

FDIC's Energy Management and Conservation Efforts  
Office of Congressional Relations and Evaluations/OIG

***An Assessment of the Corporation's Efforts to Enhance  
Energy Efficiency and Reduce Consumption of Natural  
Resources at Its Headquarters Facilities***

February 2, 2000  
Evaluation Report No. 00-001



	Contents
✓ Letter from the Director	2
✓ Improving Energy Management and Conservation in the Federal Sector	4
✓ Assessing FDIC's Energy Management and Conservation Efforts	6
✓ Measuring FDIC's Energy and Water Use	7
✓ Measuring FDIC's Electricity Use	8
✓ Measuring FDIC's Natural Gas Use	9
✓ Measuring FDIC's Water Use	10
✓ Saving Money and Conserving Resources at FDIC's Headquarters Buildings	10
✓ Creating an Energy Management and Conservation Vision	11
✓ Fostering Employee Awareness	12
✓ Budgeting and Measuring Enhancements	14
✓ Planning for Energy Efficiency	15
✓ Increasing Energy Efficiency	17
✓ Leasing Energy Efficient Buildings	19
✓ Assessing FDIC's Recycling Efforts	19
✓ Enhancing FDIC's Energy Management and Conservation Efforts	24
✓ Corporation Response and OIG Evaluation	25
✓ Appendix I: Corporation Comments	27
✓ Appendix II: Management Response to Recommendations	32

## LETTER FROM THE DIRECTOR

Date: February 2, 2000

To: Michael J. Rubino  
Associate Director, Acquisition and Corporate Services Branch,  
Division of Administration

Since the mid-1970s, energy management and conservation have been priorities in the federal sector as a result of escalating energy costs. Air and water pollution, global warming, and depletion of natural resources have gained prominence over the years, including the federal government's role in these areas given the federal government is the largest energy consumer. FDIC has undertaken numerous efforts over the years to reduce its energy and water consumption and to recycle waste materials. Its efforts have included capital improvements at its headquarters facilities, such as energy efficient lighting, room occupancy sensors, and water efficient fixtures. Other initiatives have also contributed to less energy usage such as corporate support for telecommuting, video conferencing, car-pooling, flexible work schedules, and electronic sharing of information. FDIC continues to undertake efforts to reduce its energy and water usage evidencing management's commitment in providing efficient facilities and minimizing the Corporation's impact on the environment.

On average, FDIC annually expends over \$2.1 million for utilities for its three owned headquarters buildings at 550 17<sup>th</sup> Street, NW, and 1776 F Street, NW, in Washington, DC, and the Virginia Square complex in Arlington, Virginia. We initiated this review to find out whether more could be done to reduce FDIC's costs and to generally assess FDIC's efforts in energy management and conservation. To do so, we performed research of other agencies' efforts, arranged for an expert from the Environmental Protection Agency to perform a general review of FDIC's facilities, and reviewed FDIC's utility usage and costs.

In this report, we provided some thoughts on ways to enhance the Corporation's efficiency efforts. Ultimately, the suggested enhancements will help to further reduce FDIC's costs and have a positive impact on the environment. We discussed:

- ✓ Creating an energy management and conservation vision at FDIC
- ✓ Fostering employee awareness
- ✓ Budgeting and measuring enhancements

- ✓ Planning for energy efficiency
- ✓ Increasing energy efficiency
- ✓ Leasing energy efficient buildings
- ✓ Assessing FDIC's recycling efforts

Finally, we made 12 recommendations to DOA focusing on each of the above mentioned areas for its consideration in improving FDIC's existing energy management and conservation efforts.

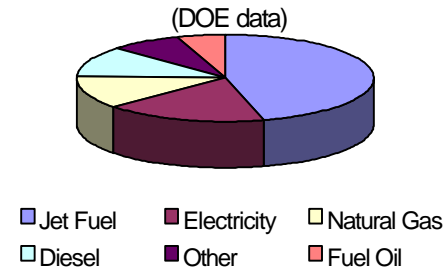
On January 24, 2000, you responded to our recommendations. It was clear from your response that DOA is committed to developing a model Energy Management Program and has begun taking the necessary steps to do so. Further, the response together with those steps already taken provided the requisite elements of a management decision for all 12 recommendations. Your written response is included in its entirety in Appendix I. Appendix II presents our assessment of your responses to the recommendations and shows that we have a management decision for each of the recommendations. We have enjoyed working with all corporate staff who helped us complete our review and were receptive to the information and suggestions we provided.

Stephen M. Beard  
Director, Office of Congressional Relations and Evaluations  
Office of Inspector General

## ***Improving Energy Management and Conservation in the Federal Sector . . .***

The production and use of energy causes environmental damage. Emissions associated with fossil fuel combustion are linked to a variety of serious lung diseases including asthma, emphysema, and cancer. As a nation, billions are spent each year trying to control this pollution. One strategy for pollution prevention, the installation of energy efficient technologies, can actually reduce the cost of environmental protection by simultaneously lowering end users' energy bills and the emissions associated with energy use. Energy efficiency can be a cost-effective strategy for reducing both greenhouse gasses and acid rain. Other benefits include the avoidance of increased energy supply such as construction of new power plants and reduction in the depletion of non-renewable resources. In addition to air pollution, energy efficiency also addresses waste disposal, land use, and water quality concerns.

**fy 1994 Federal Energy Consumption**



The federal government is the largest user of energy in the United States, according to the U.S. Department of Energy (DOE). In fy 1994, energy consumption stood at 1,200.9 trillion British thermal units (Btu)<sup>1</sup> comprised of jet fuel, electricity, natural gas, diesel, fuel oil, chilled water and renewable energy. The government's total net energy consumption in fy 1994 decreased 16.9 percent from 1,445.5 trillion Btu in fy 1985 base year. This reduction could satisfy the energy needs for over 1 million households for a year.

In fy 1996, the federal government used 358.5 trillion Btu to provide energy to approximately 500,000 buildings and facilities comprising over 3.0 billion square feet of floor area. The government's energy bill for buildings was \$3.6 billion in fy 1996. Overall, the federal government reduced its net energy consumption in buildings and facilities by 15.2 percent in fy 1996 compared to fy 1985. These measures are based on the 30 agencies which report their energy usage to DOE. FDIC has not previously reported its usage to DOE.

Estimates show that federal sector expenditures for water and sewer run between \$.5 billion and \$1 billion annually, and that the federal

---

<sup>1</sup> The quantity of heat required to raise the temperature of one pound of water by one degree Fahrenheit.

government could save as much as \$240 million per year by installing water conservation measures. Expenditures and potential savings will increase as the cost of water continues to rise; rates have already increased 100 to 400 percent during the past 10 years, and the trend is expected to continue.

The federal government's efforts to reduce energy consumption are spearheaded primarily by DOE, the General Services Administration (GSA), and the Environmental Protection Agency (EPA). DOE's Federal Energy Management Program (FEMP) has a mission to reduce the cost of government by advancing energy efficiency, water conservation and the use of solar and other renewable energy. FEMP provides services and skills to federal agencies to enable them to take the initiative to undertake projects to use energy and water more efficiently, and to promote the use of renewable resources.

FEMP also promotes interagency coordination through the Federal Interagency Policy Committee and the Interagency Energy Management Task Force that develop energy management policy, identify customer needs, establish priorities, and coordinate communication across federal agencies. During fy 1996, FEMP conducted 55 training workshops and symposia for more than 1,700 attendees in the efficient use and conservation of energy, water, and renewable energy in federal facilities. Other assistance provided by FEMP includes an awareness campaign for use by federal agencies, awards to federal energy managers and contributors for improving energy management and conservation, and funding and contracting mechanisms to improve efficiency.

GSA has a number of initiatives in place to help promote energy efficiency and conservation through its Planet GSA program. GSA offers thousands of environmentally-oriented products and services and manages a nationwide recycling program for 643,000 federal employees in 1,044 federal buildings. GSA is also incorporating energy efficiency and conservation measures in the design, construction, modernization and disposal of federal buildings. It also procures alternative fuel vehicles for use by federal agencies.

EPA promotes waste prevention and energy efficiency through its programs. EPA's WasteWi\$e program promotes waste prevention by looking at the whole waste production cycle and minimizing the production of waste products at the beginning of the cycle. Another one of its programs, Energy Star®, helps to maximize energy efficiency in commercial buildings and in office products.

In addition to the agencies primarily responsible for implementing the federal government's energy management and conservation efforts, other agencies and the private sector have initiated their own efforts. As such, FDIC has available to it a wealth of resources for its use in the Corporation's energy management and conservation efforts.

FDIC's Division of Administration (DOA) is responsible for the Corporation's energy management and conservation efforts. Currently, sections within the DOA's Acquisition and Corporation Services Branch handle facilities management, leasing, and acquisition. The Facilities Management Section (FMS) contains the Space Planning and Design Unit, Building Operations Unit (BOU), and the Safety and Health Unit which handles the Corporation's recycling program. The Leasing Section and Acquisitions Section handle their namesake functions.

The Corporation also, of course, needs the participation of its 7,000 plus employees in its efforts to help ensure success.

### ***Assessing FDIC's Energy Management and Conservation Efforts . . .***

Given the benefits afforded by efficiently using energy and water and the significant potential cost savings, OCRE initiated this review. The objective of our review was to assess the Corporation's energy management and conservation efforts with a particular emphasis on identifying potential cost savings at FDIC's owned headquarters buildings. These buildings consisted of 550 17<sup>th</sup> Street, NW, Washington, DC; 1776 F Street, NW, Washington, DC; and Seidman Center at Virginia Square, Arlington, VA. Specifically, we

- ✓ looked at what the Corporation was spending for its utilities,<sup>2</sup> including electricity, natural gas, water, and sewage removal, and talked with the account representatives for FDIC at the utility companies;
- ✓ arranged for an expert from the EPA to visit FDIC's owned headquarters building to provide an independent review as a means of identifying potential enhancements;
- ✓ talked with individuals at FDIC and other agencies responsible for energy management and conservation;

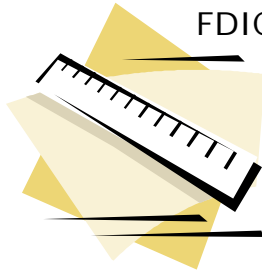
---

<sup>2</sup> We attempted to obtain invoices back to 1985 as a means of creating a trend line to measure the impact of the improvements that FDIC has made over the years. Unfortunately, neither FDIC nor the utility companies had electric or natural gas invoices going back to 1985. As such, we relied on the invoices ranging from 1993 to 1997 that we were able to obtain and annualized average monthly invoices to arrive at annual expenditures.

- ✓ reviewed pertinent FDIC policies; and
- ✓ researched energy management and conservation efforts at other organizations.

Throughout our review, we communicated our results to individuals at FDIC responsible for energy management and conservation so that they could begin to take action. For example, we provided information on DOE-sponsored training on energy management and conservation to BOU, which took advantage of the training. To their credit, the BOU individuals we dealt with wholeheartedly supported our efforts and participated in the facilities walk-through. Their participation enabled them to see the potential for achieving greater efficiency for the Corporation and to provide real-time input on the suggestions made by the EPA expert. We conducted our review from May to October 1999 according to the President's Council on Integrity and Efficiency's *Quality Standards for Inspections*.

### Measuring FDIC's Energy and Water Use . . .



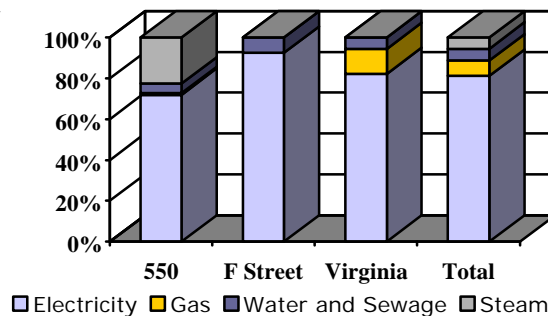
FDIC spends annually about \$2.1 million for electricity, gas, steam, water, and sewage removal at its three owned headquarters facilities based upon our calculations of available data. Its energy, water, and sewage removal usage in these buildings translates to about \$1.29 per square foot. If we excluded water and sewage

removal service, it would be at \$1.21 per square foot. In federal buildings, annual energy costs were approximately \$1.20 per square foot in 1996, according to DOE's *Annual Report to Congress on Federal Government Energy Management and Conservation Programs*.

These energy consumption figures include all forms of energy used by buildings such as electricity, gas, and petroleum. As such, FDIC's expenditures for headquarters buildings' energy consumption are within 1 percent of typical federal facilities energy expenditures.

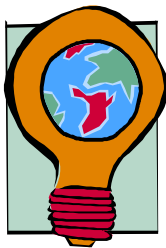
**Energy and Water Use**

(OIG calculations based upon available data)



FDIC's headquarters buildings primarily use electricity, but also use steam and gas for its heating, ventilation, and cooling (HVAC) needs. The Potomac Electric Power Company (PEPCO) and Virginia Power Company provide FDIC's electricity needs. Washington Gas provides FDIC with natural gas for heating and GSA provides FDIC steam for heating as well. The District of Columbia Water and Sewer Authority and the Arlington County, Virginia, Utility Services Office, provide municipal water service and sewage removal for the buildings within their jurisdictions. FDIC also uses a diesel fuel as a back up power source for the Seidman Center. It does not currently use any alternative energy sources or renewable energy at it owned headquarters buildings.

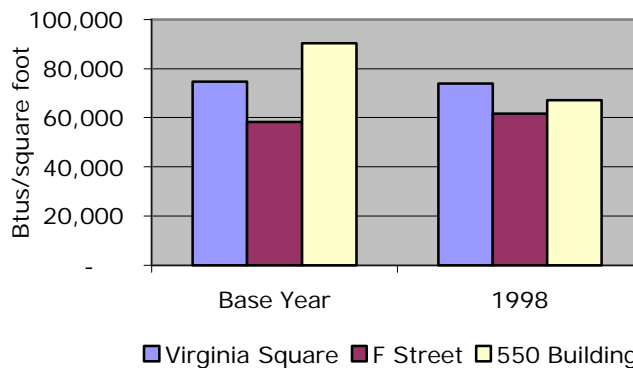
### Measuring FDIC's Electricity Use. . .



On average, FDIC's electricity usage at its three owned headquarters buildings decreased by 9 percent over the last 4 to 6 years.<sup>3</sup> A graphical look at the individual buildings revealed where the electricity consumption changes occurred. The 550 Building had a 26 percent decrease in electricity usage from the 1993 base year.

Electricity usage at the F Street building increased by 6 percent from 1993. For Virginia Square, less than a 1 percent decrease occurred in electrical usage when comparing 1995 and 1998 usage.

**Change in Annual Electricity Usage**  
(OIG calculations based upon available data)



The graph also showed the relative efficiency and intensity of electricity usage in the three buildings. Virginia Square used the most electricity at 73,972 Btus/square foot annually. The F Street building used the least electricity, 61,723 Btus/square foot annually, or about 17 percent less electricity than Virginia Square. Finally, the

<sup>3</sup> Many of FDIC's energy efficiency improvements occurred in prior years for which we were unable to obtain adequate utility data, thus limiting our ability to measure the impact on electricity usage resulting from the improvements. Also, our calculations were based upon actual energy usage and did not take into account the numerous variables that can impact energy usage both positively and negatively, such as changes in the weather, number of employees, and number of electrical devices like computers.



550 building used about 9 percent less electricity than Virginia Square and about 9 percent more electricity the F Street building.

We also compared electricity usage by FDIC's headquarters buildings against other organizations' building electricity usage. According to electricity usage statistics published by DOE's Energy Information Administration (EIA), office buildings typically use about 41,626 Btus per square foot in electricity on a median basis based on 1995 data. Our calculations show that for 1995, FDIC used 69,969 Btus per square foot. Thus, FDIC's electricity usage is about 68 percent higher than the EIA's office building consumption figures. For 1998, FDIC's average usage for the three buildings was 67,649 Btus per square foot, or 63 percent higher than EIA's figure.

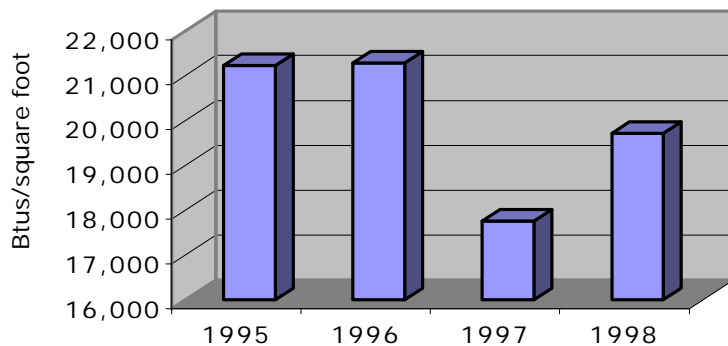
### Measuring FDIC's Natural Gas Use . . .



Only Virginia Square used natural gas for heating while the 550 building used steam and the 1776 F Street building used electricity. Natural gas was used at both the Virginia Square and 550 building kitchens.

As shown in the graph, FDIC used 21,239 Btus per square foot in 1995 and 19,723 Btus in 1998 for a reduction of 7 percent. Part of the lower usage can be attributed to FDIC shutting off the boilers during the summer months at Virginia Square. Also, FDIC used 38 percent less natural gas than the typical office building based on data published in DOE's

**Change in Natural Gas Consumption**  
(OIG calculations based upon available data)



*Federal Energy Management Report* for 1995. It is important to note that deregulation has allowed FDIC to choose its natural gas provider. In 1997, FDIC negotiated with Washington Gas Energy Services and reduced its cost per therm<sup>4</sup> from \$.60 to \$.375, which lowered its overall costs by 38 percent. Effective October 1, 1999 FDIC

<sup>4</sup> A unit of heat equal to one hundred thousand Btus.

renegotiated its rate to \$.335 per therm. This was a further reduction of 11 percent and showed a commitment to reducing costs.

### *Measuring FDIC's Water Use . . .*

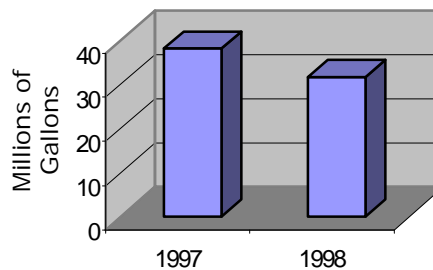


FDIC consumed 38,225,000 gallons of water in 1997 at its headquarters owned facilities. In 1998, the consumption was down 17 percent to 31,748,000 gallons. The decrease may be the result of recently made efficiency improvements wherein DOA has installed sensors in Virginia Square restrooms. DOA also plans to reduce water usage at its other headquarters buildings by installing water efficient fixtures.

We contacted the EPA's Water Alliances for Voluntary Efficiency (WAVE) program which offers guidelines on water related management. The program manager stated that there is no readily available standard for federal office buildings, but did suggest the FDIC obtain water analysis software to perform an independent self-assessment.

#### **Change in Water Consumption**

(OIG calculated based on available data)



### ***Saving Money and Conserving Resources at FDIC's Headquarters Buildings . . .***



Since at least 1989, FDIC has implemented a number of capital improvements to enhance energy management and conservation in its owned headquarters facilities. These improvements have resulted in increased energy efficiency and water conservation as shown by the previous graphs for electricity, gas, and water consumption. Management continues its energy management and conservation improvements and has new projects in process, including facilities enhancements and a new recycling directive.

Our review identified the following additional ideas to save money and conserve natural resources:

- ✓ creating an energy management and conservation vision
- ✓ fostering employee awareness
- ✓ budgeting and measuring enhancements
- ✓ planning for energy efficiency
- ✓ increasing energy efficiency
- ✓ leasing energy efficient buildings
- ✓ assessing FDIC's recycling efforts
- ✓ procuring "green" products



### *Creating an Energy Management and Conservation Vision . . .*

Many energy management and conservation laws and executive orders have been implemented in the federal sector over several decades. These laws and executive orders became the basis for agency energy management and conservation programs. However, given FDIC's unique status as an independent government agency, certain laws and executive orders may or may not apply. Management indicated to us its interest in voluntarily complying with those laws and executive orders for which FDIC does not have to comply. Management's actions again evidence its interest and support in making FDIC stand out in its energy management and conservation efforts and, during our review, management met with counsel to discuss the laws and executive orders. We previously provided management a summary of the laws and executive orders under separate cover.

One of the more recent executive orders is Executive Order 12902, *Energy Efficiency and Water Conservation at Federal Facilities*, issued March 8, 1994. One of the highlights of the executive order was to establish a 30 percent energy reduction goal for the year 2005 based on agencies' 1985 energy usage. It also required agencies to conduct energy and water surveys of federal facilities and leased facilities, ensure that new space designs met or exceeded energy performance standards, and procure energy efficient products. However, as can be seen by the requirements of the executive order, it effects various functional areas of agencies such as facilities management, facilities design, and procurement.

In our discussion with another agency, fragmentation was cited as a stumbling block in its program. The respondent suggested that ideally

all energy management and conservation efforts should be integrated. GSA has already created an external vision and program to integrate the various functions. Its solution was to create a cohesive program, namely Planet GSA, with the program offerings being neatly captured in "buying green, building green, driving green, and saving green." As indicated by its slogan, the program deals with acquisition, facilities design, transportation, and saving money.

On June 3, 1999, Executive Order 13123 "Greening The Government Through Efficient Energy Management" superceded Executive Order 12902. Executive Order 13123 recognized the fragmentation and addressed the situation by having agencies designate a senior official to ensure that energy management and conservation goals are met and to enhance interagency communication. It also created intra-agency energy teams consisting of individuals from procurement, legal, budget, management, and technical experts to expedite and encourage agencies in their energy management and conservation efforts.

Creating an overall vision and program at the FDIC could provide numerous benefits such as showing the Corporation's commitment, increasing employee awareness and participation, and facilitating coordination and communication. As previously mentioned throughout the report, FDIC has established some policy in functional areas such as facilities design and recycling, but not in all areas that have an impact on energy management and conservation.

### *Fostering Employee Awareness . . .*



The federal government, as the largest single employer in the United States, has an opportunity to set an example for the nation by conducting employee energy awareness programs. FDIC did not have an employee awareness program in place covering the many facets of energy management and conservation at its headquarters facilities. In

certain ways, FDIC did support awareness through the recycling program, video conferencing, car-pooling, conference calling, and flexible work schedules. An awareness program could further FDIC's current efforts by improving recycling and also generate additional benefit by reducing Corporate costs for utilities and supplies. Other agencies participate in the federal government-wide energy awareness campaign held every October.

Awareness programs reach beyond the work place to positively impact employees' everyday activities. Examples of other agency awareness actions include:

- ✓ Supporting public transportation
- ✓ Providing incentive awards to facilities managers and others who contribute to energy efficiency at the agency
- ✓ Monthly articles on energy conservation strategies and examples of how employees can contribute
- ✓ Telecommuting
- ✓ Awareness package for managers
- ✓ Employee briefings

Besides the actions taken by individual agencies, FEMP sponsors an energy awareness campaign in which other agencies may partake. The campaign assists federal energy managers by spreading the word about energy efficient practices and products. It also helps instill energy efficiency as a basic value among federal employees. It features artwork, posters, and promotion of Energy Champions—federal employees who are helping agencies save energy and money with their efforts. The awareness campaign also features energy savings tips.

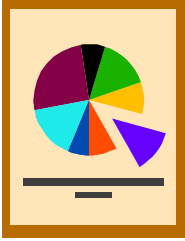
Excerpts from DOE's *Save Your Energy: 8 Simple Things You Can Do*

- Use compact fluorescent lamps to save energy and cut pollution.
- For three copies or less, use the printer; for more, use the copier.
- Using the "stand-by" button on your copier will lighten your energy load by 70%.
- A computer monitor uses 60 watts of power; turn it off if you leave for more than 10 minutes.
- Recycling paper reduces water use by 60%, energy by 70%, and cuts pollution in half.
- Relax and use mass transit; use 25 times less energy.
- Airplanes burn 70 gallons of fuel a minute. Travel by a real super-saver--teleconference.

Creating awareness could result in sizable savings of resources. For example, the Department of Justice is trying to get employees to use both sides of paper when producing reports and copying. Such a simple action could cut paper use substantially.

Employee awareness would have a positive impact in both owned and leased buildings. Energy, water, and supplies are used in all facilities and reductions in them will result in Corporate cost savings. Also, an awareness program is relatively inexpensive to implement in light of FEMP's available resources.

## *Budgeting and Measuring Enhancements . . .*



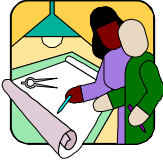
Establishing a budget and performance measures could be beneficial. Currently, FDIC includes energy efficiency enhancements as part of capital improvements; it did not have a budget for energy management and conservation activities. Unlike FDIC, appropriated government agencies submit their agency budgets to the Office of Management and Budget annually and Executive Order 13123 now requires that appropriated agencies specifically request funding necessary to achieve the goals of the executive order such as reducing energy consumption by 30 percent by 2005 and by 35 percent by 2010. According to the executive order, budget submissions shall include the costs associated with

- ✓ Encouraging the use of, administering, and fulfilling agency responsibilities under Energy-Savings Performance Contracts, utility energy efficiency service contracts, and other contractual platforms for achieving conservation goals;
- ✓ Implementing life-cycle cost-effective measures;
- ✓ Procuring life-cycle cost-effective products; and
- ✓ Constructing sustainably designed new buildings.

The use of a specific energy management and conservation budget could help in the identification and prioritization of efficiency projects and in the tracking of energy-specific projects.

DOA's 1999 Annual Performance Plan did not include operational objectives that specifically address energy management and conservation. It did include an operational objective that states "Quality Building Systems Are Maintained So That Employees Can Work At Their Optimum Level." The related Annual Performance Goal for that objective includes upgrades to optimize efficiency. Specifically noted are installing a Data Center Power Monitoring System at Virginia Square and modernizing the F Street and 550 building lobby and elevators. A more specific operational objective could be established to highlight the importance of energy management and conservation and ensure that goals are developed. These goals would allow DOA to readily measure its annual energy management and conservation achievements.

## Planning for Energy Efficiency . . .



FDIC's current guidance on facilities design is contained in the *Facilities Design Guide*, dated September 15, 1998.

The guide states FDIC's policy on energy management and conservation and identifies design considerations for its

facilities such as energy efficient lighting and room occupancy sensors. The guide evidences FDIC management's awareness and commitment to minimizing the Corporation's impact on the environment when providing a workplace for its employees. DOA's stated goal in the guide is "to ensure that FDIC's facilities are properly designed, space efficient, safe, environmentally sound . . . ." To do so,

FDIC supports energy conservation and will, where feasible, attempt to design energy efficient space. Mechanical, electrical, and plumbing systems shall be primary candidates in designing energy efficient systems.

During our evaluation, we identified information from other federal agencies on energy management and conservation programs and facilities design. GSA, DOE, and EPA have detailed guidance and experience in improving building efficiency.

In 1998, GSA began a program called Planet GSA with one of its aims focusing on "building green." Building green includes retrofitting buildings, but also includes designing and constructing sustainable buildings. Sustainable design means creating environmentally sound and resource-efficient buildings. It includes the site's accessibility to mass transit, pedestrian pathways, and

### **Excerpts from EPA's GREEN BUILDINGS VISION AND POLICY STATEMENT**

Agency facilities, both new and existing, should serve as models for a healthy workplace with minimal environmental impacts. To achieve this goal, EPA will utilize both innovative, state-of-the-art technologies and a holistic approach to design, construction, renovation, and use. Important considerations in the design, construction and use of EPA-owned and – leased facilities include the following:

- Site planning that utilizes resources naturally occurring on the site such as solar and wind energy, natural shading, native plant materials, topography and drainage.
- Location to optimize the use of existing infrastructures and transportation options, including the use of alternative work modes such as telecommuting and teleconferencing.
- Use of recycled content and environmentally preferable construction materials and furnishings, consistent with EPA Procurement Guidelines.
- Minimization of energy and materials waste throughout the buildings life cycle, from design through demolition or reuse.
- Design of the building envelope for energy efficiency.
- Use of materials and design strategies to achieve optimal indoor environmental quality, particularly including light and air, to maximize health and productivity.
- Management of water as a limited resource in site design, building construction and building operations.
- Utilization of solar and other renewable technologies, where appropriate.



bicycle paths; landscaping with indigenous plants to minimize upkeep and dependence on water, herbicides, and pesticides; and reducing waste generated during construction. It also means using recycled content products such as insulation, cement and concrete, latex paint, and carpeting made from plastic bottles in the building itself. GSA's *Facilities Standards for the Public Buildings Service* contains the agency's guidance on building design and incorporates elements related to energy efficiency and conservation.

DOE's FEMP is the lead agency in several federal "greening" initiatives. "Greening" is achieved through the application of energy-efficient technologies and environmentally preferred or environmentally friendly products and practices in a multiyear, multidisciplinary project designed to improve energy efficiency, reduce waste, improve worker productivity, and save money throughout the facility.

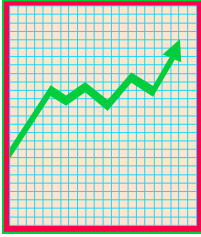
FEMP has developed a guide, entitled *Greening Federal Facilities*, to highlight practical actions that facility managers can take to save energy and money, improve comfort and productivity of employees, and benefit the environment. *Procuring Low-Energy Design and Consulting Services: A Guide for Federal Building Managers, Architects, and Engineers* provides items that should be considered when designing buildings for low-energy consumption. The guide emphasizes the need to define energy performance targets and choosing design professionals with who are highly supportive of energy efficient design.

EPA also has a Green Buildings Program that incorporates principles of energy and resource efficiency, applies waste reduction and pollution prevention practices, ensures unpolluted indoor air, and uses natural light as a light and heat source whenever possible. EPA's Green Buildings Vision and Policy statement represents a holistic, systems approach to sustainable building design, renovation, and maintenance.

Another agency also has significant experience in designing efficient facilities. The Department of the Navy practices sustainable building design and has annual expenditures of \$3 billion a year on facility construction.



## *Increasing Energy Efficiency . . .*



As shown earlier, FDIC's efforts to increase building efficiencies have reduced electricity, gas, and water usage. Specific examples of FDIC's efforts included installing compact fluorescent lamps, occupancy sensors, solar window film, smaller chillers, and day lighting controls. Management continues to look at innovative ways of using resources wisely and is even considering using groundwater at Virginia Square to water the seven acres of grass rather than using municipal water. In light of the summer 1999 drought, such an action shows management's environmental awareness.

To help us identify whether further options exist for FDIC to improve building efficiency and reduce costs at its owned headquarters buildings, we arranged for an EPA expert to review the facilities. In pursuing other ways to save money for the Corporation, we discussed FDIC's rates with current utility electricity and natural gas vendors and contacted an alternative utilities supplier. Furthermore, we recalculated invoices and compared the rates billed with the tariff rates to determine invoice accuracy.

The expert from the EPA visited each building and discussed the buildings' operations with Facilities Management personnel at no cost to the FDIC. Overall, the expert seemed favorably impressed with energy management and initiatives undertaken by FDIC's facilities management personnel. Nevertheless, based on those discussions, the representative submitted a list of ideas to us which we in turn forwarded to Facilities Management for its consideration. Management is currently considering the suggestions, including, for example, using the generators at Virginia Square to provide electricity during FDIC's peak energy usage periods in which utility-provided electricity is the most expensive. Specific suggestions made by the EPA expert included

- ✓ enhancing an already strong lighting program at Virginia Square with even more energy efficient fixtures;
- ✓ installing a comprehensive energy management system for the 550 17<sup>th</sup> Street and 1776 F Street buildings;
- ✓ adding office and room monitoring to the energy management system at Virginia Square, if not already done;
- ✓ installing variable air volume/variable frequency drives;

- ✓ co-generating power by using a fuel cell at the DC buildings or for the Virginia Square expansion;<sup>5</sup>
- ✓ using the back-up power at Virginia Square during high demand periods and not adding additional back-up power for the expanded Virginia Square;
- ✓ considering installing renewable energy technologies such as photovoltaics, solar hot water preheating, and solar domestic hot water, as examples;
- ✓ evaluating the necessity of running the HVAC 24 hours a day, 7 days a week;
- ✓ reviewing kitchen equipment and laundry facilities at Virginia Square to determine whether water conserving devices should be used; and
- ✓ requesting guests at the Seidman Center prolong their use of linens and towels as a means of saving water.

During our discussions with the utilities' account representatives for FDIC, they told us that FDIC had the best available rates and they were less expensive than commercial rates. We requested that PEPCO look into meter totalization, which combines meter readings for FDIC's downtown buildings, so that FDIC could take advantage of any discounts on higher volumes. The PEPCO representative we spoke with stated that FDIC was not eligible for meter totalization because of the non-contiguous nature of its downtown buildings. We also contacted GSA to find out whether it could provide FDIC with utilities through its area wide network agreements. While GSA could not help us with our electricity rates, it could help us with our gas rates. According to the GSA representative we spoke with, GSA would be able to save FDIC about \$28,000 annually.

The account representatives also provided us the tariff rates paid by FDIC and information on their metering and billing processes. We recalculated electricity and gas invoices on a sample basis to determine whether monies could be recouped because of billing inaccuracies. Our recalculations included verifying the rates billed by the utility companies and the accuracy of the beginning and ending meter balances as shown on the invoices. Our recalculations of a sample of electricity and gas invoices did not reveal any material errors.

---

<sup>5</sup> A fuel cell is an electrochemical cell in which the energy of a reaction between a fuel, as liquid hydrogen, and an oxidant, as liquid oxygen, is converted directly and continuously into electrical energy.

## *Leasing Energy Efficient Buildings . . .*



While we did not focus on evaluating FDIC's leased headquarters buildings, FDIC has taken a number of steps to increase energy efficiency in them, such as installing energy efficient lighting. FDIC leases buildings in whole or in part at 801 17<sup>th</sup> Street, NW, 1717 H Street, NW, 1700 Pennsylvania Avenue, NW, and 1730 Pennsylvania Avenue, NW. FDIC typically pays its pro rata share of the buildings' operating expenses, including its share of utility costs.

FDIC may be able to reduce its operating costs in leased buildings. Executive Order 13123 seeks to promote federal leadership in energy management and discusses model lease provisions. The executive order states:

Agencies entering into leases, including the renegotiation of leases or extension of existing leases, shall incorporate lease provisions or extension that encourage energy and water efficiency wherever life-cycle cost effective. Build-to-suit lease solicitations shall contain criteria encouraging sustainable design and development, energy efficiency, and verification of building performance. Agencies shall include a preference for buildings having the ENERGY STAR building label in their selection criteria for acquiring leased buildings. In addition, all agencies shall encourage lessors to apply for the ENERGY STAR building label and to explore and implement projects that would reduce costs to the Federal Government, including projects carried out through the lessors' Energy-Savings Performance Contracts or utility energy-efficiency service contracts.

FDIC typically chooses to be responsible for building-out leased space so it has the opportunity to integrate energy efficient and water conserving measures in its plans. FDIC leases more buildings than it owns and leases about 105 properties nationwide. By leasing energy efficient buildings and implementing energy efficiency measures, reduced costs for the Corporation could result.

## *Assessing FDIC's Recycling Efforts . . .*



Recycling has been an environmental success story. Recycling, including composting, diverted 57 million tons of material away from landfills and incinerators in 1996, up from 34 million tons in 1990--a 67 percent increase in just 6 years. Benefits attributed to recycling include

- ✓ reducing the need for new landfills,
- ✓ preventing emissions of many air and water pollutants,
- ✓ saving energy,
- ✓ supplying valuable raw material to industry,
- ✓ creating jobs,
- ✓ reducing greenhouse gas emissions,
- ✓ stimulating the development of greener technologies, and
- ✓ conserving resources for future generations.

FDIC has had a recycling program in place for some time and continues with its program. Circular 3400.3, dated January 14, 1994, replaced a previous directive and standardized the procedures for collecting acceptable waste paper. Acceptable waste paper and materials include white wastepaper, computer printout paper, copier paper, newspaper, aluminum cans, and toner cartridges. Waste paper is collected in desktop receptacles and in central receptacles near copies or printers. Separate receptacles are set up for newspaper, aluminum cans, and toner cartridges. FDIC is also in the process of revising its current directive to bring it up to date. The draft directive includes new procedures for the inspection of recyclables as a means of verifying the contractor's invoice, distribution of monies from recycling waste, and recycling reminders.

We reviewed the quantity of waste paper being recycled at FDIC's owned headquarters buildings using the account summary report produced by the recycling contractor. Our focus was on waste paper, given the amount of waste paper produced by the Corporation. At its leased facilities, FDIC primarily relies on the landlords to carry out recycling although the Corporation provides recycling receptacles.

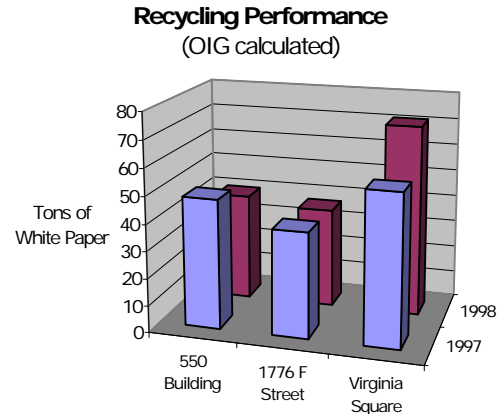
On average, the Corporation recycled 145 tons of white paper annually. The EPA has calculated that employees generally produce about 3/4 pound of waste paper per day. For headquarters, this would roughly translate to about 145 tons of paper being generated annually and compares equally with the amount of paper being currently recycled by the Corporation.

On average, FDIC has received about \$4,000 per year for its white paper. The program manager stated that the funds are used to offset the costs of the program and are spent on items such as office recycling containers. The recycling contract is a no cost contract, meaning that the contractor is paid based on revenues received on the sale of the recycled paper and materials picked up. The contractor pays FDIC a percentage of the revenue.

To take a closer look at recycling at the headquarters buildings, we looked at the change in recycling tonnage from 1997 to 1998 and compared performance by building. This graph shows the changes in recycling tonnage for 1997 and 1998:

- ↓ 17% at the 550 building
- ↓ 4% at the 1776 F Street building
- ↑ 28% at the Virginia Square Building

As another means of measuring recycling performance, this graph shows a comparison of the amount of white paper recycled per person by building and to an average of the three buildings on an annual basis.



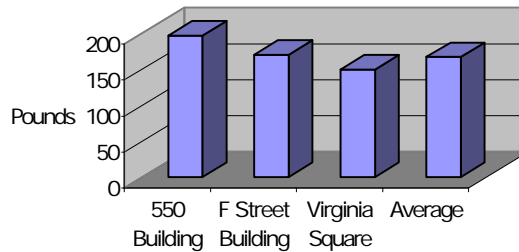
In terms of percentage difference from the average:

- ↑ 17% at the 550 building
- ↑ 2% at the F Street building
- ↓ 11% at Virginia Square

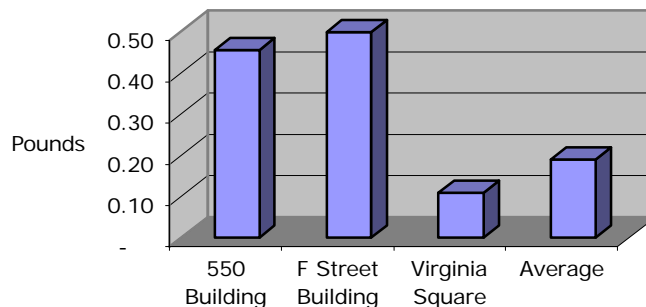
Looking at the amount of paper recycled per square foot provides similar results. It shows that about 1/2

pound of paper per person was recycled at the 550 and F Street buildings. At Virginia Square, about a 1/10 pound of paper per person was recycled. The nature of the facilities at Virginia Square, which includes the hotel, may explain the difference between the amount of paper recycled there and the amounts recycled at the downtown facilities.

**Recycled Paper per Employee (OIG calculated)**



**Recycled Paper per Square Foot (oig calculated)**



Our research showed that more could be done to (1) prevent the production of waste paper in the first place and (2) to increase the recycling of waste paper.

Waste prevention means using less material to get the job done. Waste prevention methods help create less waste in the first place-- before recycling. Waste prevention yields numerous environmental and economic benefits. By preventing waste and recycling, FDIC would use fewer raw materials, thereby conserving natural resources, minimizing energy use, and reducing pollution. Waste reduction also saves companies money--through reduced purchasing and operating costs, decreased storage costs, and increased recycling revenue. For example, adjusting hauling services to reflect reduced volume of waste can add up to tremendous dollar savings though

- ✓ decreased hauler fees (FDIC currently pays about \$136,000 a year to have regular refuse removed from the three owned headquarters buildings),
- ✓ avoided disposal charges,
- ✓ maximized recycling revenues, and
- ✓ lower equipment maintenance and service costs.

An initial step in selecting waste prevention goals is a waste assessment. A waste assessment is a systematic way to identify waste reduction opportunities. These actions include preventing waste, purchasing recycled and reduced-waste products, and recycling and composting waste materials. A waste assessment provides several benefits

- ✓ It establishes a better understanding of current purchasing, waste generation, and waste disposal practices.
- ✓ It identifies potential waste reduction options for evaluation.



#### **Examples of Waste Prevention Goals from EPA**

- ✓ Establish a waste prevention policy
- ✓ Offer company newsletters on-line
- ✓ Publicize waste prevention activities through a new or existing newsletter
- ✓ Create green teams to brainstorm waste prevention activities
- ✓ Conduct waste reduction contests
- ✓ Require each site to periodically report on waste prevention, recycling, and cost avoidance
- ✓ Establish a solid waste measurement and reporting program to evaluate the success of waste prevention efforts

- ✓ It establishes a baseline from which to measure the success of the waste reduction program.

Companies can use the data collected in a waste assessment to choose the waste prevention goals most appropriate to their specific operating practices.

Many major companies in the US, including those in the banking sector, have embraced waste prevention. These success stories show the extensiveness of waste prevention ideas.

*Northeast Utilities* initiated a pilot program to reduce nonessential and duplicate pieces of bulk mail. By removing employee names from bulk mailing lists, the program eliminated 42,000 pounds of third-class mail.

*BankAmerica* established an employee hotline to answer questions on recycling. In 1995, the hotline received over 400 calls.

*Aetna Life and Casualty* initiated an office supply and equipment recapture program that saved \$144,000 and nearly 130,000 pounds of material in 1995.

*Chrysler Corporation* is doing its part to help stimulate markets for recyclables. In 1995, the company purchased over one million pounds of 100 percent recycled content and computer and printer paper.

*Anheuser-Busch* corporate headquarters switched to reusable dishware in the cafeteria conserving 8,000 pounds of polystyrene per year. This change resulted in annual savings of \$36,000 with no additional manpower.

*Freddie Mac* reduced 30,000 pounds of paper in 1995 by changing from folded single towels to paper towel rolls in bathrooms.

The *Dupont Merck Pharmaceutical Company* initiated a policy requiring all advertising, promotional literature, letterhead, business cards, and envelopes to be printed on recycled paper.

The *Office of Thrift Supervision (OTS)* participates in electricity demand reduction during peak periods and receives rebates from PEPCO for doing so.

Regarding FDIC's status on purchasing recycled content paper, the paper currently used by the Corporation in printers and copiers does not have a recycled paper content. We were told in an interview that

recycled paper is more costly and lacks the quality of virgin paper. In our interviews with representatives from the Department of Justice (DOJ), OTS, Department of State, Department of Commerce, we discussed the acquisition and use of recycled content paper. DOJ, OTS, and State purchase recycled content paper, while Commerce does not currently do so though plans are in the works. *FDIC's Acquisition Policy Manual* does not address the purchase of supplies or other materials with recycled content. Paper with recycled content can be purchased from GSA or the Government Printing Office.

In addition to recycled content paper, GSA has partnered with EPA and DOE to offer the federal community a broad range of energy efficient products. In fact, GSA offers thousands of environmentally-oriented products and services. GSA's Environmental Products Guide contains over 3,000 items. Besides energy efficient office products, GSA offers paints, cleaners, and other products that have been reformulated to be less environmentally detrimental.

### ***Enhancing FDIC's Energy Management and Conservation Efforts . . .***

FDIC's improvements related to energy management and conservation have benefited the Corporation as a whole. With a coordinated energy management effort, the Corporation will both save resources and reduce costs. DOA should consider:

1. Coordinating with the Legal Division to identify all laws and executive orders relating to energy management and conservation that affect Corporate functions and determine to which ones FDIC must comply and those with which it will voluntarily comply.
2. Establishing a task force involving all appropriate FDIC divisions to create an energy management and conservation vision and program for the Corporation.
3. Appointing a management official to serve as a focal point for energy management and conservation to ensure the visibility of FDIC's program.
4. Stimulating employee interest in energy management and conservation through an awareness program.
5. Developing a specific objective in the Annual Performance Plan that addresses improving energy efficiency and conservation at FDIC.
6. Creating an energy management plan to promote energy management and conservation and to measure expenditures and achievements.



7. Revisiting the *Facilities Design Guide* to determine whether additional guidance would be useful to promote energy management and conservation during the facilities planning process.
8. Evaluating the feasibility of the specific suggestions made by the EPA expert to enhance energy management and conservation at FDIC's headquarters facilities.
9. Studying GSA's cost analysis for natural gas to determine whether GSA would be a less costly alternative than FDIC's current supplier and take appropriate action.
10. Promoting energy efficiency in its leased facilities by including a preference for Energy Star® buildings which could result in reduced operating costs for FDIC.
11. Assessing the production of waste paper, aluminum and glass at headquarters to identify waste reduction opportunities and to establish baseline measures.
12. Increasing FDIC's acquisition of recycled content products and energy efficient products by establishing annual targets for their purchase.

### ***Corporation Response and OIG Evaluation***

On January 24, 2000, the Associate Director, Acquisition and Corporate Services Branch, DOA, provided the Corporation's written response to a draft of this report. The Associate Director's response indicated that DOA is committed to developing a model Energy Management Program, and will include many of the recommendations made in this report. The response further indicated that DOA has (1) established a performance goal in its Annual Performance Plan for implementation of an Energy Conservation Program, (2) taken steps to obtain the assistance of the Department of Energy's Federal Energy Management Program, and (3) intentions to establish a 5-year plan and begin implementing specific initiatives before the end of this year. DOA's written response, together with actions it has already taken, provides the requisites for management decisions on all twelve recommendations.

Regarding DOA's comment 2, the EIA data provided median energy data based upon the principal building activity such as office, lodging, and warehouse and storage. A median usage figure means that half of the buildings EIA surveyed used less energy and the other half used more energy than the median. Of the median data for the principal building activity mentioned above, office usage was the highest and was used in the comparison. The EIA data did not provide data center energy usage. The mixed nature FDIC's Virginia Square operations, as pointed out by DOA, could increase the building's energy usage beyond the EIA-reported median.

## Appendix I: Corporation Comments

---



**Federal Deposit Insurance Corporation**

550 17th Street, NW, Washington, DC 20429

Division of Administration

January 21, 2000

TO: Stephen M. Beard  
Director, Office of Congressional Relations and Evaluations

FROM: Michael J. Rubino  
Associate Director, Acquisition & Corporate Services Branch

SUBJECT: Response to Draft Report: *An Assessment of the Corporation's Efforts to Enhance Energy Efficiency and Reduce Consumption of Natural Resources at its Headquarters Facilities*

Attached are comments on the draft report dated December 20, 1999. I appreciate the suggestions regarding improvements for our energy management program. Many of the initiatives recommended will be implemented. We have established a performance goal in the Division of Administration's Annual Performance Plan for implementation of an Energy Conservation Program.

Steps have been taken to obtain the assistance of the Department of Energy's Federal Energy Management Program. We intend to establish a five- (5) year plan and begin implementing specific initiatives before the end of this year.

Please contact Marianne Jentilucci, Assistant Director, Facilities Management Section, at (202) 942-3299 if you have any questions or require additional information.

Attachment

DOA appreciates the efforts of the Office of the Inspector General in reviewing our program and making recommendations for improvement. DOA is committed to developing a model Energy Management Program, and will include many of the recommendations made in this Report.

1. FMS is working with the Department of Energy, Federal Energy Management Program (FEMP) to develop baseline data to be used in tracking energy savings. It would be helpful to have the raw data used by OIG in their calculations of energy usage and savings to compare to the baseline data developed with FEMP. (reference Page 8, "Change in Annual Electricity Usage")
2. On Page 9 of the Report, the Office of Inspector General (OIG) compares FDIC Headquarters buildings electricity usage to statistics published by the Department of Energy's Energy Information Administration (EIA). The Report, which combines all owned buildings, indicates that FDIC's electricity usage is significantly higher than typical office buildings. It appears that the Report does not take into consideration the special use of the Virginia Square Seidman Center. The Virginia Square complex includes a National Data Center, a National Training Center, and a student residence. These are energy intensive functions that have a direct affect on electricity usage. These types of activities are not typical to office buildings. It also is not clear whether the mean used to compare to FDIC electricity usage includes buildings heated solely by electricity, such as the 1776 F St. Building. If these factors were not considered it is very likely that the Report overstates the variance of FDIC electricity usage.
3. FMS recognizes the importance of creating a vision for the FDIC Energy Management Program, and will do this as part of the Program development. An interdisciplinary Task Force will be established in March 2000 to assist in developing an integrated and comprehensive Energy Management Program. (Reference Pages 11-12)
4. We have obtained legal opinions on most of the Laws and Executive Orders related to energy conservation. The Executive Order 12902 referenced in the Report has been replaced by Executive Order 13123. FDIC is not required to comply with Executive Order 13123. However we recognize the problems related to fragmentation of programs, and plan to have an integrated energy management program that meets many of the goals established in Executive Order 13123. The FDIC Energy Management Program will be modeled on FEMP guidelines, and will be in compliance with the National Energy Conservation Policy Act (which we are required to comply with). (reference Pages 11-12)
5. The FDIC Energy Management Program will focus on employee awareness and education. We are planning educational activities for October 2000, in conjunction with our annual Recycling Fair. We have requested assistance from FEMP in developing our employee awareness program. (Reference pages 12-13)
6. The FDIC Energy Management Program will include performance measures, modeled after the FEMP Program guidelines and in compliance with the National Energy Conservation Policy Act. We do not see the benefit of establishing a separate budget for energy conservation. Establishing a separate budget for energy conservation is found in Executive Order 13123, and is encouraged by FEMP in an effort to gain funding approval at OMB and in Congress for energy conservation projects planned by appropriated agencies. FDIC is not an appropriated agency. Establishing a separate budget for energy conservation will place an undue burden on FDIC accounting practices. FDIC has a budget structure for capital improvements, maintenance and repair, utilities, and miscellaneous operating expenses that appropriately tracks expenditures by category and project A separate budget line to account for energy conservation projects will be confusing, will not capture all costs and savings, and will not assist in tracking multi-year energy conservation initiatives. Many initiatives will be funded through task orders issued against existing contracts, and it will be difficult to budget for these separately from the contract. FMS does not believe the use of a specific energy management budget will help in the identification

and prioritization of efficiency projects or in the tracking of energy specific projects. Even if we had a separate budget, we would still have to create a separate tracking system to track multi-year savings, non-monetary savings, and actual expenditures.

The Energy Audit, which FEMP will conduct for FDIC, will identify cost effective energy conservation projects that will provide a return-on-investment over the next 10 years. FMS will develop a multi-year plan to prioritize and implement these projects, and include them in our annual budget requests. Budget line items that involve energy conservation initiatives will be highlighted in the comment section of our budget submission.

FMS will develop a simplified method of identifying activities and projects in the Energy Conservation Plan, including budget requirements and tracking expenditures. This will provide reliable information to evaluate the tangible benefits and cost effectiveness of our energy conservation efforts. This data will be used to prepare annual status reports that will encompass multi-year strategies and progress. (reference Budgeting and Measuring Enhancements...page 14).

7. The Report notes that DOA's 1999 Annual Performance Plan did not include energy conservation (Page 14). DOA's 2000 Annual Performance Plan includes the following objective:

**Energy Conservation Program:** Develop short and long term energy conservation plans to optimize the efficiency of all utilities within the FDIC owned buildings.

8. The FMS will pursue cost savings by competing utility service, particularly for gas. (reference Page 18)

9. FMS is currently conducting a waste stream analysis in an effort to improve the recycling program. It would be helpful to see the data used by OIG to develop their conclusions, and to compare this data to the baseline data we are developing for our Energy Conservation Plan. The Corporate Support Section is also conducting a pilot program testing use of recycled paper in copiers. Results of the survey will be evaluated in May, 2000. A Recycling Directive has been drafted, and the Office Supply Program Directive will be revised to include use of recycled products. These Directives will be issued by June 30, 2000. (Reference assessing FDIC's recycling efforts, Pages 20-24).

10. Comments regarding specific recommendations (reference Enhancing FDIC's Energy Management and Conservation Efforts, page 25).

- a. *Coordinate with the Legal Division to identify all laws and executive orders relating to energy management and conservation that affect Corporate functions and determine to which ones FDIC must comply and those with which it will voluntarily comply.*

Comments: The Legal Division has reviewed the National Energy Conservation Policy Act, 10CFR Parts 435 and 436 and numerous Executive Orders and issued opinions on whether FDIC is required to comply. They currently are reviewing the Resource Conservation and Recovery Act of 1976. FDIC is required to comply with the National Energy Conservation Policy Act and 10CFR Part 436. FDIC is not required to comply with the Executive Orders or 10CFR Part 435. FMS has determined that FDIC will comply with the spirit of Executive Order 13123 in developing our Energy Conservation Program, to the extent feasible and practicable. There are parts of the Executive Order that do not apply to FDIC operations and we will not comply with these sections. FDIC is required to comply with the National Energy Conservation Policy Act, and we will ensure our Program meets the spirit and intent of the law. The Legal Division review will be completed by April 30, 2000.

- b. *Establish a task force involving all appropriate FDIC Divisions to create an energy management and conservation vision and program for the Corporation.*

Comments: We concur with this recommendation and we are proceeding to establish the task force, with support from the Department of Energy, Federal Energy Management Program (FEMP). The Task Force will be established by March 31, 2000.

- c. *Appointing a management official to serve as a focal point for energy management and conservation to ensure the visibility of FDIC's program.*

Comments: The Assistant Director, Facilities Management Section is responsible for the development of the FDIC's Energy Management Program, and serves as a focal point for energy management and conservation. In addition, the Chief, Building Operations Unit serves on the FEMP Interagency Energy Management Task Force as FDIC's representative.  
No further action is required.

- d. *Stimulating employee interest in energy management and conservation through an awareness program.*

Comments: Employee awareness will be an integral part of the Energy Management Plan for the FDIC. The target date for completing the Plan is December 31, 2000.

- e. *Developing a specific objective in the Annual Performance Plan that addresses improving energy efficiency and conservation at FDIC.*

Comments: This has been completed. The Annual Performance Plan for 2000 includes a Performance Plan related to energy conservation.

- f. *Creating an energy management plan to promote energy management and conservation and to measure expenditures and achievements.*

Comments: FMS is in the process of working with FEMP to develop a model Energy Conservation Program at FDIC. An integral part of the Program will be a specific, integrated Energy Management Plan. This Plan will be completed by December 31, 2000.

- g. *Revisiting the Facilities Design Guide to determine whether additional guidance would be useful to promote energy management and conservation during the facilities planning process.*

Comments: Upon completion of the Energy Management Plan FMS will update the Facilities Design Guide. A revision to the Guide will be issued in 2001.

- h. *Evaluating the feasibility of the specific suggestions made by the EPA expert to enhance energy management and conservation at FDIC's headquarters facilities.*

Comments: Through a Memorandum of Understanding with DOE/FEMP we are conducting Energy Saving Audits of all Headquarters Owned Buildings. The comments of the EPA expert will be submitted for consideration to the contractor conducting the Audits. FMS plans to have the MOU in effect by March 31, 2000.

- i. *Studying GSA's cost analysis for natural gas to determine whether GSA would be a less costly alternative than FDIC's current supplier and take appropriate action.*

Comments: FMS will contact GSA and pursue any cost savings for natural gas. An analysis of alternative gas utility providers will be completed by June, 2000. We are

interested in reviewing any cost analysis information that OIG has related to this matter.

- j. Promoting energy efficiency in its leased facilities by including a preference for Energy Star buildings that could result in reduced operating costs for FDIC.*

Comments: FMS has discussed this matter with the Assistant Director, Leasing Section. The Leasing Section will explore the possibility of incorporating the EPA Energy Star Program into the leasing process. This will become part of the Energy Management Plan, which will be completed by December 31, 2000.

- k. Assessing the production of waste paper, aluminum and glass at headquarters to identify waste reduction opportunities and to establish baseline measures.*

Comments: We are conducting a waste stream analysis currently, and will use data from the analysis to develop baseline data and to improve the recycling program. Recycling will be part of the integrated approach to FDIC's Energy Management Program.

- l. Increasing FDIC's acquisition of recycled content products and energy efficient products by establishing annual targets for their purchase.*

Comments: Recycling will be part of the integrated approach to FDIC's Energy Management Program. Revised policies and goals will be incorporated into the Energy Management Plan scheduled for completion by December 31, 2000. The Acquisitions Section, Corporate Services Section and Health, Safety and Environmental Unit will participate on the Task Force to develop the Program.

## Appendix II: Management Response to Recommendations

This table presents management responses to recommendations in our report and the status of management decisions. Management's written response to our report provided the information for management decisions.

Rec. Number	Corrective Action: Taken or Planned	Expected Completion Date	Documentation That Will Confirm Final Action	Monetary Benefits	Management Decision: Yes or No
1	The Legal Division has completed reviewing certain laws and executive orders pertaining to energy management and conservation and continues in its efforts.	4/30/00	DOA 1/21/00 response to a draft of this report	No	Yes
2	DOA is in the process of establishing a task force with support from FEMP to create an energy management and conservation vision and program.	3/31/00	Energy Management Plan	No	Yes
3	The Assistant Director, FMS, is responsible for FDIC's Energy Management Program.	Completed	DOA 1/21/00 response to a draft of this report	No	Yes
4	Employee awareness will be an integral part of the Energy Management Plan for FDIC.	12/31/00	Energy Management Plan	No	Yes
5	The Annual Performance Plan for 2000 includes an objective to develop short and long term energy conservation plans to optimize the efficiency of all utilities within FDIC owned buildings.	Completed	DOA 1/21/00 response to a draft of this report	No	Yes
6	FMS is in the process of working with FEMP to develop a model Energy Conservation Program at FDIC. An integral part of the program will be a specific, integrated Energy Management Plan.	12/31/00	Energy Management Plan	No	Yes
7	FMS will update <i>the Facilities Design Guide</i> upon the completion of the Energy Management Plan.	2001	Updated <i>Facilities Design Guide</i>	No	Yes
8	The comments of the EPA expert will be submitted for consideration to the contractor conducting the energy saving audits of the headquarters owned buildings.	3/31/00	Memorandum transmitting the comments to the contractor	No	Yes



9	FMS will contact GSA to pursue any cost savings for natural gas.	6/00	Results of communication with GSA	To be determined based on additional GSA information and further DOA study. OIG preliminary analysis indicated \$28,000 per year.	Yes
10	The Leasing Section will explore the possibility of incorporating the EPA Energy Star® Program into the leasing process.	12/31/00	Energy Management Plan	No	Yes
11	DOA is currently conducting a waste stream analysis to develop baseline data and to improve the recycling program.	12/31/00	Energy Management Plan	No	Yes
12	The Corporate Support Section is conducting a pilot program testing the use of recycled paper in copiers.	5/00	Results of Pilot Program	No	Yes
	A recycling directive has been drafted and the Office Supply Program Directive will be revised to include the use of recycled products.	6/30/00	Updated Office Supply Program Directive.	No	Yes