STATEMENT OF

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U.S. DEPARTMENT OF ENERGY

BEFORE THE

COMMITTEE ON VETERANS' AFFAIRS

U.S. HOUSE OF REPRESENTATIVES

SEPTEMBER 30, 2009

INTRODUCTION – *Overview of the Federal Sector*

Good morning Chairman Filner, Ranking Member Buyer, and other distinguished members of the committee. I am Richard Kidd, the Program Manager for the Department of Energy's Federal Energy Management Program (FEMP). FEMP operates within DOE's Office of Energy Efficiency and Renewable Energy, which manages 10 research and development and deployment programs. FEMP's mission is to:

> *Facilitate the Federal Government's implementation of sound, cost-effective, energy management and investment practices to enhance the Nation's Energy security and environmental stewardship*.

I am pleased to have the opportunity to address this committee and to talk about the Federal Government's efforts to reduce its energy intensity and challenges we face as we attempt to achieve national goals, highlighting our work with the Department of Veterans Affairs (VA). I believe that VA's efforts in reducing their energy consumption help tell the story of how federal agencies can lead the way in "going green."

For perspective, the U.S. Federal Government is the single largest user of energy in the Nation. Key statistics illustrate the impact the Federal Government has on national security, U.S. energy consumption, the Federal budget, and the environment include:

- Nationwide, buildings account for nearly 40% of U.S. primary energy consumption;
- The Federal Government currently owns, operates, and leases over 500,000 buildings at 8,000 sites throughout the U.S.; and
- The Federal building inventory includes commercial, industrial, residential, research, institutional, agricultural, transportation, and cultural facilities operated by 26 cabinet-level departments and independent agencies with a highly diverse set of complex missions.

In FY 2008, total site-delivered energy consumption was 1.1 quadrillion Btu ("quads"), roughly 1.6 percent of U.S. total consumption. Also in FY 2008, the Federal Government's site-delivered energy, also known as point of use energy, bill was $24.5 billion. This represented approximately 0.8 percent of total Federal expenditures ($2.983 trillion) that year. Of the $24.5 billion, over $7 billion was spent on energy to operate Federal buildings.

ENABLING AUTHORITIES FOR FEDERAL ENERGY MANAGEMENT

I would like to highlight the Federal authorities that guide energy policy at the Federal level. Following the 1973-1974 oil embargo, Congress first recognized the national security dimensions of our dependence on oil and the adverse impacts of this dependence. These concerns have only heightened over time and a series of legislative initiatives have been passed that guide the reduction of Federal energy use, the procurement of renewable electric power, and the reduction in petroleum use. The key guiding documents for Federal energy policy include:

- National Energy Conservation Policy Act, as amended by the Energy Independence and Security Act (EISA) of 2007, and the Energy Policy Act of 2005 (EPAct 2005);
- Energy Conservation and Production Act, as amended by EISA and EPAct 2005;
- Energy Policy Act of 1992 (EPAct 1992);
- Executive Order 13423; and
- EISA

These authorities establish a range of Federal energy management goals that apply to all Federal agencies that operate buildings and facilities. The most salient goals are:

- Reducing energy intensity (Btu/ft^2) by 15 percent by the end of FY 2010, compared to a FY 2003 baseline and by 30 percent by the end of FY 2015;

- Using renewable electric energy equivalent to a least five percent of total electricity use in FYs 2010-2012 and at least 7.5 percent in FY 2013 and beyond; at least half must come from sources developed after January 1, 1999; and

- Reducing water consumption intensity (g/gsf) by two percent annually relative to the FY 2007 baseline to achieve a 16 percent by the end of FY 2015.

FEDERAL ENERGY FOOTPRINT – *Goal Performance*

All Federal agencies submit energy use data to FEMP for analysis. The Federal agency energy use figures provided are based upon the submissions for FY 2008. This data is analyzed by FEMP and submitted to the Office of Management and Budget (OMB) for its use in assessing agencies progress and status on the OMB Energy Scorecard. The Federal Government has made significant progress in reducing its energy use during the past decade. However, FY 2008 findings indicate that while the Federal Government as a whole is currently meeting all of its major goals in the areas of energy efficiency, deployment of renewables and petroleum reduction, the rate of progress decreased in FY 2008.

Some of the other key highlights of our analysis are presented below.

Six Federal agencies consume 80 percent of the energy used by the Federal Government. The Department of Veteran's Affairs (VA) is the third largest energy consumer in the Federal Government:

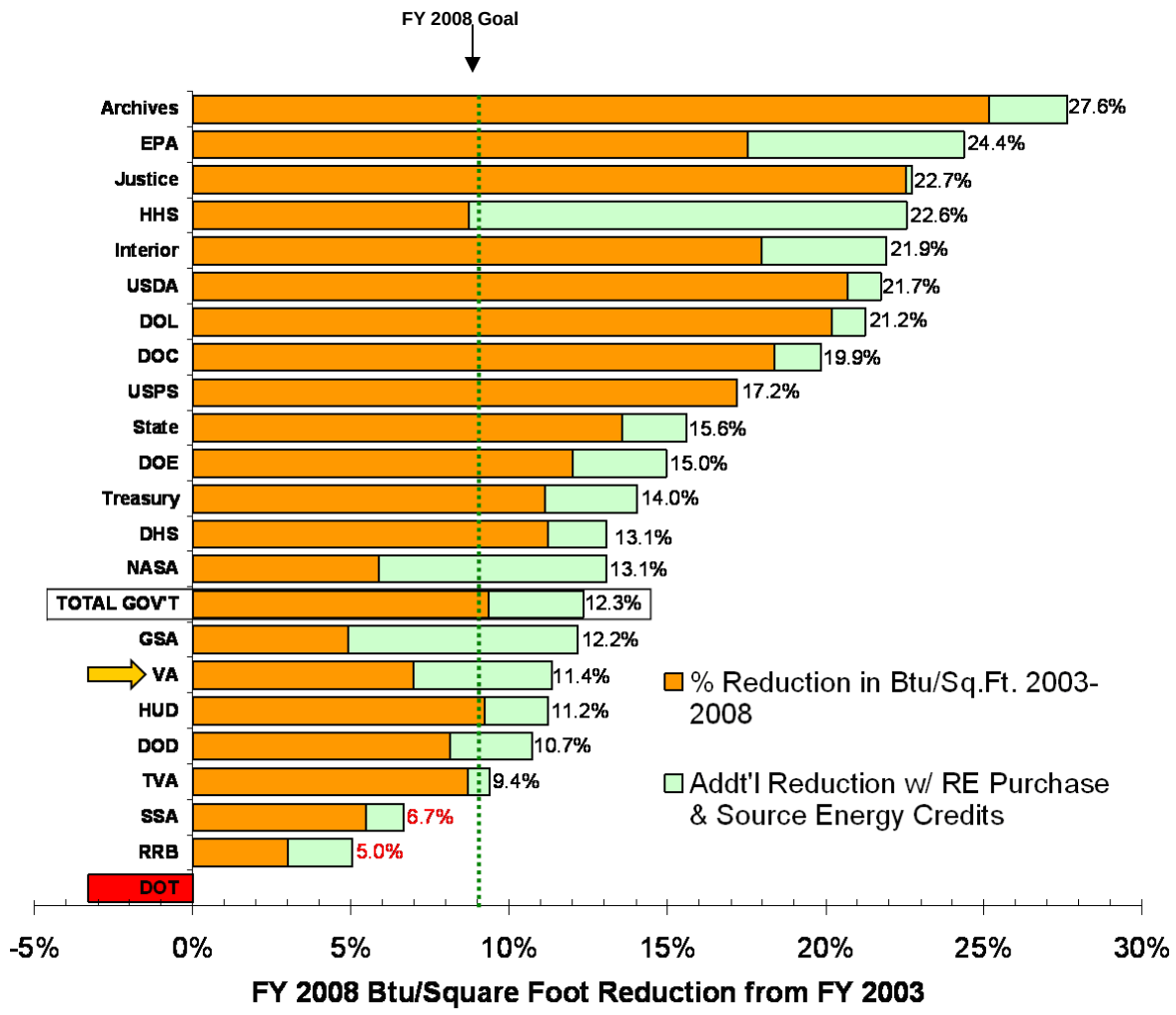
Total Government and Top Six Agency Facility Energy Users

*Preliminary 2008 Data

Agency	Total Facility Gross Square Footage		Total Facility Energy Use		Total Facility Energy Costs	
	Million SF	%	Billion Btu	%	Million $	%
DOD	1,983.7	62%	217,868	56%	$3,949.1	55%
USPS	325.6	10%	30,732	8%	$645.8	9%
VA	**146.8**	**5%**	**28,290**	**7%**	**$512.0**	**7%**
DOE	109.9	3%	26,595	7%	$414.8	6%
GSA	210.7	7%	18,366	5%	$434.6	6%
DOJ	71.3	2%	15,975	4%	$208.0	3%
Other	375.5	12%	48,576	13%	$1,059.1	15%
Total Gov't	**3,223**	**100%**	**386,402**	**100%**	**$7,223.4**	**100%**

Energy Intensity

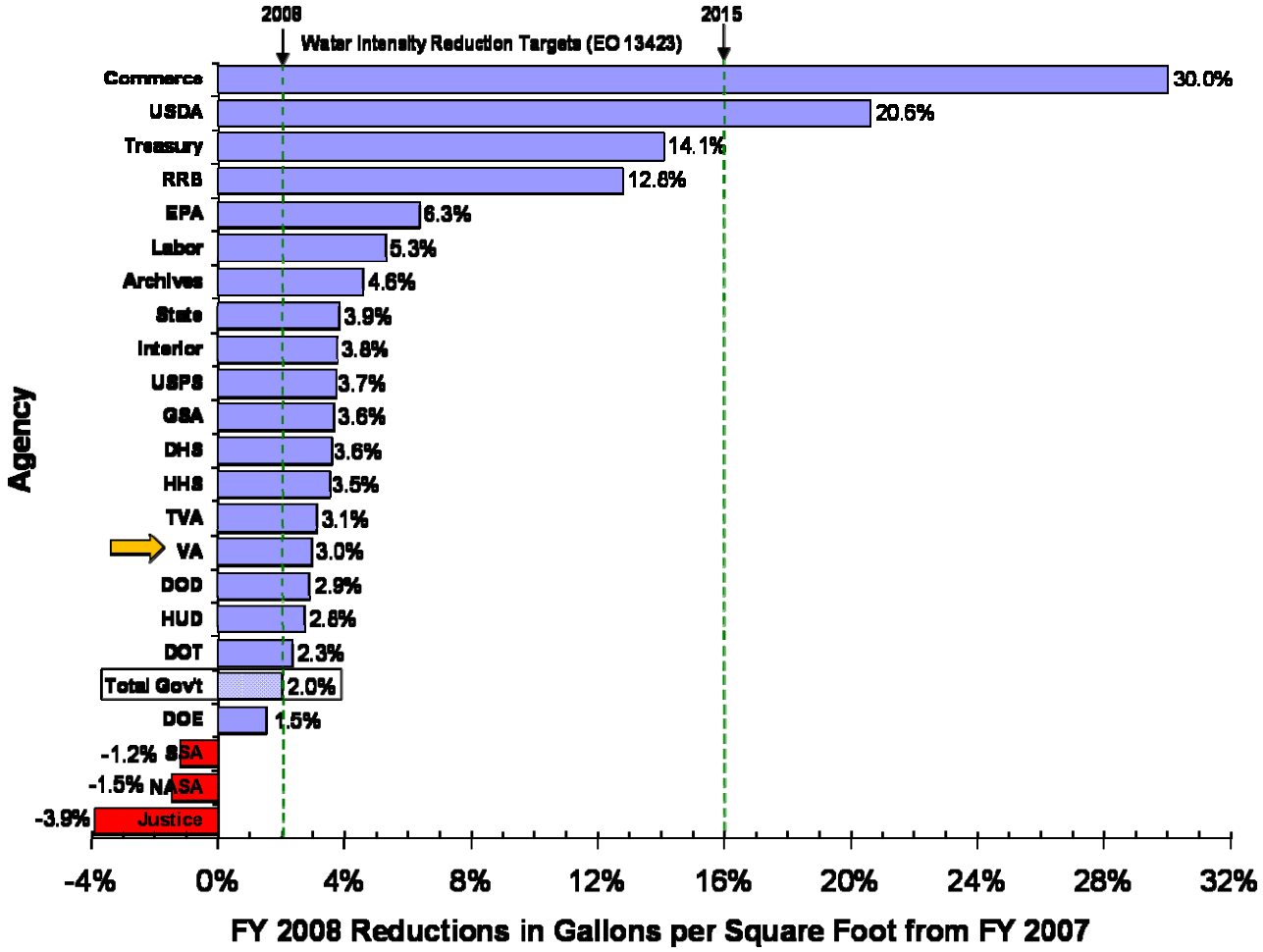
Based on preliminary FY 2008 data, the Federal Government's energy intensity in its goal-subject buildings was 110,854 Btu/ft^2 or 12.4 percent lower than the FY 2003 base year energy intensity of 126,583 Btu/ft^2. VA reduced its energy intensity by 11.4 percent as indicated on the chart below.



Water Reduction

In FY 2008, the Federal Government used a total 162,169.9 million gallons of water, or 51.2 gallons per gross square foot (g/gsf). Compared to FY2007, the Federal Government reduced its water intensity by 2.9 percent, surpassing the reduction goal. VA reduced its water intensity by three percent in FY 2008 as indicted on the chart below.

Federal Facilities: Agency Progress toward Water Reduction Goal



Renewable Energy
The statutory goal for Federal electricity use from renewable sources is three percent of total electricity use in Fiscal Years 2007-2009, five percent in fiscal years 2010-2012, and 7.5 percent in FY 2013, and thereafter. Under E.O. 13423, at least half of this reduction must be from sources developed after January 1, 1999. Currently, electricity from renewable sources counts towards energy efficiency and therefore is credited toward overall energy reductions. However, the energy efficiency credit earned by renewable energy sources is being phased out by FY 2012.

Sixteen Federal agencies achieved the FY 2008 goal for renewable energy purchases; six did not. While 13 agencies showed progress from last year, seven agencies witnessed the percentage of their electricity from renewable sources decline, two remained unchanged. VA exceeded the renewable energy reduction goal achieving a reduction of 4.1 percent as indicated on the chart below.

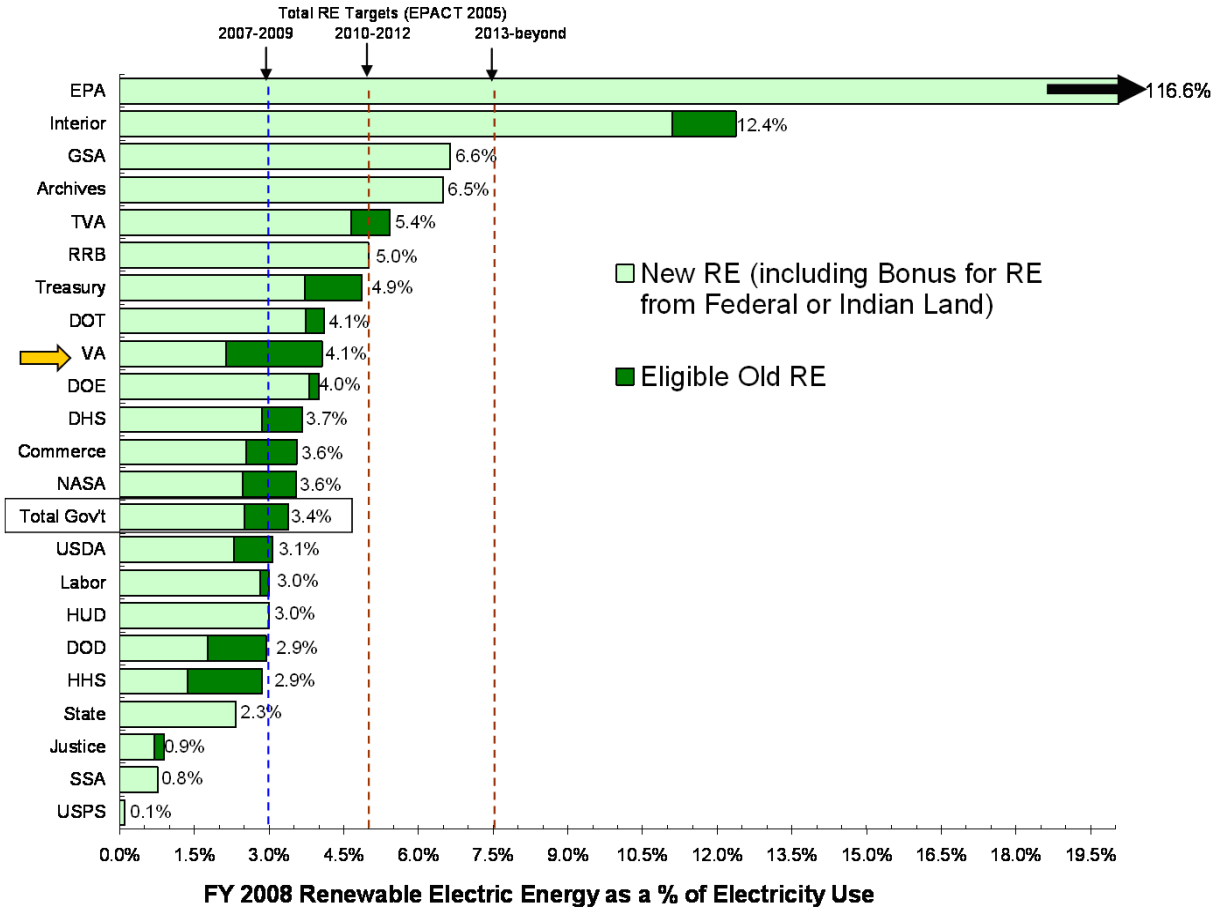
Overall, the Federal Government used renewable electric energy equivalent to 3.4 percent of its electricity use in FY 2008, which is significantly less than the 4.9 percent for FY 2007. Renewable electric energy use in the Federal government declined by 32 percent from FY 2007, from 2.8 terawatt-hours to 1.9 terawatt-hours; total facility electricity use declined only slightly (-0.9 percent). A preliminary assessment of the data suggests two reasons for this decline:

- Increases in the price of renewable energy certificates (RECs)[1]; and

- Reduced motivation to purchase RECs since their contribution toward meeting the energy reduction goal is declining. FY 2008 was the first year of the credit phase out—RECs could only contribute up to 60 percent of an agency's reduction (5.4 percent of the 9.0 percent target reduction in energy intensity).

[1] RECs represent the environmental attributes of the power produced from renewable energy projects and are sold separate from commodity electricity. Federal agencies may purchase RECs to count towards energy intensity reduction goals.

Federal Facilities: Progress toward Renewable Energy Goal



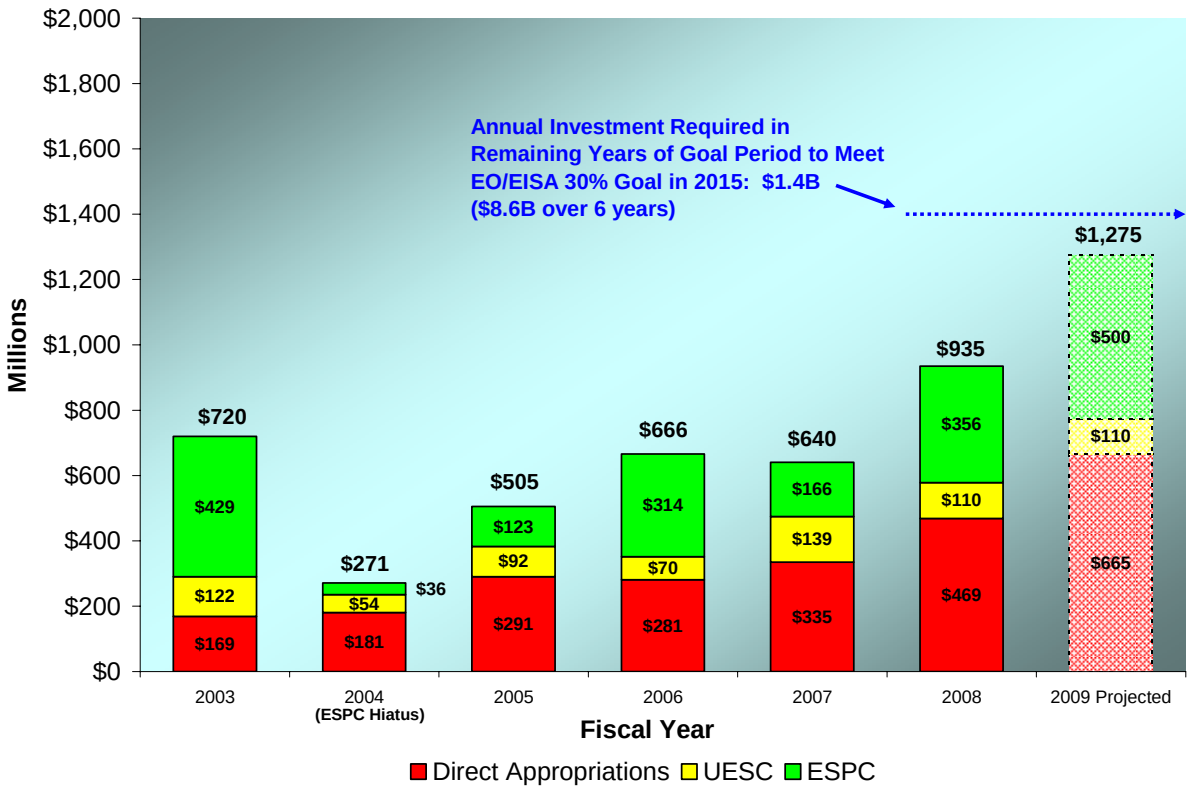
Funding

Improvements in energy efficiency come at a cost. Agencies may use appropriated funds, or if conditions merit, Energy Savings Performance Contracts (ESPCs) or Utility Energy Savings Contracts (UESCs), that are budget neutral contracts paid over time from future energy savings, to fund energy and water efficient projects. Authority for the ESPC and UESC programs were provided to the agencies in EPACT 1992 and permanently authorized in EISA 2007. In FY 2008, the Federal Government invested $934,700,167 in energy-efficiency projects. Funding was derived from the following sources:

- $468,659,178 from direct appropriations;
- $365,409,689 by ESPCs; and
- $109,631,300 by Utility Energy Savings Contracts (UESCs).

In an FY 2007 Memorandum, the Chairman of the Council on Environmental Quality recommended that Federal agencies spend approximately 20 percent of their annual energy costs on energy efficiency measures. Only three agencies—DOE, the Environmental Protection Agency (EPA), and the U.S. Postal Service—met this recommendation. VA invested 7.8 percent of its energy budget, all from direct appropriations in the amount of $39.8 million. Overall, an amount equivalent to 12.9 percent of the Federal Government's total energy budget was spent on energy efficiency and renewable energy projects, split evenly between ESPC/UESC projects and direct obligations. The chart below shows historic data for funding energy efficiency and renewable energy projects and a projection for FY 2009.

DOE's Estimate of Annual Investment Required



DEPARTMENT OF VETERANS AFFAIRS – *PERFORMANCE*

The Department of Veterans Affairs operates 153 hospitals with at least one in each state, the District of Columbia, and Puerto Rico plus over 100 national cemeteries and a variety of other veterans care-related and benefits administration facilities in 39 States. FEMP data analysis shows that 99 percent of VA's energy consumption occurs in its medical facilities. In addition to the VA's annual appropriations, which address both major and minor construction projects, the Recovery Act provides VA with $1 billion for non-recurring maintenance, including energy projects for the Veterans Health Administration's medical facilities and $50 million for monument and memorial repairs, including energy projects for the Veterans' Cemetery Administration. Both Recovery Act appropriations will remain available until September 30, 2010.

VA faces challenges in meeting its energy and water consumption goal since medical facilities operate 24-hours per day, seven days a week. They require heating and cooling, steam and hot water, and energy-intensive medical equipment, along with a very high-volume of outside air. These facilities also have high standards for air quality which require operating energy-intensive equipment to circulate fresh air and in most cases all incoming air must be conditioned. Healthcare facilities also have requirements shared by industrial including "process" energy load requirements. That means that for healthcare facilities, energy requirements are dependent on the number and types of patients served and no ENERGYSTAR® or FEMP-designated product categories exist for the medical equipment widely-used throughout VA facilities nationwide. The ever increasing number of veterans being served, and a shift to digital medical records, has also led to a sharp increase in the VA's IT requirements, which may further add to its energy use requirements.

Despite these challenges, VA exceeded the current Federal energy reduction goals as reflected in the charts above for energy intensity, water reduction, and renewable electric power procurement. The chart below highlights the profile of VA's energy use and energy intensity. While VA's energy intensity is almost 66 percent above the Federal average, it is below the national average for healthcare facilities. Also, 25 VA medical centers have earned EPA ENERGYSTAR® building labels, which means they are in the top 25 percent of facilities in their category; in this case, the category is acute care hospitals.

Federal Government and VA Building Characteristics

Building Characteristics	Federal Government	VA	VA % of Federal Sector
Number of Buildings	**> 500,000**	**3,766**	**0.75%**
Number of buildings over 1 million ft^2	**38**	**1**	**2.63%**
Number of buildings greater than 500,000 ft^2	**1271**	**128**	**10.07%**
Site-delivered energy consumption in Federal goal-subject buildings (Billion Btu)	**340,247.3**	**26,960.9**	**7.92%**
Thousand gross square feet (GSF) of Facility	**43,069,329.5**	**146,812.5**	**4.78%**
Energy Intensity (Btu/GSF)	**110,854**	**183,642**	**NA**
Estimated emissions of carbon dioxide, methane and nitrous oxide from goal building energy use (MTCO2E)	**42,658,568**	**3,003,584**	**7.04%**

Additionally:

- VA ranks fourth among Federal agencies in terms of overall on-site facility energy consumption behind DOD, USPS, and DOE;
- VA ranks third in terms of Federal facility energy expenditures;
- VA ranks fourth in terms of Federal facility square footage; and
- Approximately 75 percent of VA's total building square footage is in the hospital category.

FEMP uses the OMB Energy Management Scorecards to rate each Federal agency's progress in meeting mandated energy reduction goals. VA received a green status score for its FY 2008 federal energy management efforts. VA performance, as measured by the scorecard, reveals that it met or exceeded the following criteria:

- Reduction in energy intensity in goal-subject facilities compared with FY 2003;
- Use of renewable energy as a percent of total facility electricity use;
- On track to meter electricity in 100 percent of appropriate facilities by FY 2012;
- Reduction in water intensity compared with FY 2007; and
- Percent of new building designs begun since October 1, 2006, that are 30 percent more energy efficient than relevant code.

In addition to its goal performance outlined above, VA has demonstrated significant achievement in a variety of other energy efficiency and renewable power activities which includes:

- Developing a public-private energy savings partnership project at the VA West Haven Campus of the Connecticut Health Care System involving multiple utilities and private partners;

- Producing a department-wide plan, the *Energy Management Action Plan*;

- Making significant investments in human capital to include hiring 12 regional-level energy managers and 87 energy engineers at the facility level;

- Implementing a "build green" approach for all major projects by incorporating sustainable design concepts into solicitation requirements for architecture and engineering firms; and

- Launching a major renewable energy initiative in FY 2009 featuring feasibility studies and project implementation for solar, wind, geothermal and renewably fueled cogeneration.

DOE/FEMP-VA PARTNERSHIP ACTIVITIES

In May 2009, FEMP issued a call to all Federal agencies to submit proposals for DOE technical assistance (TA) to provide agencies with TA to plan and implement projects funded by Recovery Act or base FY 2009 appropriations. Three VA project proposals were selected for a total value of $210,000. These projects consist of:

- **VA National Cemeteries**, including TA for detailed renewable energy feasibility studies at four cemetery sites;

- **VA Medical Centers**, including TA in the development of retro-commissioning specifications to increase the energy efficiency of VA's Medical Centers; and

- **Veterans Integrated Service Networks (VISN 7)**, including integrated site-assessments and short-term diagnostic testing to retro-commission selected sites is being performed in the regional network of 203 VA buildings located in Alabama, Georgia, and South Carolina.

These TA projects strengthen an already well-established DOE/FEMP-VA partnership. The partnership's key features include:

- DOE/FEMP, VA, Department of Defense, Department of Homeland Security, General Services Administration, and EPA joint sponsorship of the annual GovEnergy Workshop and Tradeshow, which is the Federal Government's premier event to train Federal employees (over 3,000 participants) on a wide range of technical, project financing, and policy-related issues;

- Active participation of VA personnel in FEMP-sponsored project financing workshops for Federal procurement and facility energy management;

- Active VA participation in FEMP-coordinated interagency task force and working groups; and

- Recognition of VA sites and personnel for their leadership and accomplishments through the annual Federal Energy and Water Management award and energy champion programs.

VA has made great strides in "greening" their operations, and FEMP looks forward to continuing to work with VA to ensure that critical national energy and water efficiency goals are met. Working together, we can improve the quality of VA facilities for employees and patients, cut operating costs, and meet critical national goals in reducing greenhouse gas emissions, and reducing Federal energy and water use.

Chairman Filner, Ranking Member Buyer and Members of the Committee, thank you for giving me the opportunity to speak with you today and I look forward to answering any additional questions you might have.