

§ 435.306

10 CFR Ch. II (1–1–04 Edition)

COSTSAFR or having a certified seasonal efficiency rating;

(viii) Weather Year for Energy Calculations (WYEC) weather year data (WYEC data are on tapes available from ASHRAE, 1791 Tullie Circle, N.E., Atlanta, Georgia 30329), or if unavailable, Test Reference Year (TRY) weather data (obtainable from Na-

tional Climatic Data Center, 1983 *Test Reference Year*, Tape Reference Manual, TD-9706, Asheville, North Carolina) relevant to project location.

(2) Estimating the discounted energy cost for the heating and cooling energy loads, respectively, according to the following equation—

$$\text{Discounted Energy Cost} = \frac{\text{Total Annual Coil Load} \times \text{Fuel Cost} \times \text{UPW}^*}{\text{Equipment Efficiency}}$$

Where:

Total Annual Coil Load—the total heating or cooling annual coil load calculated under paragraph (c)(1);

Fuel Cost—the heating or cooling fuel cost calculated in accordance with sections 3.3.D and 3.3.E of the User's Manual;

UPW\*—the uniform present worth discount factor; selected from the last page of the compliance forms.

Equipment Efficiency—the test seasonal efficiency rating of the heating and cooling

equipment only (i.e., not including duct or distribution system losses).

(3) Estimating the discounted energy cost for water heating and refrigerator/freezer energy consumption—

(i) For equipment types covered by the COSTSAFR compliance forms, by multiplying the estimated unit energy cost by 100; or

(ii) For equipment types not covered by COSTSAFR—

$$\text{Discounted Energy Cost} = \frac{\text{Annual Energy Consumption} \times \text{Fuel Cost} \times \text{UPW}^*}{\text{Energy Factor}}$$

Where:

Fuel Cost and UPW\* are as defined in paragraph (c)(2) of this section; Annual Energy Consumption is as calculated in 10 CFR 430.22; and Energy Factor is the measure of energy efficiency as calculated under 10 CFR 430.22

(iii) [Reserved]

(4) Adding together the discounted energy costs calculated under paragraphs (c)(2) and (c)(3) of this section;

(d) If the discounted energy cost of the proposed building design calculated under paragraph (c)(4) of this section is equal to or less than the discounted energy cost of the COSTSAFR prototype building design calculated under paragraph (b) of this section, then the proposed building design is in compliance with the applicable energy consumption goal under this part.

[56 FR 3772, Jan. 31, 1991]

**§ 435.306 Selecting a life cycle effective proposed building design.**

In selecting between or among proposed building designs which comply with the applicable energy consumption goal under this part, each Federal agency shall select the design which, in comparison to the applicable COSTSAFR prototype, has the highest Net Savings or lowest total life cycle costs calculated in compliance with subpart A of 10 CFR part 436.

[56 FR 3773, Jan. 31, 1991]

**PART 436—FEDERAL ENERGY MANAGEMENT AND PLANNING PROGRAMS**

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AUTHORITY: 42 U.S.C. §6361; 42 U.S.C. 8251-8263; 42 U.S.C. 8287-8287c.

SOURCE: 44 FR 60669, Oct. 19, 1979, unless otherwise noted.

§ 436.1 Scope.

This part sets forth the rules for Federal energy management and planning programs to reduce Federal energy consumption and to promote life cycle cost effective investments in building energy systems, building water systems and energy and water conservation measures for Federal buildings.

[61 FR 32649, June 25, 1996]

§ 436.2 General objectives.

The objectives of Federal energy management and planning programs are:

(a) To apply energy conservation measures to, and improve the design for construction of Federal buildings such that the energy consumption per gross square foot of Federal buildings in use during the fiscal year 1995 is at least 10 percent less than the energy consumption per gross square foot in 1985;

(b) To promote the methodology and procedures for conducting life cycle cost analyses of proposed investments in building energy systems, building water systems and energy and water conservation measures;

(c) To promote the use of energy savings performance contracts by Federal agencies for implementation of privately financed investment in building and facility energy conservation measures for existing Federally owned buildings; and

(d) To promote efficient use of energy in all agency operations through general operations plans.

[55 FR 48220, Nov. 20, 1990, as amended at 60 FR 18334, Apr. 10, 1995; 61 FR 32649, June 25, 1996]

Subpart A—Methodology and Procedures for Life Cycle Cost Analyses

SOURCE: 55 FR 48220, Nov. 20, 1990, unless otherwise noted.

§ 436.10 Purpose.

This subpart establishes a methodology and procedures for estimating and comparing the life cycle costs of Federal buildings, for determining the life cycle cost effectiveness of energy

conservation measures and water conservation measures, and for rank ordering life cycle cost effective measures in order to design a new Federal building or to retrofit an existing Federal building. It also establishes the method by which efficiency shall be considered when entering into or renewing leases of Federal building space.

[61 FR 32649, June 25, 1996]

**§ 436.11 Definitions.**

As used in this subpart—

*Base Year* means the fiscal year in which a life cycle cost analysis is conducted.

*Building energy system* means an energy conservation measure or any portion of the structure of a building or any mechanical, electrical, or other functional system supporting the building, the nature or selection of which for a new building influences significantly the cost of energy consumed.

*Building water system* means a water conservation measure or any portion of the structure of a building or any mechanical, electrical, or other functional system supporting the building, the nature or selection of which for a new building influences significantly the cost of water consumed.

*Component price* means any variable sub-element of the total charge for a fuel or energy or water, including but not limited to such charges as “demand charges,” “off-peak charges” and “seasonal charges.”

*Demand charge* means that portion of the charge for electric service based upon the plant and equipment costs associated with supplying the electricity consumed.

*DOE* means Department of Energy.

*Energy conservation measures* means measures that are applied to an existing Federal building that improve energy efficiency and are life cycle cost effective and that involve energy conservation, cogeneration facilities, renewable energy sources, improvements in operation and maintenance efficiencies, or retrofit activities.

*Federal agency* means “agency” as defined by 5 U.S.C. 551(1).

*Federal building* means an energy or water conservation measure or any building, structure, or facility, or part thereof, including the associated en-

ergy and water consuming support systems, which is constructed, renovated, leased, or purchased in whole or in part for use by the Federal government. This term also means a collection of such buildings, structures, or facilities and the energy and water consuming support systems for such collection.

*Investment costs* means the initial costs of design, engineering, purchase, construction, and installation exclusive of sunk costs.

*Life cycle cost* means the total cost of owning, operating and maintaining a building over its useful life (including its fuel and water, energy, labor, and replacement components), determined on the basis of a systematic evaluation and comparison of alternative building systems, except that in the case of leased buildings, the life cycle cost shall be calculated over the effective remaining term of the lease.

*Non-fuel operation and maintenance costs* means material and labor cost for routine upkeep, repair and operation exclusive of energy cost.

*Non-recurring costs* means costs that are not uniformly incurred annually over the study period.

*Non-water operation and maintenance costs* mean material and labor cost for routine upkeep, repair and operation exclusive of water cost.

*Recurring costs* means future costs that are incurred uniformly and annually over the study period.

*Replacement costs* mean future cost to replace a building energy system or building water system, an energy or water conservation measure, or any component thereof.

*Retrofit* means installation of a building energy system or building water system alternative in an existing Federal building.

*Salvage value* means the value of any building energy system or building water system removed or replaced during the study period, or recovered through resale or remaining at the end of the study period.

*Study period* means the time period covered by a life cycle cost analysis.

*Sunk costs* means costs incurred prior to the time at which the life cycle cost analysis occurs.

*Time-of-day rate* means the charge for service during periods of the day based

on the cost of supplying services during various times of the day.

*Water conservation measures* mean measures that are applied to an existing Federal building that improve the efficiency of water use, reduce the amount of water for sewage disposal and are life cycle cost effective and that involve water conservation, improvements in operation and maintenance efficiencies, or retrofit activities.

[55 FR 48220, Nov. 20, 1990, as amended at 61 FR 32649, June 25, 1996]

**§ 436.12 Life cycle cost methodology.**

The life cycle cost methodology for this part is a systematic analysis of relevant costs, excluding sunk costs, over a study period, relating initial costs to future costs by the technique of discounting future costs to present values.

**§ 436.13 Presuming cost-effectiveness results.**

(a) If the investment and other costs for an energy or water conservation measure considered for retrofit to an existing Federal building or a building energy system or building water system considered for incorporation into a new building design are insignificant, a Federal agency may presume that such a system is life cycle cost-effective without further analysis.

(b) A Federal agency may presume that an investment in an energy or water conservation measure retrofit to an existing Federal building is not life cycle cost-effective for Federal investment if the Federal building is—

(1) Occupied under a short-term lease with a remaining term of one year or less, and without a renewal option or with a renewal option which is not likely to be exercised;

(2) Occupied under a lease which includes the cost of utilities in the rent and does not provide a pass-through of energy or water savings to the government; or

(3) Scheduled to be demolished or retired from service within one year or less.

[55 FR 48220, Nov. 20, 1990, as amended at 61 FR 32650, June 25, 1996]

**§ 436.14 Methodological assumptions.**

(a) Each Federal Agency shall discount to present values the future cash flows established in either current or constant dollars consistent with the nominal or real discount rate, and related tables, published in the annual supplement to the Life Cycle Costing Manual for the Federal Energy Management Program (NIST 85-3273) and determined annually by DOE as follows—

(1) The nominal discount rate shall be a 12 month average of the composite yields of all outstanding U.S. Treasury bonds neither due nor callable in less than ten years, as most recently reported by the Federal Reserve Board; and

(2) Subject to a ceiling of 10 percent and a floor of three percent the real discount rate shall be a 12 month average of the composite yields of all outstanding U.S. Treasury bonds neither due nor callable in less than ten years, as most recently reported by the Federal Reserve Board, adjusted to exclude estimated increases in the general level of prices consistent with projections of inflation in the most recent Economic Report of the President's Council of Economic Advisors.

(b) Each Federal agency shall assume that energy prices will change at rates projected by DOE's Energy Information Administration and published by NIST annually no later than the beginning of the fiscal year in the Annual Supplement to the Life Cycle Costing Manual for the Federal Energy Management Program, in tables consistent with the discount rate determined by DOE under paragraph (a) of this section, except that—

(1) If the Federal agency is using component prices under § 436.14(c), that agency may use corresponding component escalation rates provided by the energy or water supplier.

(2) For Federal buildings in foreign countries, the Federal agency may use a "reasonable" escalation rate.

(c) Each Federal agency shall assume that the price of energy or water in the base year is the actual price charged for energy or water delivered to the Federal building and may use actual component prices as provided by the energy or water supplier.

(d) Each Federal agency shall assume that the appropriate study period is as follows:

(1) For evaluating and ranking alternative retrofits for an existing Federal building, the study period is the expected life of the retrofit, or 25 years from the beginning of beneficial use, whichever is shorter.

(2) For determining the life cycle costs or net savings of mutually exclusive alternatives for a given building energy system or building water system (e.g., alternative designs for a particular system or size of a new or retrofit building energy system or building water system), a uniform study period for all alternatives shall be assumed which is equal to—

(i) The estimated life of the mutually exclusive alternative having the longest life, not to exceed 25 years from the beginning of beneficial use with appropriate replacement and salvage values for each of the other alternatives; or

(ii) The lowest common multiple of the expected lives of the alternative, not to exceed 25 from the beginning of beneficial use with appropriate replacement and salvage values for each alternative.

(3) For evaluating alternative designs for a new Federal building, the study period extends from the base year through the expected life of the building or 25 years from the beginning of beneficial use, whichever is shorter.

(e) Each Federal agency shall assume that the expected life of any building energy system or building water system is the period of service without major renewal or overhaul, as estimated by a qualified engineer or architect, as appropriate, or any other reliable source except that the period of service of a building energy or water system shall not be deemed to exceed the expected life of the owned building, or the effective remaining term of the leased building (taking into account renewal options likely to be exercised).

(f) Each Federal agency may assume that investment costs are a lump sum occurring at the beginning of the base year, or may discount future investment costs to present value using the appropriate present worth factors under paragraph (a) of this section.

(g) Each Federal agency may assume that energy or water costs and non-fuel or non-water operation and maintenance costs begin to accrue at the beginning of the base year or when actually projected to occur.

(h) Each Federal agency may assume that costs occur in a lump sum at any time within the year in which they are incurred.

(i) This section shall not apply to calculations of estimated simple payback time under § 436.22 of this part.

[55 FR 48220, Nov. 20, 1990, as amended at 61 FR 32650, June 25, 1996]

#### § 436.15 Formatting cost data.

In establishing cost data under §§ 436.16 and 436.17 and measuring cost effectiveness by the modes of analysis described by § 436.19 through § 436.22, a format for accomplishing the analysis which includes all required input data and assumptions shall be used. Subject to § 436.18(b), Federal agencies are encouraged to use worksheets or computer software referenced in the Life Cycle Cost Manual for the Federal Energy Management Program.

#### § 436.16 Establishing non-fuel and non-water cost categories.

(a) The relevant non-fuel cost categories are—

- (1) Investment costs;
- (2) Non-fuel operation and maintenance cost;
- (3) Replacement cost; and
- (4) Salvage value.

(b) The relevant non-water cost categories are—

- (1) Investment costs;
- (2) Non-water operation and maintenance cost;
- (3) Replacement cost; and
- (4) Salvage value.

(c) The present value of recurring costs is the product of the base year value of recurring costs as multiplied by the appropriate uniform present worth factor under § 436.14, or as calculated by computer software indicated in § 436.18(b) and used with the official discount rate and escalation rate assumptions under § 436.14. When recurring costs begin to accrue at a later time, subtract the present value of recurring costs over the delay, calculated using the appropriate uniform present

worth factor for the period of the delay, from the present value of recurring costs over the study period or, if using computer software, indicate a delayed beneficial occupancy date.

(d) The present value of non-recurring cost under § 436.16(a) is the product of the non-recurring costs as multiplied by appropriate single present worth factors under § 436.14 for the respective years in which the costs are expected to be incurred, or as calculated by computer software provided or approved by DOE and used with the official discount rate and escalation rate assumptions under § 436.14.

[55 FR 48220, Nov. 20, 1990, as amended at 61 FR 32650, June 25, 1996]

**§ 436.17 Establishing energy or water cost data.**

(a) Each Federal agency shall establish energy costs in the base year by multiplying the total units of energy used in the base year by the price per unit of energy in the base year as determined in accordance with § 436.14(c).

(b) When energy costs begin to accrue in the base year, the present value of energy costs over the study period is the product of energy costs in the base year as established under § 436.17(a), multiplied by the appropriate modified uniform present worth factor adjusted for energy price escalation for the applicable region, sector, fuel type, and study period consistent with § 436.14, or as calculated by computer software provided or approved by DOE and used with the official discount rate and escalation rate assumptions under § 436.14. When energy costs begin to accrue at a later time, subtract the present value of energy costs over the delay, calculated using the adjusted, modified uniform present worth factor for the period of delay, from the present value of energy costs over the study period or, if using computer software, indicate a delayed beneficial occupancy date.

(c) Each Federal agency shall establish water costs in the base year by multiplying the total units of water used in the base year by the price per unit of water in the base year as determined in accordance with § 436.14(c).

(d) When water costs begin to accrue in the base year, the present value of

water costs over the study period is the product of water costs in the base year as established under § 436.17(a), or as calculated by computer software provided or approved by DOE and used with the official discount rate and assumptions under § 436.14. When water costs begin to accrue at a later time, subtract the present value of water costs over the delay, calculated using the uniform present worth factor for the period of delay, from the present value of water costs over the study period or, if using computer software, indicate a delayed beneficial occupancy date.

[55 FR 48220, Nov. 20, 1990, as amended at 61 FR 32650, June 25, 1996]

**§ 436.18 Measuring cost-effectiveness.**

(a) In accordance with this section, each Federal agency shall measure cost-effectiveness by combining cost data established under §§ 436.16 and 436.17 in the appropriate mode of analysis as described in § 436.19 through § 436.22.

(b) Federal agencies performing LCC analysis on computers shall use either the Federal Buildings Life Cycle Costing (FBLCC) software provided by DOE or software consistent with this subpart.

(c) Replacement of a building energy or water system with an energy or water conservation measure by retrofit to an existing Federal building or by substitution in the design for a new Federal building shall be deemed cost-effective if—

(1) Life cycle costs, as described by § 436.19, are estimated to be lower; or

(2) Net savings, as described by § 436.20, are estimated to be positive; or

(3) The savings-to-investment ratio, as described by § 436.21, is estimated to be greater than one; or

(4) The adjusted internal rate of return, as described by § 436.22, is estimated to be greater than the discount rate as set by DOE.

(d) As a rough measure, each Federal agency may determine estimated simple payback time under § 436.23, which indicates whether a retrofit is likely to be cost effective under one of the four calculation methods referenced in § 436.18(c). An energy or water conservation measure alternative is likely

to be cost-effective if estimated pay-back time is significantly less than the useful life of that system, and of the Federal building in which it is to be installed.

(e) Mutually exclusive alternatives for a given building energy or water system, considered in determining such matters as the optimal size of a solar energy system, the optimal thickness of insulation, or the best choice of double-glazing or triple-glazing for windows, shall be compared and evaluated on the basis of life cycle costs or net savings over equivalent study periods. The alternative which is estimated to result in the lowest life cycle costs or the highest net savings shall be deemed the most cost-effective because it tends to minimize the life cycle cost of Federal building.

(f) When available appropriations will not permit all cost-effective energy or water conservation measures to be undertaken, they shall be ranked in descending order of their savings-to-investment ratios, or their adjusted internal rate of return, to establish priority. If available appropriations cannot be fully exhausted for a fiscal year by taking all budgeted energy or water conservation measures according to their rank, the set of energy or water conservation measures that will maximize net savings for available appropriations should be selected.

(g) Alternative building designs for new Federal buildings shall be evaluated on the basis of life cycle costs. The alternative design which results in the lowest life cycle costs for a given new building shall be deemed the most cost-effective.

[55 FR 48220, Nov. 20, 1990, as amended at 61 FR 32650, June 25, 1996]

**§ 436.19 Life cycle costs.**

Life cycle costs are the sum of the present values of—

- (a) Investment costs, less salvage values at the end of the study period;
- (b) Non-fuel operation and maintenance costs;
- (c) Replacement costs less salvage costs of replaced building systems; and
- (d) Energy and/or water costs.

[The FR 48220, Nov. 20, 1990, as amended at 61 FR 32651, June 25, 1996]

**§ 436.20 Net savings.**

For a retrofit project, net savings may be found by subtracting life cycle costs based on the proposed project from life cycle costs based on not having it. For a new building design, net savings is the difference between the life cycle costs of an alternative design and the life cycle costs of the basic design.

**§ 436.21 Savings-to-investment ratio.**

The savings-to-investment ratio is the ratio of the present value savings to the present value costs of an energy or water conservation measure. The numerator of the ratio is the present value of net savings in energy or water and non-fuel or non-water operation and maintenance costs attributable to the proposed energy or water conservation measure. The denominator of the ratio is the present value of the net increase in investment and replacement costs less salvage value attributable to the proposed energy or water conservation measure.

[61 FR 32651, June 25, 1996]

**§ 436.22 Adjusted internal rate of return.**

The adjusted internal rate of return is the overall rate of return on an energy or water conservation measure. It is calculated by subtracting 1 from the nth root of the ratio of the terminal value of savings to the present value of costs, where n is the number of years in the study period. The numerator of the ratio is calculated by using the discount rate to compound forward to the end of the study period the yearly net savings in energy or water and non-fuel or non-water operation and maintenance costs attributable to the proposed energy or water conservation measure. The denominator of the ratio is the present value of the net increase in investment and replacement costs less salvage value attributable to the proposed energy or water conservation measure.

[61 FR 32651, June 25, 1996]

**§ 436.23 Estimated simple payback time.**

The estimated simple payback time is the number of years required for the

cumulative value of energy or water cost savings less future non-fuel or non-water costs to equal the investment costs of the building energy or water system, without consideration of discount rates.

[61 FR 32651, June 25, 1996]

#### § 436.24 Uncertainty analyses.

If particular items of cost data or timing of cash flows are uncertain and are not fixed under § 436.14, Federal agencies may examine the impact of uncertainty on the calculation of life cycle cost effectiveness or the assignment of rank order by conducting additional analyses using any standard engineering economics method such as sensitivity and probabilistic analysis. If additional analysis casts substantial doubt on the life cycle cost analysis results, a Federal agency should consider obtaining more reliable data or eliminating the building energy or water system alternative.

[55 FR 48220, Nov. 20, 1990, as amended at 61 FR 32651, June 25, 1996]

### Subpart B—Methods and Procedures for Energy Savings Performance Contracting

SOURCE: 60 FR 18334, Apr. 10, 1995, unless otherwise noted.

#### § 436.30 Purpose and scope.

(a) *General.* This subpart provides procedures and methods which apply to Federal agencies with regard to the award and administration of energy savings performance contracts awarded on or before September 30, 2003. This subpart applies in addition to the Federal Acquisition Regulation at Title 48 of the CFR and related Federal agency regulations. The provisions of this subpart are controlling with regard to energy savings performance contracts notwithstanding any conflicting provisions of the Federal Acquisition Regulation and related Federal agency regulations.

(b) *Utility incentive programs.* Nothing in this subpart shall preclude a Federal agency from—

(1) Participating in programs to increase energy efficiency, conserve water, or manage electricity demand

conducted by gas, water, or electric utilities and generally available to customers of such utilities;

(2) Accepting financial incentives, goods, or services generally available from any such utility to increase energy efficiency or to conserve water or manage electricity demand; or

(3) Entering into negotiations with electric, water, and gas utilities to design cost-effective demand management and conservation incentive programs to address the unique needs of each Federal agency.

(c) *Promoting competition.* To the extent allowed by law, Federal agencies should encourage utilities to select contractors for the conduct of utility incentive programs in a competitive manner to the maximum extent practicable.

(d) *Interpretations.* The permissive provisions of this subpart shall be liberally construed to effectuate the objectives of Title VIII of the National Energy Conservation Policy Act, 42 U.S.C. 8287-8287c.

[60 FR 18334, Apr. 10, 1995, as amended at 60 FR 19343, Apr. 18, 1995; 65 FR 39786, June 28, 2000]

#### § 436.31 Definitions.

As used in this subpart—

*Act* means Title VIII of the National Energy Conservation Policy Act.

*Annual energy audit* means a procedure including, but not limited to, verification of the achievement of energy cost savings and energy unit savings guaranteed resulting from implementation of energy conservation measures and determination of whether an adjustment to the energy baseline is justified by conditions beyond the contractor's control.

*Building* means any closed structure primarily intended for human occupancy in which energy is consumed, produced, or distributed.

*Detailed energy survey* means a procedure which may include, but is not limited to, a detailed analysis of energy cost savings and energy unit savings potential, building conditions, energy consuming equipment, and hours of use or occupancy for the purpose of confirming or revising technical and price proposals based on the preliminary energy survey.

*DOE* means Department of Energy.

*Energy baseline* means the amount of energy that would be consumed annually without implementation of energy conservation measures based on historical metered data, engineering calculations, submetering of buildings or energy consuming systems, building load simulation models, statistical regression analysis, or some combination of these methods.

*Energy conservation measures* means measures that are applied to an existing Federally owned building or facility that improves energy efficiency, are life-cycle cost-effective under subpart A of this part, and involve energy conservation, cogeneration facilities, renewable energy sources, improvements in operation and maintenance efficiencies, or retrofit activities.

*Energy cost savings* means a reduction in the cost of energy and related operation and maintenance expenses, from a base cost established through a methodology set forth in an energy savings performance contract, utilized in an existing federally owned building or buildings or other federally owned facilities as a result of—

(1) The lease or purchase of operating equipment, improvements, altered operation and maintenance, or technical services; or

(2) The increased efficient use of existing energy sources by cogeneration or heat recovery, excluding any cogeneration process for other than a federally owned building or buildings or other federally owned facilities.

*Energy savings performance contract* means a contract which provides for the performance of services for the design, acquisition, installation, testing, operation, and, where appropriate, maintenance and repair of an identified energy conservation measure or series of measures at one or more locations.

*Energy unit savings* means the determination, in electrical or thermal units (e.g., kilowatt hour (kwh), kilowatt (kw), or British thermal units (Btu)), of the reduction in energy use or demand by comparing consumption or demand, after completion of contractor-installed energy conservation measures, to an energy baseline established in the contract.

*Facility* means any structure not primarily intended for human occupancy, or any contiguous group of structures and related systems, either of which produces, distributes, or consumes energy.

*Federal agency* has the meaning given such term in section 551(l) of Title 5, United States Code.

*Preliminary energy survey* means a procedure which may include, but is not limited to, an evaluation of energy cost savings and energy unit savings potential, building conditions, energy consuming equipment, and hours of use or occupancy, for the purpose of developing technical and price proposals prior to selection.

*Secretary* means the Secretary of Energy.

#### § 436.32 Qualified contractors lists.

(a) DOE shall prepare a list, to be updated annually, or more often as necessary, of firms qualified to provide energy cost savings performance services and grouped by technology. The list shall be prepared from statements of qualifications by or about firms engaged in providing energy savings performance contract services on questionnaires obtained from DOE. Such statements shall, at a minimum, include prior experience and capabilities of firms to perform the proposed energy cost savings services by technology and financial and performance information. DOE shall issue a notice annually, for publication in the Commerce Business Daily, inviting submission of new statements of qualifications and requiring listed firms to update their statements of qualifications for changes in the information previously provided.

(b) On the basis of statements of qualifications received under paragraph (a) of this section and any other relevant information, DOE shall select a firm for inclusion on the qualified list if—

(1) It has provided energy savings performance contract services or services that save energy or reduce utility costs for not less than two clients, and the firm possesses the appropriate project experience to successfully implement the technologies which it proposes to provide;

(2) Previous project clients provide ratings which are "fair" or better;

(3) The firm or any principal of the firm has neither been insolvent nor declared bankruptcy within the last five years;

(4) The firm or any principal of the firm is not on the list of parties excluded from procurement programs under 48 CFR part 9, subpart 9.4; and

(5) There is no other adverse information which warrants the conclusion that the firm is not qualified to perform energy savings performance contracts.

(c) DOE may remove a firm from DOE's list of qualified contractors after notice and an opportunity for comment if—

(1) There is a failure to update its statement of qualifications;

(2) There is credible information warranting disqualification; or

(3) There is other good cause.

(d) A Federal agency shall use DOE's list unless it elects to develop its own list of qualified firms consistent with the procedures in paragraphs (a) and (b) of this section.

(e) A firm not designated by DOE or a Federal agency pursuant to the procedures in paragraphs (a) and (b) of this section as qualified to provide energy cost savings performance services shall receive a written decision and may request a debriefing.

(f) Any firm receiving an adverse final decision under this section shall apply to the Board of Contract Appeals of the General Services Administration in order to exhaust administrative remedies.

**§ 436.33 Procedures and methods for contractor selection.**

(a) *Competitive selection.* Competitive selections based on solicitation of firms are subject to the following procedures—

(1) With respect to a particular proposed energy cost savings performance project, Federal agencies shall publish a Commerce Business Daily notice which synthesizes the proposed contract action.

(2) Each competitive solicitation—

(i) Shall request technical and price proposals and the text of any third-

party financing agreement from interested firms;

(ii) Shall consider DOE model solicitations and should use them to the maximum extent practicable;

(iii) May provide for a two-step selection process which allows Federal agencies to make an initial selection based, in part, on proposals containing estimated energy cost savings and energy unit savings, with contract award conditioned on confirmation through a detailed energy survey that the guaranteed energy cost savings are within a certain percentage (specified in the solicitation) of the estimated amount; and

(iv) May state that if the Federal agency requires a detailed energy survey which identifies life cycle cost effective energy conservation measures not in the initial proposal, the contract may include such measures.

(3) Based on its evaluation of the technical and price proposals submitted, any applicable financing agreement (including lease-acquisitions, if any), statements of qualifications submitted under § 436.32 of this subpart, and any other information determines to be relevant, the Federal agency may select a firm on a qualified list to conduct the project.

(4) If a proposed energy cost savings project involves a large facility with too many contiguously related buildings and other structures at one site for proposing firms to assume the costs of a preliminary energy survey of all such structures, the Federal agency—

(i) May request technical and price proposals for a representative sample of buildings and other structures and may select a firm to conduct the proposed project; and

(ii) After selection of a firm, but prior to award of an energy savings performance contract, may request the selected firm to submit technical and price proposals for all or some of the remaining buildings and other structures at the site and may include in the award for all or some of the remaining buildings and other structures.

(5) After selection under paragraph (a)(3) or (a)(4) of this section, but prior to award, a Federal agency may require the selectee to conduct a detailed

energy survey to confirm that guaranteed energy cost savings are within a certain percentage (specified in the solicitation) of estimated energy cost savings in the selectee's proposal. If the detailed energy survey does not confirm that guaranteed energy savings are within the fixed percentage of estimated savings, the Federal agency may select another firm from those within the competitive range.

(b) *Unsolicited proposals.* Federal agencies may—

(1) Consider unsolicited energy savings performance contract proposals from firms on a qualified contractor list under this subpart which include technical and price proposals and the text of any financing agreement (including a lease-acquisition) without regard to the requirements of 48 CFR 15.602 and 15.602-2(a)(1); 48 CFR 15.603; and 48 CFR 15.607(a), (a)(2), (a)(3), (a)(4) and (a)(5).

(2) Reject an unsolicited proposal that is too narrow because it does not address the potential for significant energy conservation measures from other than those measures in the proposal.

(3) After requiring a detailed energy survey, if appropriate, and determining that technical and price proposals are adequate, award a contract to a firm on a qualified contractor list under this subpart on the basis of an unsolicited proposal, provided that the Federal agency complies with the following procedures—

(i) An award may not be made to the firm submitting the unsolicited proposal unless the Federal agency first publishes a notice in the Commerce Business Daily acknowledging receipt of the proposal and inviting other firms on the qualified list to submit competing proposals.

(ii) Except for unsolicited proposals submitted in response to a published general statement of agency needs, no award based on such an unsolicited proposal may be made in instances in which the Federal agency is planning the acquisition of an energy conservation measure through an energy savings performance contract.

(c) *Certified cost or pricing data.*

(1) Energy savings performance contracts under this part are firm fixed-price contracts.

(2) Pursuant to the authority provided under section 304A(b)(1)(B) of the Federal Property and Administrative Services Act of 1049, the heads of procuring activities shall waive the requirement for submission of certified cost or pricing data. However, this does not exempt offerors from submitting information (including pricing information) required by the Federal agency to ensure the impartial and comprehensive evaluation of proposals.

[60 FR 18334, Apr. 10, 1995, as amended at 65 FR 39786, June 28, 2000]

#### § 436.34 Multiyear contracts.

(a) Subject to paragraph (b) of this section, Federal agencies may enter into a multiyear energy savings performance contract for a period not to exceed 25 years, as authorized by 42 U.S.C. 8287, without funding of cancellation charges, if:

(1) The multiyear energy savings performance contract was awarded in a competitive manner using the procedures and methods established by this subpart;

(2) Funds are available and adequate for payment of the scheduled energy cost for the first fiscal year of the multiyear energy savings performance contract;

(3) Thirty days before the award of any multiyear energy savings performance contract that contains a clause setting forth a cancellation ceiling in excess of \$750,000, the head of the awarding Federal agency gives written notification of the proposed contract and the proposed cancellation ceiling for the contract to the appropriate authorizing and appropriating committees of the Congress; and

(4) Except as otherwise provided in this section, the multiyear energy savings performance contract is subject to 48 CFR part 17, subpart 17.1, including the requirement that the contracting officer establish a cancellation ceiling.

(b) Neither this subpart nor any provision of the Act requires, prior to contract award or as a condition of a contract award, that a Federal agency have appropriated funds available and adequate to pay for the total costs of an energy savings performance contract for the term of such contract.

**§ 436.35 Standard terms and conditions.**

(a) *Mandatory requirements.* In addition to contractual provisions otherwise required by the Act or this subpart, any energy savings performance contract shall contain clauses—

(1) Authorizing modification, replacement, or changes of equipment, at no cost to the Federal agency, with the prior approval of the contracting officer who shall consider the expected level of performance after such modification, replacement or change;

(2) Providing for the disposition of title to systems and equipment;

(3) Requiring prior approval by the contracting officer of any financing agreements (including lease-acquisitions) and amendments to such an agreement entered into after contract award for the purpose of financing the acquisition of energy conservation measures;

(4) Providing for an annual energy audit and identifying who shall conduct such an audit, consistent with § 436.37 of this subpart; and

(5) Providing for a guarantee of energy cost savings to the Federal agency, and establishing payment schedules reflecting such guarantee.

(b) *Third party financing.* If there is third party financing, then an energy savings performance contract may contain a clause:

(1) Permitting the financing source to perfect a security interest in the installed energy conservation measures, subject to and subordinate to the rights of the Federal agency; and

(2) Protecting the interests of a Federal agency and a financing source, by authorizing a contracting officer in appropriate circumstances to require a contractor who defaults on an energy savings performance contract or who does not cure the failure to make timely payments, to assign to the financing source, if willing and able, the contractor's rights and responsibilities under an energy savings performance contract;

**§ 436.36 Conditions of payment.**

(a) Any amount paid by a Federal agency pursuant to any energy savings performance contract entered into under this subpart may be paid only

from funds appropriated or otherwise made available to the agency for the payment of energy expenses and related operation and maintenance expenses which would have been incurred without an energy savings performance contract. The amount the agency would have paid is equal to:

(1) The energy baseline under the energy savings performance contract (adjusted if appropriate under § 436.37), multiplied by the unit energy cost; and

(2) Any related operations and maintenance cost prior to implementation of energy conservation measures, adjusted for increases in labor and material price indices.

(b) Federal agencies may incur obligations pursuant to energy savings performance contracts to finance energy conservation measures provided guaranteed energy cost savings exceed the contractor's debt service requirements.

**§ 436.37 Annual energy audits.**

(a) After contractor implementation of energy conservation measures and annually thereafter during the contract term, an annual energy audit shall be conducted by the Federal agency or the contractor as determined by the contract. The annual energy audit shall verify the achievement of annual energy cost savings performance guarantees provided by the contractor.

(b) The energy baseline is subject to adjustment due to changes beyond the contractor's control, such as—

(1) Physical changes to building;

(2) Hours of use or occupancy;

(3) Area of conditioned space;

(4) Addition or removal of energy consuming equipment or systems;

(5) Energy consuming equipment operating conditions;

(6) Weather (i.e., cooling and heating degree days); and

(7) Utility rates.

(c) In the solicitation or in the contract, Federal agencies shall specify requirements for annual energy audits, the energy baseline, and baseline adjustment procedures.

**§ 436.38 Terminating contracts.**

(a) Except as otherwise provided by this subpart, termination of energy savings performance contracts shall be subject to the termination procedures

of the Federal Acquisition Regulation in 48 CFR part 49.

(b) In the event an energy savings performance contract is terminated for the convenience of a Federal agency, the termination liability of the Federal agency shall not exceed the cancellation ceiling set forth in the contract, for the year in which the contract is terminated.

### Subparts C–E [Reserved]

### Subpart F—Guidelines for General Operations Plans

**AUTHORITY:** Energy Policy and Conservation Act, as amended, 42 U.S.C. 6361; Executive Order 11912, as amended, 42 FR 37523 (July 20, 1977); National Energy Conservation Policy Act, title V, part 3, 42 U.S.C. 8251 *et seq.*; Department of Energy Organization Act, 42 U.S.C. 7254.

**SOURCE:** 45 FR 44561, July 1, 1980, unless otherwise noted.

#### § 436.100 Purpose and scope.

(a) *Purpose.* The purpose of this subpart is to provide guidelines for use by Federal agencies in their development of overall 10-year energy management plans to establish energy conservation goals, to reduce the rate of energy consumption, to promote the efficient use of energy, to promote switching for petroleum-based fuels and natural gas to coal and other energy sources, to provide a methodology for reporting their progress in meeting the goals of those plans, and to promote emergency energy conservation planning to assuage the impact of a sudden disruption in the supply of oil-based fuels, natural gas or electricity. The plan is intended to provide the cornerstone for a program to conserve energy in the general operations of an agency.

(b) *Scope.* This subpart applies to all general operations of Federal agencies and is applicable to management of all energy used by Federal agencies that is excluded from coverage pursuant to section 543(a)(2) of part 3 of title V of the National Energy Conservation Policy Act, as amended (42 U.S.C. 8251–8261).

[45 FR 44561, July 1, 1980, as amended at 55 FR 48223, Nov. 20, 1990]

#### § 436.101 Definitions.

As used in this subpart—

*Automotive gasoline* means all grades of gasoline for use in internal combustion engines except aviation gasoline. Does not include diesel fuel.

*Aviation gasoline (AVGAS)* means all special grades of gasoline for use in aviation reciprocating engines.

*Btu* means British thermal unit; the quantity of heat required to raise the temperature of one pound of water one degree Fahrenheit.

*Cogeneration* means the utilization of surplus energy, e.g., steam, heat or hot water produced as a by-product of the manufacture of some other form of energy, such as electricity. Thus, diesel generators are converted to cogeneration sets when they are equipped with boilers that make steam and hot water (usable as energy) from the heat of the exhaust and the water that cools the generator.

*Diesel and petroleum distillate fuels* means the lighter fuel oils distilled-off during the refining process. Included are heating oils, fuels, and fuel oil. The major uses of distillate fuel oils include heating, fuel for on- and off-highway diesel engines, marine diesel engines and railroad diesel fuel.

*DOE* means the Department of Energy.

*Emergency conservation plan* means a set of instructions designed to specify actions to be taken in response to a serious interruption of energy supply.

*Energy efficiency goal* means the ratio of production achieved to energy used.

*Energy use avoidance* means the amount of energy resources, e.g., gasoline, not used because of initiatives related to conservation. It is the difference between the baseline without a plan and actual consumption.

*Facility* means any structure or group of closely located structures, comprising a manufacturing plant, laboratory, office or service center, plus equipment.

*Federal agency* means any Executive agency under 5 U.S.C. 105 and the United States Postal Service, each entity specified in 5 U.S.C. 5721(1) (B) through (H) and, except that for purposes of this subpart, the Department of Defense shall be separated into four

reporting organizations: the Departments of the Army, Navy and Air Force and the collective DOD agencies, with each responsible for complying with the requirements of this subpart.

*Fiscal year* or *FY* means, for a given year, October 1 of the prior year through September 30 of the given year.

*Fuel types* means purchased electricity, fuel oil, natural gas, liquefied petroleum gas, coal, purchased steam, automotive gasoline, diesel and petroleum distillate fuels, aviation gasoline, jet fuel, Navy special, and other identified fuels.

*General operations* means world-wide Federal agency operations, other than building operations, and includes services; production and industrial activities; operation of aircraft, ships, and land vehicles; and operation of Government-owned, contractor-operated plants.

*General transportation* means the use of vehicles for over-the-road driving as opposed to vehicles designed for off-road conditions, and the use of aircraft and vessels. This category does not include special purpose vehicles such as combat aircraft, construction equipment or mail delivery vehicles.

*Goal* means a specific statement of an intended energy conservation result which will occur within a prescribed time period. The intended result must be time-phased and must reflect expected energy use assuming planned conservation programs are implemented.

*Guidelines* means a set of instructions designed to prescribe, direct and regulate a course of action.

*Industrial or production* means the operation of facilities including buildings and plants which normally use large amounts of capital equipment, e.g., GOCO plants, to produce goods (hardware).

*Jet fuel* means fuels for use, generally in aircraft turbine engines.

*Life cycle cost* means the total cost of acquiring, operating and maintaining equipment over its economic life, including its fuel costs, determined on the basis of a systematic evaluation and comparison of alternative investments in programs, as defined in subpart A of this part.

*Liquefied petroleum gas* means propane, propylene-butanenes, butylene, propane-butane mixtures, and isobutane that are produced at a refinery, a natural gas processing plant, or a field facility.

*Maintenance* means activities undertaken to assure that equipment and energy-using systems operate effectively and efficiently.

*Measures* means actions, procedures, devices or other means for effecting energy efficient changes in general operations which can be applied by Federal agencies.

*Measure of performance* means a scale against which the fulfillment of a requirement can be measured.

*Navy special* means a heavy fuel oil that is similar to ASTM grade No. 6 oil or Bunker C oil. It is used to power U.S. Navy ships.

*Non-renewable energy source* means fuel oil, natural gas, liquefied petroleum gas, synthetic fuels, and purchased steam or electricity, or other such energy sources.

*Operational training and readiness* means those activities which are necessary to establish or maintain an agency's capability to perform its primary mission. Included are major activities to provide essential personnel strengths, skills, equipment/supply inventory and equipment condition. General administrative and housekeeping activities are not included.

*Overall plan* means the comprehensive agency plan for conserving fuel and energy in all operations, to include both the Buildings Plan developed pursuant to subpart C of this part and the General Operations Plan.

*Plan* means those actions which an agency envisions it must undertake to assure attainment of energy consumption and efficiency goals without an unacceptably adverse impact on primary missions.

*Program* means the organized set of activities and allocation of resources directed toward a common purpose, objective, or goal undertaken or proposed by an agency in order to carry out the responsibilities assigned to it.

*Renewable energy sources* means sunlight, wind, geothermal, biomass, solid wastes, or other such sources of energy.

*Secretary* means the Secretary of the Department of Energy.

*Services* means the provision of administrative assistance or something of benefit to the public.

*Specific Functional Category* means those Federal agency activities which consume energy, or which are directly linked to energy consuming activities and which fall into one of the following groups: Services, General Transportation, Industrial or Production, Operational Training and Readiness, and Others.

*Standard* means an energy conservation measure determined by DOE to be applicable to a particular agency or agencies. Once established as a standard, any variance or decision not to adopt the measure requires a waiver.

*Under Secretary* means the Under Secretary of the Department of Energy.

*Variance* means the difference between actual consumption and goal.

*656 Committee* means the Interagency Federal Energy Policy Committee, the group designated in section 656 of the DOE Organization Act to provide general oversight for interdepartmental FEMP matters. It is chaired by the Under Secretary of DOE and includes the designated Assistant Secretaries or Assistant Administrator of the Department of Defense, Commerce, Housing and Urban Development, Transportation, Agriculture, Interior and the U.S. Postal Service and General Services Administration, along with similar level representatives of the National Aeronautics and Space Administration and the Veterans Administration.

**§ 436.102 General operations plan format and content.**

(a) Each Federal agency shall prepare and submit to the Under Secretary, DOE, within six months from the effective date of these guidelines, a general operations 10-year plan which shall consist of two parts, an executive summary and a text. Subsequent agency revisions to plans shall be included in each agency's annual report on progress which shall be forwarded to DOE by July 1 annually.

(b) The following information shall be included in each Federal agency general operations 10-year plan for the period of fiscal years 1980–1990:

(1) An Executive Summary which includes—

(i) A brief description of agency missions, and applicable functional categories pursuant to § 436.106(a)(2);

(ii) A Goals and Objectives Section which summarizes what energy savings or avoidance will be achieved during the plan period, and what actions will be taken to achieve those savings, and the costs and benefits of measures planned for reducing energy consumption, increasing energy efficiencies, and shifting to a more favorable fuel mix. Assumptions of environmental, safety and health effects of the goals should be included;

(iii) A chart depicting the agency organizational structure for energy management, showing energy management program organization for headquarters and for major subordinate elements of the agency;

(iv) A schedule for completion of requirements directed in this subpart, including phase-out of any procedures made obsolete by these guidelines; and

(v) Identification of any significant problem which may impede the agency from meeting its energy management goals.

(2) A Text which includes—

(i) A Goals and Objectives Section developed pursuant to § 436.103 describing agency conservation goals; these goals will be related to primary mission goals;

(ii) An Investment Section describing the agency planned investment program by fiscal year, pursuant to appendix B of this subpart, all measures selected pursuant to § 436.104, and the estimated costs and benefits of the measures planned for reducing energy consumption and increasing energy efficiencies;

(iii) An Organization Section which includes: (A) Designation of the principal energy conservation officer, such as an Assistant Secretary or Assistant Administrator, who is responsible for supervising the preparation, updating and execution of the Plan, for planning and implementation of agency energy conservation programs, and for coordination with DOE with respect to energy matters; (B) designation of a middle-level staff member as a point of

contact to interface with the DOE Federal Programs Office at the staff level; and (C) designation of key staff members within the agency who are responsible for technical inputs to the plan or monitoring progress toward meeting the goals of the plan;

(iv) An Issues Section addressing problems, alternative courses of action for resolution, and agency recommendations that justify any decisions not to plan for or implement measures contained in appendix C of this subpart, and identifying any special projects, programs, or administrative procedures which may be beneficial to other Federal agency energy management programs;

(v) An implementing Instructions Section which includes a summary of implementing instructions issued by agency headquarters, and attachments of appropriate documents such as:

(A) Specific tasking resulting from development of the Plan;

(B) Guidance for the development of emergency conservation plans;

(C) Task milestones;

(D) Listing of responsible sub-agencies and individuals at both agency headquarters and subordinate units;

(E) Reporting and administrative procedures for headquarters and subordinate organizations;

(F) Report schedules pursuant to § 436.106(c);

(G) Schedules for feedback in order to facilitate plan updating, to include reviews of emergency conservation plans developed pursuant to § 436.105;

(H) Schedules for preparing and submitting the annual report on energy management pursuant to § 436.106(a);

(I) Schedules of plan preparation and publication;

(J) Communication, implementation, and control measures such as inspections, audits, and others; and

(vi) An Emergency Conservation Plan Summary Section pursuant to the requirements of § 436.105(d).

(3) Appendices which are needed to discuss and evaluate any innovative energy conserving technologies or methods, not included in this part, which the agency has identified for inclusion in its plan.

(c) Each plan must be approved and signed by the principal energy con-

servation officer designated pursuant to paragraph (b)(2) of this section.

#### **§ 436.103 Program goal setting.**

(a) In developing and revising plans for a projected 10-year plan each agency shall establish and maintain energy conservation goals in accordance with the requirements of this section.

(b) Agencies shall establish three types of conservation goals:

(1) Energy consumption goals, by fuel type by functional category (see appendix B).

(2) Energy efficiency goals by fuel type by functional category (see appendix B).

(3) Fuel switching goals for shifting energy use from oil and natural gas to other fuels in more plentiful supply from domestic sources (see appendix B).

(c) General operations energy conservation goals shall be established by each Federal agency with the broad purpose of achieving reductions in total energy consumption and increased efficiency without serious mission degradation or unmitigated negative environmental impacts. Within the broad framework, each agency should seek first to reduce energy consumption per unit of output in each applicable functional category. In evaluating energy efficiency, each agency should select and use standards of measurement which are consistent throughout the planning period. Particular attention should be given to increased energy use efficiency in non-renewable fuel consumption. The second focus of attention should be on initiatives which shift energy use from oil and natural gas to other fuels in more plentiful supply from domestic sources.

#### **§ 436.104 Energy conservation measures and standards.**

(a) Each agency shall consider for inclusion in its plan the measures identified in appendix C of this subpart.

(b) The following questions should be considered in the evaluation of each measure:

(1) Does this measure provide an incentive or disincentive?

(2) What is the estimate of savings by fuel type?

(3) What are the direct and indirect impacts of this measure?

(4) Is this measure to be mandatory throughout the agency?

(5) If not mandatory, under what circumstances will it be implemented, and who will be responsible for determining specific applicability?

(6) Who will be the direct participants in the implementation of this measure?

(7) What incentives (if any) are to be provided for the participants?

(8) When will this measure be implemented?

(9) Will this measure be implemented in a single step or will it be phased in? If it will be phased in, over what period of time?

(10) Will performance of the measure be evaluated and reported?

(11) By what criterion will performance be determined?

(12) Who will prepare performance reports?

(13) What is the reporting chain?

(14) What is the reporting period?

(c) Each agency will take all necessary steps to implement the energy conservation standards for general operations listed in appendix A (reserved).

**§ 436.105 Emergency conservation plan.**

(a) Each agency shall establish an emergency conservation plan, a summary of which shall be included in the general operations plan, for assuaging the impact of a sudden disruption in the supply of oil-based fuels, natural gas or electricity. Priorities for temporarily reducing missions, production, services, and other programmatic or functional activities shall be developed in accordance with paragraph (b) of this section. Planning for emergencies is to address both buildings and general operations. Provisions shall be made for testing emergency actions to ascertain that they are effective.

(b) Federal agencies shall prepare emergency conservation plans for 10 percent, fifteen percent, and 20 percent reduction compared to the previous fiscal year in gasoline, other oil-based fuels, natural gas, or electricity for periods of up to 12 months. In developing these plans, agencies shall consider the

potential for emergency reductions in energy use in buildings and facilities which the agency owns, leases, or has under contract and by employees through increased use of car and van pooling, preferential parking for multi-passenger vehicles, and greater use of mass transit. Agencies may formulate whatever additional scenarios they consider necessary to plan for various energy emergencies.

(c) In general, Federal agencies' priorities shall go to those activities which directly support the agencies' primary missions. Secondary mission activities which must be curtailed or deferred will be reported to DOE as mission impacts. The description of mission impacts shall include estimates of the associated resources and time required to mitigate the effects of the reduction in energy. Other factors or assumptions to be used in energy conservation emergency planning are as follows:

(1) Agencies will be given 15–30 days notice to implement any given plan.

(2) Substitution of fuels in plentiful supply for fuels in short supply is authorized, if the substitution can be completed within a 3-month period and the cost is within the approval authority of the executive branch.

(3) All costs and increases in manpower or other resources associated with activities or projects to assuage mission impacts will be clearly defined in respective agency plans. One-time costs will be identified separately.

(4) Confronting the emergency situation will be considered a priority effort and all projects and increases in operating budgets within the approval authority of the executive branch will be expeditiously considered and approved if justified.

(d) Summary plans for agency-wide emergency conservation management shall be provided to DOE pursuant to § 436.102(b)(2)(vi). Such summaries shall include:

(1) Agency-wide impacts of energy reductions as determined in accordance with paragraph (b) of this section.

(2) Actions to be taken agency-wide to alleviate the energy shortfalls as they occur.

(3) An assessment of agency services or production that may need to be curtailed or limited after corrective actions have been taken.

(4) A summation of control and feedback mechanisms for managing an energy emergency situation.

**§ 436.106 Reporting requirements.**

(a) By July 1 of each year each Federal agency shall submit an "Annual Report on Energy Management" based on fiscal year data to the Secretary of DOE. The general operations portion of this report will encompass all agency energy use not reported in the buildings portion and shall include:

(1) A summary evaluation of progress toward the achievement of energy consumption, energy efficiency, and fuel switching goals established by the agency in its plans;

(2) Energy consumption reported by functional categories. Reports must include General Transportation and one or more of the following functional categories: industrial or production, services, operational training and readiness, and other. Agencies may report in subcategories of their own choosing. The following information is to be reported for the usage of each fuel type in physical units for each selected functional category:

- (i) Total energy consumption goal;
- (ii) Total energy consumed;
- (iii) Total energy use avoidance;
- (iv) Variance between actual consumption and consumption goal;
- (v) Cost saved;
- (vi) Status of planned investments, and if different from the investment program upon which existing goals are based, the expected impact on meeting goals; and
- (vii) Summary of any other benefits realized.

(3) The energy efficiencies as calculated in accordance with appendix B of this subpart, or by an equivalent method, for the appropriate functional categories identified in paragraph (a)(2) of this section. The following information is to be reported for the energy efficiency for each fuel type by functional category:

- (i) Energy efficiency goal;
- (ii) Efficiency for the reporting period;

(iii) Summary of any other benefits realized.

(4) A summary of fuel switching progress including:

- (i) Description and cost of investments in fuel switching;
- (ii) Avoidance in use of oil-based fuels and natural gas;
- (iii) Increased use of solar, wood, gas-ohol and other renewable energy sources;
- (iv) Increased use of coal and coal derivatives, and
- (v) Use of all other alternative fuels.

(b) Each agency's annual report shall be developed in accordance with a format to be provided by DOE and will include agency revisions to 10-year plans.

(c) Agencies whose annual total energy consumption exceeds one hundred billion Btu's, shall, in addition to the annual report required under paragraph (a) of this section, submit quarterly reports of the energy usage information specified in paragraph (a)(2) of this section.

(d) Agencies who consume energy in operations in foreign countries will include data on foreign operations if foreign consumption is greater than 10% of that consumed by the agency in the United States, its territories and possessions. If an agency's estimated foreign consumption is less than 10% of its total domestic energy use, reporting of foreign consumption is optional. Reports should be annotated if foreign consumption is not included.

[45 FR 44561, July 1, 1980, as amended at 51 FR 4586, Feb. 6, 1986]

**§ 436.107 Review of plan.**

(a) Each plan or revision of a plan shall be submitted to DOE and DOE will evaluate the sufficiency of the plan in accordance with the requirements of this subpart. Written notification of the adequacy of the plan including a critique, will be made by DOE and sent to the agency submitting the plan or revision within 60 days of submission. Agencies shall be afforded an opportunity to modify and return the plan within an appropriate period of time for review by DOE.

(b) A general operations plan under the guidelines will be evaluated with respect to: