



April 9, 2008

TOM SAMRA
VICE PRESIDENT, FACILITIES

CAROLYN COLE
ACTING EXECUTIVE DIRECTOR, ENERGY INITIATIVES

SUBJECT: Audit Report – Facilities Energy Management Strategy
(Report Number DA-AR-08-004)

This report presents the results of our self-initiated audit of the U.S. Postal Service Facilities Energy Management Strategy (Project Number 07YG065DA000). Our objective was to evaluate whether the Postal Service has an energy management strategy for facilities to meet federal requirements. See [Appendix A](#) for additional information on this audit.

Energy Management Planning, Policies, and Consumption Data

The Postal Service has a facilities energy management program to meet federal energy requirements. However, expanding short-range planning, widening facility focus, and updating energy policies would increase strategic effectiveness. In addition, the Postal Service conducts energy reduction activities at its facilities and annually reports energy reductions based on cost data, but does not systematically collect and use data on actual energy consumption. Without systematically using actual consumption data, the Postal Service cannot effectively establish baselines and priorities, measure progress, or support the reported energy reductions at over 34,000 facilities. Consequently, the Postal Service risks:

- Not complying with federal mandates to reduce energy consumption.
- Inaccurately reporting energy consumption data to the Department of Energy (DOE).

See [Appendix B](#) for our detailed analysis of this issue.

We recommend the Vice President, Facilities, in coordination with the Acting Executive Director, Energy Initiatives:

1. Finalize and publish a National Energy Management Plan. This plan should establish a long-term vision and goals that encompass facilities referenced in the 2007 Energy Independence and Security Act.
2. Update the *Facility Energy Management Policy and Guide*. This should clarify the organizational structure for carrying out energy management responsibilities.
3. Continue to develop systems for reporting actual energy consumption baselines and progressing toward energy reduction goals. In this regard, management should consider expanding electronic energy billing interfaces to collect actual energy consumption data or develop other long-term solutions.

Management's Comments

Management agreed with the recommendations. In response to recommendation 1, management plans to publish the National Energy Management Plan by August 1, 2008. To address recommendation 2, management plans to revise the *Facility Energy Management Policy and Guide* by October 1, 2008, based on organizational changes and new processes and procedures to perform work. Finally, in response to recommendation 3, management plans to present a business case by August 1, 2008, to support national expansion of the Utility Management System.

Management also provided information clarifying the legal interpretation of the Energy Policy Acts of 1992 and 2005 and the 2007 Energy Independence and Security Act (EISA) and how this legislation impacts the Postal Service. While acknowledging the need for an overall 30 percent reduction in energy use by 2015, the Postal Service maintains they are not obligated to comply with all aspects of the legislation since the organization holds a unique status in the federal government. Specifically, management believes EISA Sections 432 and 435, regarding assignment of an energy manager at each facility and addressing leased facilities, respectively, are not applicable to the Postal Service. Management further explained EISA Sections 517 and 435, regarding training contracting officers and requiring 75 percent energy coverage for buildings, respectively, are subject to guidance the Department of Energy has yet to develop.

We have included management's comments in their entirety in [Appendix D](#).

Evaluation of Management's Comments

Management's comments are responsive to the recommendations and the corrective actions should resolve the issues identified in the report. We agree that the provisions of the 2007 EISA that management references do not specifically apply to the Postal Service. These provisions amend Section 543 of the National Energy Conservation Policy Act, which only applies to the Postal Service to the extent the Postmaster General is responsible for overseeing compliance with federal energy mandates. As such, Congress left in place the requirement to follow energy consumption standards.

The U.S. Postal Service Office of Inspector General (OIG) considers management's comments responsive to the recommendations in the report. The OIG considers all recommendations significant, and therefore requires OIG concurrence before closure. Consequently, the OIG requests written confirmation when corrective actions are completed. These recommendations should not be closed in the follow-up tracking system until the OIG provides written confirmation that the recommendations can be closed.

We appreciate the cooperation and courtesies provided by your staff. If you have any questions or need additional information, please contact Miguel Castillo, Director, Engineering, or me at (703) 248-2100.

E-Signed by Darrell E. Benjamin, 
VERIFY authenticity with ApproveIt

Darrell E. Benjamin, Jr.
Deputy Assistant Inspector General
for Support Operations

Attachments

cc: Patrick Donahoe
Katherine S. Banks

APPENDIX A: ADDITIONAL INFORMATION

BACKGROUND

The Postal Service has over 34,000 facilities nationwide. During fiscal years (FY) 2006 and 2007, the Postal Service expended more than \$600 million in utilities to support operations in these facilities. When compared to all federal entities, the Postal Service is the second largest consumer of energy after the Department of Defense (DOD).

Federal legislation designed to reduce energy consumption continues to affect the Postal Service. In particular, the Energy Policy Acts (EPACT) of 1992 and 2005 require the Postal Service to lower its energy consumption to specific goals. The 2007 EISA expanded these requirements.¹ Under the 1992 EPACT, the Postal Service was required to reduce energy consumption by 20 percent through FY 2000, where practicable, using a 1985 baseline. The 2005 EPACT and the 2007 EISA require, collectively, a 30 percent reduction in consumption between 2006 and 2015 using a 2003 baseline. In response to energy legislation, the Postal Service annually reports energy consumption reductions for its facilities to the Department of Energy (DOE).

In FY 2006, the Postal Service created a senior level energy position reporting directly to the Deputy Postmaster General. The Executive Director of Energy Initiatives is responsible for overall Postal Service energy reduction activities and works with vice presidents, such as the Vice President of Facilities, to create and implement Postal Service energy management strategies. Also in FY 2007, Facilities Management was given the authority and responsibility to develop strategies and implement activities to reduce energy consumption in the building inventory.

OBJECTIVE, SCOPE, AND METHODOLOGY

Our objective was to evaluate whether the Postal Service has an energy management strategy for facilities to meet federal requirements.

To accomplish our objective, we reviewed annual reports on energy management and conservation programs and federal agencies' energy scorecards, and interviewed current and former managers responsible for the Postal Service's Energy Management Program. We also consulted the U.S. Postal Service OIG General Counsel on the Postal Service's obligations associated with federal legislation. In addition, we reviewed electrical consumption data the Postal Service reported to the DOE.

Further, we reviewed data from the Accounting Data Mart to identify FY 2007 utility costs and the Facilities Management Database to identify facility data useful to our

¹ [Appendix C](#) summarizes energy legislation applicable to the Postal Service.

audit. Previous OIG reports related to these systems did not reveal weaknesses that would impact our audit.

We conducted this performance audit from September 2007 through April 2008 in accordance with generally accepted government auditing standards and included tests of internal controls that we considered necessary under the circumstances. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objective. We believe the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objective. We discussed our observations and conclusions with management officials on February 14, 2008, and included their comments where appropriate.

PRIOR AUDIT COVERAGE

We did not identify any prior audits or reviews related to the objective of this audit.

APPENDIX B: DETAILED ANALYSIS

Postal Service Can Strengthen Energy Planning

The Postal Service has a number of strategies and activities under way to reduce energy consumption at its facilities. In November 2007, the Postal Service energy initiatives team implemented a program with a supplier to collect utility energy cost and consumption data at 500 of its largest facilities and 100 smaller ones. The team has also contracted with suppliers to complete energy audits nationwide and begin implementing actions to take advantage of identified energy conservation opportunities.

However, a long-term energy management plan does not exist. Without a long-term energy management plan, the Postal Service cannot effectively maximize its energy conservation efforts as required by the 2007 EISA. A long-term energy management plan would set goals, identify a method for tracking reduced consumption, identify project financing to accomplish goals, and measure performance.

The first phase of the Postal Service's energy management strategy has included:

- Contracting with a vendor to successfully complete a pilot period of up to 1 year to capture actual cost and consumption data, improve bill management, and analyze rates and taxes paid. The targeted facilities account for 60 to 70 percent of utility energy costs.²
- Identifying and starting detailed energy audits for targeted facilities.
- Initiating development of an Enterprise Energy Management System. This system is intended to consolidate all energy information including actual meter and sub-meter information from the largest facilities.
- Upgrading design standards and instituting detailed operating procedures to ensure all new construction, repair, and alteration projects are as energy efficient as they are cost effective.

The 2007 EISA specifies energy reductions at a group of facilities that constitute 75 percent of energy use. While we recognize management's efforts to improve energy efficiency at its facilities, the Postal Service's initial focus of reviewing the largest 500 sites accounts for only 60 to 70 percent of its utilities costs. These 500 sites represent less than 2 percent of Postal Service-owned and leased facilities and 40 percent of the total square footage of facilities. This focus may not allow the organization to reduce energy use by 30 percent.

² The Postal Service estimates consumption based on costs rather than actual consumption.

An OIG audit³ of energy activities in the Northern Virginia District noted many low or no-cost opportunities for lowering energy consumption at facilities that are not part of this initial site focus. While performing site walk-through inspections at facilities as small as 11,000 square feet, we noted opportunities such as increasing energy awareness, installing lighting sensors, and changing thermostat settings. We believe that considerable potential exists to reduce energy at many facilities beyond the top 500 sites.

Internal Energy Policies Outdated

The Postal Service's energy policies are outdated. Both the *Facility Energy Management Program Management Instruction* (AS-550-97-4, dated June 1997) and the *Facility Energy Management Guide* (AS-558, dated September 1998) reference obsolete goals and responsibilities. Since the agency issued these policies, goals for reducing energy consumption have changed because of new legislation. Also, the responsibility for the Postal Service's national energy program, including the development of policies and plans, no longer resides with the Vice President, Engineering.

National policies set the direction of the agency and reflect the level of commitment the organization is willing to make. Without clearly defined policies, goals, measures, and responsibilities, the Postal Service cannot assess its progress in reducing energy consumption.

Reported Reductions in Energy Consumption Not Validated

In an effort to establish a repeatable and verifiable methodology, the Postal Service changed its process for calculating consumption for the 2007 reporting period as well as for prior years (back to 2003). The agency based its new methodology on standard federal templates for completing a DOE report. This significantly changed the amount of consumption reported in the last two annual reports, as shown in Table 1.

³ *Northern Virginia District Energy Management Savings* (Report Number DA-AR-08-003, dated March 20, 2008).

Table 1. FYs 2006 and 2007 Annual Reports: Postal Service Facility Energy Usage

	<i>FY 2006 Energy Consumption (British Thermal Units-BTU)</i>	<i>FY 2007 Energy Consumption (BTU)</i>	<i>FY 2006 Facility Space (Millions Square Feet-MSF)</i>	<i>FY 2007 Facility Space (MSF)</i>	<i>FY 2006 BTUs per Gross Square Foot (GSF)</i>	<i>FY 2007 BTUs per GSF</i>
<i>FY 2003</i>	23,969	31,986	353	314	68	102
<i>FY 2005</i>	23,425	35,237	361	311	65	113
<i>FY 2006</i>	22,231	33,999	332	314	67	108
<i>FY 2007</i>		27,938		313		89

Although this new methodology is repeatable and verifiable, it does not necessarily provide an accurate representation of energy consumption. The Postal Service calculates energy consumption as a cost per square foot, which may be misleading as the per unit cost of energy will fluctuate over time, so this does not necessarily equate to levels of consumption. In comparison, we noted the DOD captures actual meter readings for its consumption data.

There were also significant changes in the amount of facility space reported in the *2007 Annual Report on Energy Management and Conservation Programs*. The current methodology uses the square footage from the facilities management database and the Postal Service's annual report. However, the basis for reporting facility square footage in prior reports is not clear. According to Facilities personnel, sites were removed because they were partially used and their inclusion would skew the results and show the Postal Service as being more energy-efficient than it actually is.

Further, the Postal Service made significant changes in reporting cost per unit. Prior to 2007, the Postal Service calculated the estimated cost per unit on a regional basis which was \$.03 per kilowatt hour more than the federal average. Calculations in the annual report used a federal average cost per unit provided by the DOE.

An indication of the fluctuations that can occur when using dollars spent to calculate energy consumption can be seen in a comparison with actual consumption data for Postal Service facilities in the state of Texas. We compared actual consumption with estimated consumption data reported to the DOE and the cost calculated on a regional basis. As shown in Table 2 below, this comparison reflected a difference ranging from 9 percent below actual consumption using the regional method, to 11.9 percent above actual consumption using the federal average.

Table 2. Comparison of Electrical Energy Consumption in Kilowatt Hours (KWHR)

	<i>Invoice Amount</i>	<i>Unit Cost</i>	<i>KWHRs</i>	<i>Difference in KWHRs</i>	<i>Percent Difference in KWHRs</i>
Actual Consumption for Facilities in the State of Texas	\$25,070,653	\$0.09	279,981,789		
Consumption Based on Regional Average		\$0.10	254,524,398	-25,457,391	-9.09
Consumption Based on Federal Average		\$0.08	313,383,165	33,401,376	11.93

The Postal Service also reported two energy credits⁴ as part of its energy reduction. The first was an 8 percent credit in FY 2000 for increases in automation and the second was a 4 percent credit in FY 2006 for installation of the Ventilation Filtration System (VFS) and the Biohazard Detection System (BDS). This was also updated in the 2007 annual report to reflect a revised 1.5 percent credit for VFS and BDS. The Postal Service could not provide supporting documentation for the 8 percent automation credit taken in FY 2000 and the revised credit was based on estimates rather than actual consumption.

Without accurate consumption data, the nationwide impact for energy reduction cannot be validated. In addition, the Postal Service cannot accurately determine whether its strategy or activities are achieving approximately 3 percent⁵ annual reductions to keep pace with federal legislation.

Opportunity to Collect Actual National Consumption Data

The Postal Service has not collected actual consumption data systematically on a national basis since updates to the Energy Consumption System ended in 1992. During the audit, we noted that energy providers can send electronic consumption data through an electronic data interchange and the Postal Service can store this data in its eBuy system.⁶ However, the Postal Service has not taken full advantage of this opportunity for all of its sites. At the time of our review, the eBuy database listed 44 utility providers. Nationwide, the Postal Service made payments to 7,349 utility providers and less than 1 percent of these providers accounted for approximately 65 percent of utility payments, averaging \$22.5 million monthly for the first three quarters in FY 2007. The Postal Service could require or negotiate an electronic data interface (EDI) from at least its largest energy suppliers.

⁴ Energy credits are adjustments provided for the increase in energy consumption through new or increased automation or an increase in facility space.

⁵ The Postal Service has 10 years (2006-2015) to reduce consumption by 30 percent when considering the 2005 EPACT and the 2007 EISA, or approximately 3 percent per year.

⁶ eBuy is an all-electronic purchasing system developed for the Postal Service. It includes electronic utility invoicing and payment.

We recognize the Postal Service has contracted for data collection primarily at its 500 largest sites. Expanding EDI could provide a low-cost alternative for consumption data at a larger universe of sites.

APPENDIX C

SUMMARY – ENERGY MANAGEMENT LEGISLATION

Energy Policy Act of 1992

- Specifically mentions the Postal Service.
- Calls for a 20 percent energy reduction at facilities through FY 2000.
- Section 166 subjected the Postal Service to the same requirements as other federal agencies in Section 543 of the National Energy Conservation Policy Act (NECPA).
- Energy initiatives are to be implemented to the maximum extent practical.

Energy Policy Act of 2005

- Amended many provisions of building energy requirements.
- Set energy reduction goals to 20 percent between 2006 and 2015.

Energy Independence and Security Act of 2007

- Passed before the Postal Service implemented many of the 2005 EPACT recommendations.
- Section 431 expands energy reduction goals to 30 percent between 2006 and 2015.
- Section 432 amends NECPA Section 543 to require each federal agency to designate a federal energy manager responsible to reduce energy use at each facility that is included in a group of facilities that constitute 75 percent of the energy use at the agency. The energy manager shall complete a comprehensive energy and water evaluation study for 25 percent of the facilities within the 75 percent energy usage group each calendar year. The energy manager will use a web-based certification process the DOE established for the identified facilities.
- Section 435 states that, 3 years after enactment, no federal agency may lease space that is not Energy Star labeled unless there is no space available that meets the functional needs of the agency.
- Section 517 requires training for agency contracting officers in (1) negotiating energy savings performance contracts, (2) concluding effective and timely contracts for energy efficiency services with all companies offering these services, and (3)

reviewing federal contracts for all products and services for the potential energy efficiency opportunities and implications of the contracts.

APPENDIX D: MANAGEMENT'S COMMENTS

TOM A. SAMRA
VICE PRESIDENT, FACILITIES



March 31, 2008

JOHNSON JOHN

SUBJECT: Transmittal of Draft Audit Report – Facilities Energy Management Strategy
(Report Number DA-AR-08-DRAFT)

We are pleased to provide the attached response to the recommendations in the Office of the Inspector General (OIG) Draft Audit Report. We are in agreement with the three recommendations to strengthen our energy management strategies for facilities to meet federal requirements.



If you have questions regarding our response, and would like to discuss them further, please contact Robert McNiece (336) 665-2828 or Carolyn C. Cole at (202) 268-4136.

Handwritten signature of Tom A. Samra in black ink.

Tom A. Samra
Vice President, Facilities

Handwritten signature of Carolyn C. Cole in black ink.

Carolyn C. Cole
Acting Executive Director, Energy Initiatives

Attachment

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Facilities Energy Management Strategy
Management Response March 31, 2008

We recommend the Vice President, Facilities, in coordination with the Acting Executive Director, Energy Initiatives:

Recommendation 1: Finalize and publish a National Energy Management Plan. This plan should establish a long-term vision and goals that encompass facilities referenced in the Energy Independence and Security Act of 2007.

Response: We agree. We are in the process of developing the National Energy Management Plan. Our goal is to publish the plan by August 1, 2008.

It is prudent for us to provide legal interpretation and clarification of the law as it applies to the Postal Service.

The material in this draft OIG report on the energy reduction mandates does not accurately reflect the fact that the Postal Service, while required to meet certain specific building energy reduction goals, is authorized by statute to reach the goals through its own program, independent of the programs applicable to the rest of the government. The Postal Service is not to be treated the same as other government entities and has been recognized as having a unique status within the federal government.

The Postal Service is an independent establishment of the executive branch of the federal government. It is part of the federal government but not an executive agency as that term is defined in section 105 of title 5. The legislative history of the Postal Reorganization Act repeatedly emphasized the need for the Postal Service to be separate from the governmental controls of the executive and legislative branches of the government.

The Energy Policy Act of 1992, in section 166, set forth the building energy management requirements for the Postal Service. The Energy Policy Act of 1992 amended the National Energy Conservation Policy Act (42 U.S.C. 8251 et seq.). Section 166 of the Energy Policy Act of 1992 applied the same building energy reduction goals to the Postal Service as it applied to the rest of the government under section 152 that amended section 543 of the National Energy Conservation Policy Act -- energy consumption was to be reduced so that in fiscal year 2000, in federal buildings, energy consumption per gross square foot was to be at least 20 percent less than it was in 1995. However, special provision was made for the Postmaster General to either (1) make the reductions to maximum extent practicable, or (2) exclude from the requirements any facility or group of facilities if the Postmaster General finds compliance with the requirements to be impracticable based on the energy intensiveness of activities carried out in such facility. In 1992, in the initial version of the legislation that was considered, the activities of the Postal Service were to be covered in the same way as other agencies. Based upon testimony by postal officials, the legislation was amended to direct the Postal Service to establish its own program for monitoring and reducing building energy. The decision to have the Postal Service adopt its own energy management program was based on the fact that to do otherwise would fly in the face of the intent of Congress when it enacted the Postal Reorganization Act to exempt the Postal Service from most government-wide legislation. The Postal Service was required to operate in a businesslike, efficient manner with responsibility for its own budget and funds. It also has its own independent contracting authority. Having the Postal Service manage its own energy management program was consistent with this mandate.

The Energy Policy Act of 2005 amended the National Energy Conservation Policy Act Section 543 to require that agencies reduce facility energy consumption 20% by the year 2015, as compared with 2003 levels. Beginning in 2006, agencies were to reduce energy consumption in increments of 2% per year until 2015.

The Energy Independence and Security Act of 2007 (EISA), in section 431, further amended the National Energy Conservation and Policy Act (42 USC 8253) to require that federal agencies reduce energy in federal buildings 30% by 2015 based on a 2003 baseline.

Facilities Energy Management Strategy
Management Response March 31, 2008

For specific comments, on page 5 of the draft report it is mentioned that the Postal Service selected the largest 500 facilities. This is within the purview of Section 166, and the mandate under EISA to cover 75% of the energy use is not an applicable requirement upon the Postal Service. Rather, the Postal Service is required to reduce overall energy use by 30% and how it achieves that requirement is within management discretion. Further, the 75% energy coverage for buildings is subject to guidance yet to be developed by DOE.

Under Appendix C, the discussion of the Independence and Security Act of 2007 mentions that federal agencies must designate facility energy managers but this requirement is not applicable to the USPS under the general exclusion from application of federal laws that cover employees to the Postal Service under Title 39 and the EPACT Section 166 language dealing with compliance with energy management requirements. Also, Section 435 of EISA dealing with leased facilities is not applicable to the Postal Service under Title 39 and EPACT Section 166.

Section 517 of EISA on training contracting officers requires development of the training by DOE. Management will send appropriate personnel to this training.

Target Completion Date: August 1, 2008

Recommendation 2: Update the *Facility Energy Management Policy and Guide*. This should clarify the organizational structure for carrying out energy management responsibilities.

Response: We agree. We are in the process of revising based on the organizational changes and the new process and procedures to perform work.

Target Completion Date: October 1, 2008

Recommendation 3: Continue to develop systems for reporting actual energy consumption baselines and progressing toward energy reduction goals. In this regard, management should consider expanding electronic energy billing interfaces to collect actual energy consumption data or develop other long-term solutions.

Response: We agree. The Utility Management System (UMS) currently provides actual consumption information on the top 500 facilities and 100 smaller sites. It is our goal to develop the Business case to support the national expansion of UMS. We expect to have this Business case completed by August 1, 2008, which will include a strategy for implementation.

Given our infrastructure of 34,000 buildings with 24,000 of these being smaller than 5,000 square feet, it is critical that we fully determine the cost benefit relationship with having actual consumption information for every building. We are also ensuring that capital improvements performed in any size facility are as energy efficient as cost effective or as a minimum meet very strict energy performance guidelines. Since the USPS will spend ~\$500 million in FY2008 alone on these types of projects, considerable improvement will be made in facilities of all sizes and not just the top 500.

Target Completion Date: August 1, 2008