or collection of Federal buildings, within the statutory framework provided by law. The Department issued guidelines for excluding buildings from the Energy Performance Requirements of Section 543 of NECPA on January 27, 2006. This guidance can be found at http://www1.eere.energy.gov/femp/pdfs/exclusion_criteria.pdf.

b. Any contractor seeking to use the Excluded Building category must submit annual Exclusion Self-Certification in electronic spreadsheet format to the DOE Program/Site Office by November 1 of each year.

c. An Excluded Building should, to the extent practicable, still be separately metered and the contractor should also provide third party verification to the Federal Energy Management Program (FEMP) that each Excluded Building has undergone a comprehensive energy audit and implemented all practicable, life cycle cost-effective energy conservation measures within the past four years.

d. An exclusion applies to a single building and not the entire facility in which the building is located.

5. TEAM INITIATIVE. Each contractor must develop, maintain, and annually update an Executable Plan that will define the respective Site's energy, sustainable buildings and fleet management program designed to assist DOE in meeting its obligations under E.O.13423 dated January 24, 2007, the Instructions for Implementation of E.O. 13423 dated March 28, 2007, as well as all Guidance Documents issued in accordance thereto and any modifications or amendments that may be issued from time to time.

Whenever life cycle cost-effective, energy savings and other capital improvements can be achieved through the application of private sector financing through contracting vehicles such as Energy Services Performance Contracts (ESPC), such opportunities must receive priority over the application of any appropriated funding.

Each energy, buildings, and fleet management program must, to the greatest extent possible, develop an Executable Plan that will ensure the achievement of the following leadership goals established by the Secretary's Transformational Energy Action Management (TEAM) Initiative:

a. By 2015, achieve no less than a 30 percent energy intensity reduction across the contractor's facility/site in accordance with Executable Plans in place for all facilities/sites no later than six months after the addition of this CRD to the contract, relative to the baseline of the contractor's energy use in FY 2003.

b. Maximize installation of on-site renewable energy projects at the contractor's facility/site where technically and economically feasible to acquire at least 7.5 percent of each site's annual electricity and thermal consumption from on-site renewable sources by in FY 2010.

c. Require that the contractor's entire fleet operate any Alternative Fuel Vehicles exclusively on alternative fuels to the maximum extent practicable.

d. Reduce potable water consumption at least 16 percent relative to the baseline of the facility/site's potable water consumption in FY 2007. Contractor facilities/sites must meet the water reduction goal or have Executable Plans in place to meet this goal no later than December 31, 2008.

e. Achieve the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) Gold certification for all new construction and major building renovations in excess of $5 million. All buildings falling below this threshold are required to comply with the Guiding Principles for Federal Leadership in High Performance and Sustainable Buildings (Guiding Principles).

6. ENERGY AND WATER MANAGEMENT. Each contractor must use a variety of energy and water management strategies and tools to meet the goals of this CRD. Strategies and tools include, but are not limited to, the following:

a. Funding. The following instruments should be utilized to the maximum extent practicable to implement energy efficiency management projects, water management projects, and renewable energy projects with energy conservation measures (ECMs) having long- and short-term payback periods that can be incorporated into life-cycle cost effective contracts. To the extent appropriate, appropriated funds may be combined with Energy Savings Performance Contracts (ESPCs) and Utility Energy Service Contracts (UESCs) to leverage government funding and optimize project scope and reductions in energy use and cost of facility operations. Renewable energy and high performance sustainable buildings measures must be considered in each ESPC or UESC proposal and be implemented where practical.

(1) ESPCs. ESPCs can accomplish and accelerate completion of large projects that can incorporate ECMs with long- and short-term payback periods, through life-cycle cost-effective performance contracts.

(2) UESCs. UESCs, where permissible, enable DOE facilities to contract for a broad array of energy management services (including project financing) from the local serving electric, natural gas or water utility.

(3) Direct Appropriated Funding. Appropriations should continue to be requested in annual budget requests and prioritized for application in projects or measures that cannot be done through private sector financing or for application as cost share to ESPCs/UESCs where permitted by statute so that larger, more comprehensive projects can be undertaken. Recommendations from the site/facility contractor should be made with the understanding private financing will fund major portions of this Order and therefore, facilities/sites must maximize the use of all available private financing options.

(4) Ratepayer Incentives. Incentives and rebates from public benefit funds or utilities should be utilized at every opportunity to enhance energy reduction. Such rebates must either be used to reduce initial project cost or returned to the budgeted account through which the project was funded and may be included in estimated project savings for financed projects.

(5) Retention of Funds. Verified savings from a facility's energy and water conservation projects must be reinvested, consistent with Federal

regulations, to further the energy and water conservation and operations and maintenance efforts at that facility.

b. On-site Renewable Energy. The contractor will maximize the use of on-site renewable energy to meet DOE renewable energy requirements. Each facility/site must install a renewable energy project or show that renewable energy is not feasible at the site because of economic or renewable resource barriers. If meeting the renewable energy requirement through on-site renewable generation is not feasible, the contractor must request a waiver. A waiver request must include a documented evaluation of the site's potential for both distributed and utility-scale renewable energy development considering first measures that are life-cycle cost-effective, then measures that cost the same as fossil energy and could be used as a substitute, and then projects that are not competitive but that have attributes that could justify development, such as providing a more secure energy supply for the site or a hedge against electricity price uncertainty. Site analyses conducted in the course of implementing the TEAM initiative can serve as documentation for a waiver request and should be reflected in the Executable Plan. If on-site projects are inadequate to meet the renewable energy goal, sites are allowed to increase the use of electricity from renewable energy to meet the renewable energy goal by purchasing renewable energy credits (RECs) or electricity from renewable energy generators. All facilities/sites will include provisions for renewable energy purchases as a component in all future DOE competitive solicitations for electricity.

c. Distributed Generation. Where life-cycle cost effective, the contractor must implement distributed generation systems in new construction or retrofit projects, including renewable systems such as solar electric, solar lighting, geo (or ground coupled) thermal, small wind turbines, as well as other generation systems such as fuel cell, cogeneration, or highly efficient alternatives. In addition, the contractor must use distributed generation systems when a substantial contribution is made toward enhancing energy reliability or security. To the extent authorized by Federal and State law, excess renewable power generated by a site can be sold to other power users. Distributed generation projects should be life cycle cost effective, but in cases where they provide other benefits they may be combined with other energy conservation measures in larger energy conservation projects that are cost effective in the aggregate.

d. Metering. To the maximum extent practicable, the contractor must install metering for devices that measure consumption of potable water, electricity, steam, and natural gas in each building and other facilities and grounds. A Departmental centralized tracking system for collecting advanced metering data for electrical energy will be developed following a feasibility study. Once developed, data from all Departmental advanced metering devices must be collected for incorporation into this centralized tracking system. Access to this system will be made available to facility/site personnel. All facilities/sites must incorporate the inclusion of metering requirements in all ESPCs and UESCs, as appropriate.

e. Auditing. By six months after the addition of this CRD to the contract, all major site facilities should have been audited over the last five years. After December 31, 2008, facilities should continue to be audited every four years. This audit requirement can be met by audits done in the last five years in conjunction with the site's energy management program or under ESPC or UESC projects. Facilities/sites that meet current exemption guidelines will not have to comply with this requirement.

f. New Buildings. For applicable facilities/sites, the contractor must meet the requirements of 10 CFR Part 433. Requirements of 10 CFR Part 433 indicate Federal commercial buildings be designed to achieve energy savings of at least 30 percent below ANSI/ASHRAE/IESNA Standard 90.1-2004, if cost-effective. Moreover, the contractor must meet or exceed ENERGY STAR® Building criteria, and score the energy performance of buildings using the ENERGY STAR® Portfolio Manager rating tool as part of comprehensive facility audits. When evaluating the ENERGY STAR® target for a new building, apply the more stringent standard set forth in the Table of Target Energy Performance Results and the values required under 10 CFR Part 433 or 435 (as applicable). A Table of Target Energy Performance Results by building type and climate required for this evaluation may be found at http://www.eere.energy.gov/buildings/highperformance/pdfs/energy_use_intensity_targets.pdf.

g. Labs21. For applicable facilities/sites, the contractor must use programs such as the Labs21 partnership to encourage the development of sustainable, high performance, and low-energy laboratories.

h. Energy Purchasing. The contractor must purchase, to the maximum extent possible, electricity, steam, and natural gas from sources that use high efficiency and low-carbon generating technologies in order to reduce greenhouse gas intensity.

i. Water Efficient Products. Where available, the contractor must purchase WaterSense^{SM} labeled products and other water efficient products and choose irrigation contractors who are certified through a WaterSense^{SM} labeled program.

j. Demand Response. Each contractor must examine the cost effectiveness of participation in local demand response programs. To the extent the contractor receives energy cost savings or payments, they shall be reinvested to further the energy and water conservation efforts at that facility/site in accordance with Paragraph 6.a.(5).

k. Data Centers. Reduce the energy consumption of data center and server operations by specifying the acquisition of energy efficient electronic equipment for data centers, operating the equipment to improve load management and server innovation, and configuring the cooling operations to maximize energy efficiency opportunities.

7. SUSTAINABLE DESIGN/HIGH PERFORMANCE BUILDINGS.

a. New construction and major building renovations in excess of $5 million. All new buildings will incorporate the Guiding Principles of Executive Order 13423 to the extent practical and life cycle cost effective. As of October 1, 2008, all new buildings and major buildings renovations at Critical Decision One (CD-1) or lower with a value exceeding $5 million, must implement the Guiding Principles of the Executive Order and attain LEED Gold certification. All new construction or major renovation projects must incorporate renewable energy equipment into building design to the maximum extent feasible. In the event that a project manager has compelling reasons for attaining a certification other than LEED Gold or believes that a certification can be attained from a nationally recognized certification program that exceed LEED Gold requirements, such project manager may seek to obtain a waiver from the LEED Gold requirement in consultation with the DOE Program/Site Office. The process and procedures required for obtaining such waiver shall be set forth by a guidance document issued by the Department's intra-agency High Performance Sustainable Buildings working group. In no case will a waiver permit any construction or renovation project that does not meet or exceed statutory goals, including the achievement of credits to exceed the ASHRAE 90.1-2004 standard by at least 30 percent, and address each of the five elements of the Guiding Principles. Progress in meeting this requirement will be tracked by the cognizant Departmental Field Element office.

b. Existing buildings. All contractors that own or lease real property must develop and implement a plan, as part of the Executable Plan, to ensure that 15 percent of their enduring buildings are compliant with the guiding principles of Executive Order 13423. Implementation of the plan must be documented within the programs' Ten Year Site Plans and through the appropriate LEED building credits. Progress in meeting this requirement will be tracked within the Department's Facilities Information Management System.

c. High performance building plans. On August 1 of each year, the contractor must submit a plan to their respective and appropriate Department Field Element Office that addresses how the contractor will ensure that (1) all new construction and renovation projects implement design, construction, and maintenance and operation practices in support of the sustainable design/high-performance buildings goals of E.O. 13423 and statutory requirements and (2) existing facilities' maintenance and operation practices in support of the goals of E.O. 13423. Such plans must also align with E.O. 13327 and the Department's real property asset management plan. At a minimum, the plans must address the following:

(1) Employment of integrated design principles, optimization of energy efficiency and use of renewable energy, protection and conservation of water, enhancement of indoor environmental quality, and reduction of environmental impacts of materials in accordance with the Guiding

Principles and the other building and construction-related E.O. 13423 goals and instructions.

(2) Procurement of ENERGY STAR®-qualified or FEMP-designated products when purchasing energy consuming products. This includes incorporation into the specifications for all procurements involving energy consuming products and systems, including guide specifications, project specifications, and construction, renovation, and services contracts that include provision of energy consuming products and systems, and into the factors for the evaluation of proposals received for the procurement, criteria for energy efficiency that are consistent with the criteria used for rating ENERGY STAR®-qualified products and FEMP-designated products.

(3) An assessment of policy, criteria, contracts, and other areas, identifying gaps in the facility/site's sustainable building program.

(4) Key action items, including major milestones and responsible parties.

d. Database. The contractor is responsible for collecting data and providing the information for inputting into the web-based Departmental High Performance Federal Buildings Database, designed to document the planning, execution and maintenance of the requirements set forth in this Section.

e. Leased facilities. Starting in FY 2008, all procurement specifications and selection criteria for acquiring new leased space, including build-to-suit lease solicitations are to include a preference for buildings certified LEED Gold. When entering into renegotiation or extension of existing leases, the contractor must include lease provisions that support the Guiding Principles.

f. Petroleum-based fuels. Contractors must make all reasonable efforts to minimize the use of petroleum-based fuels in DOE-owned buildings and facilities by switching to a less greenhouse gas intensive, non-petroleum-based energy source such as natural gas or renewable energy source, as measured at the end source. For buildings and facilities that use petroleum-based fuel systems, contractors must provide dual-fuel capability where life cycle cost-effective and practicable.

8. TRANSPORTATION/FLEET MANAGEMENT.

a. To achieve the petroleum reduction goal of Section 2(g) of E.O. 13423, the contractor must:

(1) Reduce vehicle miles traveled through such methods as trip consolidation practices, increased use of videoconferencing and web conferencing, and the use of mass transportation/agency shuttles.

(2) Increase overall fleet fuel economy through acquisition of higher fuel economy vehicles (e.g., smaller sized vehicles, hybrid-electric vehicles, and other advanced technology vehicles).

(3) "Right-size" its fleet, employing the most fuel-efficient vehicle for the required task and having the appropriate number of vehicles relative to need.

(4) Employ efficiency strategies that reduce energy such as low rolling resistant tire, synthetic oil which allows for extended replacement frequencies, and other technologies.

(5) Consider the use of plug-in hybrid electric vehicles (PHEVs) and the use of electric drive vehicles to the extent feasible and in accordance with applicable statutes, regulations, executive orders and Departmental guidance.

b. To achieve the goals of the Secretary's TEAM Initiative, and ensure that the Department remains a leader in sustainable transportation management, each contractor must:

(1) By six months after the addition of this CRD to the contract, ensure that each facility/site with alternative fuel and diesel vehicles has adopted as part of its Executable Plan the requirement that all alternative fuel vehicles operate on alternative fuel to the maximum extent possible. The procedure for each facility/site to arrange alternative fuel access should be executed as follows:

(a) Potential existing alternative fuel infrastructure must be investigated, using, among other tools, DOE's Alternative Fueling Station Locator.

(b) Where no infrastructure currently exists within five miles, the contractor shall investigate possible solutions through private-sector alternative fuel distributors, including existing fuel vendors and stations. Where possible, collaborative efforts should be sought with nearby Federal, State or local governments to aggregate demand for alternative fuel. Facilities/sites must work with DOE's Clean Cities program to coordinate these teaming arrangements.

(c) When these options have been exhausted, the facility/site must initiate a procurement process for the installation of on-site alternative fueling infrastructure including fuel pumps. On-site fueling should be pursued when cost-effective.

(2) The contractor must arrange for the procurement of alternative-fuel vehicles to replace the existing conventional-fuel fleet to the extent practicable, with the goal of replacing the existing fleet with alternative fuel and/or hybrid technology vehicles by the end of FY 2010.

(3) For the purposes of the TEAM Initiative, "alternative fuel vehicles" are defined according to Section 301 of EPAct 1992.

9. DATA AND TRACKING.

a. Annual reports. The contractor must provide compliance data to its appropriate Department office no later than November 23 of each year, or as otherwise required by the appropriate Department office. The contractor must implement internal policies that will ensure accurate tracking of the vehicle acquisitions and inventory, mileage, fuel consumption by fuel type, and other relevant data.

b. Monthly reports. Upon the monthly receipt from the Department of the facility/site's vehicle tag numbers, fuel use data (by fuel type for all petroleum and alternative fuels) for covered GSA-leased vehicles, the contractor must track these data to ensure its accuracy and also track comparable data for all covered Department-owned and commercially leased vehicles.

c. Credits. Alternative fuel vehicle (AFV) acquisition requirements are set forth in section 303 of EPAct 1992. Vehicles acquired under section 303 means (i) new purchase, (ii) a newly leased vehicle, or (iii) a leased vehicle that replaces an existing leased vehicle. In calculating AFV acquisition compliance, the Department must receive the following credits:

(1) One credit for each dual-fuel AFV (flexible fuel or bi-fuel), regardless of vehicle size class as long as the vehicle meets the AFV definition of EPAct 1992, as amended by EPAct 2005.

(2) Two credits for each dedicated light-duty AFV.

(3) Three credits for each dedicated medium-duty AFV.

(4) Four credits for each dedicated heavy-duty AFV.

10. WATER MANAGEMENT. Ensure that water reduction goals are included in the Executable Plans.

11. UTILITIES MANAGEMENT.

a. The Department is governed by EPACT 2005, Section 203(a) [42 U.S.A. 15,852(a)], which requires DOE to consume increasing amounts of renewable energy over time. The contractor must assist DOE in meeting its obligations under this statute. The availability and cost of renewable energy varies greatly by geographical location, market maturity and availability over time, and individual contracts may be affected at different levels than the thresholds set out in the statute to ensure the Department as a whole meets its obligations.

b. The contractor must ensure the installation of advanced meters to the maximum extent practicable at all buildings and participation in the centralized data collection, reporting and management system.

c. The contractor must use an environmental management system to establish, track, and review its progress towards meeting the energy efficiency, water

conservation, greenhouse gas reduction, and renewable energy goals as reflected in their Executable Plans.

12. PERSONNEL MANAGEMENT.

a. The contractor must train personnel at the facility/site to direct energy and water management programs and dedicate all or a substantial portion of their time to the effective implementation of energy and water management plans.

b. The contractor must implement employee incentive programs to reward exceptional individual and team performance in increasing energy efficiency and water conservation, deploying renewable energy, minimizing waste, reducing utility costs, and reducing greenhouse gas emissions.

c. The contractor must implement outreach programs to motivate employees to become more efficient in their use of energy, water, and green products and services, and to minimize waste.