

**ORDER**

1053.1A

**ENERGY AND WATER MANAGEMENT PROGRAM  
FOR FAA BUILDINGS AND FACILITIES**



**December 27, 1996**

**DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION**



## FOREWORD

This order provides Federal Aviation Administration (FAA) policies, procedures, and organizational responsibilities, in a focused and expanded agency energy and water planning and conservation program, for complying with the national mandates for the efficient use of our Nation's natural resources and in the conservation of resources for present and future generations.

As the FAA moves into the 21st century, its mission assumes a prominence in the Nation's societal and economic well-being. The performance of this mission is critically dependent upon the availability of energy and clean water. In view of the current and forecast limitations in our Nation's natural resources, it is essential that careful planning and efficient use of those resources in the operation of agency buildings and facilities become hallmarks of the agency's commitment to the program. The consideration and appropriate implementation of energy and water conservation measures in all agency activities is a basic component of this resource management effort.

Heightened environmental concerns and the threat of energy shortages have increased the attention on natural resource management. A strengthened national energy and water policy has been enacted by the President and Congress. As part of this national policy, the FAA's prioritization of resource planning and conservation reemphasizes the necessity for a comprehensive approach to energy and water management issues.



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## CHAPTER 1. GENERAL

### SECTION 1. APPLICATION

1. **PURPOSE.** This order establishes agency policies, procedures, and responsibilities for energy and water planning and conservation to meet the requirements of national energy mandates regarding internal operations of the Federal Aviation Administration (FAA).
2. **DISTRIBUTION.** This order is distributed to the division level in Washington headquarters, regions, and centers, and a limited distribution to all Airway Facilities field offices.
3. **CANCELLATIONS.** Order 1053.1, Energy Planning and Conservation, December 11, 1980, is canceled. Order 1053.2, Aviation Energy Policy, January 11, 1988, is canceled.
4. **EXPLANATION OF CHANGES.** This revision:
  - a. Revises responsibilities of offices to meet the new Federal mandates.
  - b. Adds Energy Coordinators for FAA facilities, as required by recent legislation.
  - c. Adds water management requirements applicable to FAA facilities and personnel as required by recent legislation.
  - d. Revises responsibilities of various FAA personnel such that compliance with the new Federal energy management policies may be achieved.
5. **GLOSSARY.**
  - a. **Alternative fuels:** Mixtures containing 85 percent or more by volume methanol, denatured alcohol, or other alcohols with gasoline and other fuels; natural gas; liquefied petroleum gas; hydrogen; coal-derived liquid fuels; fuels (other than alcohol) derived from biological materials; electricity (including electricity derived from solar energy) and other fuels determined to be substantially non-petroleum and which yield substantial energy independence and environmental benefits.
  - b. **Categories of Buildings and Facilities Consumption:** There are three categories of energy consumption in buildings and facilities for reporting purposes under the Energy Policy Act of 1992 (EPA Act) and Executive Order 12902 (EO 12902), "Energy Efficiency and Water Conservation at Federal Facilities." They are:

(1) Buildings--the category which has a total reduction goal of 30 percent by the year 2005 as compared to the 1985 energy consumption level for buildings and facilities which would have fit the description of that category in that year [the EPAAct goals are a reduction of 10 percent by 1995, and another 10 percent by 2000 (total of 20 percent) with an additional reduction of 10 percent by 2005 (total of 30 percent) established by EO 12902].

(2) Industrial -- A facility which has a total reduction goal of 20 percent by the year 2005 as compared to the 1990 energy consumption level for buildings and facilities which would have fit the description of that category in that year [category established by EO 12902--10 percent reduction by 2000, an additional 10 percent reduction (total of 20 percent) by 2005].

(3) Exempt or Excluded--(See explanation of term, below.) A facility which has no set energy consumption reduction goal. However, an energy consumption reduction plan must be formulated for buildings and facilities that fit under this category which will result in a maximum cost-effective reduction of energy consumption using a 10 year payback calculation period (not considering the consumption attributed to any NAS systems or equipment housed in such buildings or facilities).

c. Cogeneration: The production of electric, heat, or other useful forms of energy by a non-utility. Cogeneration is often the by-product of an industrial process, allowing otherwise wasted energy to be recaptured. Cogeneration can also be the result of non-utility installations of solar and other renewable energy production installations. Under current Federal law, cogenerated energy can be sold to other consumers.

d. Comprehensive facility audit: A survey of a building or facility that provides sufficiently detailed information to allow organizational elements within FAA to enter into shared energy savings contracts or to invite inspection and bids by private upgrade specialists for direct agency-funded energy efficiency investments. Such audits include information such as the following:

(1) The type, size, energy use, and performance of the major energy using systems and their interaction with the building envelope, the climate and weather influences, usage patterns, and related environmental concerns;

(2) Appropriate energy conservation and water maintenance and operating procedures;

(3) Recommendations for the cost-effective acquisition and installation of energy conservation projects/measures, including conversion to or the use of solar and other renewable energy and water conservation measures;

(4) A strategy to implement the recommendations.



e. Cost effective: A means which provides a payback period of less than 10 years, as determined by using the methods and procedures developed pursuant to 42 USC 8254 and in Title 10 of the Code of Federal Regulations Part 436 (10 CFR 436).

f. Demand side management: Utility-sponsored programs that increase energy efficiency and water conservation by users and consumers, or the management of demand. The term includes load management techniques, such as load shedding during periods of peak demand (see explanation of term, below), and rate incentives for improving insulation and/or installing electronic controls which reduce demand.

g. Energy audit/survey: A determination, normally by physical inspection of a facility, of the energy consumption characteristics of an existing Federal (agency) facility, including the size, type, rate of energy consumption, identification of the major energy using system(s) of such facility, and the climate characterizing the region where such building or facility is located. As stated, an audit/survey normally involves a physical inspection of the building or facility, a review of building or facility records, and a quantification of potential energy savings (including cost savings) by implementing revised maintenance and/or operating procedures or cost-effective projects. Examples of procedure changes and energy saving projects include installation of high efficiency lighting, installing set-back thermostats in heated and air conditioned spaces for energy reductions when the spaces are not occupied, and installing motion detectors on room lighting so that the lights are automatically turned off when the room is unoccupied. Audits or surveys are generally categorized as either walk-through/limited or indepth.

(1) Walk-through--This type of audit or survey would be performed by a qualified and experienced energy specialist who would determine the types of energy savings projects or activities which would be beneficially undertaken at any particular building or facility and would make rough estimates or calculations of energy and cost savings that could be expected as a result of identified projects or procedure changes. Some actual energy consumption would be taken in the course of the audit/survey although limited in detail or refinement. This type of survey might precede more indepth audits or surveys by helping to prioritize them according to approximate savings that may be realized between undertaking different projects or making improvements to different buildings/facilities. (See also the explanation of term "Prioritization surveys," below.)

(2) Indepth--This type of audit or survey would involve a much more detailed analysis of energy consumption in a building or facility than would be performed in the previously described audit/survey. Measurements of consumption would be more localized and precise. Calculation factors of all types would be more accurately measured. This type of audit or survey would be much more costly in terms of manpower invested in determining final results. However, the resulting cost-benefit analysis of energy savings practices and projects would be much more accurate and reliable than would be experienced under a more limited audit or survey. (See also the explanation of term "Comprehensive facility audit," below.)

h. Energy Coordinators (EC): A person responsible for the overall daily operations of Federal buildings and facilities as defined by the Energy Policy Act of 1992 (EPAAct) and Executive Order 12902. They are designated by the Directors of the FAA Technical Center (hereinafter "FAA Technical Center"), the FAA Aeronautical Center (hereinafter "Aeronautical Center"), and the manager of each regional Airway Facilities Division. Regional administrators may also designate EC's for the regional office and other regional non-Airway Facilities assigned buildings and facilities if FAA has the responsibility for energy management in those facilities and buildings as described in the EPAAct and EO 12902. Each Airway Facilities Systems Management Organization (SMO) may have one or more designated coordinators. Center directors may choose to designate more than one coordinator on some building or complex of buildings basis so that the ancillary duties associated with the designation are not overly burdensome to any one coordinator. Similar designations may be made by regional administrators. Coordinators should be trained and experienced managers of energy or receive the training necessary to ensure appropriate consideration, planning, and/or implementation of relevant conservation methods and practices. This position is equivalent to Facility Energy supervisor, as used in the EPAAct.

i. Energy efficiency: The maximum of net equipment cooling capacity in British Thermal Units per hour (BTU/hr) as compared to total rate of electric input in watts under designated operating conditions. For example, efficiency for a Heating Ventilation Air Conditioning system means the ratio of the useful energy output (at the point of use) to the energy input in consistent units for a designated time period. Energy efficiency incorporates the concept of maximum utilization of renewable energy resources which results in energy savings based upon a net reduction in the use of non-renewable energy resources subject to constraints on air, water, and land pollution from the use of renewables. Energy efficiency is quantified as energy consumption per gross square foot or energy consumption per metered process for industrial facilities.

j. Energy Intensiveness: The changes made to national energy policy by the EPAAct and EO 12902, describes energy consumption in a building or facility so much of which is devoted to the operation of systems or equipment for which energy consumption cannot be reduced that it would be impractical to reduce overall net energy consumption by the amount necessary to meet established energy reduction goals for that particular building/facility category.

k. Energy Managers (EM): (Referred to as "trained energy managers" in the EPAAct and EO 12902.) A person designated by and responsible to the Directors of the Technical Center and the Aeronautical Center and the Airway Facilities division manager in each region. Each center and region shall have an energy manager. The EM's work closely with the energy coordinators (EC) within their center or region providing guidance and assistance in various aspects of the energy management program. They are regarded as the top energy management technical personnel within the center or region. They are responsible for the maintenance of credible energy consumption and cost records at the center/regional level and are expected to conduct or arrange for the conduct of energy audits and surveys.

1. Energy Savings Performance Contracts (ESPC): Contracts that provide for the performance of services for the audit, design, acquisition, installation, testing, operation, and, where appropriate, maintenance and repair, of an identified energy or water conservation measure or series of measures at one or more locations by privately owned companies. The company's capital investments and profit are paid from a portion of the cost savings resulting from the reduction of energy or water consumption.

m. Federal building: Any individual building, structure, or part thereof, including the associated energy or water-consuming support systems, which is constructed, renovated, or purchased in whole or in part for use by the Federal Government and which consumes energy or water. In any provision of this order, the term "Federal building" shall also include any building leased in whole or in part for use by the Federal Government where the term of the lease exceeds 5 years and the lease does not prohibit implementation of the provision in question. In this order, the term "building" shall be interpreted to mean a Federal building, unless otherwise stated. Examples of FAA buildings which meet this definition are an FAA-owned air traffic control tower, an Airport Surveillance Radar (ASR) building, and the main headquarters building at the Aeronautical Center.

n. Federal facility: Any building or collection of buildings, grounds, or structures, as well as any fixture or part thereof, which is owned by the United States or any Federal agency or which is held by the United States or a Federal agency under a lease-acquisition agreement under which the United States or a Federal agency will receive fee simple title under the terms of such agreement without further negotiation. In any provision of this order, the term "Federal facility" shall also include any building leased in whole or in part for use by the Federal Government where the term of the lease, including renewals, exceeds 5 years and the lease does not prohibit implementation of the provision in question. In this order, the term "facility" shall be interpreted to mean a Federal facility, unless otherwise stated. Examples of FAA facilities which meet this definition are the complex of buildings, structures, and grounds at either the Technical Center or the Aeronautical Center; an Air Route Traffic Control Center including the complex of buildings, grounds, and structures; and a Remote Controlled Air Ground (RCAG) including the complex of buildings, grounds, and structures.

o. Franchising: The providing of the services of an agency's employees by that agency to other agencies on a reimbursable basis.

p. Gainsharing: Incentive systems that allocate some portion of savings resulting from gains in productivity to the workers who produce those gains.

q. Gross square feet: The sum of all heated or cooled floor area enclosed in a building calculated from the outside dimensions or from the centerline of common walls.

r. Industrial facilities: A term defined in EO 12902 as any fixed equipment, building, or complex for the production of goods that uses large amounts of capital equipment in connection with, or as part of, any process or system, and within which the majority of energy use is not devoted to the heating, cooling, lighting, ventilation, or to service the hot water energy load requirements of the building. (See also the explanation of term "Metered process," below.)

*NOTE: Meetings with DOE officials revealed that the literal definition in EO 12902 could be more broadly interpreted. In the first sentence the word "goods" could also be considered to mean "services." Also, the term "majority of energy use" could be misleading to the intent of the term Industrial facilities. The term was established to address a situation in the Department of Defense in which many buildings/facilities would have been considered "exempt" or excluded from energy reduction goals because of the high level of energy consumption attributed to the "production" equipment housed in the building/facility even though an overall reduction of at least 20 percent could reasonably be expected. The intent of the added building/facility category ("Industrial"- not in the EAct) in EO 12902 was to provide a set energy reduction goal (20 percent) for buildings and facilities which may otherwise have been considered as energy intensive and, therefore, have been exempted from set goals. Categorizing any FAA facilities/buildings as Industrial under an expanded interpretation would be considered voluntary. However, doing so may be advantageous to FAA officials responsible for energy management activities. Before doing so, an assessment of energy consumption must result in a determination that cost-effective energy conservation measures that may be taken can result in at least a 20 percent reduction in overall energy consumption by 2005 based on a 1990 energy consumption baseline.*

s. Landscaping: The modification or ornamentation of a natural terrestrial environment by altering the plant cover.

t. Life-cycle-cost (LCC) analysis: The set of calculations necessary to determine the total cost of owning, operating, and maintaining a facility or piece of equipment over its useful life, including the discounting of future cash flows to account for the time value of money. This includes its fuel/energy costs determined on the basis of a systematic evaluation and comparison of alternative building systems. The methodology for calculating life-cycle cost is set forth in 10 CFR 436.11.

u. Load shedding: The practice of turning off or reducing the power consumed by selected systems and equipment for short periods or otherwise shifting some or all of a facility's energy use off of the circuits provided by the local power company. This is accomplished at the request of or under the control of the power company. The purpose of load shedding is to manage generating capacity during peak power demand periods. Power companies will usually offer rebates or other cost incentives for customers that allow load shedding. Load shedding is the primary means of load management employed by utilities, and is considered part of overall demand side management.

v. Metered process: An activity whose energy consumption changes with its output and whose output is measurable. The energy usage is defined as units of energy usage per unit of output. The metered process definition is useful for industrial facilities or other situations where energy usage on per-gross-square-foot basis would be inappropriate to characterize the primary mode of operation. (Also see the explanation of term "Industrial facilities," above.)

w. Non-renewable energy sources: Those sources which are available in limited amount. This definition includes fuel oil, gasoline, liquefied petroleum gas, coal, natural gas (including purchased steam or electricity generated from such resources), and other finite resources used in energy production.

x. Prioritization survey: A rapid assessment that will be used by an agency to identify those buildings and facilities with the highest priority energy and water savings projects based on the degree of cost effectiveness, and to prioritize the scheduling of comprehensive facility audits prior to energy and water savings project implementation. A prioritization survey includes information such as the following:

(1) The type, size, and energy and water use levels of the major energy and water using systems in place at the building or facility.

(2) The need, if any, for acquisition and installation of cost-effective energy and water conservation measures, including solar and other renewable energy resource measures, and the estimated cost and energy and water savings that may be expected from implementation of such projects.

y. Prototypical surveys or audits: A process by which the results and conclusions of a survey or audit of one (or more) building(s) or facility(ies) may be projected and applied to others of the same type, design, and construction without conducting surveys or audits of each such building or facility.

z. Renewable energy sources: Those sources which are available in a practically unlimited amount in the near term. This definition includes solar power, agriculture and urban waste, wind, geothermal power, hydroelectric power, biomass, and other regenerating resources used in energy production.

aa. Retrofit: To install into an existing agency building alternative energy and water providing systems and equipment, an alternative space-conditioning system that uses energy and water resources, or systems and equipment that regulate energy and water usage.

bb. Utility: Any firm, person, State, or agency that is engaged in the business of producing or selling electricity or engaged in the distribution of natural gas or water to any ultimate consumer.

6. **SCOPE.** This order implements agency actions required by Federal energy and water statutes, regulations, and directives, including but not limited to those contained in Appendix A, Related Publications. Appendix B contains the pertinent provisions of the Energy Policy Act of 1992 (EPAct) and Executive Order 12902 (EO 12902), both of which substantially revised Federal energy and water management requirements.

7. **APPLICABILITY.** The policy, procedures, and requirements of this order shall apply to all internal agency actions and activities, within statutory authority, which impact the construction, renovation, acquisition, maintenance, use, or related activity affecting Federal buildings or facilities, as defined in Section 1 of this order, which use or require energy as part of their function. This directive applies to all FAA organizations and activities which are responsible for the operation and maintenance of Federal buildings and facilities, as defined earlier, excluding those buildings and/or facilities built by non-FAA parties such as local airport sponsors. Even then, this directive applies to those buildings and facilities which the FAA leases or receives from those non-FAA parties and is responsible for their operation and maintenance. Energy consumption reporting and requirements for meeting set energy reduction goals are limited to those buildings and facilities for which energy consumption is separately identified and/or billed for payment. Energy consumption which is not separately identifiable, such as space leases which provide energy as part of the square footage lease charges, are excluded from the provisions of this directive. No requirement of this order shall be construed as to restrict or interfere with the safe and efficient operation of the National Airspace System.

8. **FUNDING.** Funding requirements for energy management related activities and projects resulting from the implementation of this order, and which are going to be paid for directly from FAA appropriations, shall be justified and requested in accordance with existing budgetary and fiscal processes. Responsible operating organizations and program offices shall include appropriate energy management related budgetary requirements in their fiscal planning cycle. Funding requirements for such activities and projects must be accomplished within overall resource allocations.

9. **AUTHORITY TO CHANGE THIS ORDER.** The Director of Environment and Energy (AEE) may issue changes to this order after coordinating the changes with the concerned organizational elements, including the Office of the Chief Counsel, providing:

- a. The change does not affect a delegation of authority or an assignment of responsibility outside a particular office's authority.
- b. The Administrator has not specifically reserved the authority to make the change.
- c. Substantial changes require that the concurrence of affected agency organizational elements be obtained.

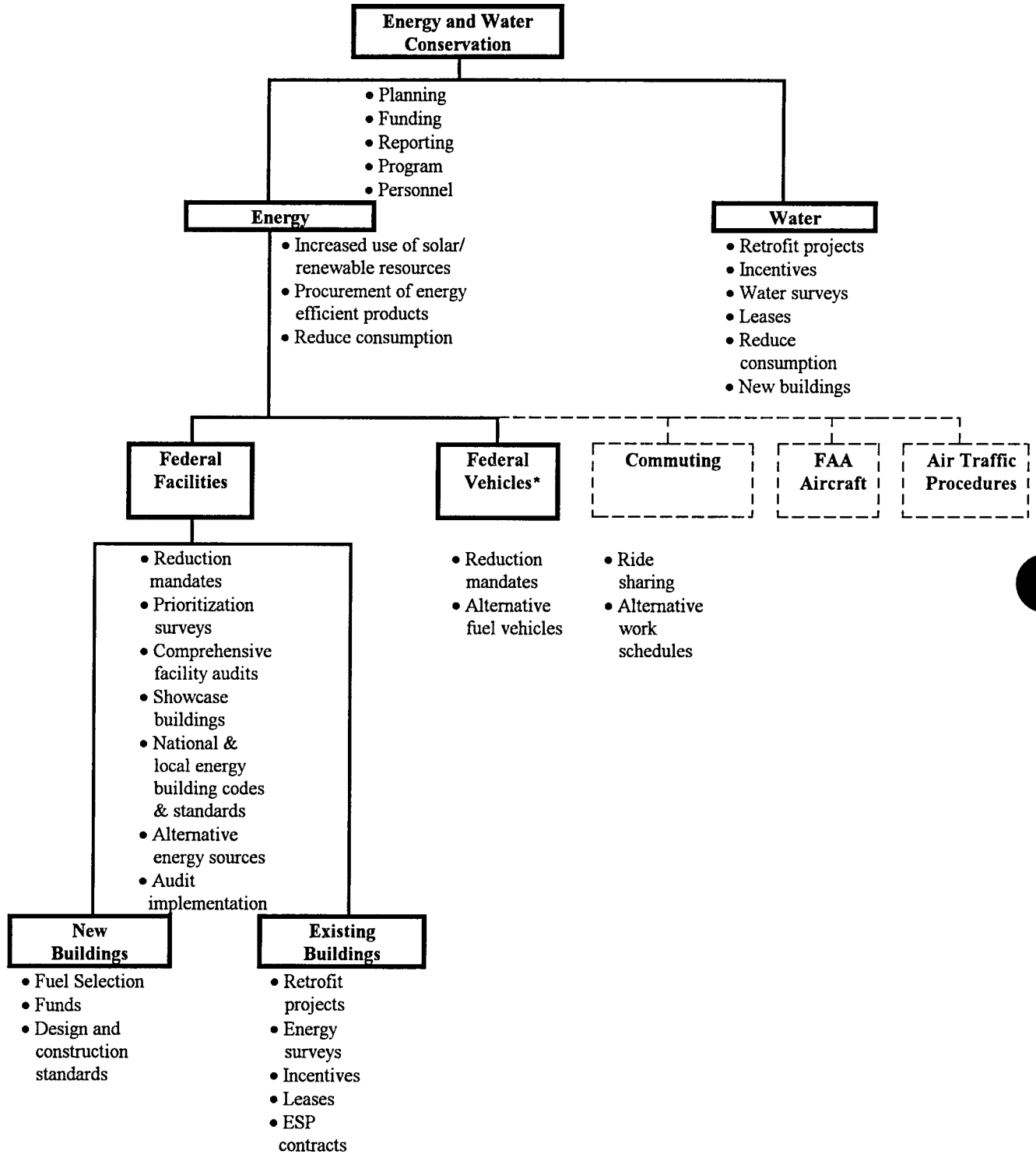
10. **ENERGY POLICY ACT OF 1992 AND EXECUTIVE ORDER 12902.** The pertinent provisions of the Energy Policy Act of 1992 (EPAcT) and Executive Order 12902 (EO 12902) are in Appendix 2 to this order. Figure 1-1, page 10, Summary of Key Federal Energy and Water Management Areas, also provides an overview of the key requirements of the energy and water management program areas, many of which were substantially revised by the EPAcT and EO 12902.

11. **WATER CONSERVATION.** The Energy Policy Act of 1992 and Executive Order 12902 both address the subject of water conservation. In addition, the issuance of the "Presidential Memorandum for the Heads of Executive Departments of Agencies Encouraging Environmentally and Economically Beneficial Practices on Federal Landscaped Grounds" advocates the implementation of water conservation techniques by the promotion and usage of native species in landscaping at Federal facilities. However, few specifics have been provided to date concerning water conservation procedures, practices, guidelines, goals, or objectives. Further clarification and amplification of these and other issues related to water conservation, specifically, are expected to be published at a later date. Therefore, while both the EPAcT and EO 12902 include generalized use of the term "water conservation," this directive at this time primarily addresses energy conservation and management. When more specific information and policy/procedural direction are received this directive will be changed to include them. Until then, water conservation measures are to be taken on a common sense basis with current understanding of any technologies involved, realizing the national objective is to conserve the use of the water resource as much as is practicable.

12. - 99. **RESERVED.**

Figure 1-1

SUMMARY OF KEY FEDERAL ENERGY AND WATER MANAGEMENT AREAS



Note: Dashed lines indicate areas not explicitly covered by the EAct or EO 12902.

\* All of FAA's Federal vehicle fleet is monitored by DOT.



## SECTION 2. IMPLEMENTATION

**100. POLICY.** FAA shall comply with the policies and procedures of national mandates set forth to reduce future energy and water demands, conserve the use of these resources, and promote their efficient use.

a. FAA policy is to integrate national energy and water policies, procedures, objectives, and goals into agency policies and mission goals, and to:

(1) Develop and implement an agency energy and water management program for Federal buildings and facilities, as defined previously, which will meet or exceed national energy and water conservation objectives.

(2) Develop long-range agency planning to identify and establish reasonable and practicable methods and measures for the conservation and efficient use of energy and water resources.

(3) Develop and support research and development programs to advance the state-of-the-art in improved and efficient energy and water use regarding FAA activities.

(4) Develop and demonstrate practical and innovative applications of the use of solar energy and other renewable energy sources in the heating, cooling, and other energy consuming features of FAA buildings and facilities. Promote the further use of renewable energy sources wherever practical and cost effective.

(5) Audit, monitor, evaluate, and compile data on the energy consumed by agency buildings and facilities. Before and after consumption data concerning implementation of energy conservation practices and measures must be established and maintained.

(6) Conduct studies and analyses relating to the agency's current and future energy demands, effective resource conservation measures, and resultant energy savings.

(7) Prepare and make available energy documents containing material and information which provide guidance, methodologies, and procedures in achieving the energy conservation objectives of the agency while also complying with national objectives.

(8) Minimize requests for and use of exclusions from Federal energy mandates. It is the agency's intention to require all facilities to meet conservation requirements unless an exclusion request can be justified by the FAA organization responsible for the building or facility. If careful analysis indicates that the consumption of energy in buildings and/or facilities can meet the 20 percent or 30 percent reduction goals by 2005 through implementation of cost-effective conservation projects or measures, a request for exclusion or exemption should generally not be made on the basis of energy intensiveness or the impracticability of meeting energy reduction goals.

b. FAA energy coordination and consultation process shall include:

(1) An exchange of energy management related information with Federal, state, and local authorities, and other interested groups or individuals to provide a background and understanding of planned or proposed agency energy conservation and efficiency measures and to learn of conservation measures taken by others which may be of value to FAA's objective of reducing energy consumption and cost.

(2) Assurance that agency decisionmaking includes, where appropriate, energy assessments and evaluations directed to conserve demands on those resources and to provide for their efficient use.

c. FAA shall, in annual budget submissions to Congress, identify funds requested for energy conservation improvements of buildings or facilities which the agency owns, operates, manages, or leases, where the FAA pays utility bills separate from the lease and the FAA operates the leased space. To the maximum extent practicable, the initial costs of building construction or renovation attributable to capital equipment for energy conservation or the utilization of solar energy and other renewable energy resources shall be identified and scheduled for the fiscal year.

d. FAA energy and water policies shall be consistent with agency policies established under other statutes, directives, or regulations.

**101. GOALS.** FAA, through the planning, coordination, and implementation of agency energy and water policies and programming, shall seek to achieve or exceed national objectives in the conservation and efficient use of energy, water, and renewable or non-renewable energy resources in its buildings and facilities. Quantitative goals have been set by the EAct of 1992 and EO 12902. The EAct, while containing many provisions, basically requires that energy consumption in Federal buildings that do not meet an "exclusion" or "exempted" criteria be reduced 10 percent by FY 1995 and 20 percent by FY 2000 based on an energy consumption per square foot baseline established for FY 1985. "Excluded" or "exempted" facilities are those for which the FAA Administrator finds that it would be impractical for such facilities to be brought into compliance with the established energy reduction goals. EO 12902, signed on March 8, 1994, added another energy consumption reduction goal – a reduction of 30 percent by FY 2005 based on the 1985 baseline. The EO also added a category of energy consumption termed "industrial" for which different reduction goals are given--20 percent by FY 2005 based on an energy consumption per square foot baseline established for FY 1990. The categorization of FAA buildings and facilities or the submission of requests for exclusion or exemption from the reduction goals in the EAct and EO 12092 will be accomplished by the organization responsible for the maintenance and operation of those spaces. Responsible organizations include, but are not limited to, Airway Facilities, the Technical Center, and the Aeronautical Center.

**102. ENERGY AND WATER SURVEYS OR AUDITS.** An energy and water survey or audit shall be conducted and made an integral part of the planning and implementation of agency actions that impact the use and requirement for energy by the FAA, in all buildings and facilities which it owns, operates, manages, or leases, where the Government pays utility bills separate from the lease, and the Government operates the leased space. Order 1050.1D, Policies and Procedures for Considering Environmental Impacts, requires that energy and water also be considered in the development of environmental assessments prepared for Federal buildings or facilities as defined in that order. Therefore, the requirements of this order, as well as Order 1050.1D (or its subsequent revisions), govern the energy and water surveys or audits prepared for such agency actions.

a. A principle purpose of the energy survey or audit is to ensure that energy use, its conservation, and efficient use of alternative resources are considered along with other pertinent factors in the planning, writing of specifications, designing, and decisionmaking processes. Energy surveys or audits are specifically required for the construction or remodeling of Federal buildings and facilities to ensure that appropriate energy conservation methods are applied, that the life-cycle cost-effective energy conservation measures are installed where technologically feasible, and that building energy performance standards, as promulgated by DOE and other agencies, are satisfied.

b. Energy surveys or audits shall be performed, as deemed necessary and appropriate, for existing buildings and facilities that FAA owns, operates, manages, or leases, where the Government pays utility bills separate from the lease and the Government operates the leased space, including those used for air traffic control and/or navigation functions. Energy surveys or audits may be accomplished in conjunction with, or in the context of, environmental assessments or regularly scheduled plant inspections. Such surveys or audits will include the identification of potential cost-effective monetary and utility savings. A major purpose of energy surveys or audits is to determine whether cost-effective measures and/or projects can be identified and implemented to reduce overall energy consumption on a volume of space basis over the building's or facility's expected life cycle considering expected utility rates as well. Also, the cost effectiveness of using or converting to renewable energy sources, on a life-cycle basis, must be considered. Audit or survey results can be used in determining the priorities for implementation of conservation measures and/or projects that have been identified.

**103. GENERAL ENERGY MANAGEMENT PROCEDURES.**

a. The FAA's energy management planning efforts support the achievement of Federal mandates and agency policies. Careful planning, program development, and implementation is essential to achieving goals. A national energy management plan reflecting the provisions of this directive shall be developed, maintained, tracked, and updated. That plan shall specify the actions required to achieve the energy management policy objectives of the FAA at the national level and the responsibilities of various FAA organizations for implementation. This directive establishes the framework for ensuring that appropriate actions are coordinated and carried out agencywide.

b. Responsible organizations shall develop, maintain, track, and update energy consumption monitoring, conservation, and project/action implementation programs. These programs shall detail the actions required to achieve the energy management objectives of this policy. Officials within headquarters, the regions, or centers responsible for implementation of the overall energy management program as identified in this directive shall identify internal policies, practices, procedures, subordinate organizations, and positions assigned responsibilities for various program functions, such as coordinators or managers.

c. Not later than January 1, 2005, the FAA shall, to the maximum extent practicable, install in the Federal buildings that it owns all energy and water conservation measures with payback periods of less than 10 years. This requirement may be waived if the Secretary of Energy finds that the FAA is taking all practicable steps to meet this requirement and that this requirement would pose an unacceptable burden upon the FAA.

d. Funding and other resource requirements resulting from the implementation of this directive shall be justified and requested in accordance with the existing budgetary and fiscal processes. Additionally, non-traditional sources of funding for energy savings measures are available, including:

(1) An amount equal to 50 percent of the energy cost savings realized by the FAA [including financial benefits resulting from energy savings performance contracts (ESPC) and utility energy efficiency rebates] may remain available for expenditure by the FAA for additional energy efficiency measures which may include related employee incentive programs, particularly at those facilities at which energy savings were achieved. *(Note: Accounting/financial management procedures are not yet in place to accommodate this provision at the published date of this directive. When those procedures are established, AEE will provide notification accordingly.)*

(2) The Federal energy efficiency fund, as subject to appropriation and as administered by the Department of Energy, provides grants to agencies to assist in meeting Federal mandates. Grants for particular projects are competitive based on factors including cost effectiveness, amount of energy and cost savings anticipated, agency funding committed, and leveraging of non-Federal funds.

e. Accurate reporting is essential in assessing progress in meeting goals and to pinpoint areas of concern. The agency is required to report energy consumption and cost data by type of energy used on an annual basis. The agency also reports on the status of meeting mandated consumption reduction goals and redefinition of baseline numbers, as required. Additional upward reporting of program activities include: identified opportunities for use and implementation of ESPC; use of incentive programs provided by utilities; and other such energy management related activities. In general, the information described is to be provided to AEE by the designated energy conservation coordinators and managers through those organizational officials who have responsibility for compliance with the EPAct and EO 12902.

f. To the extent practical and cost effective, energy consumption for buildings and facilities shall be metered separately and individually. The installation of additional meters may be required. For different organizations sharing space and/or energy consumption, it is acceptable to pro-rate usage for conservation management and reporting requirements.

#### **104. NEW FEDERAL BUILDING ENERGY MANAGEMENT PROCEDURES.**

a. Each FAA organization that has responsibility for any aspect of the design and/or construction of FAA buildings and facilities shall ensure that the design and construction of such buildings and facilities are in compliance with EO 12902, Sec. 306. Among other requirements, they must meet or exceed the energy performance standards applicable to Federal residential or commercial buildings as set forth in 10 CFR 435 or local building standards, whichever will result in a lower life-cycle cost over the life of the building or facility. The referenced 10 CFR 435 specifies the national energy code for new buildings.

b. Effective fuel selection in the facility planning phase is critical in ensuring future availability of energy to meet anticipated demands and in obtaining the lowest life-cycle cost. Criteria that are included in evaluating which fuel to use include local weather conditions and availability and reliability of local supplies. FAA shall also reduce the use of petroleum in its buildings and facilities by switching to less-polluting and non-petroleum-based energy sources, such as natural gas or solar power and other renewable energy sources, where practical and cost effective. FAA shall strive to improve the efficiency with which it uses petroleum-based energy. 10 CFR 503.6, "Cost Calculations for New Powerplants and Installations," provides guidance for making these determinations.

#### **105. EXISTING FEDERAL BUILDING ENERGY MANAGEMENT METHODS.**

a. Prioritization surveys and comprehensive facility audits are an integral part in the development and updating of energy management plans and programs. They result in data which serves to assist in making decisions about resource priorities, identify potential consumption reduction projects, and justify budgetary requests and other program management activities essential in an effective energy conservation program. Life-cycle cost and payback period calculations are based upon the methodology contained in 10 CFR 436, Subpart A.

b. Prioritizing retrofit or energy conservation projects is normally based on the comparative cost effectiveness and length of time required for the savings derived from a project to payback the initial investment costs as compared to other such projects. However, other factors may influence prioritization. Funding availability is a consideration--funding may be available to accomplish a lower cost project even though that project may not have as short a payback period as other more costly projects.

An energy conservation project may have a significantly lower initial cost if it is accomplished in conjunction with other remodeling or upgrading projects that may or may not be related to energy conservation at all. For instance, the installation cost of an automated control system may be much lower if it occurs concurrently with the replacement of other heating, ventilation, or air conditioning components rather than being installed separately at a different time.

c. Energy conservation projects are to be identified and undertaken for leased facilities where FAA pays the utility bills if the term of the lease, including renewals, is 5 years or more. Officials who are responsible for operating and/or maintaining the facility/space and are responsible for energy consumption should contact real property specialists in their organizations for guidance and assistance concerning the procedures to be followed for making any investments which may be necessary to realize energy conservation. Payback period calculations for determining the cost effectiveness of proposed energy conservation projects is the same for leased facilities/space as owned facilities. Leasing agreements may need to be changed to include provisions for cost recovery of energy conservation project investments in the event the lease is terminated prior to the end of the projected payback period. Again, real property specialists will provide guidance and assistance in dealing with all such matters concerning leased facilities/space.

d. Energy savings performance contracts (ESPC) offer the FAA an opportunity to reduce energy consumption and costs by utilizing private sector experts and investments in the field of energy conservation. These experts assume the cost risk by tying their repayment of capital and labor investments (plus profit) to the savings achieved. ESPC's are to be pursued as an effective method of meeting energy consumption reduction goals and objectives when agency appropriated funding is not available nor expected to be available in a reasonable timeframe, even though accomplishment of the projects to be included in ESPC's would be more cost effective if undertaken directly with appropriated funds.

e. Incentive programs offered by utilities are another means of reducing energy costs. Utilities are excluded from prohibiting Federal agencies from participating in demand side management and incentive programs that are offered to similar non-Government customers or facilities. Utility companies often provide free services, including inspections or audits of utility use. Power companies often will reduce rates charged if an agreement is made for the user to load shed when the power company is facing peak demand situations. Power companies may also offer cash incentives for the implementation of, or will share the cost of implementing, certain types of energy reduction measures including electronic controls, insulation, and other demand side management measures. There are many differences from one utility company to another. Some offer incentives; others may not. Energy managers and coordinators are to contact local utility company officials to determine whether any such incentives are offered and, if so, whether they are appropriate for use.

**106. ENERGY MANAGEMENT AT OTHER THAN FEDERAL BUILDINGS.**

a. Commuting and Vehicles--Procedures that may be used in support of Department of Transportation (DOT) program goals in the area of commuting include transit benefit programs, separate carpool parking spaces, work-at-home programs, and flexible scheduling when possible. New alternative fuel vehicle acquisitions to the Federal fleet are to rise to the level of 70 percent of the agency fleet within FY99.

b. Aircraft--Efforts to maximize the conservation of energy and water should be implemented when and wherever feasible, such as in refueling procedures and ground maintenance methods.

c. Air traffic control procedures--Energy and water resources are better managed and conserved when air traffic control procedures consider resource management a component to be evaluated with all others in the development of traffic routing and similar procedures.

**107. HISTORICAL BUILDINGS OR FACILITIES.** Proposed energy and water conservation projects that may affect historical buildings or facilities, or buildings or facilities located in historical districts, are subject to review under Sec. 106 of the National Historic Preservation Act, codified at 36 CFR part 800. If the energy or water conservation project may affect buildings or facilities that are 50 years old or older, are less than 50 years old and of possible exceptional historical value, or are located in a historical district, consult with the FAA Federal Preservation Officer located in the Office of Environment and Energy for assistance.

**108. STATE AND LOCAL GOVERNMENT REQUIREMENTS.** It is the policy of the FAA to support, and comply with wherever reasonably feasible, all state, regional, and local government requirements regarding energy and water conservation and management as they pertain to Federal buildings or facilities.

**109. - 199. RESERVED.**





## CHAPTER 2. RESPONSIBILITIES

**200. GENERAL.** Agency officials and personnel, as specified in this section, are responsible for: implementing this directive; developing supplemental energy and water management policy guidance; complying with energy and water conservation laws, policies, and procedures; and ensuring that energy and water management programs involving or affecting activities under their authority are properly managed and successfully executed. This section details responsibilities for energy and water management program areas and is arranged by responsible party. The responsibilities are derived from the policies set forth in Appendix B and explained in Chapter 1, and incorporate the requisite processes for accomplishing the goals established in those policies.

**201. ALL FAA PERSONNEL.** All FAA personnel are responsible for:

a. Securing and turning off energy consuming systems and equipment under their personal control when not in use. Such systems and equipment include lights, fans, personal computers, personal printers, calculators, and other devices that do not impact the operations of other employees and that require minimum start-up time.

b. Securing and turning off appropriate common systems and equipment at the end of the work day such as lighting, coffee pots, kitchen appliances, and copiers.

c. Supporting agency energy and water conservation measures and management programs.

**202. AGENCY EXECUTIVES, MANAGERS, AND SUPERVISORS** shall include accomplishment of conservation goals and objectives in performance standards of those individuals assigned primary responsibility for meeting energy and water conservation goals throughout all applicable FAA-owned or leased buildings and facilities. Also, they shall take affirmative action to foster and encourage all FAA employees to incorporate energy and water conservation measures into their everyday work activities.

**203. ASSISTANT ADMINISTRATOR FOR POLICY, PLANNING, AND INTERNATIONAL AVIATION (API)** shall ensure appropriate development and management of the agency's energy and water conservation policies and programs.

a. Office of Environment and Energy (AEE) shall:

(1) Act as the agency focal point for energy and water conservation management efforts in compliance with applicable Federal statutes and regulations, prepare energy policy, and assist with developing action plans and programs for organizational implementation of this order.

(2) Consult with and advise agency officials on the implementation of this directive.

(3) Represent the agency on committees and working groups concerned with aviation-related energy and water conservation issues.

(4) Promote and recommend energy and water conservation awards, incentives, and training programs in coordination with other responsible agency elements.

(5) Assemble and maintain agency energy and water management data, prepare agency energy and water management reports, and conduct oversight/evaluations of the energy and water program.

(6) Coordinate Federal aviation energy and water management issues with internal FAA focal points of contact and with other governmental agencies, industry, and interested members of the public.

(7) Review and process for the Administrator's signature requests for exempting or excluding certain buildings and/or facilities from energy reduction goals established by the EPAct and/or EO 12902 submitted by organizational elements responsible for those buildings and/or facilities.

**204. ASSOCIATE ADMINISTRATOR FOR AIR TRAFFIC SERVICES (ATS)** shall ensure implementation of the agency's energy management policies and programs as well as compliance with the requirements of the Energy Policy Act of 1992 (EPAct) and Executive Order 12902 dated March 1994, departmental and agency directives concerning energy conservation, and other relevant laws and regulations throughout the parent and subordinate organizations. Specific responsibilities include, but are not limited to the following:

a. Airway Facilities Service (AAF) is responsible for energy conservation-related measures including, but not limited to, the following:

(1) Developing and implementing a national AAF Energy Conservation Program which will ensure compliance with the EPAct, EO 12902, departmental and agency policies and practices, and other applicable energy management laws and regulations throughout the AAF organization at all levels covering all buildings and facilities for which AAF has maintenance and operations responsibilities.

(2) Developing procedures and requirements to ensure that all feasible and cost-effective measures to conserve energy are applied in the maintenance and operation of AAF buildings and facilities.

(3) Ensuring that properly trained and experienced energy conservation managers (EM) and energy coordinators (EC) are designated appropriately in each regional AF Division.

(4) Ensuring that new construction and leases of buildings and facilities under the purview of AAF's authority are in compliance with EO 12902, Sec. 306; providing orientation or training for AAF personnel involved in new construction and leasing of buildings and facilities concerning the requirements of EO 12902, Sec. 306 and 10 CFR 435.

(5) Ensuring regional AAF energy managers provide support as may be required to other regional organizational elements concerning regionwide energy conservation compliance activities.

(6) Coordinating with state and local authorities to ensure state and local requirements are met concerning AAF's buildings and facilities.

(7) Establishing appropriate budgetary and financial management procedures which ensure that agencywide energy conservation compliance requirements are adequately planned and supported; ensuring that allocations distributed for energy requirements from environment/energy/safety CIP funds are balanced between regions, the Technical Center, and the Aeronautical Center.

(8) Initiating pro-active measures to use or convert to using renewable and non-petroleum energy sources in AAF buildings and facilities wherever practical and cost effective on a life-cycle basis.

(9) Seeking opportunities for using Energy Savings Performance Contracts to reduce energy consumption in AAF buildings and facilities when Government funding for energy consumption reduction projects is not or may not be available on a timely basis.

(10) Maintaining energy consumption records and ensuring compliance with energy conservation program upward reporting requirements for AAF buildings and facilities, equipment, and FAA vehicles.

(11) Submitting requests with justification to exempt or exclude certain buildings and/or facilities from established energy reduction goals.

**205. ASSOCIATE ADMINISTRATOR FOR RESEARCH AND ACQUISITIONS (ARA) shall ensure implementation of the agency's energy and water management policies and programs as well as compliance with the requirements of the Energy Policy Act of 1992 and Executive Order 12902 dated March 1994, departmental and agency directives**

concerning energy and water conservation, and other relevant laws and regulations throughout the parent and sub-ordinate organizations.

a. Associate Administrator for Research and Acquisitions' specific responsibilities include, but are not limited to:

(1) Ensuring that buildings, facilities, systems, and equipment acquired for use by the FAA contain state-of-the-art cost-effective energy efficient design features.

(2) Ensuring that new construction and leases of buildings and facilities under the purview of ARA's authority are in compliance with EO 12902, Sec. 306; providing orientation or training for ARA personnel involved in new construction and leasing of buildings and facilities concerning the requirements of EO 12902, Sec. 306 and 10 CFR 435.

(3) Developing and publishing, for use by agency personnel, policies and guidelines to be followed in the development of specifications for the acquisition of new buildings, facilities, systems, and equipment which will ensure maximum cost-effective energy consumption efficiencies.

(4) Establishing guidelines for federally owned facilities operated by contractors and subcontractors in conjunction with guidance provided by the Federal Acquisition Regulatory Council.

b. Technical Center (ACT) is responsible for ensuring compliance with the EPAct, EO 12902, and other applicable energy and/or water conservation laws, regulations, and policies in all Technical Center buildings and facilities. ACT shall designate an Energy Manager and as many Energy Coordinators as are deemed necessary to implement and carry out an effective energy management program. ACT will ensure coordination with tenant organizations to gain support for energy conservation program objectives in the conduct of their mission objectives. Specific responsibilities include, but are not limited to:

(1) Developing procedures and requirements to ensure that all feasible and cost-effective measures to conserve energy are applied in the maintenance and operation of Technical Center buildings and facilities.

(2) Ensuring that designated energy managers (EM) and energy coordinators (EC) are properly trained and experienced.

(3) Ensuring that new construction and leases of buildings and facilities under the purview of ACT's authority are in compliance with EO 12902, Sec. 306; providing orientation or training for ACT personnel involved in new construction and leasing of buildings and facilities concerning the requirements of EO 12902, Sec. 306 and 10 CFR 435.

(4) Ensuring that the Technical Center energy conservation manager and coordinators provide support as may be required to other Technical Center organizational elements concerning energy conservation compliance activities.

(5) Coordinating with state and local authorities to ensure state and local requirements are met concerning Technical Center buildings and facilities.

(6) Establishing appropriate budgetary and financial management procedures which ensure that Technical Center energy conservation compliance requirements are adequately planned and supported.

(7) Taking pro-active measures to use or convert to using renewable and non-petroleum energy sources in Technical Center buildings and facilities wherever practical and cost effective on a life-cycle basis.

(8) Seeking opportunities for using Energy Savings Performance Contracts to reduce energy consumption in Technical Center buildings and facilities when Government funding for energy consumption reduction projects is not or may not be available on a timely basis.

(9) Maintaining energy consumption records and ensuring compliance with energy conservation program upward reporting requirements for Technical Center buildings and facilities.

(10) Submitting requests with justification to exempt or exclude certain buildings and/or facilities from established energy reduction goals.

**206. ASSOCIATE ADMINISTRATOR FOR ADMINISTRATION (AAD)** shall ensure implementation of the agency's energy and water management policies and programs as well as compliance with the requirements of the Energy Policy Act of 1992 and Executive Order 12902 dated March 1994, departmental and agency directives concerning energy and water conservation, and other relevant laws and regulations throughout the parent and subordinate organizations.

a. Regional Administrators are responsible for the designation of energy coordinators, as deemed necessary, where there are non-Airway Facilities buildings and facilities within the region which are covered by the EPA Act and EO 12902. In such event, the regional administrator shall ensure compliance with them and other applicable laws, rules, regulations, and policies concerning energy conservation, and the requirements of this directive. Additionally, the regional administrator will actively support the energy conservation program throughout the region, including the encouragement of the regional staff under his direction to participate in program activities to the degree possible. Logistics/contracting personnel shall be encouraged to work with technical personnel in

the region to implement identified and worthy Energy Savings Performance Contracts. Regional administrators will ensure that new leases of buildings and facilities within the region are in compliance with EO 12902, Sec. 306 (b); and will ensure that orientation or training is provided concerning the requirements of EO 12902, Sec. 306 (b) for regional contracting and real property specialists involved in the leasing of buildings and facilities.

b. Aeronautical Center (AMC) is responsible for ensuring compliance with the EAct, EO 12902, and other applicable energy and/or water conservation laws, regulations, and policies in all Aeronautical Center buildings and facilities. AMC shall designate an Energy Manager and as many Energy Coordinators as are deemed necessary to implement and carry out an effective energy management program. AMC will ensure coordination with tenant organizations to gain support for energy conservation program objectives in the conduct of their mission objectives. Specific responsibilities include, but are not limited to:

(1) Developing procedures and requirements to ensure that all feasible and cost-effective measures to conserve energy are applied in the maintenance and operation of Aeronautical Center buildings and facilities.

(2) Ensuring that designated energy managers (EM) and energy coordinators (EC) are properly trained and experienced.

(3) Ensuring that new construction and leases of buildings and facilities under the purview of AMC's authority are in compliance with EO 12902, Sec. 306; and providing orientation or training concerning the requirements of EO 12902, Sec. 306 and 10 CFR 435 for AMC personnel involved in new construction and leasing of buildings and facilities.

(4) Ensuring that the Aeronautical Center energy manager and coordinators provide support as may be required to other Aeronautical Center organizational elements concerning energy conservation compliance activities.

(5) Coordinating with state and local authorities to ensure state and local requirements are met concerning Aeronautical Center buildings and facilities.

(6) Establishing appropriate budgetary and financial management procedures which ensure that Aeronautical Center energy conservation compliance requirements are adequately planned and supported.

(7) Taking pro-active measures to use or convert to using renewable and non-petroleum energy sources in Aeronautical Center buildings and facilities wherever practical and cost effective on a life-cycle basis.

(8) Seeking opportunities for using Energy Savings Performance Contracts to reduce energy consumption in Aeronautical Center buildings and facilities when Government funding for energy consumption reduction projects is not or may not be available on a timely basis.

(9) Maintaining energy consumption records and ensuring compliance with energy conservation program upward reporting requirements for Aeronautical Center buildings and facilities.

(10) Submitting requests with justification to exempt or exclude certain buildings and/or facilities from established energy reduction goals.

**207. CENTER AND REGIONAL ENERGY MANAGERS (EM).** Energy Managers will be designated at the Aeronautical Center, the Technical Center, and in the Airway Facilities Division of each region. They are the principal technical experts for energy conservation activities in each of those organizations. As such, they are responsible for providing the center director or regional AAF division manager the programmatic support and counsel necessary to ensure organizational compliance with and support for the EP Act, EO 12902, and the policies and procedures in this or other relevant agency directives. They shall either be trained and experienced energy managers, as defined in EO 12902, and have demonstrated proficiency in the areas of fundamentals of building energy systems, building energy codes and applicable professional standards, energy accounting and analysis, life-cycle cost methodology, fuel supply and pricing, and instrumentation for energy surveys and audits, or shall receive the training necessary to ensure professional competence in relevant conservation methods and practices. They shall also receive training, as deemed necessary, to superintend successfully the center or regional energy management program pursuing energy efficiency, energy conservation, and identifying opportunities for the use of alternative renewable energy sources focusing on implementing projects which are cost effective.

Their specific responsibilities shall include, but are not limited to, the following:

- a. Ensuring that Energy Coordinators (EC) schedule and carry out required prioritization surveys and audits.
- b. Assisting EC's in conducting or arranging for surveys and audits as may be required. Identifying cost-effective energy conservation projects including required payback calculations.
- c. Developing and maintaining center/regional survey and audit schedules, the 10-Year Audit Plan, prioritized lists of conservation projects, budgetary requirements, lists of conservation accomplishments, and other program data as may be required for overall program compliance.

d. Maintaining credible energy consumption and cost records at the center/ regional level, and reviewing periodically pertinent energy cost and consumption records [Energy Management Reporting System (EMRS) for the AF organization] to ensure accuracy. Initiating or taking corrective action as necessary. Assisting subordinate organizations (if any) in the understanding and use of energy consumption/conservation records and management tools.

e. Reporting center or regionally consolidated energy consumption data required for upward reporting to FAA headquarters organizations and providing related information.

f. Coordinating energy conservation matters between organizational elements in the regions/centers as necessary.

g. Providing budgetary and financial management support as required concerning the identification and justification of energy conservation projects. Maintaining center/regional control over allocations for energy conservation projects.

h. Establishing lines of working level communications with EC's and the heads of organizations to which EC's are assigned to facilitate overall program accomplishment, and providing guidance and assistance to EC's in various aspects of the energy management program.

**208. CENTER AND REGIONAL ENERGY COORDINATORS (EC).** Energy Coordinators may be assigned within subordinate organizations by center directors, regional administrators, regional AF division managers, and other agency officials who have building/facility energy management responsibilities. Such coordinators shall be responsible for the installation, operation, maintenance, and management of energy systems and facilities for the specified buildings and facilities assigned to them. EC's have functions and responsibilities much the same as those of EM's, except they are limited to a sub-organizational level.

Energy coordinators shall either be trained energy managers, or shall receive necessary training in order to ensure professional competence in relevant conservation methods and practices, as delineated by this directive. Specific responsibilities shall include, but are not limited to:

a. Conducting, arranging, or participating in prioritization surveys, walk-through audits/surveys, and comprehensive audits on an individual building/facility basis, as well as perform payback calculations, as deemed appropriate, and cost-benefit analysis for energy savings projects, and developing prioritized lists of retrofit projects.



b. Developing, updating, and retaining in auditable form energy cost and consumption records and by using the Energy Management Reporting Systems (EMRS) or some other equivalent agency-sanctioned reporting tool. They shall maintain facility energy records, and shall report energy consumption and related information.

c. Fostering and actively supporting an energy awareness program within the organization to which assigned as EC.

d. Providing full technical support within the subordinate organization for all matters pertaining to the energy conservation program.

**209. - 299. RESERVED.**



### CHAPTER 3. ENERGY MANAGEMENT PLANNING AND REPORTING

**300. GENERAL.** FAA shall develop comprehensive energy planning to achieve national objectives and agency policies in the use and conservation of aviation-related energy resources associated with Federal buildings and/or facilities. Planning shall include those intended actions, alternatives, means, and measures which, if implemented, could reduce energy demands, improve the efficient use of energy required, and, in total, meet or exceed the national energy conservation goals, while ensuring to the maximum extent possible the continuing safe and effective operation of the National Airspace System.

**301. FACILITY PLANNING.** Pursuant to the provisions of EO 12902, the FAA organizations which have responsibility for the maintenance and /or operation of Federal buildings and/or facilities that are covered by the provisions of the EPOA of 1992 and EO 12902 shall develop and implement a 10-year plan (1996 to 2005) to conduct or obtain required comprehensive facility audits based on prioritization surveys. The plan shall be developed in accordance with the regulations, procedures, and guidance set forth by the Departments of Energy and Transportation, and include the means and measures by which the organization will, to the maximum extent practicable, meet the Federal facility survey and audit mandates and the corresponding energy conservation requirements established by Congress and the President, as set forth in previous sections of this order. The Office of Environment and Energy will review the plans described above for adequacy and compliance. AEE will compile and formulate the agency's 10-Year Plan based upon the input plans from those organizations.

**302. - 349. RESERVED.**



**350. ANNUAL ENERGY CONSUMPTION REPORTING.** Since 1974, the agency has been required to submit Energy Management Data Reports. This requirement is expected to continue for the indefinite future, and to expand gradually to incorporate the corresponding data for water consumption. In addition to energy consumption comparative data, other energy usage information may be required to be included in the annual report. AEE-300 will notify reporting elements of expanded requirements as necessary, and will provide the forms to be used for reporting purposes.

a. Energy Categories. The following energy categories are used:

(1) Building and Facility Operation. This category includes the energy consumed by all FAA occupied buildings or facilities, including standby generator fuel. Do not include buildings controlled and operated by GSA. The reporting categories are:

- (a) Electricity (megawatt hours).
- (b) Fuel oil (thousands of gallons), any oil, including diesel when burned as fuel or used in generators.
- (c) Natural gas (thousands of cubic feet).
- (d) Propane or liquefied petroleum gas (thousands of gallons).
- (e) Gasoline (thousands of gallons) includes all used for heating or as generator fuel.

(2) Vehicle and Equipment Operation. All vehicles under the control of the FAA. Include assigned automobiles, fire trucks, snow plows, snow cats, and other similar vehicles. Do not include GSA vehicles, rentals, or private vehicles.

(3) Aviation Fuel. Fuel consumed by FAA aircraft and under the aircraft rental program are included.

- (a) Aviation Jet Fuel (thousands of gallons).
- (b) Aviation Gasoline (thousands of gallons).

**351. - 399. RESERVED.**



**APPENDIX 1. RELATED PUBLICATIONS**

1. **PURPOSE.** This appendix is referred to in Chapter 1 and lists the publications that include Federal mandates and amplifying instructions concerning energy and water management.
2. **PUBLICATIONS.** The related publications are:
  - a. Energy Policy and Conservation Act of 1975 (42 USC 6201). Establishes a Federal energy conservation program and requires the development of a 10-year plan for energy conservation with respect to Federal buildings.
  - b. National Energy Conservation Policy Act of 1978 (NECPA) (42 USC 8251-8261). Defines the applicability of the Federal energy management program and establishes requirements for demonstration of solar energy in Federal buildings, energy audits, life-cycle-cost analyses, and retrofitting of Federal buildings.
  - c. Powerplant and Industrial Fuel Use Act of 1978, as amended. States the goals of reducing the importance of petroleum and increasing the Nation's capability to use indigenous energy resources of the United States to further the goals of energy self-sufficiency.
  - d. Federal Energy Management Improvement Act of 1988. This act amends the NECPA, establishing Federal energy management goals through FY 1995.
  - e. Energy Policy Act of 1992. This act amends the NECPA, establishing Federal energy management goals through FY 2000, requiring installation of all cost-effective energy and water conservation measures (with payback periods of less than 10 years) by January 1, 2005, adding alternative fuel vehicle purchase requirements and requiring trained energy managers. The pertinent provisions of this Act are at Appendix B to this order.
  - f. Executive Order 12003, "Relating to Energy Policy and Conservation," dated July 1977. Required the development of guidelines for and the submittal of 10-year plans for energy conservation with respect to Federal buildings, and established requirements for energy audits and goals for reduction of energy use in Federal buildings.
  - g. Executive Order 12759, "Federal Energy Management," dated March 1994. Implements the Federal Energy Management Improvement Act of 1988 and extends energy management goals through FY 2000.
  - h. Executive Order 12902, "Energy Efficiency and Water Conservation at Federal Facilities." Revokes and replaces Executive Order 12759, except for sections 3, 9, and 10 of that order. Sets specific policies for all new construction, new leases, and existing Federal facilities owned or leased by the Federal Government, including Government-owned, contractor operated facilities. Sets new energy conservation goals through the year 2005. Provides specific definitions for certain key terms, such as "Federal buildings and facilities," relating to energy and water management. This Executive Order is at Appendix B to this order.

- i. Presidential Memorandum for the Heads of Executive Departments and Agencies Encouraging Environmentally and Economically Beneficial Practices on Federal Landscaped Grounds, dated April 26, 1994, calls for the establishment of guidelines for Federal facility managers on how to increase the use of native species, reduce the use of chemical fertilizers and pesticides, and implement water conservation techniques.
- j. 10 CFR 435, "Energy Conservation Voluntary Performance Standards for New Buildings; Mandatory for Federal Buildings." Specifies national energy code for new buildings. Its use is mandatory in the construction of new Federal buildings.
- k. 10 CFR 436, "Federal Energy Management and Planning Programs." Subpart A specifies the methodology and procedures for life-cycle-cost analyses.
- l. 10 CFR 450, "Energy Measures and Energy Audits." Subpart C specifies the purpose, scope, and content of verification audits, which are referred to in this policy as energy surveys.
- m. 10 CFR 503.6, "Cost Calculations for New Powerplants and Installations." Provides the methodology for calculating the cost of using alternative fuels in new electric powerplants and cogeneration facilities.
- n. 41 CFR 101-20.107, "Energy Conservation." Provides energy conservation policies for the operation of Federal buildings and reporting energy consumption in buildings, facilities, vehicles, systems, and equipment.
- o. National Bureau of Standards Handbook 135, "Life-Cycle-Cost Manual for the Federal Energy Management Program." Provides a systematic comparison of investment decisions using a discount factor to calculate the present worth of future benefits and costs.
- p. Design Standards for Energy Management in NAS Physical Facilities, FAA-STD-033 (Revised). Establishes requirements for energy management and conservation that shall be incorporated into the designs of new facilities and modifications to existing facilities in the NAS.



## APPENDIX 2: LEGISLATION

A. ENERGY POLICY ACT OF 1992—FEDERAL ENERGY  
MANAGEMENT PROVISIONS

## SUBTITLE F—FEDERAL AGENCY ENERGY MANAGEMENT

## SEC. 151. DEFINITIONS.

For purposes of this subtitle—

(1) the term “agency” means has the meaning given such term in section 551(1) of title 5, United States Code, except that such term does not include the United States Postal Service;

(2) the term “facility energy supervisor” means the employee with responsibility for the daily operations of a Federal facility, including the management, installation, operation, and maintenance of energy systems in Federal facilities which may include more than one building;

(3) the term “trained energy manager” means a person who has demonstrated proficiency, or who has completed a course of study in the areas of fundamentals of building energy systems, building energy codes and applicable professional standards, energy accounting and analysis, life-cycle cost methodology, fuel supply and pricing, and instrumentation for energy surveys and audits;

(4) the term “Task Force” means the Interagency Energy Management Task Force established under section 574 of the National Energy Conservation Policy Act (42 U.S.C. 8257); and

(5) the term “energy conservation measures” has the meaning given such term in section 551(4) of the National Energy Conservation Policy Act.

## SEC. 152. FEDERAL ENERGY MANAGEMENT AMENDMENTS.

(Amends Sections 542 to 550, Part 3, of NECPA, 42 U.S.C. 8252 as follows)

## SEC. 541. FINDINGS.

(No change)

## SEC. 542. PURPOSE.

It is the purpose of this part to promote the conservation and the efficient use of energy and water, and the use of renewable energy sources, by the Federal Government.

## SEC. 543. ENERGY MANAGEMENT REQUIREMENTS.

(a) ENERGY PERFORMANCE REQUIREMENT FOR FEDERAL BUILDINGS.—(1) Subject to paragraph (2), each agency shall apply energy conservation measures to, and shall improve the design for the construction of, its Federal buildings so that the energy consumption per gross square foot of its Federal buildings in use during the fiscal year 1995 is at least 10 percent less than the energy consumption per gross square foot of its Federal buildings in use during the fiscal year 1985 and so that the energy consumption per gross square foot of its Federal buildings in use during the fiscal year 2000 is at least 20 percent less than the energy consumption per gross square foot of its Federal buildings in use during fiscal year 1985.

(2) An agency may exclude from the requirements of paragraph (1) any building, and the associated energy consumption and gross square footage, in which energy intensive activities are carried out. Each agency shall identify and list in each report made under Section 548(a) the buildings designated by it for such exclusion.

(b) ENERGY MANAGEMENT REQUIREMENT FOR FEDERAL AGENCIES.—(1) Not later than January 1, 2005, each agency shall, to the maximum extent practicable, install in Federal buildings owned by the United States all energy and water conservation measures with payback periods of less than 10 years, as determined by using the methods and procedures developed pursuant to section 544.

(2) The Secretary may waive the requirements of this subsection for any agency for such periods as the Secretary may determine if the Secretary finds that the agency is taking all practicable steps to meet the requirements and that the requirements of this subsection will pose an unacceptable burden upon the agency. If the Secretary waives the requirements of this subsection, the Secretary shall notify the Congress promptly in writing with an explanation and a justification of the reasons for such waiver.

(3) This subsection shall not apply to an agency’s facilities that generate or transmit electric energy or to the uranium enrichment facilities operated by the Department of Energy.

(4) An agency may participate in the Environmental Protection Agency’s ‘Green Lights’ program for purposes of receiving technical assistance in complying with the requirements of this section.

(c) EXCLUSIONS.--(1) An agency may exclude, from the energy consumption requirements for the year 2000 established under subsection (a) and the requirements of subsection (b)(1), any Federal building or collection of Federal buildings, and the associated energy consumption and gross square footage, if the head of such agency finds that compliance with such requirements would be impractical. A finding of impracticability shall be based on the energy intensiveness of activities carried out in such Federal buildings or collection of Federal buildings, the type and amount of energy consumed, the technical feasibility of making the desired changes, and, in the cases of the Departments of Defense and Energy, the unique character of certain facilities operated by such Departments.

(2) Each agency shall identify and list, in each report made under section 548(a), the Federal buildings designated by it for such exclusion. The Secretary shall review such findings for consistency with the impracticability standards set forth in paragraph (1), and may within 90 days after receipt of the findings, reverse a finding of impracticability. In the case of any such reversal, the agency shall comply with the energy consumption requirements for the building concerned.

(d) IMPLEMENTATION STEPS.--The Secretary shall consult with the Secretary of Defense and the Administrator of General Services in developing guidelines for the implementation of this part. To meet the requirements of this section, each agency shall--

(1) prepare and submit to the Secretary, not later than December 31, 1993, a plan describing how the agency intends to meet such requirements, including how it will--

(A) designate personnel primarily responsible for achieving such requirements;

(B) identify high priority projects through calculation of payback periods;

(C) take maximum advantage of contracts authorized under Title VIII of this Act, of financial incentives and other services provided by utilities for efficiency investment, and of other forms of financing to reduce the direct costs to the Government; and

(D) otherwise implement this part.

(2) perform energy surveys of its Federal buildings to the extent necessary and update such surveys as needed, incorporating any relevant information obtained from the survey conducted pursuant to Section 550;

(3) using such surveys, determine the cost and payback period of energy and water conservation measures likely to achieve the requirements of this section;

(4) install energy and water conservation measures that will achieve the requirements of this section through the methods and procedures established pursuant to Section 544; and

(5) ensure that the operation and maintenance procedures applied under this section are continued.

#### SEC. 544. ESTABLISHMENT AND USE OF LIFE CYCLE COST METHODS AND PROCEDURES.

(a) ESTABLISHMENT OF LIFE CYCLE COST METHODS AND PROCEDURES.--The Secretary, in consultation with the Director of the Office of Management and Budget, the Secretary of Defense, the Director of the National Institute of Standards and Technology, and the Administrator of the General Services Administration, shall--

(1) establish practical and effective present value methods for estimating and comparing life cycle costs for Federal buildings, using the sum of all capital and operating expenses associated with the energy system of the building involved over the expected life of such system of during a period of 25 years, whichever is shorter, and using average fuel costs and a discount rate determined by the Secretary; and

(2) develop and prescribe the procedures to be followed in applying and implementing the methods so established.

(b) USE OF LIFE CYCLE COST METHODS AND PROCEDURES.--(1) The design of new Federal buildings, and the application of energy conservation measures to existing Federal buildings, shall be made using life cycle cost methods and procedures established under subsection (a).

(2) In leasing buildings for its own use or that of another agency, each agency shall, after January 1, 1994, fully consider the efficiency of all potential building space at the time of renewing or entering into a new lease.

(c) USE IN NON-FEDERAL STRUCTURES.--The Secretary shall make available information to the public on the use of life cycle cost methods in the construction of buildings, structures, and facilities in all segments of the economy.

#### SEC. 545. BUDGET TREATMENT FOR ENERGY CONSERVATION MEASURES.

The President shall transmit to the Congress, along with each budget that is submitted to the Congress under Section 1105 of Title 31, United States Code, a statement of the amount of appropriations requested in such budget, if any, on an individual agency basis, for--

(1) electric and other energy costs to be incurred in operating and maintaining agency facilities; and

(2) compliance with the provisions of this part, the Energy Policy and Conservation Act (42 U.S.C. 6201 et seq.) and all applicable Executive Orders, including Executive Order 12003 (42 U.S.C. 6201 note) and Executive Order 12759 (56 Fed. Reg. 16257).

**SEC. 546. INCENTIVES FOR AGENCIES.**

(a) **CONTRACTS.**—(1) Each agency shall establish a program of incentives for conserving, and otherwise making more efficient use of, energy as a result of entering into contracts under Title VIII of this Act.

(2) The Secretary shall, not later than 18 months after the date of the enactment of the Energy Policy Act of 1992 and after consultation with the Director of the Office of Management and Budget, the Secretary of Defense, and the Administrator of General Services, develop appropriate procedures and methods for use by agencies to implement the incentives referred to in paragraph (1).

(b) **FEDERAL ENERGY EFFICIENCY FUND.**—(1) The Secretary shall establish a Federal Energy Efficiency Fund to provide grants to agencies to assist them in meeting the requirements of Section 543.

(2) Not later than June 30, 1993, the Secretary shall issue guidelines to be followed by agencies submitting proposals for such grants. All agencies shall be eligible to submit proposals for grants under the Fund.

(3) The Secretary shall award grants from the Fund after a competitive assessment of the technical and economic effectiveness of each agency proposal. The Secretary shall consider the following factors in determining whether to provide funding under this subsection:

- (A) The cost-effectiveness of the project.
- (B) The amount of energy and cost savings anticipated to the Federal Government.
- (C) The amount of funding committed to the project by the agency requesting financial assistance.
- (D) The extent that a proposal leverages financing from other non-Federal sources.
- (E) Any other factor which the Secretary determines will result in the greatest amount of energy and cost savings to the Federal Government.

(4) There are authorized to be appropriated, to remain available to be expended, to carry out this subsection not more than \$10,000,000 for fiscal year 1994. \$50,000,000 for fiscal year 1995, and such sums as may be necessary for fiscal years thereafter.

(c) **UTILITY INCENTIVE PROGRAMS.**—(1) Agencies are authorized and encouraged to participate in programs to increase energy efficiency and for water conservation or the management of electricity demand conducted by gas, water, or electric utilities and generally available to customers of such utilities.

(2) Each agency may accept any financial incentive, goods, or services generally available from any such utility, to increase energy efficiency or to conserve water or manage electricity demand.

(3) Each agency is encouraged to enter into negotiations with electric, water, and gas utilities to design cost-effective demand management and conservation incentive programs to address the unique needs of facilities utilized by such agency.

(4) If an agency satisfies the criteria which generally apply to other customers of a utility incentive program, such agency may not be denied collection of rebates or other incentives.

(5)(A) An amount equal to fifty percent of the energy and water cost savings realized by an agency (other than the Department of Defense) with respect to funds appropriated for any fiscal year beginning after fiscal year 1992 (including financial benefits resulting from energy savings performance contracts under title VIII and utility energy efficiency rebates) shall, subject to appropriation, remain available for expenditure by such agency for additional energy efficiency measures which may include related employee incentive programs, particularly at those facilities at which energy savings were achieved.

(B) Agencies shall establish a fund and maintain strict financial accounting and controls for savings realized and expenditures made under this subsection. Records maintained pursuant to this subparagraph shall be made available for public inspection upon request.

(d) **FINANCIAL INCENTIVE PROGRAM FOR FACILITY ENERGY MANAGERS.**—(1) The Secretary shall, in consultation with the Task Force established pursuant to section 547, establish a financial bonus program to reward, with funds made available for such purpose, outstanding Federal facility energy managers in agencies and the United States Postal Service.

(2) Not later than June 1, 1993, the Secretary shall issue procedures for implementing and conducting the award program, including the criteria to be used in selecting outstanding energy managers and contributors who have—

- (A) improved energy performance through increased energy efficiency;
- (B) implemented proven energy efficiency and energy conservation techniques, devices, equipment, or procedures;
- (C) developed and implemented training programs for facility energy managers, operators, and maintenance personnel;
- (D) developed and implemented employee awareness programs;

(E) succeeded in generating utility incentives, shared energy savings contracts, and other federally approved performance based energy savings contracts;

(F) made successful efforts to fulfill compliance with energy reduction mandates, including the provisions of section 543; and

(G) succeeded in the implementation of the guidelines established under Section 159.

(3) There is authorized to be appropriated to carry out this subsection not more than \$250,000 for each of the fiscal years 1993, 1994, and 1995.

**SEC. 547. INTERAGENCY ENERGY MANAGEMENT TASK FORCE.**

(No change)

**SEC. 548. REPORTS.**

(a) **REPORTS TO THE SECRETARY.**--Each agency shall transmit a report to the Secretary, at times specified by the Secretary but at least annually, with complete information on its activities under this part, including information on--

(1) the agency's progress in achieving the goals established by Section 543; and

(2) the procedures being used by the agency pursuant to Section 546(a)(2), the number of contracts entered into by such agency under Title VIII of this act, the energy and cost savings that have resulted from such contracts, the use of such cost savings under Section 546(c), and any problem encountered in entering into such contracts and otherwise implementing Section 546.

(b) **REPORTS TO CONGRESS.**--The Secretary shall report not later than April 2 of each year, with respect to each fiscal year beginning after the date of the enactment of this subsection, to the Congress--

(1) on all activities carried out under this part and on the progress made toward achievement of the objectives of this part, including--

(A) a copy of the list of the exclusions made under Sections 543(a)(2) and 543(c)(3); and

(B) a statement detailing the amount of funds awarded to each agency under Section 546(b), the energy and water conservation measures installed with such funds, the projected energy and water savings to be realized from installed measures, and, for each installed measure for which the projected energy and water savings reported in the previous year were not realized, the percentage of such projected savings that was not realized, the reasons such savings were not realized, and proposals for, and projected costs of, achieving such projected savings in the future.

(2) the number of contracts entered into by all agencies under Title VIII of this Act, the difficulties (if any) encountered in attempting to enter into such contracts, and the proposed solutions to those difficulties; and

(3) the extent and nature of interagency exchange of information concerning the conservation and efficient utilization of energy.

(c) **OTHER REPORT.**--The Secretary, in consultation with the Administrator of General Services, shall--

(1) conduct a study and evaluate legal, institutional, and other constraints to connecting buildings owned or leased by the Federal Government to district heating and district cooling systems; and

(2) not later than 18 months after the date of the enactment of this subsection, transmit to the Congress a report containing the findings and conclusions of such study, including recommendations for the development of streamlined processes for the consideration of connecting buildings owned or leased by the Federal Government to district heating and cooling systems.

**SEC. 549. DEMONSTRATION OF NEW TECHNOLOGY.**

(a) **DEMONSTRATION PROGRAM.**--Not later than January 1, 1994, the Secretary, in cooperation with the Administrator of General Services, shall establish a demonstration program to install, in federally owned facilities or federally assisted housing, energy conservation measures for which the Secretary has determined that such installation would accelerate commercial viability. In those cases where technologies are determined to be equivalent, priority shall be given to those technologies that have received or are receiving Federal financial assistance.

(b) **SELECTION CRITERIA.**--In addition to the determination under subsection (a), the Secretary shall select, in cooperation with the Administrator of General Services, proposals to be funded under this section on the basis of--

(1) cost-effectiveness;

(2) technical feasibility and system reliability in a working environment;

(3) lack of market penetration in the Federal sector;

- (4) the potential needs of the proposing Federal agency for the technology, projected over 5 to 10 years;
- (5) the potential Federal sector market, projected over 5 to 10 years;
- (6) energy efficiency; and
- (7) other environmental benefits, including the projected reduction of greenhouse gas emissions and indoor air pollution.

(c) PROPOSALS.--Federal agencies may submit to the Secretary, for each fiscal year, proposals for projects to be funded by the Secretary under this section. Each such proposal shall include--

- (1) a description of the proposed project emphasizing the innovative use of technology in the Federal sector;
- (2) a description of the technical reliability and cost-effectiveness data expected to be acquired;
- (3) an identification of the potential needs of the Federal agency for the technology;
- (4) a commitment to adopt the technology, if the project establishes its technical reliability and life cycle cost-effectiveness, to supply at least 10 percent of the Federal agency's potential needs identified under paragraph (3);
- (5) schedules and milestones for installing additional units; and
- (6) a technology transfer plan to publicize the results of the project.

(d) PARTICIPATION BY GSA.--The Secretary may only select a project for funding under the jurisdiction of the General Services Administration if the project will be carried out by the Administrator of General Services. If such project involves a total expenditure in excess of \$1,600,000, no appropriation shall be made for such project unless such project has been approved by a resolution adopted by the Committee on Public Works and Transportation of the House of Representatives and the Committee on Environment and Public Works of the Senate.

(e) STUDY.--The Secretary shall conduct a study to evaluate the potential use of the purchasing power of the Federal Government to promote the development and commercialization of energy efficient products. The study shall identify products for which there is a high potential for Federal purchasing power to substantially promote their development and commercialization, and shall include a plan to develop such potential. The study shall be conducted in consultation with utilities, manufacturers, and appropriate nonprofit organizations concerned with energy efficiency. The Secretary shall report to the Congress on the results of the study not later than two years after the date of the enactment of this Act.

(f) AUTHORIZATION OF APPROPRIATIONS.--There are authorized to be appropriated to the Secretary for carrying out this section \$5,000,000 for each of the fiscal years 1993, 1994, and 1995.

#### SEC. 550. SURVEY OF ENERGY SAVING POTENTIAL.

(a) IN GENERAL.--The Secretary shall, in consultation with the Interagency Energy Management Task Force established under Section 547, carry out an energy survey for the purposes of--

- (1) determining the maximum potential cost effective energy savings that may be achieved in a representative sample of buildings owned or leased by the Federal Government in different areas of the country;
- (2) making recommendations for cost effective energy efficiency and renewable energy improvements in those buildings and in other similar Federal buildings; and
- (3) identifying barriers which may prevent an agency's ability to comply with Section 543 and other energy management goals.

(b) IMPLEMENTATION.--(1) The Secretary shall transmit to the Committee on Energy and Natural Resources and the Committee on Governmental Affairs of the Senate and the Committee on Energy and Commerce, the Committee on Government Operations, and the Committee on Public Works and Transportation of the House of Representatives, within 180 days after the date of the enactment of the Energy Policy Act of 1992, a plan for implementing this section.

(2) The Secretary shall designate buildings to be surveyed in the project so as to obtain a sample of the buildings of the types and in the climates that is representative of buildings owned or leased by Federal agencies in the United States that consume the major portion of the energy consumed in Federal buildings. Such sample shall include, where appropriate, the following types of Federal facility space:

- (A) Housing.
- (B) Storage.
- (C) Office.
- (D) Services.
- (E) Schools.

- (F) Research and Development.
- (G) Industrial.
- (H) Prisons.
- (I) Hospitals.

(3) For purposes of this section, an improvement shall be considered cost effective if the cost of the energy saved or displaced by the improvement exceeds the cost of the improvement over the remaining life of a Federal building or the remaining term of a lease of a building leased by the Federal Government as determined by the life cycle costing methodology developed under Section 544.

(c) PERSONNEL.--(1) In carrying out this section, the Secretary shall utilize personnel who are--

- (A) employees of the Department of Energy; or
- (B) selected by the agencies utilizing the buildings which are being surveyed under this section.

(2) Such personnel shall be detailed for the purpose of carrying out this section without any reduction of salary or benefits.

(d) REPORT.--As soon as practicable after the completion of the project carried out under this section, the Secretary shall transmit a report of the findings and conclusions of the project to the Committee on Energy and Natural Resources and the Committee on Governmental Affairs of the Senate, the Committee on Energy and Commerce, the Committee on Government Operations, and the Committee on Public Works and Transportation of the House of Representatives, and the agencies who own the buildings involved in such project. Such report shall include an analysis of the probability of each agency achieving the 20 percent reduction goal established under Section 543(a) of the National Energy Conservation Policy Act (42 U.S.C. 8253(a)).

#### SEC. 551. DEFINITIONS.

(No change)

#### SEC. 153. GENERAL SERVICES ADMINISTRATION FEDERAL BUILDINGS FUND.

Section 210(f) of the Federal Property and Administrative Services Act of 1949 (40 U.S.C. 490(f)), is amended--

- (1) in paragraph (1), by inserting "(to be known as the Federal Buildings Fund)" after "a fund"; and
- (2) by adding at the end the following new paragraphs:

7)(A) The Administrator is authorized to receive amounts from rebates or other cash incentives related to energy savings and shall deposit such amounts in the Federal Buildings Fund for use as provided in subparagraph (D).

(B) The Administrator may accept, from a utility, goods or services which enhance the energy efficiency of Federal facilities.

(C) In the administration of any real property for which the Administrator leases and pays utility costs, the Administrator may assign all or a portion of energy rebates to the lessor to underwrite the costs incurred in undertaking energy efficiency improvements in such real property if the payback period for such improvement is at least 2 years less than the remainder of the term of the lease.

(D) The Administrator may, in addition to amounts appropriated for such purposes and without regard to paragraph (2), obligate for energy management improvement programs--

- (i) amounts received and deposited in the Federal Buildings fund under subparagraph (A);
- (ii) goods and services received under subparagraph (B); and
- (iii) amounts the Administrator determines are not needed for other authorized projects and are otherwise available to implement energy efficiency programs.

(8)(A) The Administrator is authorized to receive amounts from the sale of recycled materials and shall deposit such amounts in the Federal Buildings fund for use as provided in subparagraph (B).

(B) The Administrator may, in addition to amounts appropriated for such purposes and without regard to paragraph (2), obligate amounts received and deposited in the Federal Buildings Fund under subparagraph (A) for programs which--

- (i) promote further source reduction and recycling programs; and
- (ii) encourage employees to participate in recycling programs by providing funding for child care.

**SEC. 154. REPORT BY GENERAL SERVICES ADMINISTRATION.**

Not later than one year after the date of the enactment of this Act, and annually thereafter, the Administrator of General Services shall report to the Committee on Governmental Affairs and the Committee on Energy and Natural Resources of the Senate and the Committee on Energy and Commerce, the Committee on Government Operations, and the Committee on Public Works and Transportation of the House of Representatives on the activities of the General Services Administration conducted pursuant to this subtitle.

**SEC. 155. ENERGY SAVINGS PERFORMANCE CONTRACTS.**

Amends Section 801 of the National Energy Conservation Policy Act (42 U.S.C. 8287) as follows--

**TITLE VIII--ENERGY SAVINGS PERFORMANCE CONTRACTS****SEC. 801. AUTHORITY TO ENTER INTO CONTRACTS.**

(a) *In General.*—(1) The head of a Federal agency may enter into contracts under this title solely for the purpose of achieving energy savings and benefits ancillary to that purpose. Each such contract may, notwithstanding any other provision of law, be for a period not to exceed 25 years. Such contract shall provide that the contractor shall incur costs of implementing energy savings measures, including at least the cost (if any) incurred in making energy audits, acquiring and installing equipment, and training personnel, in exchange for a share of any energy savings directly resulting from implementation of such measures during the term of the contract.

(2)(A) Contracts under this title shall be energy savings performance contracts and shall require an annual energy audit and specify the terms and conditions of any government payments and performance guarantees. Any such performance guarantee shall provide that the contractor is responsible for maintenance and repair services for any energy related equipment, including computer software systems.

(B) Aggregate annual payments by an agency to both utilities and energy savings performance contractors, under an energy savings performance contract, may not exceed the amount that the agency would have paid for utilities without an energy savings performance contract (as estimated through the procedures developed pursuant to this section) during contract years. The contract shall provide for a guarantee of savings to the agency, and shall establish payment schedules reflecting such guarantee, taking into account any capital costs under the contract.

(C) Federal agencies may incur obligations pursuant to such contracts to finance energy conservation measures provided guaranteed savings exceed the debt service requirements.

(D) A federal agency may enter into a multiyear contract under this title for a period not to exceed 25 years, without funding of cancellation charges before cancellation, if--

(i) such contract was awarded in a competitive manner pursuant to subsection (b)(2), using procedures and methods established under this title;

(ii) funds are available and adequate for payment of the costs of such contract for the first fiscal year;

(iii) 30 days before the award of any such contract that contains a clause setting forth a cancellation ceiling in excess of \$750,000, the head of such agency gives written notification of such proposed contract and of the proposed cancellation ceiling for such contract to the appropriate authorizing and appropriating committees of the Congress; and

(iv) such contract is governed by part 17.1 of the Federal Acquisition Regulation promulgated under section 25 of the Office of Federal Procurement Policy Act (41 U.S.C. 421) or the applicable rules promulgated under this title.

(b) **IMPLEMENTATION.**—(1)(A) The Secretary, with the concurrence of the Federal Acquisition Regulatory Council established under section 25(a) of the Office of Federal Procurement Policy Act, not later than 180 days after the date of the enactment of the Energy Policy Act of 1992, shall, by rule, establish appropriate procedures and methods for use by Federal agencies to select, monitor, and terminate contracts with energy service contractors in accordance with laws governing Federal procurement that will achieve the intent of this section in a cost-effective manner. In developing such procedures and methods, the Secretary, with the concurrence of the Federal Acquisition Regulatory Council, shall determine which existing regulations are inconsistent with the intent of this section and shall formulate substitute regulations consistent with laws governing Federal procurement.

(B) The procedures and methods established pursuant to subparagraph (A) shall be the procedures and contracting methods for selection, by an agency, of a contractor to provide energy savings performance services. Such procedures and methods shall provide for the calculation of energy savings based on sound engineering and financial practices.

(2) The procedures and methods established pursuant to paragraph (1)(A) shall--

(A) allow the Secretary to--

(i) request statements of qualifications, which shall, at a minimum, include prior experience and capabilities of contractors to perform the proposed types of energy savings services and financial and performance information, from firms engaged in providing energy savings services; and

(ii) from the statements received, designate and prepare a list, with an update at least annually, of those firms that are qualified to provide energy savings services;

(B) require each agency to use the list prepared by the Secretary pursuant to subparagraph (A)(ii) unless the agency elects to develop an agency list of firms qualified to provide energy savings performance services using the same selection procedures and methods as are required of the Secretary in preparing such lists; and

(C) allow the head of each agency to--

(i) select firms from the list prepared pursuant to subparagraph (A)(ii) or the list prepared by the agency pursuant to subparagraph (B) to conduct discussions concerning a particular proposed energy savings project, including requesting a technical and price proposal from such selected firms for such project;

(ii) select from such firms the most qualified firm to provide energy savings services based on technical and price proposals and any other relevant information;

(iii) permit receipt of unsolicited proposals for energy savings performance contracting services from a firm that such agency has determined is qualified to provide such services under the procedures established pursuant to paragraph (1)(A), and require agency facility managers to place a notice in the Commerce Business Daily announcing they have received such a proposal and invite other similarly qualified firms to submit competing proposals; and

(iv) enter into an energy savings performance contract with a firm qualified under clause (iii), consistent with the procedures and methods established pursuant to paragraph (1)(A).

(3) A firm not designated as qualified to provide energy savings services under paragraph (2)(A)(i) or paragraph (2)(B) may request a review of such decision to be conducted in accordance with procedures to be developed by the board of contract appeals of the General Services Administration. Procedures developed by the board of contract appeals under this paragraph shall be substantially equivalent to procedures established under section 111(f) of the Federal Property and Administrative Services Act of 1949 (40 U.S.C. 759(f)).

(c) SUNSET AND REPORTING REQUIREMENTS.--(1) The authority to enter into new contracts under this section shall cease to be effective five years after the date procedures and methods are established under subsection (b).

(2) Beginning one year after the date procedures and methods are established under subsection (b), and annually thereafter, for a period of five years after such date, the Comptroller General of the United States shall report on the implementation of this section. Such reports shall include, but not be limited to, an assessment of the following issues:

(A) The quality of the energy audits conducted for the agencies.

(B) The government's ability to maximize energy savings.

(C) The total energy cost savings accrued by the agencies that have entered into such contracts.

(D) The total costs associated with entering into and performing such contracts.

(E) A comparison of the total costs incurred by agencies under such contracts and the total costs incurred under similar contracts performed in the private sector.

(F) The number of firms selected as qualified firms under this section and their respective shares of awarded contracts.

(G) The number of firms engaged in similar activity in the private sector and their respective market shares.

(H) The number of applicant firms under this section and the reason for their nonselection.

(I) The frequency with which agencies have utilized the services of government labs to perform any of the functions specified in this section.

(J) With the respect to the final report submitted pursuant to this paragraph, an assessment of whether the contracting procedures developed pursuant to this section and utilized by agencies have been effective and whether continued use of such procedures, as opposed to the procedures provided by existing public contract law, is necessary for implementation of successful energy savings performance contracts.

**SEC. 802. PAYMENT OF COSTS.**

**SEC. 803. REPORTS.**

**SEC. 804. DEFINITIONS.**

For the purposes of the title, the following definitions apply:

(1) The term "Federal agency" means an agency defined in section 551(1) of title, United States Code.



(2) The term "energy savings" means a reduction in the cost of energy, from a base cost established through a methodology set forth in the contract, utilized in an existing federally owned building or buildings or other federally owned facilities as a result of--

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

(B) 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.

(3) The terms "energy savings contract" and "energy savings performance contract" mean 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. Such contracts--

(A) may provide for appropriate software licensing agreements; and

(B) shall, with respect to an agency facility that is a public building as such term is defined in section 13(1) of the Public Buildings Act of 1959 (40 U.S.C. 612(1)), be in compliance with the prospectus requirements and procedures of section 7 of the Public Buildings Act of 1959 (40 U.S.C. 606).

(4) The term "energy conservation measures" has the meaning given such term in section 551(4).

#### SEC. 156. INTERGOVERNMENTAL ENERGY MANAGEMENT PLANNING AND COORDINATION.

(a) CONFERENCE WORKSHOPS.--The Administrator of General Services, in consultation with the Secretary and the Task Force, shall hold regular, biennial conference workshops in each of the 10 standard Federal regions on energy management, conservation, efficiency, and planning strategy. The Administrator shall work and consult with the Department of Energy and other Federal agencies to plan for particular regional conferences. The Administrator shall invite Department of Energy, State, local, tribal, and county public officials who have responsibilities for energy management or may have an interest in such conferences and shall seek the input of, and be responsive to, the views of such officials in the planning and organization of such workshops.

(b) FOCUS OF WORKSHOPS.--Such workshops and conferences shall focus on the following (but may include other topics):

(1) Developing strategies among Federal, State, tribal, and local governments to coordinate energy management policies and to maximize available intergovernmental energy management resources within the region regarding the use of governmental facilities and buildings.

(2) The design, construction, maintenance, and retrofitting of governmental facilities to incorporate energy efficient techniques.

(3) Procurement and use of energy efficient products.

(4) Dissemination of energy information on innovative programs, technologies, and methods which have proven successful in government.

(5) Technical assistance to design and incorporate effective energy management strategies.

(c) ESTABLISHMENT OF WORKSHOP TIMETABLE.--As a part of the first report to be submitted pursuant to section 154, the Administrator shall set forth the schedule for the regional energy management workshops to be conducted under this section. Not less than five such workshops shall be held by September 30, 1993, and at least one such workshop shall be held in each of the 10 Federal regions every two years beginning on September 30, 1993.

#### SEC. 157. FEDERAL AGENCY ENERGY MANAGEMENT TRAINING.

(a) ENERGY MANAGEMENT TRAINING.--(1) Each executive department described under section 101 of title 5, United States Code, the Environmental Protection Agency, the National Aeronautics and Space Administration, the General Services Administration, and the United States Postal Service shall establish and maintain a program to ensure that facility energy managers are trained energy managers. Such programs shall be managed--

(A) by the department or agency representative on the Task Force; or

(B) if a department or agency is not represented on the Task Force, by the designee of the head of such department or agency.

(2) Departments and agencies described in paragraph (1) shall encourage appropriate employees to participate in energy manager training courses. Employees may enroll in courses of study in the areas described in section 151(3) including, but not limited to, courses offered by--

(A) private or public educational institutions;

- (B) Federal agencies; or
- (C) professional associations.

(b) REPORT TO TASK FORCE.--(1) Each department and agency described in subsection (a)(1) shall, not later than 60 days following the date of the enactment of this Act, report to the Task Force the following information:

(A) Those individuals employed by such department or agency on the date of the enactment of this Act who qualify as trained energy managers.

(B) The General Schedule (GS) or grade level at which each of the individuals described in subparagraph (A) is employed.

(C) The facility or facilities for which such individuals are responsible or otherwise stationed.

(2) The Secretary shall provide a summary of the reports described in paragraph (1) to the Congress as part of the first report submitted under section 548 of the National Energy Conservation Policy Act (42 U.S.C. 8258) after the date of the enactment of this Act.

(c) REQUIREMENTS AT FEDERAL FACILITIES.--(1) not later than one year after the date of the enactment of this Act, the departments and agencies described under subsection (a)(1) shall upgrade their energy management capabilities by--

(A) designating facility energy supervisors;

(B) encouraging facility energy supervisors to become trained energy managers; and

(C) increasing the overall number of trained energy managers within such department or agency to ensure a sufficient level to ensure effective implementation of this Act.

(2) Departments and agencies described in subsection (a)(1) may hire trained energy managers to be facility energy supervisors. Trained energy managers, including those who are facility supervisors as well as other trained personnel, shall focus their efforts on improving energy efficiency in the following facilities--

(A) department or agency facilities identified as most costly to operate or most energy inefficient; or

(B) other facilities identified by the department or agency head as having significant energy savings potential.

(d) ANNUAL REPORT TO SECRETARY AND CONGRESS.--Each department and agency listed in subsection (a)(1) shall report to the Secretary on the status and implementation of the requirements of this section. The Secretary shall include a summary of each such report in the annual report to Congress as required under section 548(b) of the National Energy Conservation Policy Act (42 U.S.C. 8258).

#### SEC. 158. ENERGY AUDIT TEAMS.

(a) ESTABLISHMENT.--The Secretary shall assemble from existing personnel with appropriate expertise, and with particular utilization of the national laboratories, and make available to all Federal agencies, one or more energy audit teams which shall be equipped with instruments and other advanced equipment needed to perform energy audits of Federal facilities.

(b) MONITORING PROGRAMS.--The Secretary shall also assist in establishing, at each site that has utilized an energy audit team, a program for monitoring the implementation of energy efficiency improvements based upon energy audit team recommendations, and for recording the operating history of such improvements.

#### SEC. 159. FEDERAL ENERGY COST ACCOUNTING AND MANAGEMENT.

(a) GUIDELINES.--Not later than 120 days after the date of the enactment of this Act, the Director of the Office of Management and Budget, in cooperation with the Secretary, the Administrator of General Services, and the Secretary of Defense, shall establish guidelines to be employed by each Federal agency to assess accurate energy consumption for all buildings or facilities which the agency owns, operates, manages or leases, where the Government pays utilities separate from the lease and the Government operates the leased space. Such guidelines are to be used in reports required under section 548 of the National Energy Conservation Policy Act (42 U.S.C. 8258). Each agency shall implement such guidelines no later than 120 days after their establishment. Each facility energy manager shall maintain energy consumption and energy cost records for review by the Inspector General, the Congress, and the general public.

(b) CONTENTS OF GUIDELINES.--Such guidelines shall include the establishment of a monitoring system to determine--

(1) which facilities are the most costly to operate when measured on an energy consumption per square foot basis or other relevant analytical basis;

(2) unusual or abnormal changes in energy consumption; and

(3) the accuracy of utility charges for electric and gas consumption.

(c) **FEDERALLY LEASED SPACE ENERGY REPORTING REQUIREMENT.**--The Administrator of General Services shall include, in each report submitted under section 154, the estimated energy cost of leased buildings or space in which the Federal Government does not directly pay the utility bills.

**SEC. 160. INSPECTOR GENERAL REVIEW AND AGENCY ACCOUNTABILITY.**

(a) **AUDIT SURVEY.**--Not later than 120 days after the date of the enactment of this Act, each Inspector General created to conduct and supervise audits and investigations relating to the programs and operations of the establishments listed in section 11(2) of the Inspector General Act of 1978 (5 U.S.C. App.), and the Chief Postal Inspector of the United States Postal Service, in accordance with section 8E(f)(1) as established by section 8E(a)(2) of the Inspector General Act Amendments of 1988 (Public Law 100-504) shall--

(1) identify agency compliance activities to meet the requirements of section 543 of the National Energy Conservation Policy Act (42 U.S.C. 8253) and any other matters relevant to implementing the goals of such Act; and

(2) determine if the agency has the internal accounting mechanisms necessary to assess the accuracy and reliability of energy consumption and energy cost figures required under such section.

(b) **PRESIDENTS COUNCIL ON INTEGRITY AND EFFICIENCY REPORT TO CONGRESS.**--Not later than 150 days after the date of the enactment of this Act, the President's Council on Integrity and Efficiency shall submit a report to the Committee on Energy and Natural Resources and the Committee on Governmental Affairs of the Senate, the Committee on Energy and Commerce, the Committee on Government Operations, and the Committee on Public Works and Transportation of the House of Representatives, on the review conducted by the Inspector General of each agency under this section.

(c) **INSPECTOR GENERAL REVIEW.**--Each Inspector General established under section 2 of the Inspector General Act of 1978 (5 U.S.C. App.) is encouraged to conduct periodic reviews of agency compliance with part 3 of title V of the National Energy Conservation Policy Act, the provisions of this subtitle, and other laws relating to energy consumption. Such reviews shall not be inconsistent with the performance of the required duties of the Inspector General's Office.

**SEC. 161. PROCUREMENT AND IDENTIFICATION OF ENERGY EFFICIENT PRODUCTS.**

(a) **Procurement.**--The Administrator of General Services, the Secretary of Defense, and the Director of the Defense Logistics Agency, each shall undertake a program to include energy efficient products in carrying out their procurement and supply functions.

(b) **Identification Program.**--The Administrator of General Services, the Secretary of Defense, and the Director of the Defense Logistics Agency, in consultation with the Secretary of Energy, each shall implement, in conjunction with carrying out their procurement and supply functions, a program to identify and designate those energy efficient products that offer significant potential savings, using, to the extent practicable, the life cycle cost methods and procedures developed under section 544 of the National Energy Conservation Policy Act (42 U.S.C. 8254). The Secretary of Energy shall, to the extent necessary to carry out this section and after consultation with the aforementioned agency heads, provide estimates of the degree of relative energy efficiency of products.

(c) **Guidelines.**--The Administrator for Federal Procurement Policy, in consultation with the Administrator of General Services, the Secretary of Energy, the Secretary of Defense, and the Director of the Defense Logistics Agency, shall issue guidelines to encourage the acquisition and use by all Federal agencies of products identified pursuant to this section. The Secretary of Defense and the Director of the Defense Logistics Agency shall consider, and place emphasis on, the acquisition of such products as part of the Agency's ongoing review of military specifications.

(d) **Report to Congress.**--Not later than December 31 of 1993 and of each year thereafter, the Secretary of Energy, in consultation with the Administrator for Federal Procurement Policy, the Administrator of General Services, the Secretary of Defense, and the Director of the Defense Logistics Agency, shall report on the progress, status, activities, and results of the programs under subsections (a), (b), and (c). The report shall include--

(1) the types and functions of each product identified under subsection (b), and efforts undertaken by the Administrator of General Services, the Secretary of Defense, and the Director of the Defense Logistics Agency to encourage the acquisition and use of such products;

(2) the actions taken by the Administrator of General Services, the Secretary of Defense, and the Director of the Defense Logistics Agency to identify products under subsection (b), the barriers which inhibit implementation of identification of such products, and recommendations for legislative action, if necessary;

(3) progress on the development and issuance of guidelines under subsection (c);

(4) an indication of whether energy cost savings technologies identified by the Advanced Building Technology Council, under section 809(h) of the National Housing Act (12 U.S.C. 1701j-2), have been used in the identification of products under subsection (b);

(5) an estimate of the potential cost savings to the Federal Government from acquiring products identified under subsection (b) with respect to which energy is a significant component of life cycle cost, based on the quantities of such products that could be utilized throughout the Government; and

(6) the actual quantities acquired of products described in paragraph (5).

**SEC. 162. FEDERAL ENERGY EFFICIENCY FUNDING STUDY.**

(a) *Study.*--The Secretary shall, in consultation with the Secretary of Treasury, the Director of the Office of Management and Budget, the Administrator of General Services, and such other individuals and organizations as the Secretary deems appropriate, conduct a detailed study of options for the financing of energy and water conservation measures required under part 3 of title V of the National Energy Conservation Policy Act (42 U.S.C. 8251 et seq.) and all applicable Executive orders. Such study shall, taking into account the unique characteristics of Federal agencies, consider and analyze--

- (1) the Federal financial investment necessary to comply with such requirements;
- (2) the use of revolving funds and other funding mechanisms which offer stable, long-term financing of energy and water conservation measures; and
- (3) the means for capitalizing such funds.

(b) *Report to Congress.*--Not later than 180 days after the date of the enactment of this Act, the Secretary shall submit to the Congress a report containing the results of the study required under subsection (a).

**SEC. 163. UNITED STATES POSTAL SERVICE ENERGY REGULATIONS.**

(a) *In General.*--The Postmaster General shall issue regulations to ensure the reliable and accurate accounting of energy consumption costs for all buildings or facilities which it owns, leases, operates, or manages. Such regulations shall--

- (1) establish a monitoring system to determine which facilities are the most costly to operate on an energy consumption per square foot basis or other relevant analytical basis;
- (2) identify unusual or abnormal changes in energy consumption; and
- (3) check the accuracy of utility charges for electricity and gas consumption.

(b) *Identification of Energy Efficiency Products.*--The Postmaster General shall actively undertake a program to identify and procure energy efficiency products for use in its facilities. In carrying out this subsection, the Postmaster General shall, to the maximum extent practicable, incorporate energy efficient information available on Federal Supply Schedules maintained by the General Services Administration and the Defense Logistics Agency.

**SEC. 164. UNITED STATES POSTAL SERVICE BUILDING ENERGY SURVEY AND REPORT.**

(a) *In General.*--The Postmaster General shall conduct an energy survey, as defined in section 551(5) of the National Energy Conservation Policy Act, for the purposes of--

- (1) determining the maximum potential cost effective energy savings that may be achieved in a representative sample of buildings owned or leased by the United States Postal Service in different areas of the country;
- (2) making recommendations for cost effective energy efficiency and renewable energy improvements in those buildings and in other similar United States Postal Service buildings; and
- (3) identifying barriers which may prevent the United States Postal Service from complying with energy management goals, including Executive Orders No. 12003 and 12579.

(b) *Implementation.*--(1) The Postmaster General shall transmit to the Committee on Governmental Affairs and the Committee on Energy and Natural Resources of the Senate, and the Committee on Energy and Commerce and the Committee on Post Office and Civil Service of the House of Representatives, within 180 days after the date of the enactment of this Act, a plan for implementing this section.

(2) The Postmaster General shall designate buildings to be surveyed in the project so as to obtain a sample of United States Postal Service facilities of the types and in the climates that consume the major portion of the energy consumed by the United States Postal Service.

(3) For the purposes of this section, an improvement shall be considered cost effective if the cost of the energy saved or displaced by the improvement exceeds the cost of the improvement over the remaining life of the facility or the remaining term of a lease of a building leased by the United States Postal Service.

(c) *Report.*--As soon as practicable after the completion of the project carried out under this section, the Postmaster General shall transmit a report of the findings and conclusions of the survey to the Committee on Governmental Affairs and the Committee on Energy and Natural Resources of the Senate, and the Committee on Energy and Commerce and the Committee on Post Office and Civil Service of the House of Representatives.

**SEC. 165. UNITED STATES POSTAL SERVICE ENERGY MANAGEMENT REPORT.**

Not later than one year after the date of the enactment of this Act, and not later than January 1 of each year thereafter, the Postmaster General shall submit a report to the Committee on Governmental Affairs and the Committee on Energy and Natural Resources of the Senate and the Committee on Energy and Commerce and the Committee on Post Office and Civil Service of the House of Representatives on the United States Postal Service's building management program as it relates to energy efficiency. The report shall include, but not be limited to--

- (1) a description of actions taken to reduce energy consumption;
- (2) future plans to reduce energy consumption;
- (3) an assessment of the success of the energy conservation program;
- (4) a statement of energy costs incurred in operating and maintaining all United States Postal Service facilities; and
- (5) the status of the energy efficient procurement program established under section 163.

**SEC. 166. ENERGY MANAGEMENT REQUIREMENTS FOR THE UNITED STATES POSTAL SERVICE.**

(a) *Energy Management Requirements for Postal Facilities.* (1) The Postmaster General shall, to the maximum extent practicable, ensure that each United States Postal Service facility meets the energy management requirements for Federal buildings and agencies specified in section 543 of the National Energy Conservation Policy Act (42 U.S.C. 8253).

(2) The Postmaster General may exclude from the requirements of such section any facility or collection of facilities, and the associated energy consumption and gross square footage if the Postmaster General finds that compliance with the requirements of such section would be impracticable. A finding of impracticability shall be based on the energy intensiveness of activities carried out in such facility or collection of facilities, the type and amount of energy consumed, or the technical feasibility of making the desired changes. The Postmaster General shall identify and list in the report required under section 165 the facilities designated by it for such exclusion.

(b) *Implementation Steps.*--In carrying subsection A(a), the Postmaster General shall--

(1) not later than 1 year after the date of the enactment of this Act, prepare or update, as appropriate, a plan (which may be submitted as part of the first report submitted under section 165)--

- (A) describing how this section will be implemented;
- (B) designating personnel primarily responsible for achieving the requirements of this section; and
- (C) identifying high priority projects;

(2) perform energy surveys of United States Postal Service facilities as necessary to achieve the requirements of this section;

(3) install those energy conservation measures that will attain the requirements of this section in a cost-effective manner as defined in section 544 of the National Energy Conservation Policy Act (42 U.S.C. 8254); and

(4) ensure that the operation and maintenance procedures applied under this section are continued.

**SEC. 167. GOVERNMENT CONTRACT INCENTIVES.**

(a) *Establishment of Criteria.*--Each agency, in consultation with the Federal Acquisition Regulatory Council, shall establish criteria for the improvement of energy efficiency in Federal facilities operated by Federal Government contractors or subcontractors.

(b) *Purpose of Criteria.*--The criteria established under subsection (a) shall be used to encourage Federal contractors, and their subcontractors, which manage and operate federally-owned facilities, to adopt and utilize energy conservation measures designed to reduce energy costs in Government-owned and contractor-operated facilities and which are ultimately borne by the Federal Government.

**SEC. 168. ENERGY MANAGEMENT REQUIREMENTS FOR CONGRESSIONAL BUILDINGS.**

(a) *In General.*--The Architect of the Capitol (hereafter in this section referred to as the "Architect") shall undertake a program of analysis and, as necessary, retrofit of the Capitol Building, the Senate Office Buildings, the House Office Buildings, and the Capitol Grounds, in accordance with subsection (b).

(b) *Program.*--

- (1) *Lighting.*--

(A) *Implementation.*--

(i) *In General.*--Not later than 18 months after the date of the enactment of this Act and subject to the availability of funds to carry out this section, the Architect shall begin implementing a program to replace in each building described in subsection (a) all inefficient office and general use area fluorescent lighting systems with systems that incorporate the best available design and technology and that have payback periods of 10 years or less, as determined by using methods and procedures established under section 544(a) of the National Energy and Conservation Policy Act (42 U.S.C. 8254(a)).

(ii) *Replacement of Incandescent Lighting.*--Whenever practicable in office and general use areas, the Architect shall replace incandescent lighting with efficient fluorescent lighting.

(B) *Completion.*--Subject to the availability of funds to carry out this section, the program described in subparagraph (A) shall be completed not later than 5 years after the date of the enactment of this Act.

(2) *Evaluation and Report.*---

(A) *In General.*--Not later than 6 months after the date of the enactment of this Act, the Architect shall submit to the Speaker of the House of Representatives and the President pro tempore of the Senate a report evaluating potential energy conservation measures for each building described in subsection (a) in the areas of heating, ventilation, air conditioning equipment, insulation, windows, domestic hot water, food service equipment, and automatic control equipment.

(B) *Costs.*--The report submitted under subparagraph (A) shall detail the projected installation cost, energy and cost savings, and payback period of each energy conservation measure, as determined by using methods and procedures established under section 544(a) of the National Energy Conservation Policy Act (42 U.S.C. 8254(a)).

(3) *Review and Approval of Energy Conservation Measures.*--The Committee on Public Works and Transportation of the House of Representatives and the Committee on Rules and Administration of the Senate shall review the energy conservation measures identified in accordance with paragraph (2) and shall approved any such measure before it may be implemented.

(4) *Utility Incentive Programs.*--In carrying out this section, the Architect is authorized and encouraged to--

(A) accept any rebate or other financial incentive offered through a program for energy conservation or demand management of electricity, water, or gas that--

(i) is conducted by an electric, natural gas, or water utility;

(ii) is generally available to customers of the utility; and

(iii) provides for the adoption of energy efficiency technologies or practices that the Architect determines are cost-effective for the buildings described in subsection (a); and

(B) enter into negotiations with electric and natural gas utilities to design a special demand management and conservation incentive program to address the unique needs of the buildings described in subsection (a).

(5) *Use of Savings.*--The Architect shall use an amount equal to the rebate or other savings from the financial incentive programs under paragraph (4)(A), without additional authorization or appropriation, for the implementation of additional energy and water conservation measures in the buildings under the jurisdiction of the Architect.

(c) *Authorization of Appropriations.*--There are authorized to be appropriated such sums as are necessary to carry out this section.

**B. EXECUTIVE ORDER 12902****ENERGY EFFICIENCY AND WATER CONSERVATION AT FEDERAL FACILITIES**

By the authority vested in me as President by the Constitution and the laws of the United States of America, including the Energy Policy and Conservation Act (Public Law 94-163, 89 Stat. 871, 42 U.S.C. 6201 et seq.) as amended by the Energy Policy Act of 1992 (Public Law 102-486, 106 Stat. 2776) and section 301 of Title 3, United States Code, I hereby order as follows:

**PART 1--DEFINITIONS**

For the purposes of this order:

**Section 101.** The "Act" means the Federal energy management provisions of the Energy Policy and Conservation Act, as amended by the Energy Policy Act of 1992.

**Sec. 102.** The term "comprehensive facility audit" means a survey of a building or facility that provides sufficiently detailed information to allow an agency to enter into energy or water savings performance contracts or to invite inspection and bids by private upgrade specialists for direct agency-funded energy or water efficiency investments. It shall include information such as the following:

- (a) the type, size, energy use, and performance of the major energy using systems and their interaction with the building envelope, the climate and weather influences, usage patterns, and related environmental concerns;
- (b) appropriate energy and water conservation maintenance and operating procedures;
- (c) recommendations for the acquisition and installation of energy conservation measures, including solar and other renewable energy and water conservation measures; and
- (d) a strategy to implement the recommendations.

**Sec. 103.** The term "cost-effective" means providing a payback period of less than 10 years, as determined by using the methods and procedures developed pursuant to 42 U.S.C. 8254 and 10 CFR 436.

**Sec. 104.** The term "demand side management" refers to utility-sponsored programs that increase energy efficiency and water conservation or the management of demand. The term includes load management techniques.

**Sec. 105.** The term "energy savings performance contracts" means contracts that provide for the performance of services for the audit, design, acquisition, installation, testing, operation, and, where appropriate, maintenance and repair, of an identified energy or water conservation measure or series of measures at one or more locations.

**Sec. 106.** The term "agency" means an executive agency as defined in 5 U.S.C. 105. For the purpose of this order, military departments, as defined in 5 U.S.C. 102, are covered under the auspices of the Department of Defense.

**Sec. 107.** The term "Federal building" means any individual building, structure, or part thereof, including the associated energy or water-consuming support systems, which is constructed, renovated, or purchased in whole or in part for use by the Federal Government and which consumes energy or water. In any provision of this order, the term "Federal building" shall also include any building leased in whole or in part for use by the Federal Government where the term of the lease exceeds 5 years and the lease does not prohibit implementation of the provision in question.

**Sec. 108.** The term "Federal facility" means any building or collection of buildings, grounds, or structure, as well as any fixture or part thereof, which is owned by the United States or any Federal agency or which is held by the United States or any Federal agency under a lease-acquisition agreement under which the United States or a Federal agency will receive fee simple title under the terms of such agreement without further negotiation. In any provision of this order, the term "Federal facility" shall also include any building leased in whole or in part for use by the Federal Government where the term of the lease exceeds 5 years and the lease does not prohibit implementation of the provision in question.

**Sec. 109.** The term "franchising" means that an agency would provide the services of its employees to other agencies on a reimbursable basis.

**Sec. 110.** The term "gainsharing" refers to incentive systems that allocate some portion of savings resulting from gains in productivity to the workers who produce those gains.

**Sec. 111.** The term "industrial facilities" means any fixed equipment, building, or complex for the production of goods that uses large amounts of capital equipment in connection with, or as part of, any process or system, and within which the majority of energy use is not devoted to the heating, cooling, lighting, ventilation, or to service the hot water energy load requirements of the building.

**Sec. 112.** The term "life cycle cost" refers to life cycle cost calculated pursuant to the methodology established by 10 CFR 436.11.

**Sec. 113.** The term "prioritization survey" means a rapid assessment that will be used by an agency to identify those facilities with the highest priority projects based on the degree of cost effectiveness and to schedule comprehensive facility audits prior to project implementation. The prioritization survey shall include information such as the following:

- (a) the type, size, energy and water use levels of the major energy and water using systems in place at the facility; and
- (b) the need, if any, for acquisition and installation of cost-effective energy and water conservation measures, including solar and other renewable energy resource measures.

**Sec. 114.** The term "shared energy savings contract" refers to a contract under which the contractor incurs the cost of implementing energy savings measures (including, but not limited to, performing the audit, designing the project, acquiring and installing equipment, training personnel, and operating and maintaining equipment) and in exchange for providing these services, the contractor gains a share of any energy cost savings directly resulting from implementation of such measures during the term of the contract.

**Sec. 115.** The term "solar and other renewable energy sources" includes, but is not limited to, agriculture and urban waste, geothermal energy, solar energy, and wind energy.

**Sec. 116.** The term "utility" means any person, State, or agency that is engaged in the business of producing or selling electricity or engaged in the local distribution of natural gas or water to any ultimate consumer.

## PART 2--INTERAGENCY COORDINATION

**Sec. 201. *Interagency Coordination.*** The Department of Energy ("DOE") shall take the lead in implementing this order through the Federal Energy Management Program ("FEMP"). The Interagency Energy Policy Committee ("656 Committee") and the Interagency Energy Management Task Force ("Task Force") shall serve as forums to coordinate issues involved in implementing energy efficiency, water conservation, and solar and other renewable energy in the Federal sector.

## PART 3--AGENCY GOALS AND REPORTING REQUIREMENTS FOR ENERGY AND WATER EFFICIENCY IN FEDERAL FACILITIES

**Sec. 301. *Energy Consumption Reduction Goals.*** (a) Each agency shall develop and implement a program with the intent of reducing energy consumption by 30 percent by the year 2005, based on energy consumption per-gross-square-foot of its buildings in use, to the extent that these measures are cost-effective. The 30 percent reductions shall be measured relative to the agency's 1985 energy use. Each agency's implementation program shall be designed to speed the introduction of cost-effective, energy-efficient technologies into Federal facilities, and to meet the goals and requirements of the Act and this order.

(b) Each agency shall develop and implement a program for its industrial facilities in the aggregate with the intent of increasing energy efficiency by at least 20 percent by the year 2005 as compared to the 1990 benchmark, to the extent these measures are cost-effective, and shall implement all cost-effective water conservation projects. DOE, in coordination with the 656 Committee, shall establish definitions and appropriate indicators of energy and water efficiency, and energy and water consumption and costs, in Federal industrial facilities for the purpose of establishing a base year of 1990.

**Sec. 302. *Energy and Water Surveys and Audits of Federal Facilities.*** (a) *Prioritization Survey.* Each agency responsible for managing Federal facilities shall conduct a prioritization survey, within 18 months of the date of this order, on each of the facilities the agency manages. The surveys shall be used to establish priorities for conducting comprehensive facility audits.

(b) *Comprehensive Facility Audits.* Each agency shall develop and begin implementing a 10-year plan to conduct or obtain comprehensive facility audits, based on prioritization surveys performed under section 302(a) of this order.

(1) Implementation of the plan shall ensure that comprehensive facility audits of approximately 10 percent of the agency's facilities are completed each year. Agencies responsible for managing less than 100 Federal facilities shall plan and execute approximately 10 comprehensive facility audits per year until all facilities have been audited.

(2) Comprehensive audits of facilities performed within the last 3 years may be considered current for the purposes of implementation.

(3) "No-cost" audits, such as those outlined in Section 501(c) of this order, shall be utilized to the extent practicable.

(c) *Exempt Facilities.* Because the mission within facilities exempt from the energy and water reduction requirements under the Act may not allow energy efficiency and water conservation in certain operations, actions shall be taken to reduce all other energy and water waste using the procedures described in the Act and this order. Each agency shall develop and implement a plan to improve energy and water efficiency in such exempt facilities. The prioritization surveys are intended to allow agencies to refine their designation of facilities as "exempt" or "industrial," so that only individual buildings in which industrial or energy-intensive operations are conducted remain designated as "exempt" or "industrial." Within 21 months of the date of this order, each agency shall report to FEMP and to the Office of Management and Budget ("OMB") the redesignations that the agency is making as a result of the prioritization surveys. Agencies may seek exemptions for their facilities pursuant to the Energy Policy and Conservation Act, as amended.



(d) **Leased Facilities.** Agencies shall conduct surveys and audits of leased facilities to the extent practicable and to the extent that the recommendations of such surveys and audits could be implemented under the terms of the lease.

**Sec. 303. Implementation of Energy Efficiency and Water Conservation Projects.** (a) **Implementation of New Audit Recommendations.** Within 1 year of the date of this order, agencies shall identify, based on preliminary recommendations from the prioritization surveys required under section 302 of this order, high priority facilities to audit and shall complete the first 10 percent of the required comprehensive facility audits. Within 180 days of the completion of the comprehensive facility audit of each facility, agencies shall begin implementing cost-effective recommendations for installation of energy efficiency, water conservation, and renewable energy technologies for that facility.

(b) **Implementation of Existing Audits.** Within 180 days of the date of this order, agencies shall begin to implement cost-effective recommendations from comprehensive audits of facilities performed within the past 3 years, for installation of energy efficiency, water conservation, and renewable energy technologies.

**Sec. 304. Solar and Other Renewable Energy.** The goal of the Federal Government is to significantly increase the use of solar and other renewable energy sources. DOE shall develop a program for achieving this goal cost-effectively and, within 210 days of the date of this order, submit the program to the 656 Committee for review. DOE shall lead the effort to assist agencies in meeting this goal.

**Sec. 305. Minimization of Petroleum-Based Fuel Use in Federal Buildings and Facilities.** All agencies shall develop and implement programs to reduce the use of petroleum in their buildings and facilities by switching to a less-polluting and nonpetroleum-based energy source, such as natural gas or solar and other renewable energy sources. Where alternative fuels are not practical or cost-effective, agencies shall strive to improve the efficiency with which they use the petroleum. Each agency shall survey its buildings and facilities that utilize petroleum-based fuel systems to determine where the potential for a dual-fuel capability exists and shall provide dual-fuel capability where cost-effective and practicable.

**Sec. 306. New Space.** (a) **New Federal Facility Construction.** Each agency involved in the construction of a new facility that is to be either owned by or leased to the Federal Government shall:

(1) design and construct such facility to minimize the life cycle cost of the facility by utilizing energy efficiency, water conservation, or solar or other renewable energy technologies;

(2) ensure that the design and construction of facilities meet or exceed the energy performance standards applicable to Federal residential or commercial buildings as set forth in 10 CFR 435, local building standards, or a Btu-per-gross-square-foot ceiling as determined by the Task Force within 120 days of the date of this order, whichever will result in a lower life cycle cost over the life of the facility;

(3) establish and implement, within 270 days of the date of this order, a facility commissioning program that will ensure that the construction of such facilities meets the requirements outlined in this section before the facility is accepted into the Federal facility inventory; and

(4) utilize passive solar design and adopt active solar technologies where they are cost-effective.

(b) **New Leases For Existing Facilities.** To the extent practicable and permitted by law, agencies entering into leases, including the renegotiation or extension of existing leases, shall identify the energy and water consumption of those facilities and seek to incorporate provisions into each lease that minimize the cost of energy and water under a life cycle analysis, while maintaining or improving occupant health and safety. These requirements may include renovation of proposed space prior to or within the first year of each lease. Responsible agencies shall seek to negotiate the cost of the lease, taking into account the reduced energy and water costs during the term of the lease.

(c) **Government-Owned Contractor-Operated Facilities.** All Government-owned contractor-operated facilities shall comply with the goals and requirements of this order. Energy and water management goals shall be incorporated into their management contracts.

**Sec. 307. Showcase Facilities.** (a) **New Building Showcases.** When an agency constructs at least five buildings in a year, it shall designate at least one building, at the earliest stage of development, to be a showcase highlighting advanced technologies and practices for energy efficiency, water conservation, or use of solar and other renewable energy.

(b) **Demonstrations in Existing Facilities.** Each agency shall designate one of its major buildings to become a showcase to highlight energy or water efficiency and also shall attempt to incorporate cogeneration, solar and other renewable energy technologies, and indoor air quality improvements. Selection of such buildings shall be based on considerations such as the level of nonfederal visitors, historic significance, and the likelihood that visitors will learn from displays and implement similar projects. Within 180 days of the date of this order, each agency shall develop and implement plans and work in cooperation with DOE and, where appropriate, in consultation with the General Services Administration ("GSA"), the Environmental Protection Agency ("EPA"), and other appropriate agencies, to determine the most effective and cost-effective strategies to implement these demonstrations.

**Sec. 308. Annual Reporting Requirements.** (a) As required under the Act, the head of each agency shall report annually to the Secretary of Energy and OMB, in a format specified by the Secretary and OMB after consulting with the 656 Committee. The report shall describe the agency's progress in achieving the goals of this order.

(b) The Secretary of Energy shall report to the President and the Congress annually on the implementation of this order. The report should provide information on energy and water use and cost data and shall provide the greatest level of detail practicable for buildings and facilities by energy source.

**Sec. 309. Report on Full Fuel Cycle Analysis.** DOE shall prepare a report on the issues involved in instituting life cycle analysis for Federal energy and product purchases that address the full fuel cycle costs, including issues concerning energy exploration, development, processing, transportation, storage, distribution, consumption, and disposal, and related impacts on the environment. The report shall examine methods for conducting life cycle analysis and implementing such analysis in the Federal sector and shall make appropriate recommendations. The report shall be forwarded to the President for review.

**Sec. 310. Agency Accountability.** One year after the date of this order, and every 2 years thereafter, the President's Management Council shall report to the President about efforts and actions by agencies to meet the requirements of this order. In addition, each agency head shall designate a senior official, at the Assistant Secretary level or above, to be responsible for achieving the requirements of this order and shall appoint such official to the 656 Committee. The 656 Committee shall also work to ensure the implementation of this order. The agency senior official and the 656 Committee shall coordinate implementation with the Federal Environmental Executive and Agency Environmental Executives established under Executive Order No. 12873.

#### PART 4--USE OF INNOVATIVE FINANCING AND CONTRACTUAL MECHANISMS

**Sec. 401. Financing Mechanisms.** In addition to available appropriations, agencies shall utilize innovative financing and contractual mechanisms, including, but not limited to, utility demand side management programs, shared energy savings contracts, and energy savings performance contracts, to meet the goals and requirements of the Act and this order.

**Sec. 402. Workshop for Agencies.** Within a reasonable time of the date of this order, the Director of OMB, or his or her designee, and the Task Force shall host a workshop for agencies regarding financing and contracting for energy efficiency, water efficiency, and renewable technology projects. Based on the results of that meeting, the Administrator, Office of Federal Procurement Policy ("OFPP"), shall assist the Administrator of General Services and the Secretary of Energy in eliminating unnecessary regulatory and procedural barriers that slow the utilization of such audit, financing, and contractual mechanisms or complicate their use. All actions that are cost-effective shall be implemented through the process required in section 403 of this order.

**Sec. 403. Elimination of Barriers.** Agency heads shall work with their procurement officials to identify and eliminate internal regulations, procedures, or other barriers to implementation of the Act and this order. DOE shall develop a model set of recommendations that will be forwarded to the Administrator of OFPP in order to assist agencies in eliminating the identified barriers.

#### PART 5--TECHNICAL ASSISTANCE, INCENTIVES, AND AWARENESS

**Sec. 501. Technical Assistance.** (a) To assist Federal energy managers in implementing energy efficiency and water conservation projects, DOE shall, within 180 days of the date of this order, develop and make available through the Task Force:

- (1) guidance explaining the relationship between water use and energy consumption and the energy savings achieved through water conservation measures;
- (2) a model solicitation and implementation guide for innovative funding mechanisms referenced in section 401 of this order;
- (3) a national list of companies providing water services in addition to the list of qualified energy service companies as required by the Act;
- (4) the capabilities and technologies available through the national energy laboratories; and
- (5) an annually-updated guidance manual for Federal energy managers that includes, at a minimum, new sample contracts or contract provisions, position descriptions, case studies, recent guidance, and success stories.

(b) The Secretary of Energy, in coordination with the Administrator of General Services, shall make available through the Task Force, within 180 days of the date of this order:

- (1) the national list of qualified water and energy efficiency contractors for inclusion on a Federal schedule; and
- (2) a model provision on energy efficiency and water conservation, for inclusion in new leasing contracts.

(c) Within 180 days of the date of this order, the Administrator of General Services shall:

- (1) contact each utility that has an area-wide contract with GSA to determine which of those utilities will perform "no-cost" audits for energy efficiency and water conservation and potential solar and other renewable energy sources that comply with Federal life cycle costing procedures set forth in Subpart A, 10 CFR 436;

(2) for each energy and water utility serving the Federal Government, determine which of those utilities offers demand-side management services and incentives and obtain a list and description of those services and incentives; and

(3) prepare a list of those utilities and make that list available to all Federal property management agencies through the Task Force.

(d) Within 18 months of the date of this order, the Administrator of General Services, in consultation with the Secretary of Energy, shall develop procurement techniques, methods, and contracts to speed the purchase and installation of energy, water, and renewable energy technologies in Federal facilities. Such techniques, methods, and contracts shall be designed to utilize both direct funding by the user agency, including energy savings performance contracting, and utility rebates. To the extent permitted by law, the Administrator of OFPP shall assist the Administrator of General Services and the Secretary of Energy by eliminating unnecessary regulatory and procedural barriers that would slow the implementation of such methods, techniques, or contracts or complicate their use.

(e) Agencies are encouraged to seek technical assistance from DOE to develop and implement solar and other renewable energy projects.

(f) DOE shall conduct appropriate training for Federal agencies to assist them in identifying and funding cost-effective projects. This training shall include providing software and other technical tools to audit facilities and identify opportunities. To the extent that resources are available, DOE shall work with utilities and the private sector to encourage their participation in Federal sector programs.

(g) DOE, in coordination with EPA, GSA, and the Department of Defense ("DOD"), shall develop technical assistance services for agencies to help identify energy efficiency, water conservation, indoor air quality, solar and other renewable energy projects, new building design, fuel switching, and life cycle cost analysis. These services shall include, at a minimum, a help line, computer bulletin board, information and education materials, and project tracking methods. Agencies shall identify technical assistance needed to meet the goals and requirements of the Act and this order and seek such assistance from DOE.

(h) The Secretary of Energy and the Administrator of General Services shall explore ways to stimulate energy efficiency, water conservation, and use of solar and other renewable energy sources and shall study options such as new building performance guidelines, life cycle value engineering, and designer/builder incentives such as award fees. The studies shall be completed within 270 days of the date of this order. The OFPP will issue guidance to agencies on life cycle value engineering within 6 months of the completion of the studies.

(i) The Secretary of Energy and the Administrator of General Services shall develop and distribute through the Task Force a model building commissioning program within 270 days of the date of this order.

(j) The lists, guidelines, and services in this section of the order shall be updated periodically.

**Sec. 502. Retention of Savings and Rebates.** (a) Within a reasonable time after the date of this order, the Director of OMB, along with the Secretary of Energy, the Secretary of Defense, and the Administrator of General Services, to the extent practicable and permitted by law, shall develop guidelines and implement procedures to allow agencies, in fiscal year 1995 and beyond, to retain utility rebates and incentives received by the agency and savings from energy efficiency and water conservation efforts as provided in section 152 of the Energy Policy Act of 1992 and 10 U.S.C. 2865 and 2866.

**Sec. 503. Performance Evaluations.** To recognize the responsibilities of facility managers, designers, energy managers, their superiors, and, to the extent practicable and appropriate, others critical to the implementation of this order, heads of agencies shall include successful implementation of energy efficiency, water conservation, and solar and other renewable energy projects in their position descriptions and performance evaluations.

**Sec. 504. Incentive Awards.** Agencies are encouraged to review employee incentive programs to ensure that such programs appropriately reward exceptional performance in implementing the Act and this order. Such awards may include monetary incentives such as Quality Step Increases, leave time awards and productivity gainsharing, and nonmonetary and honor awards such as increased authority, additional resources, and a series of options from which employees or teams of employees can choose.

**Sec. 505. Project Teams/Franchising.** (a) Agencies are encouraged to establish Energy Efficiency and Environmental Project Teams ("Project Teams") to implement energy efficiency, water conservation, and solar and other renewable energy projects within their respective agencies. DOE shall develop a program to train and support Project Teams, which should have particular expertise in innovative financing, including shared energy savings and energy savings performance contracting. The purpose of the program is to enable project teams to implement projects quickly and effectively in their own agencies.

(b) Agencies are encouraged to franchise the services of their Project Teams. The ability to access the services of other agencies' teams will foster excellence in project implementation through competition among service providers, while providing an alternative method to meet or exceed the requirements of the Act and this order for agencies that are unable to devote sufficient personnel to implement projects.

**Sec. 506. FEMP Account Managers.** FEMP shall develop a customer service program and assign account managers to agencies or regions so that each project may have a designated account manager. When requested by an agency, the account manager shall start at the audit phase and follow a project through commissioning, evaluation, and reporting. The account manager shall provide technical assistance and shall have responsibility to see that all actions possible are taken to ensure success of the project.

**Sec. 507. Procurement of Energy Efficient Products by Federal Agencies.** (a) "Best Practice" Technologies. Agencies shall purchase energy-efficient products in accordance with the guidelines issued by OMB, in consultation with the Defense Logistics Agency ("DLA"), DOE, and GSA, under section 161 of the Energy Policy Act of 1992. The guidelines shall include listings of energy-efficient products and practices used in the Federal Government. At a minimum, OMB shall update the listings annually. DLA, DOE, and GSA shall update the portions of the listings for which they have responsibility as new products become available and conditions change.

(1) Each agency shall purchase products listed as energy-efficient in the guidelines whenever practicable, and whenever they meet the agency's specific performance requirements and are cost-effective. Each agency shall institute mechanisms to set targets and measure progress.

(2) To further encourage a market for highly-energy-efficient products, each agency shall increase, to the extent practicable and cost-effective, purchases of products that are in the upper 25 percent of energy efficiency for all similar products, or products that are at least 10 percent more efficient than the minimum level that meets Federal standards. This requirement shall apply wherever such information is available, either through Federal or industry-approved testing and rating procedures.

(3) GSA and DLA, in consultation with DOE, other agencies, States, and industry and other nongovernment organizations, shall provide all agencies with information on specific products that meet the energy-efficient criteria of this section. Product information should be made available in both printed and electronic formats.

(b) Federal Market Opportunities. DOE, after consultation with industry, utilities, and other interested parties, shall identify advanced energy-efficient and water-conserving technologies that are technically and commercially feasible but not yet available on the open market. These technologies may include, but are not limited to, the advanced appliance technologies referenced in section 127 of the Energy Policy Act of 1992. DOE, in cooperation with OMB, GSA, DOD, the National Institute of Standards and Technology ("NIST"), and EPA, shall issue a "Federal Procurement Challenge" inviting each Federal agency to commit a specified fraction of their purchases within a given time period to advanced, high-efficiency models of products, provided that these anticipated future products can meet the agency's energy performance, functionality, and cost requirements.

(c) Accelerated Retirement of Inefficient Equipment. DOE, in consultation with GSA and other agencies, shall establish guidelines for the cost-effective early retirement of older, inefficient appliances and other energy and water-using equipment in Federal facilities. Such guidelines may take into account significant improvements in energy efficiency and water conservation, opportunities to down-size or otherwise optimize the replacement equipment as a result of associated improvements in building envelope, system, or industrial process efficiency and reductions in pollutant emissions, use of chlorofluorocarbons, and other environmental improvements.

(d) Review of Barriers. Each agency shall review and revise Federal or military specifications, product descriptions, and standards to eliminate barriers to, and encourage Federal procurement of, products that are energy-efficient or water conserving.

#### **PART 6--WAIVERS**

**Sec. 601. Waivers.** Each agency may determine whether certain requirements in this order are inconsistent with the mission of the agency and seek a waiver of the provision from the Secretary of Energy. Any waivers authorized by the Secretary of Energy shall be included in the annual report on Federal energy management required under the Act.

#### **PART 7--REVOCATION, LIMITATION, AND IMPLEMENTATION**

**Sec. 701.** Executive Order No. 12759, of April 17, 1991, is hereby revoked, except that sections 3, 9, and 10 of that order shall remain effective and shall not be revoked.

**Sec. 702.** This order is intended only to improve the internal management of the executive branch and is not intended to, and does not create, any right to administrative or judicial review, or any other right or benefit or trust responsibility, substantive or procedural, enforceable by a party against the United States, its agencies or instrumentalities, its officers or employees, or any other person.

**Sec. 703.** This order shall be effective immediately.