



Treasury Inspector General for Tax Administration Office of Audit

IMPLEMENTING BEST PRACTICES AND ADDITIONAL CONTROLS CAN IMPROVE DATA CENTER ENERGY EFFICIENCY AND THE ENVIRONMENTAL AND ENERGY PROGRAM

Issued on May 7, 2010

Highlights

Highlights of Report Number: 2010-20-044 to the Internal Revenue Service Chief, Agency-Wide Shared Services.

IMPACT ON TAXPAYERS

Federal agencies have been directed to improve their energy efficiency and reduce greenhouse gas emissions. Internal Revenue Service (IRS) management indicated the agency's overall energy program has consistently met standards set forth in all pertinent Executive Orders and legislative mandates. However, while data centers typically consume more energy than other types of buildings, the IRS has not yet fully implemented most data center best practices. As a result, the IRS has not maximized the energy efficiency and use of taxpayer funds resulting from decreased energy consumption in its data centers.

WHY TIGTA DID THE AUDIT

This audit was initiated to determine whether the Real Estate and Facilities Management organization has established and implemented an effective environmental and energy program to ensure the improvement of data center energy efficiency.

In January 2007, Executive Order 13423, *Strengthening Federal Environmental, Energy, and Transportation Management*, was enacted to strengthen the environmental, energy, and transportation management of Federal agencies.

WHAT TIGTA FOUND

The Real Estate and Facilities Management organization has implemented programs and processes to improve energy efficiency. For example, some facilities fully implemented an Environmental Management System and/or were awarded the ENERGY STAR® designation. In addition, the Real Estate and Facilities Management organization has a training program to ensure employees requiring training have access to applicable courses and completion of the training is documented.

However, the IRS does not have policies and procedures for improving energy efficiency in the data centers or for implementing data center energy efficiency best practices. TIGTA estimated that the IRS could potentially realize savings of \$3,172,872 over 4 years, at 2 sites, by implementing best practices to improve airflow management.

The IRS also had not developed adequate policies and procedures for controlling and monitoring energy efficiency improvement projects.

WHAT TIGTA RECOMMENDED

TIGTA recommended that the Chief, Agency-Wide Shared Services, work with the Chief Technology Officer to ensure 1) policies and procedures are established to evaluate and determine which best practices to implement, 2) information technology equipment energy use is measured (i.e., sub-metered), 3) employee workstations, equipment, and furniture that are no longer needed are removed from the data centers, 4) current and future data center space needs are identified and plans developed to consolidate or reduce excess data center space, and 5) energy audits (including an assessment of best practices) are performed at the data centers. In addition, the Chief, Agency-Wide Shared Services, should ensure 6) a governance process is established and 7) a database of all recommendations and projects is established.

In their response to the report, IRS management agreed with all of the recommendations but questioned the outcome measure contained in the audit report. The IRS plans to take many corrective actions. After considering the IRS' comments, TIGTA maintains that the outcome measure in the report is valid.

READ THE FULL REPORT

To view the report, including the scope, methodology, and full IRS response, go to:

<http://www.treas.gov/tigta/auditreports/2010reports/201020044fr.pdf>.

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