

# FEDERAL ENERGY MANAGEMENT

Number: DAO 217-16

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## SECTION 1. PURPOSE.

.01 This Order prescribes policies and responsibilities for implementing a Federal energy management program for the Department of Commerce (the "Department").

.02 This revision is a general rewrite of the entire Order. Changes have been made throughout the Order to incorporate the requirements of Public Laws, Executive Orders (EOs), and Federal regulations relating to Federal energy management that have been issued since 1994.

## SECTION 2. SCOPE.

This Order applies to all Departmental offices and operating units; all Federal buildings, including leased buildings where the Government pays the utilities; and all motor vehicles, ships, and airplanes used by the Department. This Order implements the following:

### .01 Public Laws.

a. National Energy Conservation Policy Act (NECPA) of 1978, Public Law 95-619, requires Federal agencies to utilize life-cycle cost (LCC) methodology in their decision-making and to perform LCC audits and retrofits of Federal buildings.

b. Energy Policy Act of 1992 (EPACT), Public Law 102-486, requires Federal agencies, to the maximum extent possible by January 1, 2005, to install in Federal buildings owned by the United States Government all energy and water conservation measures with payback periods of less than 10 years; directs the Department of Energy (DOE) to issue rules and guidance on Energy Savings Performance Contracts (ESPCs) for Federal agencies and authorizes all Federal agencies to enter into such contracts; requires executive departments to establish and maintain programs to train energy managers and to increase the number of trained energy managers within each agency; sets forth a fiscal-year schedule for minimum Federal fleet requirements for alternative-fueled vehicles; and directs the Secretary of Energy to provide guidance and technical assistance to Federal agencies for the procurement and placement of alternative-fueled vehicles.

### .02 Executive Orders.

a. EO 12375, Motor Vehicles, dated August 4, 1982, directs the Administrator of General Services Administration (GSA) to establish a program to monitor executive agencies' acquisition of owned and leased passenger automobiles and light trucks to ensure that the fleet average fuel economy for a given model year is not less than the average fuel economy standard for that class, as established annually by the Secretary of Transportation.

b. EO 13123, Greening the Government Through Efficient Energy Management, dated June 3, 1999, requires each agency to reduce energy consumption, per gross square foot of its standard facilities, by 30 percent by 2005, and by 35 percent by 2010, relative to 1985 levels. Each agency is also required to reduce energy consumption, per gross square foot of its industrial and laboratory facilities, by 20

percent by 2005, and by 25 percent by 2010, relative to 1990 levels. Agencies must also reduce motor vehicle gasoline and diesel consumption, reduce greenhouse gas emissions, procure energy-efficient goods and services, such as Energy Star (tm) products, based on LCC, increase the use of ESPCs, increase the use of renewable energy, reduce water consumption, and implement principles of sustainable design.

c. EO 13149, Greening the Government Through Federal Fleet and Transportation Efficiency, dated April 21, 2000, requires Federal agencies to reduce petroleum consumption by 20 percent by FY 2005 relative to 1999 petroleum consumption levels, improve fleet efficiency, increase the average Environmental Protection Agency fuel economy rating of light duty vehicle acquisitions by one mile per gallon (mpg) by 2002, and three mpg by 2005, and use alternative fuels in alternative fuel vehicles the majority of the time.

d. EO 13221, Energy Efficient Standby Power Devices, dated July 31, 2001, requires Federal agencies to purchase products that consume minimal amounts of power while in their standby mode.

.03 Code of Federal Regulations (CFR).

a. 41 CFR 102-74, Energy Conservation, contains Government-wide energy conservation guidelines and policies that Federal agencies shall observe and implement in acquiring, operating, and managing Federal buildings.

b. 41 CFR 102-34, Motor Vehicle Management, contains Government-wide policies and procedures pertaining to the economical and efficient management and control of motor vehicles that the Government owns or leases.

c. 10 CFR 434, Energy Code for New Federal Commercial and Multi-Family High-Rise Residential Buildings, provides minimum standards for energy efficiency for the design of new Federal commercial and multi-family high-rise residential buildings.

d. 10 CFR 435, Energy Conservation Voluntary Performance Standards for New Buildings; Mandatory for Federal Buildings, Subpart C " Mandatory Performance Standards for New Federal Residential Buildings, establishes the energy conservation performance standards that must be incorporated into the designs of all new residential buildings designed and constructed by and for Federal agencies.

e. 10 CFR 436, Federal Energy Management and Planning Programs, provides methodology and procedures for estimating and comparing the LCC of Federal buildings, for determining the LCC effectiveness of energy conservation and water conservation measures, and for rank-ordering LCC effective measures in order to design a new Federal building or to retrofit an existing Federal building; establishes the method by which efficiency shall be considered when entering into or renewing leases of Federal building space; provides procedures and methods that apply to Federal agencies with regard to the award and administration of energy savings performance contracts; and provides guidelines for use by Federal agencies in the development of overall ten-year energy management plans to establish energy conservation goals, reduce the rate of energy consumption, promote the efficient use of energy, promote switching from petroleum-based fuels and natural gas to coal and other energy sources, provide a methodology for reporting their progress in meeting the goals of those plans, and promote emergency energy conservation planning to lessen the impact of a sudden disruption in the supply of oil-based fuels, natural gas or electricity.

.04 Other Federal Guidance.

- a. Presidential Directive on Energy Conservation at Federal Facilities, dated May 3, 2001, directs Federal agencies to conserve energy at their facilities, and requires Federal agencies to take immediate steps to reduce peak load at their facilities. It also calls on Federal agencies to set an example of energy conservation for the rest of the country.
- b. Life Cycle Costing Manual for the Federal Energy Program, NIST Handbook 135, Revised 1995, contains guidelines that Federal agencies shall use in performing economic evaluations of energy conservation and renewable energy projects required by the NECPA, and the LCC rule set forth in 10 CFR 436, Subpart A.
- c. Greening Federal Facilities (2nd edition), dated May 2001, is a nuts-and-bolts resource guide published by DOE, that is designed to increase energy and resource efficiency, cut waste, and improve the performance of Federal buildings and facilities. This guide highlights practical actions that facility managers, planners, and design and construction staff can take to save energy and money, improve the comfort and productivity of employees, and benefit the environment. It is designed to promote energy efficiency and sustainable actions in the nation's Federal buildings and facilities.

### SECTION 3. DEFINITIONS.

.01 Alternative Fuel. Includes methanol; ethanol; mixtures containing 85 percent, or more by volume, methanol or ethanol with gasoline or other fuels; compressed natural gas; hydrogen; liquified natural gas; liquified petroleum gas; and electricity.

.02 Alternative Fuel Vehicle. Any vehicle either originally manufactured or converted to operate with dual fuel, flexible fuel, or a dedicated alternative fuel. This does not include conventional vehicles limited to operating on blended or reformulated gasoline fuels.

.03 Building Energy Audit. A comprehensive review of all items related to energy and energy consumption in a building, including as-built plans and specifications, energy records, operating and maintenance logs, visual inspections of all energized equipment, the building envelope, windows, doors and other components and measurements, in order to determine how energy is being consumed. Building Energy Audits identify energy conservation measures or steps that can be taken to reduce energy costs and make the building more energy efficient. Building Energy Audits rank the identified measures or steps according to a recommended order of implementation.

.04 Energy Conservation Coordinator. An individual who manages and coordinates an energy conservation program for an operating unit or Departmental office, as applicable.

.05 Energy Conservation Measures or Opportunities. LCC-effective measures applied to a Federal building to improve energy efficiency. These measures may involve energy conservation, cogeneration facilities, renewable energy sources, improvements in operations and maintenance efficiencies or retrofit activities.

.06 Energy Management Officer. An individual who manages and coordinates the Department's Energy Management Program.

.07 Energy Savings Performance Contract (ESPC). A contract for an energy retrofit where a contractor funds the cost for the complete retrofit in return for receiving, over a negotiated period of time, a portion of the energy cost savings realized by the Government through accomplishment of the energy retrofit. The contract period may not exceed 25 years, and the contractor must guarantee the

savings. The authority for Federal agencies to enter into ESPCs may at times lapse. If ESPC authority lapses, work can continue on delivery orders awarded prior to the lapse date, however, no new delivery orders can be awarded and operating units shall not issue notices of intent until the ESPC authority is re-enacted.

.08 Energy Survey. A procedure used to determine the energy and cost savings likely to result from the use of appropriate energy-related maintenance and operating procedures and modifications, including the purchase and installation of particular energy-related equipment and the use of renewable energy sources. A survey is generally a less in-depth procedure than a Building Energy Audit.

.09 Facility Energy Supervisor. EPACT defines a Facility Energy Supervisor as an employee with responsibility for the daily operations of a Federal facility, including the management, installation, operation, and maintenance of energy systems in Federal facilities involving more than one building.

.10 Facility Manager. An individual who manages a Federal facility, and is responsible for ensuring that the building is operating in compliance with all applicable regulations and codes.

.11 Federal Building. Any building, structure, facility, or part thereof, including the associated energy-consuming support systems, which is constructed, renovated, leased, or purchased in whole or in part for use by the Federal Government, and for which the Government is responsible for paying utility energy costs.

.12 Fleet Manager. An individual who manages a Federal vehicle fleet, and is responsible for ensuring that the fleet is operated in compliance with all applicable regulations and codes.

.13 Installation. A related group of properties (land, buildings and other structures) located within a contiguous geographic area. An installation may range from a single building, including land or support facilities, to a "complex" containing land and multiple buildings and structures. Installations often have a single utility meter serving the multiple structures contained therein.

.14 Life Cycle Costs (LCC). The total cost of owning, operating, and maintaining a building over its useful life (including such expenses as fuel, energy, labor, and replacement components) as determined by a systematic evaluation and comparison of alternative building systems. In the case of leased buildings however, the LCC shall be calculated over the effective remaining term of the lease.

.15 Motor Vehicle. Any motor vehicle acquired and used by executive agencies for official purposes. This includes any vehicle acquired by purchase, transfer or loan; obtained from a GSA fleet; or leased or rented from a commercial source.

.16 Renewable Energy. Energy that is constantly being replaced, at a faster rate than it is consumed.

.17 Renewable Energy Sources. Including, but not limited to, sources such as agriculture and urban waste, geothermal energy, hydropower, solar energy, and wind energy. Using energy from renewable sources usually causes less pollution than energy from fossil fuels.

.18 Retrofit. The installation of an alternative building energy system in an existing Federal building.

.19 Sustainable Design. A holistic way of looking at building design and development that takes into account the total cradle-to-grave costs of owning/operating a building. Sustainable design principles are used to meet the needs of the present without compromising the quality of life of future

generations, and to ensure environmental stewardship and energy efficiency.

.20 Trained Energy Manager. EPACT defines a trained energy manager as "a person who has completed a course of study in the areas of: (1) fundamentals of building energy systems, (2) building energy codes and applicable professional standards, (3) energy accounting and analysis, (4) life-cycle cost methodologies, (5) fuel supply end pricing, and (6) instrumentation for energy surveys and audits."

.21 Utility Energy Savings Contract (UESC). A contract for an energy retrofit where a utility company funds the cost for the complete retrofit in return for receiving, over a negotiated period of time, a portion of the energy cost savings realized by the Government through accomplishment of the energy retrofit. The contract period may not exceed ten years; the savings are not guaranteed. This is similar to, but not identical to, an ESPC.

#### SECTION 4. RESPONSIBILITIES.

.01 The Chief Financial Officer and Assistant Secretary for Administration serves as the Department's Senior Agency Official for energy; is responsible for the overall management of the Department's energy management program; and serves as the Department's representative on the Federal Interagency Energy Policy Committee ("656 Committee").

.02 The Director, Office of Administrative Services, develops policy for and oversees the Department's energy management program. The Office of Real Estate's Energy Management Officer (EMO) assists the Director in carrying out these responsibilities.

.03 The Director, Office of Administrative Operations, develops policy for and manages the Department's motor vehicle fleet. The Departmental Fleet Manager (DFM) assists the Director in carrying out these responsibilities.

.04 The EMO is responsible for:

- a. Developing policy for and implementing the Department's energy management program.
- b. Providing technical advice and assistance to Departmental offices and operating units.
- c. Representing the Department at conferences, meetings, and other fora where energy management/conservation issues are discussed, and serving as the Department's liaison for energy with the DOE and other Federal agencies.
- d. Conducting policy oversight reviews and operational evaluations of operating unit energy management programs and practices.
- e. Reviewing Office of the Secretary and operating unit energy management plans and projects.
- f. Coordinating the submission of Department-wide energy management reports to DOE for both buildings and vehicles.

.05 The DFM is responsible for:

- a. Developing policy for and implementing the Department's fleet energy management program.

b. Developing and maintaining a fleet acquisition plan that meets the requirement of EO 13149.

c. Representing the Department at conferences, meetings, and other fora where fleet energy management issues are discussed, and serving as the Department's liaison for energy matters with the Department of Transportation, DOE and GSA.

d. Conducting policy oversight reviews and operational evaluations of operating unit fleet management programs and practices.

e. Coordinating the submission of Department-wide fleet management reports to GSA, DOE, and OMB.

.06 Heads of operating units and Departmental offices, as applicable, are responsible for the overall implementation of a Federal energy management program in their respective organizations and for:

a. Designating an Energy Conservation Coordinator to manage and coordinate their energy management programs.

b. Developing an energy management plan tailored to their mission and organizational structure to implement the Department's Federal energy management program to reduce energy usage and costs, and comply with the provisions of the NECPA, EPCACT, and EOs 12375, 13123, 13149, and 13221. A copy of this plan shall be provided to the Energy Management Officer within sixty (60) days after the effective date of this Order.

c. Taking action to implement all identified no-cost and low-cost energy and water conservation measures, and all energy and water conservation measures with payback periods of less than ten years as determined through use of LCC methodology.

d. Utilizing LCC methodology in all procurement decisions involving the acquisition of energy-efficient goods and services including decisions relating to energy retrofits, new building designs and systems and the selection of leased buildings.

e. Participating, to the maximum extent possible, in all demand (customer) side management programs and services including utility rebates offered by electric, gas, and water utilities, and other private sector energy service providers.

f. Operating and managing all Federal buildings under their operational control, including buildings operated under delegations of authority from GSA in an energy efficient manner and in accordance with the energy conservation guidelines set forth in 41 CFR 102-74.

g. Establishing a program to utilize third party financing (through award of ESPCs or UESCs) to fund energy retrofits of Federal buildings.

h. Ensuring that all newly constructed buildings for the Department are designed and built in accordance with the energy performance standards applicable to Federal residential and commercial buildings set forth in 10 CFR 434 and 435.

i. Designating a Facility Energy Supervisor for all buildings or installations with 25,000 or more gross square feet and encouraging these individuals to become trained energy managers. A listing of the names, addresses, and telephone numbers of these individuals shall be provided to the EMO within thirty (30) days after the effective date of this Order, and then provided to the EMO each year with the

annual reporting data.

j. Submitting to the Departmental Office of Budget, as part of its annual budget submission, a statement on the amount of funds it is requesting for implementation of its energy management program in accordance with the provisions of the NECPA, EPACK, and EOs 12375, 13123, 13149, and 13221.

k. Maintaining accurate and complete records on energy usage and costs incurred in operating all Federal buildings, motor vehicles, ships, and airplanes under their operational control.

l. Submitting required reports on their energy management program to the Department's Energy Management Officer.

m. Promoting energy conservation through training and employee awareness programs.

n. Providing financial incentive awards and special recognition to Facility Energy Supervisors, Facility Managers, and others for outstanding performance in developing and implementing programs and special projects to increase Federal energy efficiency and reduce energy consumption and costs.

o. Developing a plan to: achieve a 20 percent reduction in motor vehicle gasoline and diesel fuel consumption, achieve the mandated fleet average economy standard for owned and leased passenger automobiles and light trucks, acquire the maximum number of alternative-fueled vehicles for their motor vehicle fleet, and ensure the use of alternative fuels in those vehicles the majority of the time.

p. Ensuring that all new Department leases for space are as energy efficient as practical.

.07 Facility Managers shall be responsible for:

a. Developing and implementing a site specific energy management plan for all buildings or installations with 30,000 or more gross square feet to achieve the mandated energy efficiency goals for buildings and facilities set forth in the NECPA, EPACK and EO 13123. A copy of the plan, including updates, shall be submitted as an attachment to the operating unit's energy management plan.

b. Developing and implementing an operating plan for all buildings to ensure that building equipment and systems are operated in an economically energy efficient manner, and in accordance with the energy conservation guidelines contained in 41 CFR 102-74.

c. Ensuring that heating, ventilation and air conditioning equipment and systems are regularly serviced and maintained according to the recommendations of the equipment's/system's manufacturer and are operated to achieve maximum efficiency.

d. Participating, to the maximum extent, in all demand-side management programs and services including energy and water rebates offered by their servicing utility companies.

e. Analyzing all utility and fuel bills and reporting energy usage and costs to their operating unit's Energy Conservation Coordinator for inclusion in their Annual Energy Consumption Data Report.

.08 Fleet Managers shall be responsible for:

a. Developing and implementing a site-specific fleet management plan to achieve the mandated

energy efficiency goals for buildings and facilities set forth in the NECPA, EPACT and EOs 12375 and 13149.

b. Managing their vehicle operations in accordance with the requirements contained in 41 CFR 102-34.

c. Analyzing all fuel bills and submitting reports on energy usage and costs to their operating unit's Energy Conservation Coordinator for inclusion in their Annual Energy Consumption Data Report.

#### SECTION 5. ANNUAL BUDGET SUBMISSIONS.

.01 Each operating unit shall submit to the Departmental Office of Budget, as part of its annual budget submission, a statement on the amount of funds it is requesting for implementation of its energy management program in accordance with the provisions of the NECPA, EPACT and EOs 12375, 13123, 13149, and 13221.

#### SECTION 6. REPORTS.

.01 Annual Energy Consumption Data Report. This report shall be submitted to the Energy Management Officer no later than November 1 of each year. The report shall be in the format specified by the DOE, showing the energy consumed by fuel type for all reportable Federal buildings under the operating unit's control and the energy consumed in operating all Government-owned or leased motor vehicles.

.02 Annual Energy Management Report. This is a narrative report of the various actions taken, and the progress made, by the operating units within the Department as they implement the Federal energy management program to achieve the Federal energy efficiency goals for buildings, facilities and motor vehicles set forth in the NECPA, EPACT and EO 13123. The format of this report is specified annually by the Secretary of DOE, and accompanies the Annual Energy Consumption Data Report. The report shall follow the format specified by the DOE, and address those elements pertinent to the operating unit's energy management program. This report shall be submitted to the Energy Management Officer no later than November 1 of each year.

.03 Annual Agency Energy Scorecard. This summary report addresses items of specific interest to OMB, and is submitted by the Department with the Annual Energy Management Report to DOE. This report shall be submitted to the EMO no later than November 1 of each year, and accompanies the Annual Energy Consumption Data Report and Annual Energy Management Report.

#### SECTION 7. EFFECT ON OTHER ORDERS.

This Order supersedes Department Administrative Order 217-16, dated May 9, 1994, as amended.

**Signed by:** Acting Director for Administrative Services

**Approved by:** Chief Financial Officer and Assistant Secretary for Administration

**Office of Primary Interest:** Office of Administrative Services, Office of Real Estate

