Office of Inspector General

Office of Audits and Evaluations
Report No. EVAL-13-003

The FDIC's Compliance with Energy Management Requirements

August 2013

Office of Inspector General

Executive Summary

The FDIC's Compliance with Energy Management Requirements

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Why We Did The Evaluation

We performed the evaluation in response to a request from the Bicameral Task Force on Climate Change, dated February 25, 2013. The Task Force also sent letters to nearly 70 other Offices of Inspector General (OIG) requesting that they perform similar assessments. Consistent with the Task Force request, our evaluation objectives were to (1) identify the existing energy management requirements in legislation, regulation, executive order, and other directives that apply to the FDIC; (2) assess whether the FDIC is meeting those requirements; and (3) make recommendations that the FDIC improve its performance if the FDIC is not fully meeting the requirements.

The Task Force request letter also asked the OIG to assess the authorities that the FDIC has to reduce emissions of heat-trapping pollution, its authorities to make the nation more resilient to the effects of climate change, and the most effective additional steps the FDIC could take in those areas. Our March 28, 2013 response to the Task Force concluded that the FDIC does not have authorities in these areas and that the FDIC's focus should remain on maintaining public confidence in the nation's financial system and not be expanded to cover these additional areas.

Background

The federal government is the nation's single largest energy consumer, and federal buildings accounted for about 35 percent of the government's total energy usage in fiscal year 2008. For decades, the federal government has attempted to improve energy efficiency and water conservation at federal facilities.

Several laws and Executive Orders (EO) have been implemented over the years to reduce energy and water consumption. The National Energy Conservation Policy Act (NECPA), codified at 42 U.S.C. § 8252 et. seq., serves as the underlying authority for federal energy management goals and requirements. The Department of Energy's (DOE) Federal Energy Management Program (FEMP) provides services, tools, and expertise to federal agencies to help them achieve their legislated and executive-ordered energy, greenhouse gas, and water reduction goals.

Within the FDIC, the Division of Administration (DOA) is responsible for the Corporation's energy management and conservation efforts. The FDIC owns four buildings located in Virginia, Washington, D.C., and California, which are divided into seven buildings for energy-tracking purposes. The FDIC also leased 105 office spaces across the United States as of April 2013.

Evaluation Results

The FDIC is subject to energy efficiency measures and related reporting requirements in certain legislation. Specifically, the FDIC's Legal Division opined that NECPA is binding on the FDIC as are certain parts of the *Energy Independence and Security Act of 2007*, the *Energy Policy Act of 2005*, and the *Energy Policy Act of 1992*,[1] each of which amended NECPA. As an independent agency of the federal government, the FDIC is not required to comply with EOs but has voluntarily complied with some of the provisions of EOs pertaining to energy efficiency.

[1] Public Laws 110-140, 109-58, and 102-486, respectively.

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The FDIC has undertaken a number of efforts to reduce its energy and water consumption and to recycle waste materials. Notable efforts have included capital improvements at its owned buildings, such as replacing heating, ventilation, and air conditioning systems and adding supplemental boilers and chillers to provide heating and cooling more efficiently; installation of energy efficient lighting, room occupancy sensors, and water efficient fixtures; recycling efforts; and the use of environmentally preferable products. Other initiatives have also contributed to less energy usage, such as corporate support for telecommuting, video conferencing, carpooling, flexible work schedules, and electronic sharing of information.

Notwithstanding those efforts, we concluded that the FDIC could do more to comply with energy reduction, water management, and reporting requirements contained in legislation. Specifically, we concluded that the FDIC should:

- Take steps aimed at meeting legislative energy reduction goals;
- Establish a training program for energy managers;
- Perform comprehensive periodic evaluations of covered facilities;
- Implement and monitor energy conservation measures that are life cycle cost-effective;
- Report information to DOE about covered facilities;
- Report annually to DOE on the Corporation's activities for meeting federal energy management requirements;
- Establish a process for reviewing large capital energy investment decisions; and
- Research additional opportunities with energy service companies, state agencies, and other third parties to identify and participate in programs that achieve energy and water savings.

During the period of our evaluation, the FDIC took steps to address several of these areas.

Further, while the FDIC addressed several components of a 2008 OIG report recommendation to establish a formal sustainability program, the FDIC would benefit from fully implementing the spirit of this recommendation by developing and documenting energy management policies and procedures, related goals, and initiatives for meeting FEMP requirements. Formalizing a sustainability program would encompass many of the areas discussed in our report.

This report contains eight recommendations to strengthen the FDIC's energy efficiency measures and programs and its compliance with applicable legislation and reporting requirements.

Corporation Comments

On August 9, 2013, the Director, DOA provided a written response to a draft of this report. DOA's response stated that the FDIC has undertaken a number of initiatives to reduce energy and water consumption but recognized that the FDIC can do more to comply with energy and water management reporting requirements. In its response, DOA concurred with all eight of the report's recommendations and described its planned corrective actions to be completed by December 31, 2014. The planned actions are responsive to the recommendations.

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Federal Deposit Insurance Corporation
3501 Fairfax Drive, Arlington, VA 22226

Office of Audits and Evaluations
Office of Inspector General

DATE: August 19, 2013

MEMORANDUM TO: Arleas Upton Kea, Director
Division of Administration

/Signed/
FROM: Stephen M. Beard
Deputy Inspector General for Audits and Evaluations

SUBJECT: *The FDIC's Compliance with Energy Management Requirements* (Report No. EVAL-13-003)

This report presents the results of our evaluation of the FDIC's compliance with applicable legislation and Executive Orders (EO) related to energy reduction and efficiency efforts. We performed this evaluation in response to a request from the Bicameral Task Force on Climate Change, dated February 25, 2013. The Task Force also sent letters to nearly 70 other Offices of Inspector General (OIG) requesting that they perform similar assessments.

Objectives

Consistent with the Task Force request letter, our evaluation objectives were to (1) identify the existing energy management requirements in legislation, regulation, executive order, and other directives that apply to the FDIC; (2) assess whether the FDIC is meeting those requirements; and (3) make recommendations that the FDIC improve its performance if the FDIC is not fully meeting the requirements.

The Task Force request letter also asked the OIG to assess the authorities that the FDIC has to reduce emissions of heat-trapping pollution, its authorities to make the nation more resilient to the effects of climate change, and the most effective additional steps the FDIC could take in those areas. Our initial response to the Bicameral Task Force on Climate Change, dated March 28, 2013, assessed these items and concluded that the FDIC does not have authorities in these areas and it is our view that the FDIC's focus should remain on maintaining public confidence in the nation's financial system and not be expanded to cover these additional areas. Our complete response to these items is provided in Appendix 4 of this report.

We performed our evaluation from March 2013 through June 2013 in accordance with the Council of the Inspectors General on Integrity and Efficiency's *Quality Standards for Inspection and Evaluation*. Appendix 1 of this report includes additional details regarding our objectives, scope, and methodology. Additional appendices include specific legislative requirements that are binding on the FDIC, the request letter from the Bicameral Task Force on Climate Change,

our initial response to the Task Force letter, a glossary of terms,[1] acronyms used in the report, the FDIC's response to the report's recommendations, and a summary of the Corporation's corrective actions.

Background

The federal government is the nation's single largest energy consumer, and federal buildings accounted for about 35 percent of the government's total energy usage in fiscal year (FY) 2008. For decades, the federal government has attempted to improve energy efficiency and water conservation at federal facilities.

Several laws and EOs have been implemented over the years to reduce energy and water consumption. The National Energy Conservation Policy Act (NECPA), codified at 42 United States Code (U.S.C.) § 8252 et. seq., serves as the underlying authority for federal energy management goals and requirements. Signed into law in 1978, NECPA is periodically updated and amended. The United States Department of Energy's (DOE) Federal Energy Management Program (FEMP) provides services, tools, and expertise to federal agencies to help them achieve their legislated and executive-ordered energy, greenhouse gas (GHG), and water reduction goals. FEMP facilitates the federal government's implementation of sound, cost-effective energy management practices to enhance the nation's energy security and environmental stewardship.

Within the FDIC, the Division of Administration (DOA) is responsible for the Corporation's energy management and conservation efforts. In particular, the Facilities Operation Section within the Corporate Services Branch (CSB) is responsible for developing and implementing the Corporation's Energy Plan, coordinating construction and renovation activities, procuring and monitoring utility services, identifying and implementing energy and water conservation measures, and managing the FDIC's consolidated building engineering service contract.

The FDIC owns four buildings located in Virginia, Washington D.C., and California, which are divided into seven buildings for energy-tracking purposes.

- Virginia Square Facility located at 3501 North Fairfax Drive, Arlington, Virginia 22226 (Virginia Square Buildings). This facility is divided as follows for energy-tracking purposes:
    - Buildings A and B
    - Building C
    - Buildings D and E
    - Student Residence Center
- 550 17th Street, NW, Washington, DC 20429 (550 Building)
- 1776 F Street, NW, Washington, DC 20429 (1776 Building)
- San Francisco Regional Office located at 25 Jessie Street, San Francisco, California 94105 (SFRO)

The FDIC also leased 105 office spaces across the United States as of April 2013.

[1] Underlined terms are defined in Appendix 5, *Glossary of Terms*.

Evaluation Results

The FDIC is subject to energy efficiency measures and related reporting requirements in certain legislation. Specifically, the FDIC's Legal Division opined that NECPA is binding on the FDIC as are certain parts of the *Energy Independence and Security Act of 2007* (EISA), the *Energy Policy Act of 2005*, and the *Energy Policy Act of 1992*,[2] each of which amended NECPA.[3] As an independent agency of the federal government, the FDIC is not required to comply with EOs but has voluntarily complied with some of the provisions of EOs pertaining to energy efficiency.[4]

The FDIC has undertaken a number of efforts to reduce its energy and water consumption and to recycle waste materials. Notable efforts have included capital improvements at its owned buildings such as replacing heating, ventilation, and air conditioning (HVAC) systems; adding supplemental boilers and chillers to provide heating and cooling more efficiently; installing energy-efficient lighting, room occupancy sensors, and water-efficient fixtures; recycling efforts; and using environmentally preferable products. Other initiatives have also contributed to less energy usage, such as corporate support for telecommuting, video conferencing, carpooling, flexible work schedules, and electronic sharing of information.

Notwithstanding those efforts, we concluded that the FDIC could do more to comply with energy reduction, water management, and reporting requirements contained in legislation. Specifically, we concluded that the FDIC needs to:

- Take steps aimed at meeting legislative energy reduction goals;
- Establish a training program for energy managers;
- Perform comprehensive periodic evaluations of covered facilities;
- Implement and monitor energy and water conservation measures (ECM) that are life cycle cost-effective;
- Report information to DOE about covered facilities;
- Report annually to DOE on the Corporation's activities for meeting federal energy management requirements;
- Establish a process for reviewing large capital energy investment decisions; and
- Research additional opportunities with energy service companies (ESCO), state agencies, and other third parties to identify and participate in programs that achieve energy and water savings.

During the period of our evaluation, the FDIC took steps to address several of these areas.

Further, while the FDIC addressed several components of a 2008 OIG report recommendation to establish a formal sustainability program,[5] the FDIC would benefit from fully implementing the

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[2] Public Laws (Pub. L.) 110-140, 109-58, and 102-486, respectively.

[3] EISA also amended the Energy Conservation and Production Act (ECPA), Pub. L. 94-385, as amended, which the FDIC is not required to follow. Accordingly, the FDIC is not required to follow those EISA provisions that amended ECPA.

[4] Some provisions in EOs were ultimately included in EISA and became binding on the FDIC.

[5] *Energy Efficiency of the FDIC's Virginia Square Facility and Information Technology Data Center*, dated September 2008 (EVAL-08-005). See report at: http://www.fdicig.gov/reports08/08-005EV.pdf

spirit of this recommendation by developing and documenting energy management policies and procedures, related goals, and initiatives for meeting FEMP requirements. Formalizing a sustainability program would encompass many of the areas discussed in our report.

This report contains eight recommendations to strengthen the FDIC's energy efficiency measures and programs and its compliance with applicable legislation and reporting requirements.

Applicable Legislative Requirements and Executive Orders

This section identifies the existing requirements in legislation, regulation, EO, and other directives that apply to the FDIC.

Legislative Requirements

The FDIC's Legal Division opined that the FDIC is subject to the:

- Fully-amended *National Energy Conservation Policy Act* (NECPA),
- *Energy Independence and Security Act of 2007* (EISA),
- *Energy Policy Act of 2005*, and
- *Energy Policy Act of 1992*.

NECPA serves as the underlying authority for federal energy management goals and requirements. Signed into law in 1978, it has been periodically updated and amended by subsequent laws.

The February 25, 2013 letter from the Bicameral Task Force referenced EISA. EISA amended NECPA and contains 16 titles, two of which have sections that are applicable to the FDIC: Title IV – Energy Savings in Buildings and Industry and Title V – Energy Savings in Government and Public Institutions. Generally, these titles require the FDIC to (1) meet specified energy consumption reduction goals, (2) appoint energy managers, (3) perform energy and water evaluations, (4) report energy use information and reduction efforts to DOE, (5) develop a process for reviewing large capital energy investment decisions, and (6) ensure the purchase of certain energy-efficient products, when practicable. Following EISA's enactment, the FDIC's Legal Division completed an analysis of EISA for DOA, which identified the EISA sections that are applicable to the FDIC. Appendix 2 of the report identifies the specific EISA requirements that the FDIC is subject to and provides a brief description of those requirements.

While some of the provisions in the *Energy Policy Act of 2005* and the *Energy Policy Act of 1992* apply to the FDIC, many of the provisions of these two older laws have subsequently been amended, particularly by EISA.

The FDIC is not subject to EISA provisions requiring that reports be submitted to the Office of Management and Budget (OMB) on energy reduction efforts, nor has the FDIC transmitted any such reports to the OMB.[6]

Executive Orders

The FDIC's Legal Division has long maintained that the Corporation is not subject to provisions contained in EOs unless expressly authorized by law. Nevertheless, the FDIC has implemented several measures that comply with provisions in EOs, as outlined in our report. Some provisions in these EOs were also included in EISA and became binding on the FDIC when EISA was enacted in December 2007.

- Executive Order 13514, *Federal Leadership in Environmental, Energy, and Economic Performance*, October 5, 2009.

- Executive Order 13423, *Strengthening Federal Environmental, Energy, and Transportation Management*, January 24, 2007.

- Executive Order 13221, *Energy Efficient Standby Power Devices*, July 31, 2001.

The FDIC's Energy Management and Sustainability Efforts

DOA indicated that, since 2006, CSB has incorporated energy management and sustainability principles into most aspects of the operation, maintenance, and upgrading of the FDIC's owned facilities. DOA noted that many of the energy management and sustainability principles adopted and employed by CSB have been developed by the United States Green Building Council's Leadership in Energy and Environmental Design (LEED) programs or are required by legislation or EO.

DOA indicated that CSB utilizes industry experts to conduct periodic building and condition surveys and energy studies of FDIC-owned facilities. CSB evaluates ECMs recommended from those studies in terms of feasibility, cost savings, and impact on attaining LEED certification and/or compliance with legislation or EOs. ECMs are ranked based on these criteria and are included in CSB's Capital Improvement Plan.

The FDIC's Virginia Square Buildings A and B achieved an ENERGY STAR label in June 2013 and LEED silver level certification in 2011. In 2012, the FDIC also entered into a services contract for its disaster recovery site, which was LEED gold level certified.[7] A brief description of selected FDIC energy efficiency and sustainability efforts follows.

[6] As an independent agency, the FDIC conducts its operations with minimal OMB oversight. The Federal Deposit Insurance Act (FDI Act) expressly prohibits OMB from exercising jurisdiction or oversight over the affairs or operations of the Corporation, as noted in section 17(c)(3) of the FDI Act, codified at 12 U.S.C. section 1827(c)(3).
[7] The FDIC does not own this building.

- At the time of our evaluation, the FDIC was implementing an HVAC retrofit project at the 550 Building to maximize the building's energy efficiency, increase occupant comfort, and attain LEED certification. CSB estimated a 23-percent reduction in the building's energy consumption after the HVAC system is replaced and new energy-efficient windows and programmable/adjustable lighting systems are installed. The 550 Building HVAC retrofit project was also being designed to achieve a LEED certification upon the project's completion, which was estimated to be at the end of 2015.

- In 2012, the FDIC installed a 60-ton "supplemental" chiller in the 1776 Building to supplement the main chiller. The supplemental chiller cools the building's main lobby and 1C level and operates on weeknights and weekends to avoid having the building's main chiller operate. CSB stated that this project resulted in a 9-percent reduction in energy use.

- In 2011, the FDIC installed a "Summer Boiler" to serve the Virginia Square D and E Buildings. This small, 125 horsepower boiler operates during the summer months, instead of using one of the building's three 400 horsepower boilers, when less heating is required. CSB estimated annual energy savings associated with use of the "Summer Boiler" to be approximately 2,430,000 kilowatt hours per year (KWH/yr).

- In 2011, the FDIC installed energy-efficient lighting fixtures and a programmable/adjustable lighting control system in the Virginia Square A and B Buildings. CSB estimated a corresponding energy reduction of 56 percent pertaining to lighting.

- In 2010, the FDIC replaced and oriented the HVAC controls and temperature sensors in the Virginia Square A, B, and C Buildings to an automated control system, enabling more effective monitoring and control. CSB estimated that these HVAC system upgrades, in combination with the implementation of night and weekend temperature adjustments, reduced energy by approximately 1,508,500 KWH/yr.

The FDIC's Compliance with Legislative Requirements

While the FDIC has pursued a number of energy management and sustainability efforts, the Corporation could do more to comply with legislative energy management requirements for federal agencies. The following sections describe key requirements and the FDIC's compliance with those requirements.

Meet Energy Performance Requirements for Federal Buildings

Section 8253 of NECPA requires agencies to apply ECMs to their federal buildings so that the energy consumption per gross square foot of those buildings is reduced.[8] Section 431 of EISA

[8] Section 8253 of NECPA also requires agencies to improve the construction design of federal buildings to reduce energy consumption.

(42 U.S.C. § 8253(a)(1)) amended NECPA and set forth specific energy reduction goals for FYs 2006 through 2015. EISA requires agencies to reduce energy consumption, per gross square foot, of their federal buildings by 30 percent in FY 2015, compared to FY 2003 energy consumption levels, as shown in Table 1.

FDIC Compliance. The FDIC has not reduced its energy consumption in line with this legislative goal, as illustrated in Table 1 or formally established energy reduction goals. Compared to FY 2003, the FDIC's energy use increased each year from FYs 2004 through 2012, with the exception of FYs 2005 and 2011.

Table 1: Total Energy Use at FDIC-Owned Buildings: Fiscal Years 2003 – 2012

FY Ended 09/30	Energy Use Per Square Foot [a] (KBTUs) [b]	Change in Energy Use Per Square Foot Compared to FY 2003	Legislative Energy Reduction Goal
2003	126.18	-----	-----
2004	135.09	7.06%	-----
2005	122.27	-3.10%	-----
2006	126.63	0.36%	-2.00%
2007	131.42	4.15%	-4.00%
2008	137.73	9.16%	-9.00%
2009	139.87	10.85%	-12.00%
2010	130.69	3.57%	-15.00%
2011	123.51	-2.12%	-18.00%
2012	130.98	3.80%	-21.00%
2015	-----	-----	-30.00%

Source: OIG analysis of FDIC energy use information that DOA entered into ENERGY STAR Portfolio Manager.

[a] The FDIC's covered facilities comprised 1,162,503 square feet of space from FYs 2003 – 2005 and 1,590,360 square feet of space from FYs 2006 – 2012. The additional square footage resulted from the construction of the Virginia Square C, D, and E Buildings in 2005. These buildings were occupied in 2006 and this is when the FDIC began tracking utility payments for these buildings.

[b] KBTUs refers to Kilo British Thermal Units.

DOA officials indicated that significant increases in staffing and contractor resources in response to the recent financial crisis impacted the FDIC's ability to meet EISA's energy reduction goals. FDIC staffing increased by 78 percent (from 4,693 to 8,337 employees) from 2007 through 2010.[9] This resulted in a significant increase in energy usage, particularly from an increase in computer equipment, according to DOA. DOA also noted that the number of on-site contractors has increased significantly and these contractors often share office space, which increases energy costs without a corresponding increase in office space.

As a result, DOA management stated that, in addition to tracking compliance with the legislative energy reduction goal, it also plans to track energy consumption by individual full-time employees and contractors and seek out ways to reduce energy consumption per employee. As of July 2013, DOA had not established a timeframe or methodology for implementing this analysis.

[9] Includes permanent, term, and temporary employees at all of the FDIC's owned and leased spaces.

Recommendation

We recommend that the Director, DOA:

1. Establish energy reduction goals and a formal approach to reduce energy use, compared to energy use in FY 2003.

Install Advance Metering Devices and Benchmark Federal Buildings

Section 8253(e) of NECPA requires all federal buildings to be metered for tracking electricity use by October 1, 2012. Further, to the maximum extent practicable, agencies should use advanced meters that provide data at least daily and that measure electricity consumption at least hourly in the federal buildings of the agency. Section 434 of EISA amended NECPA, requiring that each agency provide for equivalent metering of natural gas and steam by October 1, 2016.

Section 432 of EISA (42 U.S.C. § 8253(f)) also requires agencies to enter energy use data for each metered building into a benchmarking system such as the ENERGY STAR Portfolio Manager. This system, designed by the Environmental Protection Agency (EPA), allows agencies to report energy consumption of each building and has the ability to produce energy use reports that summarize energy information and building characteristics such as site and source energy intensity, carbon dioxide emissions, gross floor area, and the number of personal computers.

ENERGY STAR Portfolio Manager also allows users to rate building energy performance on a scale of 1-100 relative to similar buildings nationwide. A rating of 50 indicates that the building, from an energy consumption standpoint, performs better than 50 percent of all similar buildings nationwide. Buildings rated 75 or greater may qualify for an ENERGY STAR label, which recognizes superior energy performance in a single building. Buildings may also qualify for LEED ratings if they have a minimum ENERGY STAR score of 69.

FDIC Compliance. All of the FDIC's owned buildings are metered for electricity, as required, and some buildings are also sub-metered. The four Virginia Square Buildings and the 550 Building contain advanced meters. The FDIC was installing advanced meters in the SFRO in May 2013, and plans to install advanced meters in the 1776 Building by the end of 2013. DOA is aware of the requirement to meter for natural gas and steam by October 1, 2016 and plans to comply with this requirement.

DOA staff estimated that they have been regularly reporting energy use information in ENERGY STAR Portfolio Manager since around 2006 or 2007, and we found that energy use information was tracked in the system going back to 2003. However, the FDIC did not make information in ENERGY STAR Portfolio Manager available to DOE until April 2013.

We confirmed that ENERGY STAR information was publicly available for FDIC buildings on DOE's Web site. Table 2 presents ENERGY STAR rating information for the FDIC's owned buildings as of September 30, 2012. The FDIC's Virginia Square Buildings A and B achieved an ENERGY STAR label in June 2013 and LEED silver level certification in 2011, as noted

earlier. However, the FDIC's other buildings were rated between 19 and 64, making them ineligible for an ENERGY STAR label.

Table 2: ENERGY STAR Ratings for FDIC-Owned Buildings as of September 30, 2012

Building	ENERGY STAR Rating
Virginia Square: A and B Buildings	81
Virginia Square: D and E Buildings	60
Virginia Square: Student Residence Center	19
550 Building	44
1776 Building	52
SFRO	64

Source: DOE's Compliance Tracking System (CTS).
Note: The configuration of the Virginia Square C Building makes it unable to be ENERGY STAR rated.

Designate Covered Facilities

DOE guidance implementing NECPA and EISA states that each Department and independent agency must designate "covered facilities" that comprise at least 75 percent of its facility energy use. The term "facility" includes a group of facilities at a single location or multiple locations managed as an integrated operation and contractor-operated facilities owned by the federal government. The statute excludes from this definition any land or site for which the cost of utilities is not directly paid by the federal government.

To identify covered facilities, agencies should first aggregate total energy use across all owned buildings and leased spaces where the agency directly pays the cost of utilities. DOE recommends that agencies rank those facilities with the greatest energy use in descending order until the target of 75 percent of the total energy use is reached. DOE encourages each agency to include as many facilities as it can manage in its covered facility inventory since 75 percent of total energy use is the minimum requirement. In future years, if covered facilities leave the agency's inventory and/or covered facility energy use drops below the 75 percent threshold, the agency must add new facilities to meet the requirement.

FDIC Compliance. The FDIC designated its four owned buildings (which are divided into seven buildings for energy-tracking purposes) as covered facilities but did not notify DOE of these designations until April 2013. These buildings constituted 95 percent of the agency's total energy use in FY 2012, as shown in Table 3. As such, the FDIC is meeting the requirement to designate covered facilities as those that consume at least 75 percent of total energy use. The FDIC also leases 11 spaces across the United States where it directly pays the cost of utilities. The FDIC is not required to, nor has it designated these leased spaces as covered facilities. Agencies were required to submit their lists of covered facilities and information about those facilities to DOE by January 5, 2009.

Table 3: FDIC Energy Use in Fiscal Year 2012

Building	Square Footage	Energy Use (KBTUs)	Percent of Total Energy Use	Cumulative Total Energy Use	Covered Facility?
Virginia Square: Buildings A and B	384,925	68,801,640	31.51%	31.51%	Yes
Virginia Square: Building C	52,859	13,791,732	6.32%	37.82%	Yes
Virginia Square: Buildings D and E	374,998	38,669,670	17.71%	55.53%	Yes
Virginia Square: Student Residence Center	274,003	32,100,070	14.70%	70.23%	Yes
550 Building	211,145	28,347,941	12.98%	83.21%	Yes
1776 Building	165,215	14,554,280	6.66%	89.88%	Yes
SFRO	127,215	12,041,441	5.51%	95.39%	Yes
11 Leased Spaces*	333,028	10,062,954	4.61%	100.00%	No
Total	**1,923,388**	**218,369,728**	**100.00%**	-----	-----

Source: OIG analysis of information obtained from DOA.
* Leased spaces for which the FDIC directly pays utilities.

Designate and Train Energy Managers

Section 432 of EISA requires each agency to designate an energy manager at each covered facility, who is responsible for implementing efforts to reduce agencywide energy use and ensure agency compliance with related legislation.

Section 8262c(a)(1) of NECPA requires agencies to establish and maintain a program to ensure that facility energy managers are trained energy managers. DOE guidance[10] states that energy managers must meet the definition of "trained energy managers" from section 151, subtitle F of the Energy Policy Act of 1992, which states that:

> [a] 'trained energy manager' means a person who has demonstrated proficiency, or 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.[11]

DOE's written guidance recommends that agencies interpret a "course of study" to mean the completion of 32 course hours and states that agencies may establish their own minimum requirements for facility energy managers based on the statutory definition.

[10] DOE guidance entitled: *Facility Energy Management Guidelines and Criteria for Energy and Water Evaluations in Covered Facilities (42 U.S.C. 8253 Subsection (f), Use of Energy and Water Efficiency Measures in Federal Buildings) November 25, 2008*, page 2.
[11] 42 U.S.C. 8262(3).

FDIC Compliance. As required, the FDIC designated an energy manager who tracks energy usage and coordinates energy reduction measures for its covered facilities.[12] This energy manager is a certified energy procurement professional and master electrician. The SFRO also employs an individual who tracks energy usage and assumes many of the responsibilities of an energy manager for the SFRO and has prior experience as a building manager. These individuals have participated in training events pertaining to ENERGY STAR Portfolio Manager and energy management and reporting requirements. Thus, the experience and training courses completed by these individuals appeared sufficient for their roles. However, DOA has not established a formal training program or minimum training requirements for its energy managers. Doing so would help to ensure the energy managers remain proficient in energy management topics and are cognizant of the various energy reduction and reporting requirements.

Recommendation

We recommend that the Director, DOA:

2. Establish a formal training program for energy managers to better ensure FDIC compliance with energy reduction and reporting requirements. The training program should include a minimum of 32 course hours pertaining to energy management.

Perform Comprehensive Evaluations of Covered Facilities

Beginning on June 16, 2008 (180 days after the enactment of EISA), and annually thereafter, section 432 of EISA requires agencies to complete a comprehensive energy and water evaluation for approximately 25 percent of their covered facilities so that an evaluation of each covered facility is completed at least once every 4 years.[13]

DOE issued guidance on the components that comprise a comprehensive energy and water evaluation.[14] These evaluations should include a commissioning component and an audit component.

- Section 432 of EISA requires agencies to assess commissioning, recommissioning, and retrocommissioning measures for each covered facility. These measures consist of examining facility systems to determine if they are performing in accordance with their design documentation and intent. The primary goal of commissioning is to ensure fully functional systems that can be properly operated and maintained during the useful life of the facility. Commissioning pertains to assessing new systems, recommissioning pertains

[12] DOE guidance states that each agency may determine for itself any limits on how many facilities an energy manager may be responsible for based on its organizational structure and the nature of its buildings. The key criteria for limiting the number of facilities for which an energy manager is responsible is the capability of the energy manager to procure or otherwise complete comprehensive energy and water evaluations of covered facilities every 4 years.

[13] Covered facilities that underwent energy and water evaluations in calendar years 2006 and 2007 could be included as part of the 25-percent requirement for the first year, due June 16, 2009.

[14] *Guidance for the Implementation and Follow-up of Identified Energy and Water Efficiency Measures in Covered Facilities*, September 2012.

to re-assessing systems that have already been commissioned, and retrocommissioning pertains to assessing older systems that have not been commissioned or recommissioned.

- The audit component of comprehensive evaluations identifies potential ECMs, including annual water and energy savings information, life cycle investment and implementation costs, and cost savings. Depending on the physical and energy-use characteristics of a building and the needs and resources of the owner, these audits can require different levels of effort. DOE provides guidance for the scope and reporting format of energy audits.

FDIC Compliance. The FDIC completed evaluations for some, but not all of its covered facilities within the 4-year period beginning June 16, 2008. The FDIC had not completed required evaluations for the 550 and 1776 Buildings, as shown in Table 4.

Table 4: Energy Evaluations of FDIC Covered Facilities

Covered Facility	Most Recent Energy Evaluation	Next Energy Evaluation Due
Virginia Square Buildings*	11/6/2009	2013
550 Building	10/24/2005	Overdue
1776 Building	10/24/2005	Overdue
SFRO	12/9/2011	2015

Source: OIG analysis of energy evaluations from DOA.
* All of the Virginia Square Buildings were assessed as part of the November 6, 2009 evaluation.

For the Virginia Square Buildings and SFRO, we found that energy and water evaluations were conducted for both facilities, and both evaluations included recommissioning measures, an audit component, and ECMs with energy cost savings estimates. However, the SFRO evaluation did not include an assessment of commissioning, recommissioning, or retrocommissioning efforts as a part of its December 2011 evaluation, as required by section 432 of EISA.

DOA staff agreed that the 1776 Building was in need of an energy and water evaluation.[15] During our evaluation, the 550 Building was undergoing a comprehensive HVAC retrofit and plans were underway to install new energy-efficient windows, lighting, and plumbing fixtures. DOA expects that after the renovations, the ENERGY STAR rating of the 550 Building will be high enough to make it eligible for the FDIC to apply for LEED certification.

[15] In December 2011, a contractor completed an evaluation of the HVAC system in the 1776 Building and recommended that the FDIC install a supplemental chiller to cool the building's main lobby and 1C level. As noted previously, in December 2012, the FDIC installed a supplemental chiller as recommended. The contractor provided the FDIC with a written report, which contained estimated cost savings and paybacks associated with installing the supplemental chiller, as well as several other ECMs that could be implemented in the building to reduce overall energy consumption. While this evaluation did not contain a water evaluation component as required by section 432 of EISA, the evaluation assisted the FDIC in implementing energy reduction measures.

Recommendation

We recommend that the Director, DOA:

3. Implement controls to ensure that all of the FDIC's covered facilities undergo comprehensive energy and water evaluations every 4 years, as specified by section 432 of EISA, and that those evaluations include commissioning and audit components.

Implement and Monitor Energy Conservation Measures

Section 8253(f)(4) of NECPA provides that an agencies may implement any energy- or water-efficiency measure (also referred to as an ECM) that the federal agency identified in comprehensive evaluations conducted that is life cycle cost-effective and bundle individual measures of varying payback periods together into combined projects.

In deciding whether to implement ECMs, agencies should perform life cycle cost and other analyses to assess the benefits of implementing ECMs. Section 8254 of NECPA required DOE, in consultation with other agencies to establish practical and effective present value methods for estimating and comparing life cycle costs for federal buildings. Life cycle cost analysis is an economic evaluation of a project in which all costs arising from acquiring, constructing, owning, operating, maintaining, and disposing of a project are key decision criteria. Life cycle cost analysis represents the sum of present values of investment, capital, installation, energy, operating, maintenance, and disposal costs over the lifetime of the project, product, or ECM. NECPA requires agencies to use life cycle cost methods and procedures in the design of new federal buildings and the application of ECMs to existing buildings.

Section 8253(f)(5) of NECPA requires agencies to follow up on each implemented ECM and requires energy managers to ensure that:

- Equipment, including building and equipment controls, is fully commissioned at acceptance to be operating at design specifications;

- A plan for appropriate operations, maintenance, and repair of the equipment is in place at acceptance and is followed;

- Equipment and system performance is measured during its entire life to ensure proper operations, maintenance, and repair; and

- Energy and water savings are measured and verified.

DOE's implementing guidance states that each 4-year evaluation cycle should be one of continuous improvement intended to achieve savings and include an agency's evaluation of facilities, assessment of ECMs, implementation of projects deemed to be life cycle cost-effective and practicable to implement, and re-evaluation activities to verify energy and water savings from implemented projects.

FDIC Compliance. As discussed earlier, the FDIC completed energy evaluations of its Virginia Square Buildings and SFRO in 2009 and 2011, respectively. These evaluations identified a number of ECMs that the FDIC implemented.

With respect to the use of life cycle cost methods and procedures, the FDIC considered and received preliminary energy savings and life cycle cost estimates from an engineering firm pertaining to its installation of a boiler, a lighting retrofit project, air handler controls to allow the FDIC to change the temperatures in the Virginia Square C Building conference rooms when the spaces are not occupied, and sensors to determine how often air exchanges are required in these rooms. Also, during our evaluation, a major HVAC renovation was underway at the FDIC's 550 Building. These efforts considered and involved the implementation of life cycle cost-effective designs and products. However, the FDIC has not formally adopted life cycle cost methods and procedures and does not consistently use life cycle cost methods in assessing or monitoring potential ECMs.

Recommendation

We recommend that the Director, DOA:

4. Research DOE and other federal guidance and adopt a life cycle costing methodology for evaluating proposed ECMs.

Track and Record Information about Covered Facilities

Section 432 of EISA required DOE to implement, and agencies to use, a web-based tracking system to certify compliance with energy and water requirements and report information on a periodic and ongoing basis. DOE deployed the Compliance Tracking System (CTS) for agency use in July 2010 and DOE has direct access to this system. CTS accepts federal agency reporting on the:

- Designation and location of facilities covered by EISA requirements;
- Assignment of energy managers;
- Energy and water evaluations completed at covered facilities;
- Implementation of ECMs, including estimated cost and savings;
- Follow-up status on implemented ECMs, including measured savings and persistence of savings; and
- Building energy use information.

DOE made certain information in CTS publicly available in May 2013, as required by NECPA.[16] Making this information publicly available demonstrates government and agency progress in meeting reporting and energy reduction requirements and provides increased transparency for determining which agencies and projects achieve the best results. Greater transparency is meant

[16] 42 U.S.C. 8253(g)(7)(C)(i) requires DOE to make information in CTS available to the Congress, other federal agencies, and the public through the Internet.

to accelerate continuous improvement of efficiency measures, adoption of best practices, demonstration of savings, and optimization of energy and water efficiency measures.

FDIC Compliance. DOA requested access to the CTS and began entering FDIC data into this system in April 2013. In June 2013, DOA stated that it had entered into CTS all required information that was available to its staff at that time. As of June 26, 2013, DOA was still waiting for a contractor to provide the estimated cost savings associated with lighting replacements in the Virginia Square C Building and planned to enter this data once available. During our fieldwork, we accessed CTS and confirmed that the FDIC had entered required information about its covered facilities and energy management efforts. Going forward, DOA stated its intention to enter information into CTS on a periodic and ongoing basis, as required.

We are recommending below that DOA establish an independent control to periodically verify that required information is in CTS and other reporting components are completed, as required.

Report Annually to DOE

Section 8258(a) of NECPA states that each agency shall transmit a report to DOE, at times specified by the Secretary of DOE, but at least annually, with complete information on its activities to meet the energy management requirements in NECPA, including the number of energy savings contracts entered into by an agency and the related cost savings from those contracts. This report is due to DOE on January 31 for the prior FY. This requirement has been in effect since the early 1980s, according to DOE staff.

Information and data collected from the agencies is used to develop DOE's *Annual Report to Congress on Federal Government Energy Management*. This report describes energy use and efficiency measures across the entire federal government.

FDIC Compliance. The FDIC has historically not produced or filed an annual energy management report with DOE. The FDIC submitted its first such report to DOE, covering FY 2012, on June 28, 2013.[17] During our evaluation, we reviewed the FDIC's draft report submission, and DOA was making adjustments to this report to ensure compliance with applicable reporting criteria. Going forward, DOA officials stated that they intend to timely submit this annual report.

Recommendation

DOA needs to establish a control to periodically verify that FEMP-related reporting is completed, as required. Ideally, such a control would be independent of CSB. For example, DOA's Management Services Branch or the Division of Finance's Corporate Management Control Branch could periodically verify that DOA reporting is timely and complete.

[17] DOA requested and received from DOE, an extension to June 30, 2013, to file this report.

We recommend that the Director, DOA:

5. Implement an independent control to periodically verify that all required information has been entered into CTS, including comprehensive evaluation and ECM information, and that the FDIC timely files an annual report with DOE that contains complete information on its activities to meet the energy management requirements in NECPA.

Review Large Capital Energy Investment Decisions

Section 434 of EISA amended NECPA (42 U.S.C. § 8253) to require federal agencies to develop a process for reviewing large capital energy investments in existing buildings to ensure that the investments employ the most energy-efficient designs, systems, equipment, and controls, and result in life cycle cost-effective decisions.

FDIC Compliance. The FDIC tracks and monitors large capital expenditures in an investment budget that is separate from the Corporation's annual operating budget. For investments involving expenditures over $20 million, the requesting division prepares a decision case for approval by the FDIC's Board of Directors. For example, for the 550 Building HVAC retrofit project, the FDIC established a capital investment control structure to include an FDIC Executive Oversight Committee, a project team comprised of officials from the Unites States General Services Administration (GSA) and the FDIC, and an objective third-party oversight contractor to inspect the general contractors' work for conformance with design specifications.

While the FDIC used a project governance structure for the 550 HVAC retrofit project, DOA has not developed or implemented a repeatable process for reviewing large capital energy investments.[18] Developing a formal process for reviewing decisions on large capital energy investments would help ensure that proposed capital investments employ the most energy-efficient designs, systems, and controls that are life cycle cost-effective. A formalized process could help ensure senior level management commitment, a consistent focus on energy-efficient design, and effective life cycle cost and energy savings analyses.

Recommendation

We recommend that the Director, DOA:

6. Develop a formal, repeatable process for reviewing large capital energy investment decisions that considers the energy efficiency of proposed investments and life cycle cost-effectiveness.

[18] In 2002, the FDIC established the Capital Investment Review Committee to monitor and manage the FDIC's capital investments. However, from a practical standpoint, a DOA official told us that the FDIC only uses the committee for information technology (IT)-related investments.

Research the Use of Energy Savings Performance Contracts

Section 8256(a) of NECPA requires each agency to establish a program of incentives for conserving, and otherwise making more efficient use of energy as a result of entering into energy savings performance contracts (ESPC). Section 511 of EISA requires agencies to report to DOE at least annually concerning incentive contracts that it entered into for the purpose of making more efficient use of energy under section 8256(a) of NECPA.

An ESPC is a working relationship between a federal agency and an ESCO. The ESCO conducts a comprehensive energy audit for the federal facility and identifies improvements to save energy. In consultation with the federal agency, the ESCO designs and constructs a project that meets the agency's needs and arranges the necessary funding. The ESCO guarantees the improvements will generate energy cost savings sufficient to pay for the project over the term of the contract. After the contract ends, all additional cost savings accrue to the agency. Contract terms of up to 25 years are allowed. ESPCs allow federal agencies to conduct energy projects with limited to no up-front capital costs. DOE maintains that ESPCs help federal agencies meet energy efficiency, renewable energy, water conservation, and emissions reduction goals by streamlining contract funding for energy management projects.

DOE ESPCs are indefinite-delivery, indefinite-quantity contracts designed to make ESPCs practical and cost-effective for federal agencies. DOE has project facilitators to guide agencies in developing, awarding, and verifying savings from ESPC projects. Project facilitator assistance helps federal agencies to avoid obstacles and expedite projects.

Section 8258(a)(2) of NECPA requires the FDIC to report annually to DOE information about the procedures that the agency uses related to ESPCs, the number of ESPCs entered into, the resulting energy and cost savings and termination penalty exposure, and any problems encountered with respect to ESPCs. In addition:

- Section 8256(c)(1) of NECPA authorizes and encourages agencies to participate in utility incentive programs to increase energy efficiency, conserve water, or manage electricity demand. These programs are conducted by natural gas, water, or electric utilities and generally available to customers of such utilities. These programs include (1) public purpose programs administered by utility companies, state agencies, or other third parties; (2) other programs offered by utility companies; and (3) programs sponsored by state agencies designed to promote energy efficiency and renewable energy. These programs are generally paid for by utility ratepayers and tax payers.

  Examples of incentive programs include rebates and other financial incentives from utility companies for installing or implementing items such as energy-efficient lighting; HVAC, refrigeration, and gas equipment; and other ECMs. Some utility companies also offer free energy audits to federal customers and financial incentives for installing identified ECMs. FEMP tracks incentive programs offered by each state, which are available to federal agencies. These incentive programs can be found at: http://www1.eere.energy.gov/femp/financing/energyincentiveprograms.html

- Section 8256(c)(2) of NECPA states that agencies may accept any financial incentive, goods, or services generally available from any such utility to increase energy efficiency, conserve water, or manage electricity demand.

- Section 8256(c)(3) of NECPA encourages agencies 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 agencies.

FDIC Compliance. DOA staff indicated that the FDIC was not participating in ESPCs because it is able to fund ECMs on its own without the need to enter into an ESPC and accept funding from an ESCO. Further, DOA found that ESPCs may impose more financial or operational constraints on the FDIC as opposed to the FDIC implementing ECMs without using ESPCs.

As authorized by section 8256(c)(1) of NECPA, which is mentioned above, the SFRO received a free energy evaluation in 2011 from its utility company and implemented cost-effective recommendations such as installing a new boiler and heat exchanges. The SFRO applied for rebates from its utility company totaling $24,798 after installing these items. Nevertheless, we believe that the FDIC could do more to coordinate with ESCOs (such as utility companies), state agencies, and other third parties to identify and participate in programs that achieve energy and water savings.

Recommendation

We recommend that the Director, DOA:

7. Research additional opportunities and incentive programs that the FDIC can undertake in consultation with energy service companies (such as utility companies), state agencies, and other third parties for the purpose of increasing energy efficiency and water conservation.

Consider Energy Efficiency of Leased Spaces

Section 8254(b)(2) of NECPA states that 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 lease. During our evaluation, we provided FDIC staff with GSA guidance on government-wide efforts to promote energy efficiency when leasing building space. The guidance includes language that can be included in all leases.

FDIC Compliance. When seeking leased office space, the FDIC solicits information about the energy efficiency of the space in its Request for Proposal (RFP), which is distributed to interested parties. The RFP solicits information regarding the nature and timing of renovations, whether the space has an ENERGY STAR label or LEED rating, and the building's HVAC system. However, the FDIC does not have a formal approach for evaluating the energy efficiency of leased space when making leasing decisions. As discussed in the report section

pertaining to the FDIC's implementation of a formal sustainability program, DOA should develop policies and procedures pertaining to the FDIC's approach to evaluating the energy efficiency of leased office space when making leasing decisions.

Procure Energy-Efficient Products

Section 8259b(b)(1) of NECPA states that agencies shall procure an ENERGY STAR product or a FEMP product when cost-effective and reasonably available. An ENERGY STAR product constitutes a product that is rated for energy efficiency under the ENERGY STAR program. A FEMP-designated product is one that is designated under DOE's FEMP as being among the highest 25 percent of equivalent products for energy efficiency.

Section 8259b(b)(3) of NECPA states that agencies shall incorporate into the specifications for all procurements involving energy consuming products and systems, criteria for energy efficiency that are consistent with the criteria used for rating ENERGY STAR products and FEMP-designated products.

FDIC Compliance. FDIC staff stated that they seek out ENERGY STAR products, and we found that the FDIC purchased ENERGY STAR refrigerators, air purifiers, and computer equipment. FDIC staff could not recall purchases of FEMP products. As discussed in the report section pertaining to the FDIC's implementation of a formal sustainability program, DOA should include policies and procedures pertaining to the FDIC's approach to ensuring that ENERGY STAR and FEMP products are considered when making purchasing decisions.

The FDIC's Compliance with Executive Orders

The following three EOs contain energy efficiency measures. These EOs are not binding on the FDIC, but several of the FDIC's energy conservation efforts have satisfied provisions in EOs, in addition to legislative requirements. Some provisions in these EOs were subsequently included in EISA sections that the FDIC is subject to and therefore became binding on the FDIC when EISA was enacted in December 2007.

Executive Order 13514, *Federal Leadership in Environmental, Energy, and Economic Performance*, October 5, 2009

Key provisions of this EO require agencies to:

- Set a percentage reduction target for reducing GHG emissions by FY 2020, compared to the agency's FY 2008 GHGs;
- Improve water use efficiency and management by reducing water consumption by specific amounts by the end of FY 2020 and implement water reuse strategies;
- Promote pollution prevention and eliminate waste;
- Implement high-performance sustainable federal design, construction, operation and management, maintenance, and deconstruction principles;

- Advance regional and local integrated planning through efforts such as ensuring that planning for new federal facilities or leases considers sites that are pedestrian friendly and have public transportation;
- Ensure that 95 percent of new contract actions include orders for energy-efficient products such as ENERGY STAR and FEMP products; and
- Promote electronic stewardship through efforts such as purchasing electronic equipment that has environmentally preferable features, disposing of such products in an environmentally sound manner, and implementing best practices for the energy-efficient management of servers and data centers.

FDIC Compliance. The FDIC is not required to, nor has it set a FY 2020 GHG emissions reduction goal or specific goals to reduce water consumption by FY 2020. However, the FDIC has taken actions that address the provisions expressed in this EO, as follows:

- In its 2012 report to DOE, the FDIC reported that its FY 2012 GHG emissions were 18 percent lower than in FY 2011. The FDIC was able to reduce its reportable GHG emissions by purchasing renewable energy credits (REC).

- As mentioned previously, during the period of our evaluation, the FDIC's 550 Building was undergoing a comprehensive HVAC retrofit and plans were underway to install new energy-efficient windows, lighting, and plumbing fixtures in this building. An engineering feasibility study concluded that the HVAC retrofit project would reduce energy use by approximately 23 percent.

- The Virginia Square Buildings A and B achieved an ENERGY STAR label in June 2013 and were LEED silver level certified in 2011.

- The FDIC's disaster recovery center was LEED gold level certified in 2012.[19]

- The Division of Information Technology (DIT) implemented server virtualization, which consists of configuring a single server to act and function as multiple servers, which can drastically reduce electricity consumption and heat emissions.

- DIT implemented server room cooling and power efficiency enhancements.

- The FDIC purchases ENERGY STAR products, including computer equipment such as desktops, monitors, laptops, printers, servers, audio visual equipment, and fax machines. Certain computer equipment also goes into sleep mode when not in use.

- The FDIC's SFRO regional office installed water sensors in the outside grounds, resulting in immediate water savings.

- Most faucets have automatic sensors and water saving aerators, resulting in reduced waterflows.

[19] The FDIC uses this facility pursuant to a services contract.

- Waterflows in toilets were adjusted to 1.6 gallons per flush, resulting in less water usage per toilet flush.

Executive Order 13423, *Strengthening Federal Environmental, Energy, and Transportation Management*, January 24, 2007

Key provisions of this EO require agencies to:

- Reduce energy use each year, leading to a 30-percent decrease by the end of FY 2015 compared to a FY 2003 baseline. This provision is also in section 431 of EISA and became binding on the FDIC when EISA was enacted.
- Reduce fleet petroleum usage if the agency has 20 or more vehicles.
- Reduce water intensity by 2 percent each year through FY 2015 or by 16 percent by the end of FY 2015, as compared to water consumption in FY 2007.
- Reduce toxic and hazardous chemicals and materials, increase the diversion of solid waste, and maintain cost-effective waste prevention and recycling programs.
- Use energy from renewable sources. Agencies can also purchase RECs to help meet this requirement.
- Purchase biobased, environmentally preferable, energy-efficient, water-efficient, and recyclable products.
- Purchase electronic products that meet certain environmental standards, including ENERGY STAR standards.
- Construct and renovate buildings in accordance with sustainability strategies, including resource conservation, reduction, and use; and indoor environmental quality.

FDIC Compliance. The FDIC has taken actions that further the policies expressed in this EO, as follows:

- The FDIC recycles ordinary products such as paper, plastic, and glass.

- The FDIC recycles construction debris from interior renovations of FDIC buildings, fluorescent lamps, copper wires, motors, and miscellaneous metals.

- The FDIC purchases RECs.

- The FDIC purchases office supplies made of recycled materials, biodegradable flatware, paper products, recycled construction products, and environmentally preferable cleaning supplies. The FDIC's fitness center uses environmentally preferable shampoo, conditioner, and body wash.

- The FDIC has disposable/rechargeable battery drop-off containers in each of its owned buildings.

- The FDIC installed energy-efficient lighting fixtures in its Virginia Square, 550, and SFRO Buildings.

- The Virginia Square facility has four electric vehicle charging stations.

- The Virginia Square Buildings have a green roof.

- The air handlers and related controls were adjusted in all of the Virginia Square Buildings so that less energy is used when the buildings are less occupied. Further, unnecessary toilet exhaust fans were turned off.

- A supplemental chiller was installed in the 1776 Building that serves certain areas of the building outside of normal working hours. Prior to this installation, the building's main chiller served these areas during normally unoccupied periods.

- An energy-efficient boiler and heat exchanges were installed in the SFRO. Additionally, the temperature in the SFRO's server room was reset, resulting in energy savings.

Executive Order 13221, *Energy Efficient Standby Power Devices*, July 31, 2001

When life cycle cost-effective and practicable, this EO requires agencies to purchase products that use no more than 1 watt in the standby power consuming mode when purchasing commercially-available, off-the-shelf products that use external standby power devices or that contain an internal standby power function. If such products are not available, agencies shall purchase products with the lowest standby power wattage while in their standby power consuming mode.

On a monthly basis, DOE updates a listing of ENERGY STAR products that meet this requirement. This provision is also in section 524 of EISA (42 U.S.C. § 8259b) and became binding on the FDIC when EISA was enacted.

FDIC Compliance. The FDIC's purchase of ENERGY STAR IT products, as described in the report section pertaining to EO 13514, demonstrates compliance with this requirement.

The FDIC's Establishment of a Formal Sustainability Program

The OIG previously reviewed the FDIC's energy conservation efforts in 2008 and 2000, and issued related reports containing recommendations for improvement.[20] Our 2008 report[21] contained five recommendations to DOA including:

DOA should develop a formal sustainability program to include:

- Senior-level management commitment and sponsorship in support of energy management and sustainability initiatives. DOA, in consultation with the FDIC's Division of Information Technology, should also consider establishing an interdivisional performance metric, such as a Corporate Performance Objective, related to sustainability.

- Sufficient personnel to manage the program and to integrate divisional energy management efforts.

- Energy, water, waste, and emission management plans linked to future "green" initiatives and short-, medium-, and long-term actions.

- Policies and procedures for selecting green initiatives for consideration, procuring energy-efficient products, and for implementing the sustainability program.

- Program baselines, key performance indicators, and evaluation approaches for measuring progress.

We closed this recommendation based on DOA's response that it would develop a sustainability program to include a wide range of sustainability initiatives, implement a number of energy reduction measures, and undertake efforts to achieve a LEED certification in connection with the Virginia Square Buildings. DOA did in fact implement several sustainability and energy savings initiatives and obtained a LEED silver level certification for the VA Square A and B Buildings. However, DOA did not formalize the sustainability program.

DOA staff stated that they plan to formalize the FDIC's sustainability program and ensure that sufficient staff are dedicated to the program. Further, in 2011, the FDIC developed a detailed draft Energy Plan, which covers several areas that the FDIC plans to include in a formal sustainability program document. These areas include the FDIC's strategy for achieving energy and water use reduction goals, background information on the FDIC's covered facilities, legislation and EOs with which the FDIC is required to or has voluntarily complied, historical energy and water use statistics, the FDIC's efforts to reduce GHG emissions, and the FDIC's consideration of using renewable energy.

[20] NECPA encourages OIGs to conduct periodic reviews of agency compliance with its requirements and other laws related to energy consumption.

[21] OIG evaluation: *Energy Efficiency of the FDIC's Virginia Square Facility and Information Technology Data Center*, EVAL-08-005, September 2008, page 14. See report at: http://www.fdicig.gov/reports08/08-005EV.pdf

We believe that a formal sustainability program requires senior-level management commitment and should include documenting the FDIC's goals, processes, policies, and procedures, including those for considering the energy efficiency of leased spaces and purchasing ENERGY STAR and FEMP products.

Our current evaluation identified several areas where the FDIC was not in compliance with legislative requirements. Accordingly, the sustainability program should also include written provisions and guidance for ensuring compliance with the various legislative requirements pertaining to energy efficiency. Such efforts could include periodic, independent verifications and compliance reviews.

Recommendation

We recommend that the Director, DOA:

8. Implement a formal sustainability program to encompass the FDIC's goals, processes, policies and procedures, and overall energy management efforts. The program should be documented and include written provisions for ensuring compliance with the various legislative requirements pertaining to energy efficiency.

Corporation Comments and OIG Evaluation

On August 9, 2013, the Director, DOA provided a written response to a draft of this report. DOA's response stated that the FDIC has undertaken a number of initiatives to reduce energy and water consumption but recognized that the FDIC can do more to comply with energy and water management reporting requirements. In its response, DOA concurred with all eight of the report's recommendations and described its planned corrective actions to be completed by December 31, 2014. The planned actions are responsive to the recommendations. DOA's response is presented in its entirety in Appendix 7. A summary of DOA's planned actions is presented in Appendix 8.

Objectives, Scope, and Methodology

Objectives

Consistent with the request letter from the Bicameral Task Force on Climate Change, our evaluation objectives were to (1) identify the existing energy management requirements in legislation, regulation, executive order, and other directives that apply to the FDIC; (2) assess whether the FDIC is meeting those requirements; and (3) make recommendations that the FDIC improve its performance if the FDIC is not fully meeting the requirements.

The Task Force request letter also asked the OIG to assess the authorities that the FDIC has to reduce emissions of heat-trapping pollution, its authorities to make the nation more resilient to the effects of climate change, and the most effective additional steps the FDIC could take in those areas. As noted in our initial response to the Bicameral Task Force on Climate Change (see Appendix 4), the FDIC does not have authorities in these areas and it is our view that the FDIC's focus should remain on maintaining public confidence in the nation's financial system and not be expanded to cover these additional areas.

We performed our evaluation from March 2013 through June 2013 in accordance with the Council of the Inspectors General on Integrity and Efficiency's *Quality Standards for Inspection and Evaluation*.

Scope and Methodology

The scope of this evaluation focused on the FDIC's compliance with provisions in energy legislation that were binding on the FDIC. We also determined to what extent the FDIC voluntarily complied with EOs[22] and implemented recommendations made in prior OIG evaluations pertaining to energy management.

To achieve the objectives, we performed the following procedures and techniques:

- Reviewed the following legislation and EOs and assessed the FDIC's compliance with:
  - The fully-amended *National Energy Conservation Policy Act*;
  - *Energy Independence and Security Act of 2007*;
  - Executive Order 13514, *Federal Leadership in Environmental, Energy, and Economic Performance*, October 5, 2009;
  - Executive Order 13423, *Strengthening Federal Environmental, Energy, and Transportation Management*, January 24, 2007; and
  - Executive Order 13221, *Energy Efficient Standby Power Devices*, July 31, 2001.

- Reviewed guidance associated with applicable legislation and EOs.

[22] Certain provisions in EOs became binding on the FDIC when EISA was enacted in December 2007.

Objectives, Scope, and Methodology

- Reviewed FDIC Legal Division analyses pertaining to the applicability of energy efficiency legislation and EOs to the FDIC.

- Issued an initial response letter to Congress, dated March 28, 2013.

- Analyzed information that the FDIC entered into DOE's CTS Reporting System and ENERGY STAR Portfolio Manager.

- Reviewed energy evaluations of the FDIC's owned buildings and the FDIC's progress in implementing ECMs contained in those reports.

- Reviewed the FDIC's 2012 draft and final Annual Energy Management Report and 2011 draft Energy Plan.

- Learned about specific programs and initiatives that the FDIC has undertaken to reduce energy and water consumption.

- Reviewed the FDIC's IT-related energy efficiency measures.

- Analyzed FDIC energy use data from FYs 2003 – 2012.

- Reviewed the amount of owned and leased space occupied by the FDIC.
    - Identified 11 leased spaces where the FDIC directly pays the cost of utilities.

- Reviewed prior OIG evaluation reports on FDIC energy consumption that were issued in 2008 and 2000 and assessed the FDIC's efforts to implement recommendations in those reports:
    - *Energy Efficiency of the FDIC's Virginia Square Facility and Information Technology Data Center*, dated September 24, 2008 (EVAL-08-005).[23]
    - *An Assessment of the Corporation's Efforts to Enhance Energy Efficiency and Reduce Consumption of Natural Resources at Its Headquarters Facilities*, dated February 2, 2000 (EVAL-00-001).[24]

- Interviewed FDIC officials in the Legal Division to understand the applicability of energy management laws to the FDIC and interviewed DOA and DIT officials to understand their efforts to implement energy savings initiatives and comply with various requirements.

- Interviewed officials in DOE and OMB to obtain clarifications on energy management guidance and key legislative requirements.

[23] Report available at: http://www.fdicig.gov/reports08/08-005EV.pdf
[24] Report available at: http://www.fdicig.gov/evaluations/00-001.pdf

EISA Requirements that are Applicable to the FDIC

EISA Requirement	Description
Title IV, section 431: Energy Reduction Goals for Federal Buildings	Specifies energy reduction goals for federal buildings by requiring that energy intensity be reduced on a square foot basis. Compared to the combined energy consumption per gross square foot of the federal buildings of the agency in FY 2003, it is to decline by 9 percent in FY 2008 and 12 percent in FY 2009, ranging up to a 30-percent decrease in FY 2015.
Title IV, section 432: Management of Energy and Water Efficiency in Federal Buildings	Requires each agency to designate an energy manager at each covered facility responsible for implementing the programs listed in section 432 of EISA, including: • Completing a comprehensive energy and water evaluation of each covered facility at least once every 4 years, and • Entering energy use information into a system created by DOE and a benchmarking system.
Title IV, section 434: Management of Federal Building Efficiency	Requires agencies to: (1) Ensure that any large capital energy investment in an existing building employs the most energy-efficient designs, systems, equipment, and controls that are life cycle cost-effective; (2) Develop a process of reviewing each decision on large capital energy investments; and (3) Meter natural gas and steam by October 1, 2016 in accordance with guidelines to be established by DOE.
Title IV, section 438: Storm Water Runoff Requirements for Federal Development Projects*	Requires the sponsor of any development or redevelopment project involving a federal facility with a footprint that exceeds 5,000 square feet to use site planning, design, construction, and maintenance strategies to maintain or restore the facility's predevelopment hydrology.
Title IV, section 441: Public Building Life Cycle Costs	Amended section 8254(a)(1) of NECPA by deleting "25" and inserting "40" in reference to the number of years, as mentioned below. The amended NECPA section requires agencies to 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 or during a period of 40 years, whichever is shorter, and using average fuel costs and a discount rate determined by DOE.
Title V, section 511: Authority to Enter into Contracts; Reports*	Requires agencies to report to DOE at least annually concerning incentive contracts that it entered into for the purpose of making more efficient use of energy under 42 U.S.C. § 8256(a).
Title V, section 512: Financing Flexibility*	Authorizes federal agencies, in carrying out ESPCs, to use any combination of appropriated funds and private financing.
Title V, section 513: Promoting Long-term Energy Savings Performance Contracts and Verifying Savings*	Prohibits federal agencies in connection with the promotion of long-term ESPCs from: (1) Establishing an agency policy that limits the maximum multiyear contract to a period shorter than 25 years; or (2) Limiting the total amount of obligations under such contracts or other private financing of energy savings measures.

EISA Requirements that are Applicable to the FDIC

EISA Requirement	Description
Title V, section 514: Permanent Reauthorization*	Amended NECPA to make agency authority to enter into new ESPCs permanent.
Title V, section 515: Definition of Energy Savings*	Amended NECPA by expanding the definition of energy savings to include the: (1) Increased efficient use of an existing energy source by cogeneration or heat recovery; (2) Sale or transfer of electrical or thermal energy, generated on-site from renewable energy sources or cogeneration, to utilities or non-federal energy users; and (3) Increased efficient use of existing water sources.
Title V, section 516: Retention of Savings*	Amended NECPA by repealing the requirement that 50 percent of water and energy cost savings must remain available for expenditure for additional energy efficiency measures.
Title V, section 524: Federally-procured Appliances with Standby Power	Amended NECPA by requiring that purchases of federally-procured off-the-shelf products with standby power use no more than 1 watt in the standby power consuming mode; or, if such a product is unavailable, the product with the lowest available standby power wattage. This requirement applies only if the lower-wattage product is life cycle cost-effective, practicable, and the utility and performance of the eligible product is not compromised by the lower wattage requirement.
Title V, section 526: Procurement and Acquisition of Alternative Fuels*	Prohibits federal agencies from entering into a contract to procure an alternative or synthetic fuel for any mobility-related use (other than for research or testing), unless the contract specifies that the life cycle GHG emissions associated with the production and combustion of the fuel supplied under the contract must be no more than the emissions from the equivalent conventional fuel produced from conventional petroleum sources.

Source: OIG review of EISA and the FDIC Legal Division's written analysis of EISA requirements.
* As of the report date, the FDIC had not entered into, or planned to enter into, any such projects or contracts.

Request from the Bicameral Task Force on Climate Change

Congress of the United States
Washington, DC 20515

February 25, 2013

The Honorable Jon T. Rymer
Inspector General
Federal Deposit Insurance Corporation
3501 Fairfax Drive
Arlington, VA 22226

Dear Mr. Rymer:

Earlier this month, the Government Accountability Office added climate change to its High Risk List. GAO found that climate change "presents a significant financial risk to the federal government." According to GAO, "[t]he federal government is not well organized to address the fiscal exposure presented by climate change." As the co-chairs of the Bicameral Task Force on Climate Change, we are seeking your help in assessing whether the Federal Deposit Insurance Corporation is doing everything it can to confront this growing threat.

There are existing requirements that federal agencies carry out policies to address climate change. In 2007, Congress enacted the Energy Independence and Security Act, which requires federal agencies to reduce the energy intensity of federal buildings 30% by 2015, to achieve even greater reductions when renovating existing buildings or constructing new ones, and to designate an energy manager to conduct evaluations and commissioning processes. In 2009, the President issued Executive Order 13514, which directs federal agencies to establish a greenhouse gas emission reduction target for 2020, to reduce vehicle fleet petroleum use by 30% by 2020, and to ensure that 95% of applicable contracts meet sustainability requirements. The order also required the agencies to "evaluate agency climate-change risks and vulnerabilities to manage the effects of climate change on the agency's operations and mission in both the short and long term." In 2010, the President announced that the federal government will reduce its greenhouse gas pollution by 28% by 2020 as a result of targets submitted under Executive Order 13514.

Additionally, the President issued a memorandum requiring agencies to enhance their building energy efficiency through performance-based contracts totaling a minimum of $2 billion across the federal government. Federal agencies also recently released their latest Strategic Sustainability Performance plans, which for the first time include their plans "to reduce the vulnerability of Federal programs, assets, and investments to the impacts of climate change, such as sea level rise or more frequent or severe extreme weather."

As the first part of our request, we ask that you (1) identify the existing requirements in legislation, regulation, executive order, and other directives that apply to the government entity you oversee, (2) assess whether it is meeting these requirements, and (3) if it is not fully meeting the requirements, make recommendations for improving its performance.

Request from the Bicameral Task Force on Climate Change

In his State of the Union address, the President recognized that additional action by federal agencies is needed to combat climate change. The President called upon federal agencies to "identify additional executive actions from across the administration to help reduce pollution, prepare our cities and nation for the worsening effects of climate change, and accelerate the transition to more sustainable sources of energy." This call to action presents an opportunity and obligation for agencies to develop strategies to meet the challenge of preventing and responding to climate change.

As the second part of our request, we seek your assessment of (1) the authorities the government entity you oversee has to reduce emissions of heat-trapping pollution, (2) its authorities to make the nation more resilient to the effects of climate change, and (3) the most effective additional steps it could take to reduce emissions or strengthen resiliency.

Because this is now a timely matter before both the executive and legislative branches, we ask that you provide answers to these questions as expeditiously as possible, ideally no later than March 29, 2013. If you have any questions, you can contact Kiren Gopal of Rep. Waxman's House Energy and Commerce Committee staff at Kiren.Gopal@mail.house.gov or Emily Enderle of Sen. Whitehouse's staff at Emily_Enderle@whitehouse.senate.gov.

Thank you for your assistance.

Sincerely,

Henry A. Waxman
Co-Chair
Bicameral Task Force on Climate Change
Ranking Member
Committee on Energy & Commerce

Sheldon Whitehouse
Co-Chair
Bicameral Task Force on Climate Change
Chairman
Subcommittee on Oversight, Senate
Committee on Environment and Public Works

Edward J. Markey
Co-Chair
Bicameral Task Force on Climate Change
Ranking Member
Committee on Natural Resources

Benjamin L. Cardin
Co-Chair
Bicameral Task Force on Climate Change
Chairman
Subcommittee on Water and Wildlife, Senate
Committee on Environment and Public Works

The OIG's Initial Response to the Task Force Request

FDIC
Federal Deposit Insurance Corporation
3501 N. Fairfax Drive, Arlington, VA. 22226 Office of Inspector General

March 28, 2013

The Honorable Henry A. Waxman
Ranking Member
Committee on Energy and Commerce
U.S. House of Representatives
Washington, D.C. 20515

Dear Mr. Waxman:

Thank you for the February 25, 2013, letter that you jointly sent in your capacity as Co-Chair of the Bicameral Task Force on Climate Change. In this letter, you requested that my office report on the Federal Deposit Insurance Corporation's (FDIC) efforts to reduce energy consumption. Your letter posed two sets of concerns. First, you requested that we (1) identify the existing requirements in legislation, regulation, executive order, and other directives that apply to the FDIC; (2) assess whether the FDIC is meeting these requirements; and (3) if the FDIC is not fully meeting the requirements, make recommendations for improving its performance. Further, you asked that we assess the FDIC's authorities to reduce emissions of heat-trapping pollution and make the nation more resilient to the effects of climate change, and identify any additional steps the FDIC could take in those areas.

Representatives from my office participated in a March 5, 2013, conference call between task force staff and representatives of the Inspector General community to clarify the request and discuss timeframes for responding. Based on that conference call, we decided to respond to the request in two parts. This letter partially addresses your first set of concerns. That is, we identify existing energy management requirements that apply to the FDIC based on our work to date. We plan to provide the rest of the information called for in your first set of concerns in a separate letter by April 30, 2013. With respect to the second set of issues that you raise, this letter provides our complete response.

Energy Management Requirements

The FDIC is a mixed-ownership government corporation and, as such, is not necessarily subject to the same legal requirements as other agencies. The FDIC previously performed legal analyses of several laws and executive orders related to energy management and, because of its unique status, determined that only certain provisions are applicable to the Corporation. My office has partially completed its review of the laws and executive orders that apply to the FDIC, and will continue the work it has begun to assess the FDIC's compliance.

As it relates to the *Energy Independence and Security Act of 2007* (EISA), the FDIC Legal Division concluded, and we concur, that this primary law applies to the FDIC. This Act contains 16 titles, 2 of which have provisions that directly impact the FDIC: Title IV – Energy Savings in Buildings

The OIG's Initial Response to the Task Force Request

and Industry and Title V – Energy Savings in Government and Public Institutions. These titles require the FDIC to:

- appoint energy managers for FDIC facilities,
- meet specified energy consumption reduction goals,
- perform annual energy and water evaluations,
- report energy use information to the Department of Energy,
- develop a process for reviewing large capital energy investment decisions, and
- report information to the Office of Management and Budget.

Regarding two additional Acts, the *Energy Policy Act of 1992* and the *Energy Policy Act of 2005*, my office will do further work to determine whether their respective provisions are applicable to the FDIC.

With respect to executive orders, the FDIC's Legal Division has long maintained that the Corporation is not subject to their provisions unless expressly authorized by law. Consistent with that opinion, the FDIC has concluded, and we concur, that the following energy management-related orders are not binding on the FDIC:

- Executive Order 13514, Federal Leadership in Environmental, Energy, and Economic Performance, October 5, 2009.
- Executive Order 13423, Strengthening Federal Environment, Energy, and Transportation Management, January 24, 2007.
- Executive Order 13221, Energy Efficient Standby Power Devices, July 31, 2001.

Over the next month, we will continue our work to assess whether the FDIC has complied with the applicable laws and offer recommendations for improvement, as appropriate. In addition, we will assess the extent to which the FDIC has voluntarily complied with relevant provisions of the executive orders cited above. As previously noted, we will provide information related to this first set of concerns in separate correspondence by April 30, 2013.

The FDIC's Authorities Regarding Climate Change

The FDIC's authorities emanate from the Federal Deposit Insurance (FDI) Act and include such things as the authority to supervise financial institutions, resolve failed financial institutions in the least costly manner, and assess deposit insurance premiums. The FDIC's jurisdiction extends to state non-member banks for supervision and to all depository institutions for insurance and receivership purposes. The FDI Act does not provide the FDIC with any specific authority to reduce emissions of heat-trapping pollution at its regulated entities or to make the nation more resilient to the effects of climate change. With regard to any additional steps the Corporation could take, it is our view that the FDIC's focus should remain on maintaining public confidence in the nation's financial system. Thus, the Corporation's authorities should not be expanded beyond those referenced above, including those that would be aimed at reducing emissions or strengthening resiliency in the entities it regulates.

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The OIG's Initial Response to the Task Force Request

A similar letter is being sent to each Co-Chair of the Bicameral Task Force on Climate Change. Please feel free to contact me at 703-562-2166, or jrymer@fdic.gov, if you need additional information. Leslee Bollea, of my staff, is also available to assist you and can be reached at 703-562-6311, or lbollea@fdic.gov.

Sincerely,

/Signed/

Jon T. Rymer
Inspector General

3

Glossary of Terms

Term	Definition
Air Exchanger	A ventilation system that exhausts stale air from, and provides fresh air to, a building.
British Thermal Unit (BTU)	The amount of heat energy needed to raise the temperature of one pound of water by one degree Fahrenheit. This is the standard measurement used to state the amount of energy that a fuel has as well as the amount of output of any heat-generating device.
Commissioning	With respect to a facility, commissioning is a systematic process of ensuring, using appropriate verification and documentation, during the period beginning on the initial day of the design phase of the facility and ending not earlier than 1 year after the date of completion of construction of the facility, that all facility systems perform interactively in accordance with the design documentation and intent of the facility and operational needs of the facility owner. The primary goal of commissioning is to ensure fully functional systems that can be properly operated and maintained during a facility's useful life.
Covered Facility	Federal facilities, including central utility plants and distribution systems and other energy-intensive operations that constitute at least 75 percent of facility energy use at each agency. Federal agencies must designate as covered facilities, those facilities that constitute at least 75 percent of the agency's facility-wide energy use.
Energy Intensity	Energy consumption per square foot of building space, including industrial or laboratory facilities.
Energy Manager	The individual or individuals responsible for ensuring compliance with the provisions of section 432 of EISA and reducing energy use at a facility. The term may include a contractor of a facility, a part-time employee of a facility, and an individual who is responsible for multiple facilities.
Energy Savings Performance Contracts (ESPC)	A contract between a federal agency and an ESCO. The ESCO performs services for the design, acquisition, installation, testing, and where appropriate, operation, maintenance, and repair, of an identified ECM or series of ECMs, at one or more locations. Such contracts require ESCOs to incur costs of implementing energy savings measures, including at least the cost (if any) incurred in performing energy audits, acquiring and installing equipment, and training personnel. In exchange, the ESCO receives a predetermined share of the value of the energy savings resulting from implementing such measures during the term of the contract and guarantees that the savings cover the full cost of the investment. Contract terms of up to 25 years are allowed. After the contract ends, all additional cost savings accrue to the agency.

Glossary of Terms

Term	Definition
ENERGY STAR Portfolio Manager	A secure, online, energy management tool designed by EPA, which allows individuals to track and assess energy and water consumption of individual buildings and across an organization's entire portfolio of buildings. This system has the ability to produce energy use reports that summarize energy information and building characteristics such as site and source energy intensity, carbon dioxide emissions, gross floor area, and the number of personal computers.
ENERGY STAR Product	A product that is rated for energy efficiency under an ENERGY STAR program. Products can earn the ENERGY STAR label by meeting the energy efficiency requirements set forth in ENERGY STAR product specifications. EPA establishes criteria based on these principles: (1) Product categories must contribute to significant energy savings nationwide. (2) Qualified products must deliver the features and performance demanded by consumers, in addition to increased energy efficiency. (3) If the qualified product costs more than a conventional, less-efficient counterpart, purchasers will recover their investment in increased energy efficiency through utility bill savings, within a reasonable period of time. (4) Energy efficiency can be achieved through broadly available, non-proprietary technologies offered by more than one manufacturer. (5) Product energy consumption and performance can be measured and verified with testing. (6) Labeling would effectively differentiate products and be visible to purchasers.
ENERGY STAR Program	A voluntary program established by the EPA in 1992, under the authority of section 103(g) of the Clean Air Act. Section 103(g) of this Act directs the EPA to "conduct a basic engineering research and technology program to develop, evaluate, and demonstrate non–regulatory strategies and technologies for reducing air pollution." The ENERGY STAR program identifies and promotes energy-efficient products and buildings in order to reduce energy consumption, improve energy security, and reduce pollution by voluntarily labeling products or otherwise communicating information about products and buildings that meet the highest energy efficiency standards.
ENERGY STAR Rated Building	An energy performance rating of a building ranging from 1-100, relative to similar buildings nationwide. A rating of 50 indicates that the building, from an energy consumption standpoint, performs better than 50 percent of all similar buildings nationwide. A rating of 75 indicates that the building performs better than 75 percent of all similar buildings nationwide. A building with a rating of 75 or higher may qualify for the ENERGY STAR label.

Glossary of Terms

Term	Definition
Facility	Any building, installation, or structure, or other property (including fixtures) owned or operated by, or constructed or manufactured and leased to the federal government. It includes a group of facilities at a single location or multiple locations managed as an integrated operation; and contractor-operated facilities owned by the federal government; but does not include any land or site for which the cost of facilities is not paid by the federal government.
Federal Energy Management Program (FEMP)	A department within DOE that provides services, tools, and expertise to federal agencies to help them achieve their legislated and executive-ordered energy, GHG emissions, and water reduction goals. FEMP facilitates the federal government's implementation of sound, cost-effective energy management and investment practices to enhance the nation's energy security and environmental stewardship.
Federal Energy Management Program (FEMP) Product	A product that is designated under DOE's FEMP as being among the highest 25 percent of equivalent products for energy efficiency.
Green Roof	A roof of a building that is partially or completely covered with vegetation and soil, or a growing medium, planted over a waterproofing membrane; or a roof that utilizes some form of "green" technology such as solar panels or a photovoltaic module, to reduce the "heat island" effect of buildings.
Greenhouse Gas (GHG)	Carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride.
Greenhouse Gas (GHG) Emissions	Emissions from GHGs. These emissions consist of three types: (1) **Scope 1 emissions.** Direct GHG emissions from sources that are owned or controlled by an agency. (2) **Scope 2 emissions.** Indirect emissions resulting from an agency's consumption of purchased electricity, steam, or heat. (3) **Scope 3 emissions.** All other indirect emissions not included in scope 2 emissions. Scope 3 emissions are a consequence of an agency's activities but are released from sources outside its organizational boundary. Scope 3 emissions may result from electricity transmission and distribution losses, employee business travel, employee commuting, contracted wastewater treatment, and contracted municipal solid waste disposal.
Kilo British Thermal Unit (KBTU)	1,000 BTUs.

Glossary of Terms

Term	Definition
Leadership in Energy and Environmental Design (LEED) Certification	LEED certification is a recognized standard for measuring building sustainability in the United States and Canada. The United States Green Building Council, a non-profit coalition of building industry leaders, developed the LEED green building rating system for the United States. The rating system consists of four levels: certified, silver, gold, and platinum that correspond to the number of credits accrued in five green design categories: (1) sustainable sites, (2) water efficiency, (3) energy and atmosphere, (4) materials and resources, and (5) indoor environmental quality. For every strategy utilized in a LEED-registered project, the building acquires the corresponding number of points for that credit. The greater the number of points, the more likely the building will qualify for LEED certification. The LEED rating system has a total of 110 points available. Projects that achieve 40 points are LEED certified, 50 points earn LEED silver, 60 points earn LEED gold, and 80 points earn LEED platinum certifications.
Life Cycle	With respect to a high-performance green building, life cycle refers to all stages of the useful life of the building (including components, equipment, systems, and controls of the building), beginning at the conception of a high-performance green building project and continuing through site selection, design, construction, landscaping, commissioning, operation, maintenance, renovation, deconstruction or demolition, removal, and recycling of the building.
Life Cycle Cost Analysis	An economic evaluation of a project in which all costs arising from acquiring, constructing, owning, operating, maintaining, and disposing of a project are key decision criteria. Life cycle cost analysis represents the sum of the present values of investment, capital, installation, energy, operating, maintenance, and disposal costs over the lifetime of the project, product, or ECM. NECPA requires agencies to use life cycle cost methods and procedures in the design of new federal buildings and the application of ECMs to existing buildings.
Life Cycle Cost-Effective	A measure in which the estimated savings exceed the estimated costs over an item's lifespan.
Payback Period	With respect to a measure, a payback period is a value equal to the quotient obtained by dividing (1) the estimated initial implementation cost of the measure (other than financing costs) by (2) the annual cost savings resulting from the measure, including (3) net savings in estimated energy and water costs, and (4) operations, maintenance, repair, replacement, and other direct costs.

Glossary of Terms

Term	Definition
Recommissioning	A process of commissioning a facility or system beyond its project development and warranty phases. The primary goal of commissioning is to ensure optimum performance of a facility over its useful life, while meeting building occupancy requirements.
Renewable Energy	Energy produced by solar, wind, biomass, landfill gas, ocean (including tidal, wave, current, and thermal), geothermal, municipal solid waste, or new hydroelectric generation capacity achieved from increased efficiency or additions of new capacity at an existing hydroelectric project.
Renewable Energy Credit (REC)	Tradable, non-tangible energy commodities in the United States that represent proof that 1 megawatt-hour of electricity was generated from an eligible renewable energy resource. The credits can be sold, traded, and bartered. The energy associated with a REC is sold separately and used by a party other than the original purchaser. The purchaser of a REC only receives a credit.
Retrocommissioning	A process of commissioning a facility or system that was not commissioned when the facility or system was constructed.
Standby Power	The power consumed by a product when it is in the lowest power consuming mode. This typically occurs when the product is switched off or not performing its primary purpose. Products with a remote, soft keypad, clock, or network connection often draw standby power and increase energy use.
Utility Incentive Programs	These programs are offered by States and utility companies and help offset energy costs while promoting energy efficiency and renewable energy technologies.

Abbreviations and Acronyms

BTU	British Thermal Unit
CSB	Corporate Services Branch
CTS	Compliance Tracking System
DIT	Division of Information Technology
DOA	Division of Administration
DOE	United States Department of Energy
ECM	Energy and Water Conservation Measure
ECPA	Energy Conservation and Production Act
EISA	Energy Independence and Security Act of 2007
EO	Executive Order
EPA	Environmental Protection Agency
ESCO	Energy Services Company
ESPC	Energy Savings Performance Contract
FDI Act	Federal Deposit Insurance Act
FDIC	Federal Deposit Insurance Corporation
FEMP	Federal Energy Management Program
FY	Fiscal Year
GHG	Greenhouse Gas
GSA	United States General Services Administration
IT	Information Technology
KBTU	Kilo British Thermal Unit
KWH/yr	Kilowatt Hours Per Year
LEED	Leadership in Energy and Environmental Design
NECPA	National Energy Conservation Policy Act
OIG	Office of Inspector General
OMB	Office of Management and Budget
Pub. L.	Public Law
REC	Renewable Energy Credit
RFP	Request for Proposal
SFRO	San Francisco Regional Office
U.S.C.	United States Code

Corporation Comments

Federal Deposit Insurance Corporation
3501 Fairfax Drive, Arlington VA. 22226-3500 Division of Administration

August 9, 2013

MEMORANDUM TO: Stephen M. Beard
Deputy Inspector General for Audits and Evaluations

FROM: Arleas Upton Kea /**Signed**/
Director, Division of Administration

SUBJECT: Management Response to the Draft Evaluation Report Entitled, *The FDIC's Compliance with Energy Management Requirements* (Assignment No. 2013-040)

This is in response to the subject Draft Office of Inspector General (OIG) Evaluation Report ("Report" herein), issued July 17, 2013. In the Report, the OIG made eight recommendations to the Division of Administration.

We appreciate the review work performed by the OIG. The FDIC has undertaken number of initiatives to reduce energy and water consumption. However, we recognize that we can do more to comply with energy and water management and reporting requirements. This response outlines planned corrective actions for each of the recommendations cited.

MANAGEMENT DECISION

Finding: The FDIC has not reduced its energy consumption in line with the legislative goal

Recommendation 1: DOA should establish energy reduction goals and a formal approach to reduce energy use, compared to energy use in FY 2003.

Management Response 1: Concur with the recommendation

DOA has implemented a number of energy conservative measures (ECM's) at FDIC owned headquarters building (i.e. capital improvement projects, major repairs and administrative controls) in an attempt to attain the energy reduction goal of 30% by 2015 mandated by §431 of EISA. However, the energy reduction achieved by the implementation of the various ECM's has been impacted by the dramatic increase in staff and contractors housed at the headquarters buildings, particularly during the "surge hiring" that occurred as a response to the financial crisis.

As a result, energy consumption on a square footage basis has increased in concert with the Dramatic staff increase (employees and contractors) between 2007 and 2010.

Corrective Action: DOA will develop a mechanism to measure and track energy consumption on a full-time employee equivalency basis and continue to identify feasible ECM's to reduce FDIC's energy consumption to achieve the energy reduction goal of 30% by 2015.

Completion Date: January 31, 2014.

Finding: DOA has not established a formal training program or minimum training requirements for energy managers

Recommendation 2: DOA should establish a formal training program for energy managers to better ensure FDIC compliance with energy reduction and reporting requirements. The training program should include a minimum of 32 course hours pertaining to energy management.

Management Response 2: Concur with the recommendation.

Corrective Action: DOA will develop a formalized training program for all FDIC energy managers based on the Department of Energy (DOE) guidelines and FDIC Energy Management and Sustainability Program needs.

Completion Date: December 31, 2013.

Finding: Perform Comprehensive Evaluations of Covered Facilities

Recommendation 3: DOA should implement controls to ensure that all of the FDIC's covered facilities undergo comprehensive energy and water evaluations every four years, as specified by section 432 of EISA, and that those evaluations include commissioning and audit components.

Management Response 3: Concur with the recommendation.

DOA will complete a comprehensive energy and water evaluation of the 1776 F Street building by December 31, 2013. Due to the pending 550 HVAC Retrofit Project, which is scheduled to be completed by December, 2015, a comprehensive energy and water evaluation of the 550 17th Street building will be scheduled for the first quarter, 2016.

Corrective Action: DOA will develop a plan or mechanism to ensure that all covered facilities undergo comprehensive energy and water evaluations to include commissioning and audit components every four years. In addition, as part of its annual internal review program, DOA's Management Services Branch will verify that all of FDIC's covered facilities undergo these evaluations every four years.

Completion Date: January 31, 2014

Corporation Comments

Finding: FDIC has not formally adopted life cycle cost methods and procedures and does not consistently use life cycle cost methods in assessing or monitoring potential ECMs

Recommendation 4: DOA should research DOE and other federal guidance and adopt a life cycle costing methodology for evaluating proposed ECMs.

Management Response 4: Concur with the recommendation.

DOA has implemented an informal process for determining the Capital Improvement and Major Repair Plan, which incorporates life-cycle cost effectiveness of the ECM's identified through facility condition surveys. However, the life-cycle evaluation process has not been formalized in a written policy or procedure.

Corrective Action: DOA will develop and implement a formal written procedure for evaluating, implementing and monitoring ECM's for life-cycle cost-effectiveness.

Completion Date: January 31, 2014.

Finding: DOA needs to establish a control to periodically verify that FEMP-related reporting is completed, as required

Recommendation 5: DOA should implement an independent control to periodically verify that all required information has been entered into CTS, including comprehensive evaluation and ECM information, and that the FDIC timely files an annual report with DOE that contains complete information on its activities to meet the energy management requirements in NECPA.

Management Response 5: Concur with the recommendation.

DOA will conduct an annual review of our ECM's in the Compliance Tracking System (CTS) to ensure that the information is current and accurate.

Corrective Action: DOA will conduct its first review by the end of this year. In addition, as part of its internal review program, DOA's Management Services Branch will verify that all FEMP-related reporting is completed as required.

Completion Date: December 31, 2013.

Finding: DOA has not developed or implemented a repeatable process for reviewing large capital energy investments

Recommendation 6: DOA should develop a formal, repeatable process for reviewing large capital energy investment decisions that considers the energy efficiency of proposed investments and life cycle cost-effectiveness.

Corporation Comments

Management Response 6: Concur with the recommendation.

DOA has a deliberative evaluation process involving the Capital Improvement and Major Repair Plan, which reviews and assesses the feasibility and life-cycle cost effectiveness of capital improvement projects (and major repairs) that specifically include energy and/or water conservation measures. However, the deliberative process has not been formalized in a written policy or procedure.

Corrective Action: DOA will develop and formalize a process of reviewing large capital energy investment decisions to ensure that ECM feasibility and life-cycle cost-effectiveness are documented and senior level management commitment is obtained.

Completion Date: January 31, 2014.

Finding: FDIC was not generally participating in Energy Savings Performance Contracts (ESPCs)

Recommendation 7: DOA should research additional opportunities and incentive programs that the FDIC can undertake in consultation with energy service companies (such as utility companies), state agencies, and other third parties for the purpose of increasing energy efficiency and water conservation.

Management Response 7: Concur with the recommendation.

DOA has researched the use of Energy Savings Performance Contracts (ESPCs) to determine the scope of services and contract vehicles available to FDIC to implement life-cycle cost-effective ECM's. Our research included consultation with the Legal Division, DOA's Acquisition Services Branch, the Department of Energy, and Washington Gas (provider of natural gas to FDIC's owned headquarters buildings).

Through our research, we determined that ESPC's are restrictive in terms of the operational requirements placed upon the federal agency to achieve the predetermined energy (or water) reduction goals. Also, ESPC's involve the risk of FDIC having to make payments to the ESPC provider in the event that the energy reduction objectives are not met.

DOA has an annual capital improvement budget of approximately $4 million available to fund ECM's identified in the Capital Improvement and Major Repair Plan. In consultation with the Legal Division and ASB, we will continue to research additional opportunities and programs and will take advantage of them when necessary and prudent.

Corrective Action: DOA will seek out additional opportunities and programs for the purpose of increasing energy efficiency and water conservation. DOA will formalize this process by including the requirement in our written policy or procedures as described in our response to recommendation 6 above.

Corporation Comments

Completion Date: January 31, 2014

Finding: DOA did not formalize the sustainability program

Recommendation 8: DOA should implement a formal sustainability program to encompass the FDIC's goals, processes, policies and procedures, and overall energy management efforts. The program should be documented and include written provisions for ensuring compliance with the various legislative requirements pertaining to energy efficiency.

Management Response 8: Concur with the recommendation.

Although DOA has developed and implemented a formal sustainability program for the Virginia Square campus that addresses a wide range of sustainability topics including, but not limited to: 1) waste stream reduction; 2) sustainable purchasing; 3) integrated landscaping; and 4) integrated pest management, the program does not incorporate written provisions for ensuring compliance with the various legislative requirements on energy efficiency.

Corrective Action: The sustainability program at Virginia Square will be expanded to include all headquarters facilities and the San Francisco Regional Office. The program will be documented and will incorporate the various legislative requirements on energy efficiency as identified in the OIG report.

Completion Date: December 31, 2014.

If you have any questions regarding this response, the point of contact for DOA is Dan Bendler at 703-562-2123 or William Gately at 703-562-2118.

cc: Paul K. Sherman, DOA
Michael J. Rubino, DOA
Brian Yellin, DOA
Daniel H. Bendler, DOA
James H. Angel, Jr., DOF
William J. Gately, Jr., DOA

Summary of the Corporation's Corrective Actions

This table presents corrective actions taken or planned by the Corporation in response to the recommendations in the report and the status of the recommendations as of the date of report issuance.

Rec. No.	Corrective Action: Taken or Planned	Expected Completion Date	Monetary Benefits	Resolved:[a] Yes or No	Open or Closed[b]
1	DOA will develop a mechanism to measure and track energy consumption on a full-time employee equivalency basis and continue to identify feasible ECMs to reduce the FDIC's energy consumption to achieve the energy reduction goal of 30 percent by 2015.	January 31, 2014	$0	Yes	Open
2	DOA will develop a formalized training program for all FDIC energy managers based on DOE guidelines and FDIC Energy Management and Sustainability Program needs.	December 31, 2013	$0	Yes	Open
3	DOA will develop a plan or mechanism to ensure that all covered facilities undergo comprehensive energy and water evaluations to include commissioning and audit components every 4 years. In addition, as part of its annual internal review program, DOA's Management Services Branch will verify that all of the FDIC's covered facilities undergo these evaluations every 4 years.	January 31, 2014	$0	Yes	Open
4	DOA will develop and implement a formal written procedure for evaluating, implementing, and monitoring ECMs for life cycle cost-effectiveness.	January 31, 2014	$0	Yes	Open

Summary of the Corporation's Corrective Actions

Rec. No.	Corrective Action: Taken or Planned	Expected Completion Date	Monetary Benefits	Resolved:[a] Yes or No	Open or Closed[b]
5	DOA will conduct an annual review of the ECMs in CTS to ensure that the information is current and accurate. DOA will conduct its first review by the end of 2013. In addition, as part of its internal review program, DOA's Management Services Branch will verify that all FEMP-related reporting is completed as required.	December 31, 2013	$0	Yes	Open
6	DOA will develop and formalize a process of reviewing large capital energy investment decisions to ensure that ECM feasibility and life cycle cost-effectiveness are documented and senior level management commitment is obtained.	January 31, 2014	$0	Yes	Open
7	DOA will seek out additional opportunities and programs for the purpose of increasing energy efficiency and water conservation. DOA will formalize this process by including the requirement in its written policy or procedures.	January 31, 2014	$0	Yes	Open
8	The FDIC's sustainability program for the Virginia Square Buildings will be expanded to include all headquarters facilities and the San Francisco Regional Office. The program will be documented and incorporate the various legislative requirements on energy efficiency identified in this report.	December 31, 2014	$0	Yes	Open

[a] Resolved – (1) Management concurs with the recommendation, and the planned, ongoing, and completed corrective action is consistent with the recommendation.
(2) Management does not concur with the recommendation, but alternative action meets the intent of the recommendation.
(3) Management agrees to the OIG monetary benefits, or a different amount, or no ($0) amount. Monetary benefits are considered resolved as long as management provides an amount.

[b] Recommendations will be closed when (a) Corporate Management Control notifies the OIG that corrective actions are complete or (b) in the case of recommendations that the OIG determines to be particularly significant, when the OIG confirms that corrective actions have been completed and are responsive.