

Overview of Federal Energy Management Policy and Mandates

Energy Intensity Reduction Goal

The National Energy Conservation Policy Act (NECPA), as amended, requires Federal agencies to improve energy management in their facilities and operations. (42 U.S.C. 8253) Amendments to NECPA made by the Federal Energy Management Improvement Act of 1988 (P.L. 100-615), required each agency to achieve a 10 percent reduction in energy consumption in its Federal buildings by FY 1995, when measured against a FY 1985 baseline on a Btu-per-gross-square-foot (Btu/GSF) basis. It also directed DOE to establish life-cycle costing methods and coordinate Federal conservation activities through the Interagency Energy Management Task Force. Section 543 of NECPA contained provisions requiring a reduction in Btu/GSF of 20 percent by 2000, life-cycle cost methods and procedures, budget treatment for energy conservation measures, incentives for Federal facility energy managers, reporting requirements, new technology demonstrations, and agency surveys of energy-saving potential.

Section 102 of EPACT 2005 re-established the statutory energy reduction requirement for Federal buildings. (42 U.S.C. 8253(a)(1)) Since FY 2000, the Government has been measuring its progress in this area against Executive Order goals that were an extension of the prior goals using a 1985 base year for comparison. The requirement as established under EPAct 2005 uses a base year of FY 2003 and requires reductions of 2 percent per year in energy use per square foot, leading to a 20 percent reduction in the FY 2015. The requirement includes industrial, laboratory, and other energy intensive facilities.

Section 102 of EPACT 2005 also amended NECPA to update the criteria for exclusion of buildings from the energy efficiency goals requirement based on findings by the head of the agency relating to implementation of all life-cycle cost-effective projects, energy intensiveness, and national security functions. (42 U.S.C. 8253(c)(1)) Section 543(c)(3) of NECPA states that the Secretary of Energy shall issue guidelines that establish criteria for exclusions from the energy performance requirement for a fiscal year, any Federal building or collection of Federal buildings, within the statutory framework provided by the law. (42 U.S.C. 8253(c)(3))

On January 27, 2006, DOE issued the *Guidelines Establishing Criteria for Excluding Buildings from the Energy Performance Requirements of Section 543 of the National Energy Conservation Policy Act as Amended by the Energy Policy Act of 2005*. These guidelines were developed through an interagency working group process under the auspices of the Federal Interagency Energy Management Task Force. See www.eere.energy.gov/femp/pdfs/exclusion_criteria.pdf.

On January 24, 2007, the President signed Executive Order 13423, Strengthening Federal Environmental, Energy, and Transportation Management. Section 2 of the Order set more challenging goals than the EPACT 2005 amendments, requiring a 3 percent reduction in energy intensity per year (beginning in FY 2006) and leading to a 30 percent reduction in 2015 compared to the FY 2003 base year. The goal for FY 2007 is a 6 percent reduction.

On December 19, 2007, the President signed into law the Energy Security and Independence Act of 2007 (EISA). EISA adopts the energy intensity reduction goals of Executive Order 13423 beginning in FY 2008 with a 9 percent reduction and increasing to a 30 percent reduction in FY 2015. The EISA requirements and the related activities of the Government will be discussed in the annual report for FY 2008.

Metering

Section 103 of EPACT 2005 “Energy Use Measurement and Accountability” directs that all Federal buildings be metered “...for the purposes of efficient energy use and reduction in the cost of electricity used in such buildings...” by October 1, 2012. (42 U.S.C. 8253(e)) The direction is specific to the measurement of electricity in that advanced meters or metering devices that provide data at least daily and measure the consumption of electricity at least hourly will be used to the maximum extent practicable. The law directed that the Secretary of Energy to develop guidelines for implementation. The Guidance for Electric Metering in Federal Buildings was published on February 3, 2006 and can be found at www1.eere.energy.gov/femp/pdfs/adv_metering.pdf. Agencies were required to submit to DOE an implementation plan identifying personnel responsible for achieving the requirements, and any determination by the agency that advanced meters or metering systems are not practicable in their specific situation.

Energy Efficient Procurement

Section 104 of EPACT 2005, “Procurement of Energy Efficient Products” is a requirement that each agency “... incorporate into the specifications for all procurements involving energy consuming products and systems, including guides 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 ... Energy Star products and for rating FEMP designated products.” (42 U.S.C. 8259b)

Energy Savings Performance Contracts

Section 105 of EPACT 2005, “Energy Savings Performance Contracts” extended the authority for Federal agencies to energy into the performance contracts for energy and water conservation to 2016.

Federal Building Performance Standards

To assure that all new Federal buildings incorporate the best energy efficiency techniques available, Section 109 of EPACT, “Federal Building Performance Standards”, amended NECPA to direct the Secretary of Energy, within one year, to issue a rule that establishes Federal building energy efficiency performance standards. The standards will require that, if life-cycle cost-effective, all new Federal buildings will be designed to achieve energy consumption levels 30 percent below those of the current version of the applicable ASHRAE standard or the International Energy Conservation Code. The requirement further states that sustainable design principles will be applied to the siting, design, and construction of all new and replacement buildings. The section also requires DOE to perform a review within one year of any change to the ASHRAE standard or IECC to see if the Federal guidance should be updated. As an oversight provision, the section also directs each agency to include in its annual budget request and report under the National Energy Policy Act identification of all new buildings and whether they meet or exceed the developed standards.

Renewable Energy Goal

Section 203 of EPACT 2005 (42 U.S.C. 15852 (a)) requires the Secretary of Energy to seek to ensure that, to the extent economically feasible and technically practicable, of the total amount of *electric* energy the Federal Government consumes, the following amounts are renewable energy as defined in section 203 of the Act:

- Not less than 3 percent in fiscal years 2007 through 2009.
- Not less than 5 percent in fiscal years 2010 through 2012.
- Not less than 7.5 percent in fiscal year 2013 and each fiscal year thereafter.

(42 U.S.C. 15852)

Section 203 of EPACT 2005 also provides a bonus to Federal agencies by allowing them to double count renewable energy if it is produced on-site and used at a Federal facility, produced on Federal lands and used at a Federal facility, or produced on Indian land and used at a Federal facility (42 U.S.C. 15852(c)).

Section 203 of EPACT 2005 states that the term “renewable energy” means electric energy generated from solar, wind, biomass, landfill gas, ocean (including tidal, wave, current, and thermal), geothermal, municipal solid waste, or new hydroelectric generation capacity achieved from increased efficiency or additions of new capacity at an existing hydroelectric project.

Section 2(a) of Executive Order 13423 adds the following provisions to the EPACT amendments goal; that

- at least half of the statutorily required renewable energy consumed by the agency in a fiscal year comes from new renewable sources, and
- to the extent feasible, the agency implements renewable energy generation projects on agency property for agency use.

In January 2008, DOE published *Renewable Energy Requirement Guidance for EPACT 2005 and Executive Order 13423* (www1.eere.energy.gov/femp/pdfs/epact05_fedrenewenergyguid.pdf). This guidance specifies the conditions for agencies to meet the statutory and Executive Order requirements.

Water Intensity Reduction Goal

Section 2(c) of Executive Order 13423 establishes a water use reduction goal for agencies beginning in FY 2008. Agencies are required to “reduce water consumption intensity, relative to the baseline of the agency’s water consumption in fiscal year 2007, through life-cycle cost-effective measures by 2 percent annually through the end of fiscal year 2015 or 16 percent by the end of fiscal year 2015.”

In January 2008, DOE published the guidance document, *Establishing Baseline and Meeting Water Conservation Goals of Executive Order 13423* to provide clarification and guidance for meeting the water reduction goals (www1.eere.energy.gov/femp/pdfs/water_guidance.pdf).