

# Management Instruction

## Facility Energy Management Program

This instruction provides guidance for implementing the Postal Service facility energy management program to achieve optimum energy efficiency and promote conservation. It defines Postal Service energy goals and policy, energy program elements, budget and fiscal administrative procedures, and organizations responsible for executing this program.

## Background


The mission of the Postal Service is to provide communication services to the nation in the most cost-effective manner possible. To assist in achieving these goals, the Postal Service facility energy management program is intended to reduce facility energy costs and consumption. This program is an integral part of the overall business strategy to continually drive down the unit cost of processing mail.

The Energy Policy Act (EPACT) of 1992 requires federal agencies, including the Postal Service, to reduce energy consumption per gross-square-foot by 20 percent, based on 1985 usage, by the year 2000. The Postal Service has adopted Executive Order (EO) 12902, issued in 1994, that requires federal agencies to develop and implement a program to reduce energy consumption by 30 percent, compared to 1985 consumption levels, by the year 2005 to the extent that it is cost-effective. The Postal Service is required to report annually to the Department of Energy and Congress on its energy reduction progress in its effort to achieve EPACT and EO goals.

## Policy

The purpose of the Postal Service facility energy management program is to make all its facilities as energy-efficient as possible and reduce total operating costs where the Postal Service pays utility costs. To achieve the Congressionally mandated energy reduction goal and to reduce the operating costs, the Postal Service must develop appropriate programs to reduce electricity and other utility costs; procure energy-efficient products; construct, operate, and maintain energy-efficient facilities; and promote efficient use of energy among Postal Service employees.

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## **NOTICE**

This management instruction is intended to improve the internal management of the Postal Service and is not intended to, nor does it, create any right or benefit, substantive or procedural, enforceable at law or equity, by any party against the Postal Service, its officers, or any other person.

In support of the Postal Service national program, each area must develop a Strategic Energy Management Plan (SEMP) that addresses the core program elements listed in the following section. Performance clusters (or districts, if appropriate) must also develop a SEM, coordinating it with the area SEM.

## **Program Elements**

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The program elements are the core activities of a SEM for meeting EPACT goals and reducing operating costs. A 5-year SEM must be developed by the energy program committees (EPCs) at the area (AEPC) and performance cluster (PCEPC) levels and should be updated annually.

The SEM should establish proposed energy reduction goals and strategies, list key EPC personnel and their responsibilities, define budget requirements including future capital outlay, establish procedures for monitoring and reporting energy consumption, and identify training and auditing requirements. When this plan is updated annually, it should include an evaluation of past energy performance and obstacles encountered. A copy of these plans should be forwarded to Environmental Management Policy (EMP).

The SEM includes the following program elements: goal setting, facility surveys and energy audits, energy cost accounting, monitoring and reporting, employee energy awareness and outreach, energy training, awards and recognition, operations and maintenance (O&M), energy-efficient products and specifications, retrofit and repair and alteration projects, alternative financing methods, and new facility design, as described below.

### **Goal Setting**

Areas and performance clusters (or districts) are to establish individual energy reduction goals in support of the Postal Service national goals and the Congressionally mandated goals. These goals should be clearly defined, and the progress toward these goals should be measurable.

### **Facility Surveys and Energy Audits**

As needed, facility surveys and energy audits are conducted to identify energy savings opportunities, prioritize projects, evaluate the effectiveness of previous conservation measures, and measure the progress toward goals. The Postal Service will develop appropriate energy survey plans that comply with the EPACT energy survey requirements. The Postal Service will use the Federal Energy Decision Screening (FEDS) system and other software approved by EMP, as appropriate. Under the leadership of the PCEPC, energy surveys and audits are to be conducted using survey and audit protocols approved by the area environmental compliance coordinator (AECC).

## Energy Cost Accounting

Standard management tools must be used to verify the actual return on investment for previous projects. In addition, all utility expenditures should be verified and validated by the facility manager. The utility rate structures are to be reviewed annually to ensure that postal facilities are on the appropriate utility rate structure. Also, load management or alternative fuel sources should be considered for reducing high-demand energy charges. All energy consumption and billing records must be kept at postal facilities where the Postal Service pays the utilities for at least 5 years.

## Monitoring and Reporting

For each facility, energy consumption data must be tracked to measure the performance toward achieving energy and cost reduction goals. The Postal Service will use an automated information system to monitor and track the energy costs measured in dollars per square foot and calculate energy consumption in British thermal units (Btus) per square foot. For reporting purposes, the utility costs are monitored through the Postal Service Financial Reporting (PSFR) information system. The Btu energy consumptions are calculated based on average utility or fuel unit price, i.e., dollars per kilowatt hour (\$/kWh), \$/deca-therm, \$/gallon of heating oil, etc.

## Employee Energy Awareness and Outreach

Postal Service energy users should receive instruction sufficient to operate energy systems effectively and to promote energy-efficient initiatives. Energy awareness messages are to be publicized using the existing Postal Service communication channels such as the *Postal Bulletin* and articles in *FOCUS*. The Postal Service will participate in and promote the National Energy Awareness campaign and will publicize the awards and recognition programs sponsored by the Postal Service and the Department of Energy.

## Energy Training

Each area and performance cluster (or district) must classify the various levels of training required to ensure that the appropriate postal employees have training sufficient for efficient operations and maintenance of energy systems. Adequate training is to be provided to all designated energy coordinators. These training efforts are to be coordinated through the area or district environmental compliance coordinators. The Postal Service will also develop appropriate energy training classes and training aids through the Technical Training Center.

## ACRONYMS AND ABBREVIATIONS

AECC	area environmental compliance coordinator
AEPC	area energy program committee
Btu	British thermal unit
DECC	district environmental compliance coordinator
DSM	demand-side management
EMP	Environmental Management Policy
EO	Executive Order
EPACT	Energy Policy Act
EPC	energy program committee
ESCO	energy service company
FEC	facility energy coordinator
FEDS	Federal Energy Decision Screening system
FMSWIN	Facilities Management System for Windows
FSO	facilities service office
HVAC	heating, ventilation, and air-conditioning
kWh	kilowatt hour
MTSC	Maintenance Technical Support Center
O&M	operations and maintenance
PCEPC	performance cluster energy program committee
PMSC	purchasing and materials service center
PSFR	Postal Service Financial Reporting system
ROI	return on investment
SEMP	Strategic Energy Management Plan
SES	shared energy savings

## **Awards and Recognition**

The Postal Service will recognize outstanding contributions made by individual employees, teams, and organizations in achieving energy efficiency and reducing energy operating costs. Also, the Postal Service will actively participate in the Department of Energy's Annual Awards Program.

## **Operations and Maintenance**

The purpose of O&M in the facility energy management program is to achieve optimum operating efficiency of the facility through proper maintenance of all energy systems. The primary focus for O&M in this program is to ensure proper operation and preventive maintenance of lighting systems; heating, ventilation, and air-conditioning (HVAC) equipment; HVAC control systems; and motors. Maintenance Policies and Programs and the Maintenance Technical Support Center (MTSC) are to continuously improve O&M policies and procedures.

## **Energy-Efficient Products and Equipment Specifications**

The Postal Service program for ensuring procurement of energy-efficient products and equipment consists of (1) standard product and equipment specifications and (2) "best value" principles. Standard specifications are developed for the most energy-efficient products and equipment on the market.

Under the "best value" principles, initial cost is not the overriding factor in a decision to buy. Other factors such as energy consumption, energy efficiency, and life-cycle analysis related to energy conservation are as or more important than initial cost in the procurement of products and equipment. As part of this program, the Postal Service procurement rules and regulations emphasize maximum flexibility for purchasing energy-efficient supplies.

## **Retrofit and Repair and Alteration Projects**

The ongoing retrofit and repair and alteration programs identify and implement projects that can demonstrate a high return on investment (ROI) on a life-cycle basis and that also consider their environmental benefits. Where possible, retrofit projects should take advantage of utility company rebate and demand-side management (DSM) initiatives. Repair and alteration project managers are responsible for incorporating energy efficiency elements into all repair and alteration projects.

## Alternative Financing Methods

Alternative funding for facility energy projects can be provided in the following ways: utility company rebate programs, utility DSM programs, shared energy savings (SES) projects, or a combination of postal funds, utility programs, and third-party financing (see Budget and Fiscal Administrative Procedures).

*DSM programs* are public utility-sponsored programs that encourage energy efficiency improvements by offering rebates and other subsidies to their customers who use their approved energy-efficient technologies. Postal facilities should take advantage of DSM programs if their local utilities offer them.

SES projects are initiated at the area or district level after energy savings opportunities have been identified and the appropriate local Postal Service officials approve the proposal. The Postal Service is encouraged to enter into a partnering agreement with a utility company or its energy service company (ESCO) to initiate SES projects. SES contract negotiations are processed and awarded through the purchasing and materials service center (PMSC).

### DEFINITION

An *SES project* is a contract between the Postal Service and an ESCO where the Postal Service agrees to pay an ESCO a percentage of the energy cost savings resulting from energy retrofit projects financed and implemented by an ESCO on postal buildings.

## New Facility Design

New facilities will continue to be designed in accordance with strict cost-effective energy design targets and the criteria described in Handbook AS-503, *Standard Design Criteria*. Handbook AS-503 includes optimized envelope performance, high-efficiency lamps and ballasts, automatic lighting controls, high-efficiency HVAC systems, and energy management control systems.

## Budget and Fiscal Administrative Procedures

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The facility energy management program will be funded from any of the following: postal funds, utility company rebate programs, utility DSM programs, SES projects, or a combination of postal funds, utility company programs, and third-party financing. EMP at Headquarters will provide adequate postal funds to implement energy retrofit projects that represent a high ROI or to take advantage of a rebate offer from a utility company. The area and performance cluster EPCs should prioritize these projects based on their ROI for energy savings.

Projects identified through the facility energy surveys are submitted for funding as part of the budgeting process. Each facility manager and postmaster submits projects for consideration as part of the normal budget process through the existing management structure to the district environmental compliance coordinator (DECC), who in turn seeks the EPC's approval. A separate budget account number has been

established to track expenditures for energy retrofit projects and is to be used in all budget submittals. Utility costs are tracked as a separate budget line item.

## **Energy Program Budgeting**

EMP develops annual budget requirements for capital and expense projects for the national facility energy management program and distributes appropriate funding to the area. At the area and performance cluster (or district) levels, planned projects are determined by the area and performance cluster EPCs. The AECCs distribute the funds based on ROI ranking and DECC project requests.

## **Expense and Capital Projects**

Expense projects include, but are not limited to, consulting fees, design fees, certain allowable travel and training expenses related to energy conservation, and repair and alteration replacement or retrofit projects meeting the expense project criteria.

Capital projects include repair and alteration replacement or retrofit projects where improved technologies are incorporated into energy-consuming building systems meeting the capital project criteria.

## **Follow-Up of Energy Projects**

The projected or estimated ROI of energy projects should be confirmed 1 year after completion. The benefits of project follow-up are to document actual savings, review the ROI for approval, and evaluate potential future projects. The energy management projects are to be tracked using the Facilities Management System for Windows (FMSWIN).

## **Future Projects**

Future energy projects are reviewed based on a simple ROI. The review considers the environmental benefits of these projects. Upon approval by the AECC or DECC, as appropriate, project requests are sent to the district Administrative Support, PMSC, or facilities service office (FSO), as appropriate, for contract administration. The financial investment committee or capital investment committee may be required to approve these projects.

## **Shared Energy Savings Projects**

Under an SES contract, the Postal Service agrees to pay the contractor a percentage of the energy cost savings associated with the installed energy conservation opportunities. The shared energy savings formula is based on a payment schedule of 3 to 5 years.



To initiate an SES project, the requester develops a Justification of Expenditures to send to the district. All SES projects must have concurrence from postal managers, including the area or district environmental compliance coordinator, area Finance and Operations, and other appropriate functional areas. After the Justification of Expenditure is prepared and approved, attach it to Form 7381, *Requisition for Supplies, Services, or Equipment*, and send the entire package to the PMSC. Payments for contract services are made from line 42 savings, account indicator code 585, account number 54156.

## Responsibilities

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Although the following duties may be delegated, the primary responsibility for each part of the facility energy management program ultimately rests with the facility managers. Designated energy coordinators and key stakeholders are responsible for assisting facility managers in becoming familiar with and responsible for compliance with EPACT and EO requirements (see the attachment, Energy Program Management Infrastructure, for a summary of facility energy management program responsibilities.)

### Headquarters

#### Vice President, Engineering

The vice president of Engineering, as the chief environmental and energy officer for the Postal Service, is responsible for the development of policies, plans, and programs for implementing the Postal Service national energy program.

#### Environmental Management Policy

Environmental Management Policy is responsible for the following:

1. Program development and oversight — EMP develops program elements and oversees the implementation of the national SEMP in compliance with requirements of EPACT and applicable EOs.
2. Goal determination — EMP determines annual goals, based on past performance, targeting national EPACT and EO goals.
3. Economic value added — EMP develops and tracks economic value added elements of the facility energy management program.
4. Program funding — EMP provides national funds to the areas to implement specific energy projects based on ROI criteria.
5. Review of area plans — EMP annually reviews the area SEMP for consistency with energy program goals and objectives.

6. National energy tracking system — EMP develops and manages the national energy tracking system. EMP also reviews and ensures the accuracy of reported data and annually prepares and submits a performance report to the Department of Energy and Congress.
7. Awareness and communications — EMP develops awareness and communications programs, using existing corporate resources, to promote energy technologies.
8. Training — EMP reviews and upgrades, as necessary, existing training courses to ensure that they incorporate applicable energy conservation practices.
9. National awards and recognition program — EMP initiates an internal national awards program to recognize outstanding energy conservation efforts.

### **Maintenance Policies and Programs**

Maintenance Policies and Programs is responsible for continuous improvements of O&M procedures for various energy-consuming systems. Maintenance personnel throughout all levels of postal operations are an integral part of the facility energy management program, and they serve as the technical liaison for program implementation.

### **Maintenance Technical Support Center**

The MTSC is responsible for the development and dissemination of maintenance management orders to field maintenance. The MTSC is to update the existing maintenance management orders as appropriate.

### **Facilities**

Facilities is responsible for implementing applicable energy conservation policies, plans, and programs into new construction and major renovations. They are also responsible for ensuring cost-effective energy saving features in new designs, monitoring energy performance of new facilities to verify efficiency, and including facility energy management program measures in building design criteria.

### **Headquarters Energy Workgroup**

As appropriate, a Headquarters energy workgroup is formed to coordinate policy issues relating to facility energy management. The membership of this workgroup can vary depending on the nature of new initiatives and the expertise required.

### **Facilities Service Office**

The FSO is responsible for incorporating energy conservation in new construction and major renovations. The FSO has a standing membership in the AEPC and is also responsible for ensuring that new designs have the most cost-effective energy saving features; monitoring energy



performance of newly constructed facilities to verify efficiency; and employing building design criteria to incorporate facility energy management program features.

## **Areas**

### **Vice President, Area Operations**

The vice president of Area Operations is responsible for implementing the area's facility energy management program.

### **Area Energy Program Committee**

The AEPC should be composed of the AECC and representatives as designated by the FSO manager and the area managers of Maintenance Support, Finance, In-Plant Support, and the PMSC. The AEPC is responsible for developing and implementing the area SEMP. In addition, it provides program oversight that includes training, support responsibilities, accounting and monitoring, and new facility design review. The AEPC has the authority to approve funding for these types of projects in the facility energy management program and serves a similar function at appropriate levels as the capital investment committee.

### **Area Environmental Compliance Coordinator**

AECCs serve as the chair of each AEPC and are responsible for the following program management functions:

1. Area program oversight — AECCs implement and oversee national energy policies developed by EMP and Headquarters and provide feedback to EMP. They are the direct line of communication from EMP and keep each vice president of Area Operations informed about energy issues. AECCs are responsible for evaluating energy performance in each area.
2. Performance cluster (or district) goals — AECCs review and approve annual energy goals for the performance cluster (or district) to ensure compliance with the national SEMP (see EMP responsibilities).
3. Project review and funding approval — AECCs review and prioritize energy projects based on ROI. EMP provides AECCs with funding for the top priority projects to meet each area's energy goals. AECCs provide a mechanism to fund energy project studies, surveys, and designs.
4. Area performance tracking — AECCs ensure the completeness and validity of energy data and conduct a trend analysis as needed.
5. Awareness and communications — AECCs identify and communicate SEMP status, progress, and initiatives.

6. Training — AECCs develop and implement a structured training program for energy coordinators and annually review training needs.
7. Awards and recognition program — AECCs identify energy projects in coordination with the DECCs. Award nominations are to be submitted to the DECCs and AECCs. AECCs review all nominations and forward the finalists to EMP for consideration.

## **Maintenance Support**

The area Maintenance Support units are responsible for providing technical energy program support to the AECC. Representatives from Maintenance Support serve on the AEPC and assist the AECC in the development of the area SEMP. They are also responsible for disseminating technical guidance and daily support to the program, including instructions for maintaining the existing energy reporting system.

## **Finance**

The area Finance units are responsible for tracking energy expenditures at the area level. These units assist the AECCs in the development and implementation of energy cost tracking systems.

## **Facility Managers**

The primary responsibility for each part of the energy program ultimately rests with the facility managers. Designated energy coordinators and key stakeholders are responsible for assisting area facility managers in becoming familiar with, and responsible for, compliance with EPACT and energy opportunity requirements.

## **Performance Clusters**

### **Performance Cluster Energy Program Committee**

The PCEPC should be composed of the DECC and representatives as designated by the district managers of Administrative Support, Operations Support, Finance, the lead plant, and lead plant Maintenance. The PCEPC is responsible for developing the performance cluster (or district, if appropriate) SEMP. In addition, it provides program oversight that includes energy audits, training, program implementation, support responsibilities, and accounting and monitoring.

### **District Environmental Compliance Coordinator**

DECCs serve as the chair of each PCEPC and are responsible for the following:

1. Performance cluster program oversight — DECCs implement and oversee national energy policies developed by EMP as well as those of the area SEMP developed by the AECCs. DECCs also provide feedback from the performance cluster and the facility

energy coordinators (FECs) to the AECC and provide coordination between the area and the performance cluster. DECCs are responsible for evaluating energy performance in all performance cluster facilities.

2. Facility goals — DECCs base energy goals for individual facilities on actual performance and analyze the goals to ensure their compliance with the performance cluster's annual goals and the goals of the national SEMP (see AECC responsibilities).
3. Project funding request — DECCs coordinate the funding requests from field or local projects identified by the FECs and approved by the PCEPC.
4. Performance cluster performance tracking — DECCs review consumption data submitted by FECs to ensure its completeness and accuracy.
5. Awareness and communications — DECCs are responsible for keeping facility managers and energy project managers aware of program information. DECCs are also responsible for disseminating energy information and providing information on local energy conservation opportunities and measures.
6. Training — DECCs implement a structured training program for the FECs consistent with the training program developed by the AECCs. Training requirements are to be reviewed annually.
7. Awards and recognition program — DECCs support the national awards and recognition program (see EMP responsibilities) by identifying facilities and individuals for awards and submitting the nominations to the AECC.

## **Finance**

The district Finance units are responsible for tracking energy expenditures at the performance cluster (or district) level. These units assist the DECCs in the development and implementation of energy cost tracking systems.

## **Facility Managers**

The primary responsibility for each part of the energy program ultimately rests with the facility managers. Designated energy coordinators and key stakeholders are responsible for assisting district facility managers in becoming familiar with, and responsible for, compliance with EPACT and energy opportunity requirements.

## Facility Energy Coordinator

At maintenance-capable offices, the manager of Maintenance is the FEC. At all other locations, the facility manager is the FEC. FECs are responsible for the following:

1. Program implementation — FECs apply and implement the program initiatives developed by the PCEPC. They provide direct support to DECCs on the facility energy management program.
2. Compliance and opportunity review — FECs review plant and facility operations for energy conservation goals and energy savings opportunities. They also assist in design review to ensure that energy efficiency measures are incorporated. These reviews are used to develop funding requests to the PCEPC.
3. Facility program management — FECs assist in developing the energy management program for facilities. They recommend energy projects and energy conservation opportunities to the PCEPC.
4. Operations and maintenance — FECs assist in implementing energy conservation practices by integrating them into preventive maintenance activities. The primary focus for O&M in the facility energy management program is on lighting, HVAC, HVAC controls, and motors.
5. Monitoring — FECs monitor overall performance of the facility and recommend O&M changes.
6. Facility awareness training — FECs provide awareness training on the performance cluster SEMP and energy conservation.

## Technical Training Center

The Technical Training Center is responsible for developing the training requested by EMP. This includes awareness and technical training programs in support of the facility energy management program.

## Definitions

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The following terms are considered central to this instruction:

1. Designated energy coordinator — A general term for an energy coordinator that includes the facility energy coordinator and energy coordinators at the performance cluster (or district) and area levels. Any postal or contract employee could be designated as an energy coordinator.
2. Energy conservation — Reducing overall energy consumption.
3. Energy conservation measures — Measures that have been implemented for energy conservation or improved efficiency.
4. Energy conservation opportunities — Opportunities that have been identified for energy savings or improved efficiency.

5. Energy efficiency — Producing the same or improved output with fewer energy inputs.
6. Energy survey plans — Plans for conducting energy surveys to identify energy conservation opportunities at facilities.
7. Facility energy coordinator — A postal or contract employee who has the additional responsibility to coordinate and implement the facility energy management program at a building or group of buildings.
8. Funding office — The office that is responsible for funding projects at the Headquarters, area, or district level.
9. Internal rate of return — Calculated by subtracting 1 from the  $n$ th root of the ratio of the terminal value of savings to the present value of costs, where  $n$  is the number of years in the study period. The numerator of the ratio is calculated by using the discount rate to compound forward to the end of the study period the yearly net savings in energy and nonfuel O&M costs attributable to the proposed energy project. The denominator of the ratio is the present value of the net increase in investment and replacement costs less salvage value attributed to the proposed energy project.
10. Load management — Shifting electrical loads away from peak demand periods when the local utility imposes “demand” charges based not only on total kilowatts per hour used but also on the highest kilowatt demand over a certain period of time.
11. Preventive maintenance — Maintenance performed on a regular schedule to prevent deterioration or sudden failure of energy-using systems.
12. Return on investment — The ratio of the resulting profits or payoff benefits versus the initial costs of investment. ROI is measured in terms of internal rate of return.

### Energy Program Management Infrastructure

