AUTHENTICATED
U.S. GOVERNMENT
INFORMATION
GPO

S. HRG. 112–829

GSA: OPPORTUNITIES TO CUT COSTS, IMPROVE ENERGY PERFORMANCE, AND ELIMINATE WASTE

JOINT HEARING

BEFORE THE

SUBCOMMITTEE ON OVERSIGHT

AND THE

COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS UNITED STATES SENATE

ONE HUNDRED TWELFTH CONGRESS

FIRST SESSION

MARCH 30, 2011

Printed for the use of the Senate Committee on Environment and Public Works

Available via the World Wide Web: http://www.fdsys.gpo.gov

U.S. GOVERNMENT PRINTING OFFICE

85–234PDF WASHINGTON : 2014

For sale by the Superintendent of Documents, U.S. Government Printing Office
Internet: bookstore.gpo.gov Phone: toll free (866) 512–1800; DC area (202) 512–1800
Fax: (202) 512–2104 Mail: Stop IDCC, Washington, DC 20402–0001

COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS

ONE HUNDRED TWELFTH CONGRESS
FIRST SESSION

BARBARA BOXER, California, *Chairman*

MAX BAUCUS, Montana
THOMAS R. CARPER, Delaware
FRANK R. LAUTENBERG, New Jersey
BENJAMIN L. CARDIN, Maryland
BERNARD SANDERS, Vermont
SHELDON WHITEHOUSE, Rhode Island
TOM UDALL, New Mexico
JEFF MERKLEY, Oregon
KIRSTEN GILLIBRAND, New York

JAMES M. INHOFE, Oklahoma
DAVID VITTER, Louisiana
JOHN BARRASSO, Wyoming
JEFF SESSIONS, Alabama
MIKE CRAPO, Idaho
LAMAR ALEXANDER, Tennessee
MIKE JOHANNS, Nebraska
JOHN BOOZMAN, Arkansas

BETTINA POIRIER, *Majority Staff Director and Chief Counsel*
RUTH VAN MARK, *Minority Staff Director*

SUBCOMMITTEE ON OVERSIGHT

SHELDON WHITEHOUSE, Rhode Island, *Chairman*

BENJAMIN L. CARDIN, Maryland
BERNARD SANDERS, Vermont
BARBARA BOXER, California, (ex officio)

MIKE JOHANNS, Nebraska
JOHN BOOZMAN, Arkansas
JAMES M. INHOFE, Oklahoma, (ex officio)

C O N T E N T S

Page

MARCH 30, 2011

Boxer, Hon. Barbara, U.S. Senator from the State of California 1
Inhofe, Hon. James M., U.S. Senator from the State of Oklahoma 2
Whitehouse, Hon. Sheldon, U.S. Senator from the State of Rhode Island 4
Cardin, Hon. Benjamin L., U.S. Senator from the State of Maryland 5
Merkley, Hon. Jeff, U.S. Senator from the State of Oregon 7

WITNESSES

Johnson, Martha, Administrator, U.S. General Services Administration 8
Prepared statement 10
Sindelar, John, client industry executive, HP Enterprise Services 50
Prepared statement 53
Bautista, John, vice president, New Business Development, Arrowhead Systems, Inc 56
Prepared statement 58
Gatlin, Doug, vice president, LEED, U.S. Green Building Council 65
Prepared statement 67
Responses to additional questions from:
Senator Boxer 75
Senator Inhofe 75
Hubbell, Ward, president, Green Building Initiative 76
Prepared statement 78
DeBoer, Jeffrey D., president and chief executive officer, The Real Estate Roundtable 91
Prepared statement 93

ADDITIONAL MATERIAL

Letter from several organizations and companies to Hon. John Boehner and Hon. Nancy Pelosi, dated February 17, 2011 119
Statements:
Block, Nadine, senior director of Government Outreach, Sustainable Forestry Initiative, Inc. 121
Phillips, Cassie, vice president, Sustainable Forests & Products, Weyerhaeuser Company 123
National Association of Home Builders 125
Glowinski, Robert, American Wood Council 131
American Forest Foundation 133

GSA: OPPORTUNITIES TO CUT COSTS, IMPROVE ENERGY PERFORMANCE AND ELIMINATE WASTE

WEDNESDAY, MARCH 30, 2011

U.S. SENATE,
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS,
JOINTLY WITH THE
SUBCOMMITTEE ON OVERSIGHT,
Washington, DC.

The committees met, pursuant to notice, at 10 a.m. in room 406, Dirksen Senate Office Building, Hon. Sheldon Whitehouse (chairman of the subcommittee) presiding.

Present: Senators Boxer, Inhofe, Whitehouse, Cardin, Merkley and Boozman.

STATEMENT OF HON. BARBARA BOXER, U.S. SENATOR FROM THE STATE OF CALIFORNIA

Senator BOXER. Thank you very much for being here today for this important hearing on opportunities at the GSA to cut costs, improve energy performance and eliminate waste.

I am going to make my opening statement and then I am going to turn the gavel over to our subcommittee Chair on this very important matter. Then if he has to leave to go to another committee hearing, he will hand the gavel back. So, we are going to be doing a little passing off of gavels.

The Federal Government is one of the Nation's largest energy consumers and purchases nearly $500 billion in goods and services every year. The Federal Government is positioned to be a leader in efforts to improve efficiency, eliminate waste, improve environmental performance and save money. So, this is an area where I think that Republicans and Democrats can meet because we all want to see efficiency in place.

GSA provides office space to over 1 million Federal employees in over 9,600 Federal buildings and leases totaling 370 million square feet of space. The Agency is already playing a key role in improving the efficiency of office buildings nationwide which account for a significant amount of the Nation's energy and water use and waste.

According to the EPA and the U.S. Green Building Council, buildings in the U.S. account for 36 percent of total energy use, 36 percent, and 65 percent of electricity consumption, 12 percent of total water consumption, 68 percent of total electricity consumption and 30 percent, I do not know, we said two electricities so that does not make sense. But let us just put it this way. We use a lot of

energy. We will correct this for the record to show exactly how much.

Now, Senator Inhofe and I worked together a long time ago and we did write some legislation which said let us save money and we set up a situation where in many Federal buildings we said we want to have someone in charge of making sure that the energy use is kept at the lowest level possible. We, I think learned, as we wrote this legislation, I will never forget it because Senator Inhofe said, I am not going to support this unless you show me the payback. The payback was just a few years for the capital that we put up front.

GSA is also the central Agency for acquiring products and services for the Federal Government. The Agency offers over 12 million products and services to other Federal agencies. GSA can have a large influence on the goods and services that are provided to the Federal Government by the private sector.

Businesses worldwide are working to cut costs, reduce waste and improve efficiency and are creating competitive advantages in the process. I think the Federal Government can learn from these private sector efforts. Done right, these initiatives can cut waste and inefficiency while making the Federal Government's supply chain cleaner and sustainable.

Again, the legislation we enacted, the Energy Independence and Security Act, provided for construction of green Government buildings and retrofit Federal buildings with energy efficient technologies. Both Presidents Bush and Obama also issued Executive orders to improve the sustainability of the Federal Government. These are important initiatives and today we will hear from GSA about how those initiatives are being implemented.

On the second panel we will hear from companies who are working to improve their own operations about the benefits they have seen by becoming more efficient. We will also hear from building and energy efficiency experts from outside of Government regarding the progress that has been made in building efficiency to date, the barriers to further improvements, and what more can be done.

I personally believe we must continue to aggressively improve the efficiency and sustainability of the Federal Government and I look forward to working with GSA and my colleagues to determine if adequate authorities exist to enable the Federal Government to continue cutting waste, reduce energy use, improve environmental performance and remove any barriers there may be to these ongoing efforts.

I appreciate all of the witnesses who are here today. I am hoping to stay for all of you and, before I hand the gavel over to my colleague to run this meeting, I am going to call on Senator Inhofe for his opening remarks.

STATEMENT OF HON. JAMES M. INHOFE, U.S. SENATOR FROM THE STATE OF OKLAHOMA

Senator INHOFE. Thank you, Madam Chairman. I am pleased to have the opportunity to discuss the ways that we might be able to improve our efficiency and eliminate waste. We have talked about this for a long time.

Given the current state of the economy, people in businesses around the country continue to tighten their belts and look for ways to save money. We need to be doing the same thing.

I look forward to hearing from Administrator Johnson on GSA's efforts to improve property purchases and maintain efficient buildings. For me, this is an area where we can cut costs and save taxpayers money. Additionally, it would be helpful to understand the financial impacts of EPA regulations and other Federal mandates on the Administration.

I am extremely concerned about how GSA will cope with the added costs and burdens from the expansion of the EPA lead based paint removal to commercial buildings. We fought this battle for a long time and I thought the battle was over and I thought we had won. Now they are talking about expanding this, the lead based rules, to commercial buildings.

We know the problems. We know that out there you have to have inspectors, they have to certify and all of these things, and we were not able to get this done. But we did come to a happy conclusion on that. I just want to, I know this is not really the GSA, this is the EPA, but you are having to deal with it so we want to weigh in on it.

I also continue to be concerned with GSA's exclusive use of the LEED standard in certifying green buildings. This has created unintended consequences such as the use of foreign lumber instead of American grown lumber. Obviously this is costly, inefficient and environmentally unsound.

I believe that the increased interest in green buildings and advances in technology in recent years have and are creating new building ratings systems. These systems should be allowed to compete in the market and Government agencies should be able to determine which systems meet their performance requirements.

We also need to practice careful oversight to ensure that the best rating systems are being used in Government decisions. I am pleased to have Mr. Ward Hubbell, president of the Green Building Initiative with us today to discuss some of the issues with the lead and explain other certification programs used by the CBI.

I am also happy to have Mr. Jeffrey DeBoer, president and CEO of The Real Estate Roundtable, here today. He will speak to the state of commercial real estate industry wide. I think he may even have some comments to make on the thing that concerns me right now having to do with the lead paint rule.

Thank you, Madam Chairman.

[The prepared statement of Senator Inhofe follows:]

STATEMENT OF HON. JAMES M. INHOFE, U.S. SENATOR FROM THE STATE OF OKLAHOMA

Thank you, Madam Chairman, for holding this hearing. I am pleased to have the opportunity to discuss ways in which we can improve efficiency and eliminate waste within GSA.

Given the current state of the economy, people and businesses around the country continue to tighten their belts and look for ways to save money. The Federal Government should be doing the same. I look forward to hearing from Administrator Johnson on GSA's efforts to improve property purchases and maintain efficient buildings.

For me, this is an area where we can cut costs and save taxpayer money. Additionally, it would be helpful to understand the financial impacts of EPA regulations

and other Federal mandates on the Administration. I am extremely concerned about how GSA will cope with the added costs and burdens from an expansion of the EPA lead-based paint rule to commercial buildings. Potential purchasers of GSA property may be wary of having to comply with costly regulations.

I also continue to be concerned with GSA's exclusive use of the LEED standard in certifying "green" buildings. This has created unintended consequences, such as the use of foreign lumber instead of American-grown lumber. Obviously, this is costly, inefficient, and environmentally unsound.

I believe that the increased interest in green buildings and advances in technology in recent years have, and are, creating new building rating systems. These systems should be allowed to compete in the market and government agencies should be able to determine which system meets their performance requirements.

We also need to practice careful oversight to ensure that the best rating systems are being used in government decisions.

I am pleased to have Mr. Ward Hubbell, President of the Green Building Initiative, with us today to discuss some of the issues with LEED and explain another certification program used by GBI.

I am also happy to have Mr. Jeffrey DeBoer, President and CEO of the Real Estate Round Table here today. He will speak to the state of commercial real estate industry nationwide. This is particularly important as GSA looks at disposing of excess and underutilized properties.

Thank you again Madam Chairman for this opportunity, I look forward to hearing from all the witnesses.

STATEMENT OF HON. SHELDON WHITEHOUSE, U.S. SENATOR FROM THE STATE OF RHODE ISLAND

Senator WHITEHOUSE [presiding]. Let me first thank Chairman Boxer for agreeing to hold this joint hearing of the full EPW Committee and my Oversight Subcommittee. Thank you, Administrator Johnson and all of the witness, for being here.

As the Administrator of GSA, I believe you are the largest single consumer of energy in the United States, accounting for 1.5 percent of the Nation's annual energy consumption. That probably actually makes you the world's largest consumer of energy, not just the United States' largest consumer of energy.

The Federal Government spends about $24 billion every year on electricity and fuel and in the current budget climate, anything we can do to help find opportunities for greater efficiency and cost savings for the American taxpayer is worth doing.

We also, as the U.S. Government, have access to capital in order to make the investments to achieve that payoff, unlike many homeowners in Rhode Island and places like that who could save a lot of money this way but have difficulty getting the capital investment together to make the investment in their homes and businesses.

President George W. Bush and President Obama each issued Executive orders calling for the Federal Government to use its purchasing power to achieve improved energy and environmental performance, and the President has set emissions reductions goals for the Federal Government that, if they were met, would save an estimated $8 to $11 billion in energy costs over the next decade, surely a worthy target. Your General Services Administration has been a central player in this drive and through your purchasing of a vast number of products each year, including vehicles and office supplies and, of course, the buildings that you run.

On the building side, you own nearly 2 percent of all commercial real estate in the United States. Reducing our energy and water

footprint at these buildings can save operation and maintenance costs while also limiting the Government's environmental impact.

You have shown admirable leadership in implementing a suite of initiatives in the purchasing and building areas which have helped drive the market toward more efficient products and encouraged the deployment of new American technologies that need a foothold in the market in order to demonstrate success and move on to greater success. This, in turn, benefits all of us and our economy as these products become more widely available.

So, I commend you for your leadership in these areas and I look forward to hearing from you on GSA's next steps in achieving the goals of these initiatives.

I also look forward to hearing from our second panel today, what the Government can learn from the private sector. Many businesses have already realized significant cost savings and improved performance of their own buildings and products and I am interested in how partnerships between industry and Government can help generate mutual advantage and cost savings as well as new markets for efficient products and new jobs.

So, again, Chairman Boxer, thank you very much for holding this hearing. I look forward to working with all of the members of the committee to protect our taxpayers and the environment through improved efficiency and performance.

I would recognize the distinguished Senator from Maryland, Senator Cardin.

STATEMENT OF HON. BENJAMIN L. CARDIN, U.S. SENATOR FROM THE STATE OF MARYLAND

Senator CARDIN. Well, Chairman Whitehouse, Chairman Boxer and Senator Inhofe, thank you very much for convening this hearing.

Administrator Johnson, it is a pleasure to have you before our committee. We all understand that this Nation is facing an energy and environmental and fiscal challenge. The way that we administrate our buildings can very well help us in each one of those categories.

My colleagues have already mentioned the Executive orders that have been issued by this Administration and previous Administrations that deal with these issues. The Congress passed the Energy Independence and Security Act of 2007 that established important performance standards to reduce energy consumption and lessen the environmental impact of Federal facilities.

I must tell you the trend toward green buildings is not motivated by just the environment or doing something that you feel good about. There is a fiscal reason why we do it. It makes good sense from a business point of view.

The U.S. Green Building Council, the independent private trade organization responsible for developing the Leadership in Energy and Environmental Design or LEED certification program has issued a detailed report on this and their report shows us that by doing LEED certification, we actually save money during the life cycle of the building, saving money in public buildings for the taxpayers of this country.

Due to Maryland's proximity to Washington, DC, Maryland has a large number of both federally-owned and federally-leased properties throughout the State. In addition to these Federal Agencies, Maryland is home to 16 Department of Defense installations, dozens of national parks and historical sites, and many fantastic national wildlife refuges located along the waters and tributaries of the Chesapeake Bay.

Ensuring that the Federal Government with its multimillion acre footprint is taking adequate measures to protect natural resources like the Chesapeake Bay, to conserve energy resources, is important in the long-term economic and environmental health of the country. I believe the Federal Government has a responsibility of leading by example when it comes to reducing energy costs and consumption and minimizing the impact the Federal facilities have on the environment.

The Government should not be exempt from paying its fair share for mitigating or controlling its impacts on the natural environment. I am proud that I have authored two separate bills granting these responsibilities to the Federal Government.

First is to design standard requirements that all new Federal buildings must meet to protect the predevelopment hydrology of project sites. Stormwater runoff is the largest source of water pollution in this Nation. This provision, as part of the Energy Independence and Security Act, is designed to limit the impact Federal facilities have on water quality.

The second bill, which became law in the last Congress, ensures that the Federal Government pays it fair share of the costs of municipal stormwater infrastructure fees where the Federal Government has a structural presence.

I want to thank the Administration for help in the passage of both of these laws. I think they are important statements that the Federal Government in fact will comply, as any landowner, with their responsibility for our environment.

Local governments and residents should not have to pick up the tab for the Federal Government when it comes to paying for water infrastructure maintenance. The GSA's responsibility for complying with these laws, it is their responsibility, and I look forward to hearing the progress from you, Administrator Johnson, in the compliance with both of these laws.

The Federal inventory of buildings in Maryland runs the gamut in terms of sophistication and sound environmental design. The new FDA facility in White Oak will be the state-of-the-art green buildings that save money on electricity and water usage. This is very much to the benefit of the Federal taxpayers.

Yet, at the other end of the spectrum there is a Baltimore Federal Courthouse. Simply put, the Baltimore Federal Courthouse is an embarrassment in design and construction. Baltimore Courthouse remains the most poorly-constructed U.S. courthouse in the country. The building has by no means been a money saver for the taxpayers. An inefficient 35 year HBAC system, inefficient windows, wasteful, leaking and frequently failing plumbing infrastructure has cost Federal taxpayers millions of dollars over the years.

The wise investment from a life cycle cost perspective would be either to start over with a newly-designed green building or to give

the current structure a massive renovation overhaul because it does not make sense to pump more taxpayer life support money into this perpetually-failing Federal building.

I really want to acknowledge and thank Bob Peck, the Commissioner of Public Building Services. He has taken a personal interest. He has visited the facility, he has worked with us, and I just really want to applaud that type of effort.

I know these are difficult fiscal times and we need to make the right investments to save taxpayer money. Here is one area where I hope we can move forward.

I look forward to working with GSA. The Administration has indicated that Federal facilities play a huge part in the development of our cities like Baltimore and I think that we can do a more efficient job for the taxpayers of this country working together to advance our environment, advance our energy policies, and advance our fiscal needs.

Thank you, Mr. Chairman.

Senator WHITEHOUSE. Thank you, Senator Cardin.

Administrator Johnson, before I turn to Senator Merkley, you are not here before this committee all the time. But as a member of the committee I want to let you know that this is not the first time that Senator Cardin has raised these concerns about his courthouse, to put it mildly, and I am certain it is not going to be the last time.

[Laughter.]

Senator WHITEHOUSE. So, I urge you to give them considerable weight.

Senator Merkley.

STAEMENT OF HON. JEFF MERKLEY, U.S. SENATOR FROM THE STATE OF OREGON

Senator MERKLEY. Thank you very much, Mr. Chair.

Administrator Johnson, it is great to have you here, and in the midst of a national dialog about fiscal responsibility, and certainly an important opportunity to save money and improve the environment is to reduce the amount of energy we consume in our Government operations.

Certainly the technologies exist and the Federal Government is in a position to take the lead, take the lead in the use of smart materials including greater use of wood in a variety of capacities and to make certain building practices more commonplace.

I think the Federal Government has been taking a lot of steps in the right direction. But we can go further and faster. I particularly want to encourage the Administration to pursue every possible effort to electrify its fleet of vehicles.

There is more and more presence in the private markets, firms recognizing that in delivery van type operations where you have common stops with significant loads, regenerative braking saves enormous amounts of power or recaptures the power, and that in the lifetime costs are becoming very competitive or better than gasoline fueled vehicles.

Certainly in the context of world events today, as we look at the unrest around the world in Libya and Egypt and so forth, it should

put an exclamation point on the national security costs of depending on the Middle East for oil.

So, much can be done. Thank you for being here to help lay out a vision for where we are headed.

Senator WHITEHOUSE. Let me, Administrator Johnson, add to Senator Merkley's point that an active role by GSA in that would also help build out the electronic infrastructure for electronic vehicles for recharging and so forth. There is a little bit of a chicken or the egg problem as we move more into that, where you find recharging and so forth. So, I would strongly encourage you to do that.

If you could please go ahead and give your testimony.

STATEMENT OF MARTHA JOHNSON, ADMINISTRATOR, U.S. GENERAL SERVICES ADMINISTRATION

Ms. JOHNSON. Thank you very much.

Good morning Chairman Boxer, Chairman Whitehouse, Ranking Member Inhofe, Senator Johanns, members of the committee and my Senator from Maryland. I appreciate being here today to discuss GSA's role in encouraging a high-performing and sustainable Government that reduces waste, increases efficiency and lowers costs while fostering innovative new sectors of the economy that will help create jobs.

I am here today not just as the head of an agency, but as a businesswoman, which is not just a job, but an identity, an identity which compels my commitment to making the most reasonable and cost-effective decisions possible on behalf of taxpayers.

GSA is an agency which has a broad portfolio. We manage 370 million square feet of space and help facilitate over $62 billion in acquisitions through our contracting vehicles. We touch many markets and wide portions of the supply chain.

At this moment, we have to do more with less. We have to use our resources efficiently and effectively, shrink our waste and be agile and responsive to new opportunities to do just that. We have to be the best of what is promised by sustainability.

To the private sector, sustainability is about productivity, efficiency, innovation and the bottom line. It is about rooting out waste and finding greater efficiencies. This requires innovation. Whether it is providing cutting edge IT solutions like cloud computing or installing geothermal heating technology in our buildings, we are pursuing emerging and ever-improving services and technologies that will give us the best value for each taxpayer dollar expended.

By providing cloud solutions and consolidating data centers, we can cut into the billions spent annually on data center infrastructure. By installing the latest technologies in our buildings, we can reduce energy usage and save on operating costs. By moving toward fuel efficient and hybrid vehicles, we can work to reduce the Federal fleet's fuel consumption and encourage domestic industries. By embracing initiatives like telework and alternative workplace strategies, we can reduce our footprint and our need for real estate while increasing productivity.

We are pursuing these initiatives in partnership with industry. We need to understand the latest trends in the market, encourage

innovation and support good ideas. We must be flexible and nimble to incorporate new technologies.

That is why we have reached out to industry through our Green Proving Ground Program, to figure out the latest innovative technologies and solutions and work to incorporate them into our buildings, measuring and reporting the results. That is why we have established a green-gov supply chain partnership to hear from companies that are reducing their greenhouse gas emissions, to learn how best to use sustainability considerations in our Federal procurements. That is why the pending removal of the statutory price limitation. We intend to initiate a pilot program to lease 100 plug-in electric vehicles and test them in five major cities across the United States.

By pursuing and making available the latest the market has to offer, as well as utilizing cost-effective technologies and solutions, we can make significant progress in improving energy performance and cutting costs.

The initiatives outlined above are just a handful of those that we pursuing to encourage a sustainable Government. It increases our efficiency and fosters emerging sectors of our economy.

The President has made operational excellence in Government a key goal, and GSA is proud to be part, the central part, of this effort.

I welcome the opportunity to be here today and I am happy to answer any questions you have.

Thank you.

[The prepared statement of Ms. Johnson follows:]

STATEMENT OF

MARTHA JOHNSON
ADMINISTRATOR
U.S. GENERAL SERVICES ADMINISTRATION

BEFORE THE

COMMITTEE ON
ENVIRONMENT AND PUBLIC WORKS
UNITED STATES SENATE

"GSA: OPPORTUNITIES TO CUT COSTS, IMPROVE ENERGY PERFORMANCE, AND ELIMINATE WASTE"

March 30, 2011

Good morning Chairman Boxer, Ranking Member Inhofe, and Members of the Committee. I appreciate being invited here today to discuss how the U.S. General Services Administration, by making smart and sustainable real estate and acquisition decisions, can encourage a high-performing government that reduces waste, increases efficiency, and lowers costs, while fostering innovative new sectors of the economy that will help create jobs. Particularly in this fiscal climate, when the President, the Congress, and the American people are looking for ways to do more with less, we have to create a sustainable government that works better for taxpayers and is an efficient steward of resources.

GSA is an agency uniquely positioned to help drive sustainable agency decision-making. We are responsible for managing 370 million square feet of owned and leased space and help facilitate over $62 billion in acquisitions through our contracting vehicles. GSA acts as a link between government and industry. We touch many markets and wide portions of the supply chain. We provide clear business opportunities, encourage innovation, and support and invite good ideas.

The Federal government is the single largest purchaser of energy in the country. By centralizing many support functions for partner Federal agencies, we can eliminate waste in the supply chain and realize the benefits of consolidations, energy efficient buildings, and cloud solutions to provide greater efficiencies and lower costs. I have personally committed to ensuring that GSA itself leads as a model of cost-conscious sustainable decision-making.

As the next panel will highlight, the initiatives GSA is pursuing are about making the best decisions, environmental and economic, on behalf of the American taxpayer to ensure we spend each dollar as effectively as possible.

Sustainable Buildings

GSA is pursuing a variety of initiatives to make sustainable real estate decisions on behalf of the American taxpayer and is committed to maximizing the utilization of our inventory, realizing the benefits of new technologies, and aggressively pursuing the disposition of unneeded Federal real estate.

- *Increasing Building Utilization*

One of the central initiatives we are currently pursuing is working with other Federal agencies to use their existing space better. GSA pursues an array of strategies that Federal agencies can implement to support new ways of working, with the goal of

reducing physical space, increasing space utilization, reducing the cost of space, and improving the flexibility of space.

An essential part of this strategy includes GSA's initiatives in teleworking. GSA and the Office of Personnel Management (OPM) have been working together to lead the Federal workforce to increase teleworking and recognize the benefits of new technologies that allow workers to become mobile. Teleworking increases productivity, reduces commuter traffic, ensures that services can still be provided to the public during extreme weather or other crisis events, and decreases the total space needs of an agency. GSA, in coordination with OPM, is providing Federal managers with the tools necessary to build a mobile workforce. GSA is committed to leading the government and private industry in telework initiatives and is striving for 60 percent of all GSA employees to telework at least two days per pay period.

With modest upfront costs for interior work and technological solutions, the Government can realize significant savings in both real estate and operating costs in the long run. GSA's Public Buildings Service has begun working closely with our customers to incorporate these practices into space acquisition and management decisions.

For instance, GSA partnered with the Office of the Chief Administrative Officer for the Department of Homeland Security who had recently reduced their space 30,839 useable square feet (USF) to 14,871 USF through the implementation of a flexible workplace pilot program, to find ways to more effectively utilize their space and to do so without incurring major construction costs. By working with the customer to understand their work styles and the ideal work environment to support their mission, GSA was able to help provide the lessons learned. In this instance, GSA and DHS saved almost $1 million annually in rent. GSA and DHS will continue their working relationship to develop additional flexible work place strategies in support of cost savings opportunities in the National Capital Region.

Often, opportunities also arise for major reconfigurations of space during renovations. Leading by example, I am intent on making the ongoing renovation of GSA Headquarters at 1800 F Street, NW a model for the Federal government to follow. By rethinking how we use space, GSA plans to renovate a space that previously housed 2,600 employees and make it accommodate over 6,000. This will present opportunities to enable Federal agencies to move from leased space into federally owned space.

- *High-Performance Green Buildings*

GSA has undertaken an effort to transform our inventory into high-performance green buildings, realizing the benefits of new technologies that make our buildings more efficient, allowing for more sophisticated measurement and decision-making, and reducing costs in our facilities. In some cases, we realize these benefits with no upfront appropriated funding through the use of innovative long-term contracting authorities.

In our new construction and major modernization projects, GSA now requires a Leadership in Energy & Environmental Design (LEED) Gold rating. To achieve this standard, we must install the latest proven technologies in our buildings.

For instance, GSA is installing geothermal heating and cooling systems in our inventory in places where they can have the most impact. Geothermal energy is heat from within the earth that can be recovered and used to heat buildings or generate electricity. While the upfront capital costs of these projects can be high, they are life-cycle cost effective, providing energy efficient and environmentally clean upgrades to our buildings.

In the Federal Building on 244 Needy Road in Martinsburg, West Virginia, the geothermal system will heat and cool the building during normal conditions, ranging in temperature from 10 to 105 degrees Fahrenheit. The existing boilers and chillers only come online for additional capacity if the temperature drops below or exceeds this range. This system will provide 4,656,000 Btu of cooling and 3,981,900 Btu of heating.

We are also leveraging the significant advancements made recently in lighting technology, including lighting controls, measurements, and fluorescent and LED lights. Lighting accounts for a significant portion of energy use in office buildings. The installation of high-performance lighting has the potential to reduce this load significantly.

In the Warren B. Rudman Courthouse and James C. Cleveland Federal Building in Concord, New Hampshire, for instance, we are relighting 85 percent of the courthouse space, including offices, parking structures, the exterior site, and outdoor parking. New lighting will include the latest fluorescent lamps and LEDs for signage and exterior spaces. GSA will retrofit the office spaces with high performance ceiling fixtures with digital controls that will provide lower ambient lighting but stronger work area lighting. The anticipated energy use, once all relighting is complete, is .8 watts per square foot, compared to a current baseline of 1.6 watts per square foot.

Our Smart Buildings program is a prime example of how GSA is developing methods to obtain more specific and timely energy use data in our buildings to help make better energy decisions and save taxpayers money. With this program, we intend to utilize advanced metering equipment and flexible lighting and heating, ventilation, and air conditioning controls in a subset of our owned inventory to monitor the use of these facilities by feeding real-time information into a centralized database for review by our facilities managers. GSA intends to begin with the largest buildings in our inventory that could realize the greatest benefit and eventually expand to others in our portfolio. These investments will result in substantial savings throughout GSA's inventory.

These various initiatives require building operators who can maintain effective use of these high-performance systems. GSA's Office of Federal High-Performance Green Buildings, in coordination with Department of Energy, is proud to be leading the effort under the Federal Buildings Personnel Training Act (FBPTA), signed into law earlier this year, to develop and implement a program to train and certify Federal building personnel to run these high-performance buildings. GSA held a kick-off event to outline this initiative with partner Federal agencies earlier this month; we look forward to leading this effort and helping create a highly skilled workforce in the building operations field. As your committee noted in the passage of FBPTA, organizations reported an average return of $3.95 for every $1 invested in facility management training, according to the International Facilities Manager Association.

Through a combination of these and other technologies and practices, GSA is striving to be first in the country to transform an historic building into a net-zero energy use facility during the modernization of the 92 year-old Wayne Aspinall Federal Building and Courthouse in Grand Junction, Colorado. GSA is aiming for a LEED Platinum rating, installing a geothermal system and a solar panel array that is projected to generate enough energy to balance out the electrical demand of the building. The building will also feature state-of-the-art fluorescent light fixtures with wireless controls to adjust lighting to respond to natural light levels and storm windows with solar control film to reduce demand on heating and cooling.

GSA is always looking for ways to do more with less. Through the use of Energy Savings Performance Contracts (ESPCs) and Utility Energy Savings Contracts (UESCs), we realize the benefits of new technologies and lowered operating costs. In an ESPC or UESC, GSA works with either a pre-qualified Energy Service Company or a Public Utility to contract for energy efficiency improvements. The energy company funds the investment in energy improvements and guarantees performance, and GSA agrees to repay the company over the contract period from the savings achieved. As a

stipulation of the contract, GSA's payments on an annual basis cannot exceed the amount of the guaranteed energy savings from the efficiency improvements.

In the last two years, GSA has used this alternative financing to fund energy efficient improvements in 75 buildings. Of these projects, GSA executed a number of improvements with renewable technologies, including thirteen photovoltaic systems, two solar thermal systems, and one wind turbine.

These investments are helping us to achieve the goals under the Energy Independence and Security Act and Executive Orders 13423 and 13514, which require agencies to reduce energy intensity by 3 percent per year for a total 30 percent reduction by 2015 compared to a baseline of 2003 and reduce water consumption by 2 percent per year to achieve a 16 percent reduction by 2015 compared to a 2007 baseline. In 2010, GSA had already achieved a 16 percent decrease in energy intensity in goal subject facilities compared to the 2003 baseline and a 9 percent decrease in potable water intensity compared to FY 2007 water consumption.

To meet these goals, we also are working with the private sector to find the most cutting-edge and innovative technologies and test their effectiveness. Through GSA's new Green Proving Ground program, GSA has committed to evaluating innovative technologies or practices based on the programmatic needs in our inventory. By trying new ideas and technologies, then evaluating and publicizing our results, GSA is working to drive innovation in environmental performance in partnership with industry.

Part of being a responsive, sustainable, and high-performing government is ensuring that we are measuring results and following what works. We have evaluated the performance of many of our sustainably designed buildings and we are focused on making the most impactful improvements to increase efficiency and drive down costs.

- *Disposing of Unneeded Federal Real Estate*

Finally, GSA is making sustainable and smart real estate decisions by working with the Office of Management and Budget (OMB) to lead the President's initiative to dispose of unneeded Federal real estate. In the President's FY2012 budget proposal, the Administration announced an effort to accelerate the disposal and consolidation of the Federal Government's properties. The Administration is proposing a civilian property realignment initiative that will be led by a board composed of respected figures from the private and public sectors. This initiative will enable us to move currently excess and surplus properties out of the inventory of the major Federal landholding agencies, including GSA, and thus realize a financial return, the improvement of the government's

sustainability, and the benefit of no longer having to keep the properties up. The effort will also help to implement large-scale consolidations across common assets and among agencies.

By reducing and more effectively utilizing the space the Federal government currently occupies, installing and operating existing and emerging energy-efficient technologies, and working to remove the barriers to disposing of unneeded Federal property, GSA is doing more with less in real estate for the Federal government.

Sustainable Purchasing

In addition to the initiatives we are pursuing with our Federal buildings, we are excited for the possibilities to strategically utilize the capacity of existing servers and data centers under the Administration's cloud computing initiative, remove waste from the Federal supply chain, and utilize more green products and services, from vehicles to office supplies. By leveraging economies of scale in the government's purchasing, we can realize cost reductions and savings. GSA is also reviewing many of its Multiple Award Schedules to determine if an acceptable green standard exists and, if sufficient market availability of green products/services exists within the specific categories, adding requirements that all future additions must meet the green standard.

- *Cloud Computing*

GSA is proud to take a lead role in the Administration's efforts to transform the Federal government's IT infrastructure by virtualizing and consolidating data centers and helping agencies move to a cloud-first business model. In Fiscal Year 2010, roughly thirty cents of every dollar invested in Federal IT was spent on data center infrastructure. Cloud computing offers agencies a cost-effective and scalable alternative to the current unsustainable levels of investment in legacy data centers.

To date, the primary concern with cloud computing has been security. As such, GSA and its Federal partners have focused considerable effort on developing the Federal Risk and Authorization Management Program (FedRAMP). FedRAMP establishes a standardized approach to the security Assessment and Authorization of cloud computing services and products. With the help of senior security experts from the Department of Defense, The Department of Homeland Security, and GSA, FedRAMP will approve security approval packages for cloud products and services that any agency can leverage.

Additionally, GSA provides sustainable, centralized acquisition solutions for government-wide purchase of cost-effective cloud services. Examples include our Infrastructure as a Service Blanket Purchase Agreement (BPA), which will offer agencies authorized infrastructure products and services from twelve providers. This offering will be available government-wide before the end of Fiscal Year 2011.

Our Email as a Service solicitation will be released for response within the next month, and once awarded, will provide agencies with a wide range of pre-competed, commoditized cloud email and collaboration services via a BPA.

The potential for cost savings when implementing data center consolidation and cloud computing across government are immense. GSA's cloud email implementation will save roughly 50 percent over the next five years compared to the legacy email solution currently in place. By using cloud computing services, the Government can reduce its data center infrastructure expenditure by approximately 30 percent, a key driver of the estimated $20 billion of the total $80 billion in IT spending that could be migrated to cloud solutions.[1]

- *Reducing Waste in the Supply Chain*

I am pleased to be joined here today by one of the participants in GSA's Small Business Pilot for our GreenGov Supply Chain Partnership program. The GreenGov Supply Chain Partnership is a joint initiative by the White House Council on Environmental Quality and GSA to work collaboratively with vendors and contractors to reduce Greenhouse Gas (GHG) emissions and help build a clean energy economy. GHG emissions reductions are achieved concurrently with cost, energy and risk, as well as increasing the efficiency of individual companies and thereby the overall Federal supply chain. The Partnership provides an opportunity for us to hear from companies that are reducing their GHG emissions and have already benefited from energy savings, operational efficiencies, waste reduction, and the resultant cost savings, and learn how best to use GHG emissions and other sustainability considerations in Federal procurements. Through the Small Business Pilot program, we are working to ensure that we can assist small businesses in creating an inventory and reducing their GHG emissions, as well as making sure that their experiences inform how we move forward. We want to ensure that we proceed with best practices learned from the private sector in an inclusive and deliberate manner.

---

[1] Federal Cloud Computing Strategy, Federal CIO Council, February 8, 2011, page 1.

- *Federal Strategic Sourcing Initiative*

GSA's Federal Acquisition Service (FAS) is also working to utilize more energy-efficient and sustainable products and services that save taxpayers money through the Federal Strategic Sourcing Initiative (FSSI). FSSI was created to address government-wide opportunities to strategically source commonly purchased goods and services to lower costs and eliminate duplication of efforts across agencies. Through FSSI, GSA is improving demand management by encouraging volume purchasing, promoting the availability of green products, and helping agencies track green purchases for assessing their progress in achieving statutory and Administration goals.

We have two solutions in our contracting vehicles for agencies to purchase Office Supplies and Domestic Delivery Service (shipping), and are actively working to launch a third with Print Management. Through higher order minimums and promotion of green products, our Office Supplies initiative will save millions of dollars annually. By allowing bulk purchasing and supporting vendors with sustainable operations, our Domestic Delivery Service will also save millions of dollars annually off retail rates.

- *Energy Efficient Fleet*

Finally, GSA continues to green the Federal fleet. GSA provides agencies with vehicle choices that will reduce our dependence on foreign oil and mitigate the impact that the Federal fleet makes on our environment. As an example of the impact energy-efficient vehicles can have, consider the impact of a one mile per gallon increase in fuel economy to an annual procurement of over 65,000 vehicles annually. This increase in fuel economy would save nearly 1 million gallons of gas, 9,000 metric tons of GHGs, and, at $3 per gallon, $3 million annually. By leveraging the purchasing power of the Federal government, GSA is also able to negotiate significant discounts off of the dealer price invoice. Currently, the GSA fleet is comprised of over 210,000 vehicles, of which 49 percent are alternative fuel vehicles (AFVs) and 7,300 are hybrids. The GSA-managed fleet has almost 3,500 more E85 flex fuel vehicles than it does conventionally fueled gasoline vehicles. GSA is always looking for innovative new technologies in AFVs and would like to initiate a pilot to lease 100 plug-in electric vehicles in five major cities across the U.S. The President's FY 12 budget proposes language that would allow GSA to acquire motor vehicles that operate on emerging, clean-burning technologies currently impeded by the Statutory Price Limitation clause of 31 U.S.C. 1343. If this authority were granted, GSA would use it to test new technology motor vehicles and prove their technical and economic viability before expanding their use in the Federal fleet.

By utilizing cutting edge IT technology, thoughtfully analyzing ways to track and reduce waste in the Federal supply chain, promoting green products and services, and encouraging an energy-efficient Federal fleet, GSA can help to encourage efficiency and reduce waste government-wide.

Conclusion

These are just some of the initiatives that GSA is pursuing on behalf of this Administration to drive agency decision-making that will encourage a sustainable government that reduces waste, increases efficiency, lowers costs, and foster emerging sectors of the economy. The President has made operational excellence in government a key goal, and GSA is proud to be a central part of this effort.

I welcome the opportunity to be here today, I look forward to hearing from the next panel on their experiences both working with GSA and pursuing similar initiatives, and I would be happy to answer any questions you have.

Questions from Senator Barbara Boxer

1. President Obama's Executive Order on Federal Leadership in Environmental, Energy, and Economic Performance directs Federal agencies to account for and reduce their energy and water use and pollution emissions. Can you describe GSA's role in the implementation of the executive order and provide the Committee with a detailed update on the status of its implementation?

As part of the Executive Order (EO), GSA is engaged in a wide range of activities, including the following:

1. ***Recommendations for Greenhouse Gas Accounting and Reporting:*** Section 9 of the Executive Order directs the Department of Energy, through the Federal Energy Management Program, in coordination with other key agencies (including GSA), to develop and provide to the Council on Environmental Quality (CEQ) recommended Federal greenhouse gas reporting and accounting procedures for agencies to use when calculating their greenhouse gas emissions. An interagency group was formed to develop the reporting and accounting procedures, which were released by CEQ in October 2010. In order to update several areas of the guidance document, the Interagency Group formed several subgroups. One subgroup - the Leased Assets subgroup - is chaired by GSA, and is tasked with evaluating options to develop a set of recommendations for reporting greenhouse gas emissions from real property leased assets within the Federal sector. The Leased Assets Subgroup has developed and submitted draft recommendations through the Section 9 Working Group to CEQ. CEQ will be publishing the revised Guidance on Federal Greenhouse Gas Accounting and Reporting once they have considered and reconciled recommendations from interagency and public review and comment..

2. ***Recommendations for Vendors and Contractor Emissions***: Section 13 of E.O. 13514 directed GSA, in partnership with the Department of Defense and EPA, to assess the feasibility of requiring Federal suppliers to report their GHG emissions and using GHG emissions disclosures in the Federal procurement process.

In April 2010, an interagency working group led by GSA determined it is feasible, with a deliberate phased approach, for suppliers to voluntarily complete GHG emissions inventories and disclose their GHG emissions data to the Government. The working group also concluded that there are several significant technical and policy challenges that should be addressed before supplier GHG emissions disclosures can be considered for use in Federal procurement decision-making, and that all stakeholders will need time and resources to adjust to a steep learning curve .

In FY 2011, GSA established the Federal Supply Chain Emissions Program Management Office (PMO) to identify benefits and challenges for Federal vendors and contractors who complete GHG emissions inventories and explore mechanisms to incorporate vendor GHG emissions disclosures in the procurement process. The PMO will sponsor research projects and test pilots to identify benefits and challenges for Federal vendors in completing GHG emissions inventories and explore mechanisms to incorporate vendor GHG emissions disclosures in the Federal procurement process.

3. *Federal adaptation strategy*: Under Section 16 of the EO, GSA is engaged in initial stages of adaptation planning to determine and offer appropriate supplies, services and workspaces to meet the needs of Federal customers in the event of extreme events and incremental climate change.

As part of GSA's FY2011-2016 Strategic Sustainability Performance Plan, GSA established an agency-wide adaptation policy that initiated a continuous planning framework. This guidance was issued publically and our first formal plan will be published in June 2012.

4. *Energy Efficient Fleet:* Section 12 directs GSA to work with the Department of Energy to develop guidance for Federal agencies on Federal fleet management. This guidance was completed and published in April 2010:
http://www1.eere.energy.gov/femp/pdfs/fleetguidance_13514.pdf.

On May 24, 2011, the President issued a memorandum entitled "Federal Fleet Performance" that provided further guidance to agencies on achieving the goals under EO 13514.

This memorandum directed GSA to distribute to agencies a Vehicle Allocation Methodology for determining the optimal fleet inventory size, with an emphasis on eliminating unnecessary vehicles and ensuring life-cycle cost effectiveness of maintaining such an inventory. Agencies must then use this VAM to determine their optimal fleet inventory and submit a fleet management plan to GSA to achieve these targets by no later than December 31, 2015. GSA was also directed to, in coordination with the Departments of Defense, Homeland Security, Justice, and the Treasury, as well as other appropriate agencies, issue guidance on the applicability and implementation of alternative fueled vehicle requirements.

The VAM was provided to agencies on August 22, 2011 and updates are posted at www.gsa.gov/VAM.

***5. Federal Shuttle Buses*:** Section 11 directs GSA, in coordination with other agencies, to provide recommendations to the CEQ chair on Federal local transportation logistics. GSA met with agencies operating shuttle services to gather information on shuttle service use. In some cases, shuttle route changes and consolidations were already planned as part of upcoming shifts in employee work locations. In other cases, the agencies intend to take steps to improve their route efficiency. To provide guidance as these efforts take place, OGP drafted a bulletin outlining the steps an agency should take when operating shuttle services. The bulletin was published in May 2011: http://www.gsa.gov/graphics/ogp/FMRBullletinB-28.doc

6. Siting of Locations for Federal Facilities: Section 10 directed the Department of Transportation (DOT) to coordinate with a number of agencies including GSA on recommendations for sustainable locations for Federal facilities. These recommendations were completed and published in September 2011:
http://www.fedcenter.gov/_kd/Items/actions.cfm?action=Show&item_id=19447&destination=ShowItem.

As one of the largest landholding agencies for the Federal government, GSA played a significant role in developing these recommendations, which looked to balance cost, security and sustainability, while meeting mission need and ensuring competition. In order to meet the responsibilities under EO 13514, agencies were instructed to develop internal policies and procedures that aligned their facility decision-making with a variety of critical principles, from participating in regional planning and transportation initiatives to maximizing the use of existing infrastructure and resources wherever possible.

7. Identifying sustainability standards and ecolabeling programs appropriate for federal procurement:
A Section 13 interagency workgroup is drafting guidelines to assist federal buyers in achieving the product-related acquisition goals of Executive Order 13514. The guidelines will be used to select product-related environmental sustainability standards, including those belonging to appropriate eco-labeling programs. The workgroup is also developing recommendations for implementing the guidelines and adopting tools and recommendations by third-party organizations to simplify the environmental procurement for the federal acquisition community.

2. As your testimony highlighted, GSA is undertaking a variety of efforts to improve the environmental and energy performance of its buildings, which can result in reduced energy and water use, cheaper maintenance costs, and lower emissions, while saving the government money. Please describe in detail the efforts that GSA is taking to quantify the energy savings and environmental improvements of the agency's sustainability initiatives.

What have you learned to date about the waste reduction and environmental improvements the government can expect as a result of these efforts?

GSA makes decisions that impact both waste reduction and environmental improvements that impact the Government as a whole and GSA as an agency. GSA bases its investment decisions on customer mission requirements, financial return, and social and environmental policies. We do this by looking at several key metrics:, Mission-Specific Costs and Benefits, Economic Life Cycle Cost, Environmental Costs and Benefits, Operations & Maintenance and Deferred Investments, Social Costs and Benefits, and Climate Change Risk and Vulnerability.

As part of GSA's reporting in our annual Strategic Sustainability Performance Plan, we track GSA's agency progress to achieving our aggressive reduction goals. In FY11, for instance, we reported a 16% reduction in energy intensity since FY03, a 12.7% reduction in Scope 1 and 2 GHG emissions since FY08, and a 20% reduction in fleet petroleum use since FY05. These are just a few of the several dozen environmental impact improvements we track on an annual basis.

In addition to these efforts, GSA is engaged in numerous projects to quantify the environmental improvements and energy savings that come from the GSA's sustainability initiatives.

Building Performance Studies: GSA has evaluated the performance of many of its sustainably designed buildings and is continually focused on making the most effective improvements to increase efficiency

and drive down costs. In June 2008, GSA completed a study, "Assessing Green Building Performance,"[1] that examined actual building performance of 12 green buildings in its portfolio after they had completed at least 18 months of occupancy. The study found that these buildings had 15% lower energy costs and 13% lower maintenance costs than average for commercial buildings in the U.S.

GSA is working to update and expand the study to include a total of 22 GSA green buildings. Initial findings indicate even greater cost savings coming from these buildings.

Demonstration Project

As part of its responsibilities under the Energy Independence and Security Act (EISA), GSA is conducting a demonstration project at the EPA regional office in Denver that is testing the performance of installed sustainable building strategies and providing the basis for developing guidance and best practices to enhance building operational performance and occupant work effectiveness linked to energy and water use and interior environmental quality. This project is evaluating technologies and strategies relating to energy and water use, operation of a data center and acoustics as well as workspace functionality and ways to expand opportunities for mobile work.

Lighting

Lighting accounts for a significant portion of electricity use in office buildings. The implementation of high performance lighting has the potential to reduce this load significantly. If combined with daylight design strategies, the reductions can be even higher.

GSA is implementing lighting upgrades in 212 American Recovery and Reinvestment Act (Recovery Act) projects. Of this total, 12 are new construction and the remaining projects are upgrades of existing lighting systems. The upgrades include simple re-lamping with energy efficient lamps, as well as extensive re-design with new lighting fixtures and controls. The vast majority of projects are re-lamping.

3. When the government reduces waste and cuts its energy use it also saves money. GSA's sustainability efforts often include a cost-reduction component. In a time of fiscal challenges, this can be an important tool for reducing Federal spending.

Can you please describe the cost-savings you expect from GSA's various sustainability initiatives?

GSA looks to make the most economically sound business decisions that also conform to or maximize social or economic benefits. GSA's investment decisions and asset management plans include consideration of life cycle costs and financial return over the life of the investment.

In consideration of the environmental impacts of our business decisions, GSA incorporates sustainability goals into our investment decision-making process. In many cases, GSA has established minimum standards that all potential investments must meet. For example, all new construction projects will be designed to achieve LEED Gold certification, to be at least 30 percent more energy efficient than industry standards, and to meet ENERGY STAR® standards. Similarly, GSA will maximize the number of hybrid-electric vehicles in the GSA fleet.

---

[1] http://www.gsa.gov/graphics/pbs/GSA_Assessing_Green_Full_Report.pdf

In other cases, such as small energy and water savings projects, potential projects are ranked and prioritized based on financial return, estimated energy or water savings, and potential GHG emissions reductions.

Since FY03, through our investments, GSA has reduced our energy intensity by 16.1 percent in Federally owned buildings under GSA's jurisdiction and those leases where GSA is responsible for making utility payments, putting us well ahead of our energy intensity reduction target of 15 percent by FY10.

4. Mr. John Sindelar from HP, who also testified at this hearing, noted that HP has saved nearly $1 billion annually through its efforts to consolidate IT infrastructure. Can you provide a detailed description of the efforts currently underway to consolidate the Federal government's IT infrastructure?

1) GSA acts as the Federal Data Center Consolidation Initiative (FDCCI) project management office (PMO), and serves as the day-to-day operational manager of the FDCCI and supports the CIOs of Army[2] and DOI, who act as agency FDCCI stewards. These CIOs also co-chair the Federal Data Center Consolidation Task Force (
Center-Closures). Under the Administration's 25 Point Implementation Plan to Reform Federal IT Management, Task Force members are working together to share progress toward individual agency goals and the overall Federal target of consolidating a minimum of 800 data center by FY15. The GSA PMO collects agency data center inventory and consolidation plan information, serves as the repository for consolidation best practices, assists information dissemination, and provides technical guidance and procurement support.

2) Under the 25 Point Implementation Plan to Reform Federal IT Management, agencies will consolidate at least 800 data centers by FY15. In March 2012, the Office of Management and Budget announced that agencies plan to close 1,000 data centers through 2015, with 479 to be closed by the end of the fiscal year 2012. More than 200 data centers have already been closed. This exceeds our 800+ data center closure goal set forth in the Administration's 25 Point Plan to Reform Federal IT Management. Moving forward, the government's goal will be to close at least 40 percent of identified data centers. Agencies update their planned and actual closures quarterly this information can be found at Data.gov.

3) On June 10, 2010, the Administration set forth a "net zero growth" data center policy. In a Presidential Memorandum titled: *Disposing of Unneeded Federal Real Estate,* the President stated that "...in order to address the growth of data centers across the Federal Government, agencies shall immediately adopt a policy against expanding data centers beyond current levels..." Agency data center

[2] As of spring 2012, General Susan Lawrence, CIO of the Department of the Army, will replace Richard Spires, the CIO of the Department of Homeland Security, as co-chair of the Federal Data Center Consolidation Task Force. Bernard Mazer, CIO at the Department of the Interior will remain as the other co-chair.

levels were published as part of the President's Budget for FY12. These figures can be found in the Analytical Perspectives, Budget of the United States Government, FY12, a volume that accompanies the President's Budget for FY12. More specifically, this data is located in Chapter 20, which focuses on IT. As agencies execute their consolidation plans based on their unique mission needs, they are free to consider the most appropriate consolidation path, including the adoption of cloud computing solutions, utilizing another agency's facility or the provisioning of a new facility, if that agency's overall consolidation effort is consistent with the net zero growth policy.

What cost and energy savings can be expected from these efforts?

According to the Analytical Perspectives of the Administration's 2013 Budget, OMB anticipates that consolidation efforts could save the Government $3 billion by 2015, with continued savings beyond. The Federal Data Center Consolidation Task Force has been hard at work on modeling to help further refine this figure.

Questions from Senator Jeff Merkley

1. What has the GSA done to consider distributed generation on federal buildings, in particular rooftop PV systems?

In many of our projects, GSA is using standard energy-saving technology, like photovoltaics, geo-exchange, and solar thermal, as well as cutting-edge technology like kinetic energy generators incorporated into roadways.

GSA has 66 Recovery Act projects using photovoltaic technology. Of these 66 projects, 62 are implementing rooftop photovoltaic systems. GSA mandated plans for its Recovery Act projects to include on-site renewable energy systems (photovoltaic, wind, geothermal, solar thermal/hot water) where energy was a component of the project. GSA took into account distributed generation technologies for work in all Recovery Act projects, including new construction, modernization, and our smaller, limited scope projects. GSA requires consideration for on-site renewable technologies in designs when cost effective and practicable.

2. Has the GSA considered installing any cool roofs (roofs with a lighter, reflective color) on federal buildings? How much energy could be saved if the GSA installed cool roofs on 100% of Federal buildings?

GSA has partnered with the Department of Energy to better utilize cool roofs. GSA encourages consideration of a cool roof, a planted roof, or a building integrated photovoltaic roof as a first option

for prospectus-level projects.[3] The Department of Energy's "Guidelines for Selecting Cool Roofs"[4] outlines expected annual energy cost savings of up to 13 percent per square foot of roof area, varying by location; insulation levels; heating, ventilating, and air-conditioning (HVAC) equipment; and utility rates. These savings could also vary due to heat cost offsets, size and type of building, type of roof being replaced, the existing building envelop construction, and specific products selected for the new roof.

Cool roofs are most effective in climate zones where the load is dominated by cooling. If not in the appropriate climate, these types of roofs could actually increase energy usage.

3. Is the GSA planning on addressing vampire electronics? What would be the expected energy savings?

The designation "vampire electronics" typically applies to small office equipment devices that are purchased and operated by GSA tenant agencies which occupy space within GSA owned and leased Federal buildings. GSA's Federal Acquisition Service schedules specifically label alternatives to vampire electronic office equipment under its Green Aisle listing of EPA ENERGY STAR® and DOE FEMP product designations and encourages agencies to purchase these alternative products.

GSA has implemented procedures for equipment placed in GSA common space under approval of the buildings manager. GSA's Public Buildings Service has modified thousands of third-party vending machines to power down when not in use. GSA has saved significant energy consumption through specific GSA energy program funding of a product called Vending Miser, which is commercially recognized by the vending industry as a successful solution to vampire electricity use when not required for product display, conditioning, or sales during non-business hours. GSA has installed Vending Miser devices under its Energy Retrofit Program since 2003.

4. Has the GSA ranked the cost effectiveness of each energy-saving intervention? Which interventions will save the Federal government the most energy?

In March 2009, GSA completed a study entitled "Energy Savings and Performance Gains in GSA Buildings: Seven Cost-Effective Strategies."[5] This study identified seven of the most cost-effective energy saving strategies, which, if implemented across GSA's portfolio, could yield more than 500 million kWh per year of energy savings. These strategies are:

- Adjust workplace temperatures for the summer months
- Replace HVAC filters on schedule with high-performance filters
- Consolidate and reduce the number of printers and copiers

---

[3] Prospectus-level, for FY11 and FY12, means a project that is above $2.79M. All capital projects above this amount are line item appropriations in the President's budget and are submitted to the House Transportation and Infrastructure Committee and the Senate Environment and Public Works Committee for authorization. The prospectus threshold is re-examined each fiscal year and adjusted based on the Composite Index of Construction Costs of the Department of Commerce.

[4] Available online at http://www1.eere.energy.gov/femp/pdfs/coolroofguide.pdf

[5] Available online at http://www.gsa.gov/graphics/pbs/GSA_SevenStrategies_090327screen.pdf

- Replace CRT monitors with LCD monitors
- Upgrade ambient and task lighting in the workplace
- Improve access to daylight in the workplace
- Upgrade windows for better energy performance

Of these strategies, lighting upgrades were found to save the most energy, followed by window upgrades and daylighting. GSA continues to study the strategies that provide the greatest and most cost-effective energy savings and other results, and will regularly direct our sustainability strategies accordingly.

5. What are the obstacles to using Energy Saving Performance Contracts (ESCOs), which would allow federal agencies to retrofit buildings without bearing all the costs up-front? How much are ESCOs being used today to do energy retrofits of federal buildings?

The challenges to using ESPCs include:

- a lack of experience in the acquisition community in negotiating these alternative financing agreements;
- the challenge for customers to identify projects that are well suited for ESPCs;
- ESPCs can be complex and technical in nature, and therefore may warrant either specialized expertise to negotiate, or agency assistance from DOE's Federal Energy Management Program (FEMP).

GSA has used ESPCs in approximately 200 GSA facilities. In the last two years, GSA has used this performance contracts to fund energy efficient improvements in 75 buildings. Of these projects, GSA implemented a number of these energy efficient improvements with renewable technologies, including 13 photovoltaic systems, 2 solar thermal systems, and 1 wind turbine.

GSA is in discussions with DOE's FEMP about opportunities to jointly work to overcome barriers to greater and more effective use of ESPCs in the Federal Government. These discussions include identifying ways to improve the ESPC process, expand use of ESPCs to install energy saving technologies and practices in existing buildings, and achieve zero net energy buildings.

On December 1, 2011, the President signed a Memorandum directing all Federal agencies to maximize existing authorities to utilize performance-based contracting for undertaking energy retrofits on Federal buildings. Under this Memorandum, Federal agencies will enter into a minimum of $2 billion in performance-based contracts by December of 2013.

Questions from Senator James M. Inhofe

1. The Energy Independence and Security Act of 2007 (EISA) requires GSA to conduct a study to evaluate and compare available third-party green building certification systems utilizing: 1) a set of criteria that assess independent verification; 2) a consensus-based process; 3) opportunities for public input; and other elements. I understand that GSA is required to produce an update of the 2006 study.

Can you tell me about the progress on this updated study and what steps you are taking to ensure a robust and public peer review process and that the peer review comments are addressed?

A new study of green building certification systems as required by EISA is currently in progress and is planned to be completed in Spring 2012. The study is based on publicly available information about third-party green building certification systems in use in the U.S., and incorporates the experiences of federal users to date in implementing certification systems. Criteria for review include factors relating to costs, ease of use and resources required to implement the systems, and how effectively systems support achievement of Federal building performance requirements and objectives.

The certification system owners will be given an opportunity to validate information collected for each criterion identified in the study, and the feedback comments that can be validated will be incorporated into the study. Responses received from the system owners will be included in their entirety in an appendix to the study. The study will have an internal review during development and GSA will conduct both an interagency external review of the study once all requirements have been addressed, as well as provide for a public comment period before making a recommendation to the Secretary of Energy.

2. Does GSA have the legal obligation to choose only one certification process? Does GSA have to wait for the 5 year review in order to choose another certification process?

Section 436(H) of the Energy Independence and Security Act (EISA) requires that the Federal Director of GSA's Office of Federal High-Performance Green Buildings "shall identify and shall provide to the Secretary [of the Department of Energy]...a certification system that the Director determines to be the most likely to encourage a comprehensive and environmentally-sound approach to certification of green buildings." This determination is provided to the Secretary of Energy who then identifies a certification system and level to meet EISA requirements. Although EISA requires GSA to recommend a certification system to the Secretary of Energy, it is the Department of Energy's discretion what certification system, if any, they choose to meet the requirements under EISA.

GSA recommended a certification system to the Secretary of Energy in 2008 based on a 2006 GSA study of sustainable building rating systems. At that time, GSA evaluated five different rating systems and concluded that the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) was the most credible and workable approach. EISA requires that GSA re-evaluate certification systems every five years. As discussed previously, GSA is currently engaged in a follow-on study, 5 years later, as required.

3. In EISA, the Clinton-Inhofe Amendment required GSA to look at the use of geothermal heat pumps when renovating buildings. How does GSA evaluate the use of geothermal heat pumps in new projects and major retrofits? What barriers to geothermal heat pump use has GSA identified since EISA was enacted? How many uses of geothermal heat pumps have been approved for use since the enacting of this law? What is GSA doing to continue to promote their use?

GSA's Minimum Performance Criteria for new construction and full modernization projects ensure that project teams must plan for on-site renewable energy systems (photovoltaic, wind, geothermal, solar thermal/hot water).

As part of the GSA evaluation process, GSA identified a few barriers to geothermal heat pump use. At many locations assessed for Recovery Act projects, GSA determined that geothermal heat pumps were cost prohibitive or unfeasible based on building location or configuration (many projects were in downtown areas with insufficient land to install large vertical or horizontal geo-well systems). GSA is currently pursuing nine projects with geothermal heat pumps.

GSA, working in conjunction with the Pacific Northwest National Laboratory, identified geothermal heat pump technology as one that has great potential to meet GSA's agency-wide sustainability goals because geothermal heat pumps use 25-50 percent less electricity than conventional heating or cooling systems and represent an emerging technology in commercial application. For this reason, GSA selected geothermal heat pumps as one of sixteen test projects that GSA will evaluate as part of our Green Proving Ground program, which uses the Federal real estate portfolio to test and evaluate innovative and underutilized sustainable building technologies and practices.

As part of this evaluation, GSA is partnering with the Department of Energy to assess and verify the results of this technology over the next year. The preliminary report, available by December 2012, will document achieved energy savings; identify lessons learned for procurement, installation and facility management; and pave the way for broader deployment by providing performance specific criteria that will be incorporated into GSA design and construction requirements.

4. Please provide the committee with a list of all mandates that govern sustainability and energy efficiency policies for GSA and the public laws and executive orders they arise from.

While there are a variety of public laws and executive orders that touch on sustainability and energy efficiency issues, most of the performance-based goals flow from:

Executive Order 13423, *Strengthening Federal Environmental, Energy, and Transportation Management*
Energy Policy Act of 2003
Energy Policy Act of 2005
Energy Independence and Security Act of 2007
American Recovery and Reinvestment Act of 2009
Executive Order 13514, *Federal Leadership in Environmental, Energy, and Economic Performance*
The Federal Buildings Personnel Training Act of 2010
Guiding Principles for High Performance Sustainable Buildings[6]
Resource Conservation and Recovery Act of 1976
Farm Security and Rural Investment Act of 2002
Clean Air Act of 1990

5. The forestry industry is extremely important to my home state, as it supports thousands of rural jobs and encourages significant investments in my state's forests. Unfortunately, GSA, through its policy of only recognizing the US Green Building Council's LEED rating system, which discourages the use of wood products, is having a negative impact on the US forest industry. Can you please explain why the federal government's biggest builder has policies that discourage the use of renewable, sustainable products such as American lumber?

[6] "Federal Leadership in High Performance and Sustainable Buildings Memorandum of Understanding." 2006. http://www.epa.gov/oaintrnt/documents/sustainable_mou_508.pdf.

Material choices in GSA construction projects are primarily driven by building code, occupancy type, building height and the resulting fire resistive ratings required for the construction type. Due to the scale of GSA buildings and these life-safety drivers, the use of wood in GSA building projects is typically limited to finishes – trim, millwork and doors. GSA's use of the U.S. Green Building Council's LEED rating system has had no influence on how much or how little wood is included in GSA building projects.

In general, GSA adopts voluntary consensus-based standards as appropriate and in accordance with Congress' direction in the National Technology Transfer and Advancement Act (NTTAA) of 1995. This provides the government with high quality standards that have been vetted through a large number of stakeholders, which ensures that the full spectrum of expertise from the private sector, as well as the public sector, is considered during development. Green building certification systems, in particular, normally adopt and use standards developed by other organizations. This has been the case for forest stewardship criteria, which currently represent 1 point out of 110 for LEED and 1 out of 1,000 for Green Globes. GSA works to adopt the best certification systems and standards for the Federal Government based on the overall content and approach of these standards, which we believe has proven to be the most effective policy in producing the most favorable environmental, economic and social consequences.

As mandated under EISA, GSA is currently reviewing green building certification systems and will be soliciting public comment on this report in the Spring of 2012.

6. I learned that the US Green Building Council's LEED rating system reward its wood certification point only for products certified to the Forest Stewardship Council and that almost 90% of FSC's certified area globally is outside the U.S. How does GSA evaluate its impact on the greater commercial real estate market in making decisions about building disposal and green building rating approval?

GSA considers a variety of factors when deciding to excess or dispose of a property. GSA's primary consideration in this process is to assess mission criticality and long-term Federal need. This process is iterative and deliberate with a number of statutory requirements that seek to strike a balance between social and economic policy objectives. These requirements ensure properties are disposed of consistently and in the best interest of the American taxpayer.

As discussed in the previous question, GSA adopts voluntary consensus-based standards, as appropriate, and in accordance with Congress's direction in the National Technology Transfer and Advancement Act (NTTAA) of 1995. GSA's use of the LEED green building rating system, in accordance with the results of GSA's 2006 study on the use of green building certification systems, is based on market familiarity with the system and its ability to meet Federal goals and requirements related to high-performance green buildings. The impact of our actions on the commercial real estate market is resulting in competitive procurements that frequently deliver higher green building certifications than our base requirements in both government-owned and leased facilities. The credit given to wood in green building rating systems is extremely small, only 1 point out of 100 or 1 out of 1,000 depending on the system, and does not influence how or where wood is procured. The Buy American Act and the desire for cost-effective construction favor the procurement of U.S. wood in GSA projects.

7. This committee is still in the process of approving several FY 11 leases and has recently been sent prospectuses for FY 12 leases. Many of these are replacement leases that are about to expire. How does GSA currently handle the execution of government leases?

GSA undertakes a lease action only after determining that no existing federally controlled space meets the agency's identified requirements. GSA leases space for most Federal agencies, including offices, laboratories, warehouses, and clinics. Leases are located according to the client agency's mission requirements in urban, suburban, or rural areas and in accordance with established location laws and policies. GSA defines the execution of a government lease as the signing of a lease contract that binds the Federal Government and is one aspectof the overall lease acquisition process.

Prospectus submission: In accordance with Title 40, if the annual cost of a proposed lease exceeds the prospectus threshold, which was $2.79 million in FY11, a prospectus is submitted for Congressional consideration to the Senate Environment and Public Works Committee and the House Transportation and Infrastructure Committee. This prospectus includes a brief description of the project, the location of the building or space to be leased and an estimate of the maximum costs to the Government of the facility, and a plan for providing space for the employees in the locality of the proposed facility, among other items.

Advertisement: If the space requirement is for 10,000 square feet or larger, GSA is required to advertise the requirement. Requirements for space are advertised in local newspapers or the Federal Business Opportunities webpage at www.fedbizopps.gov, or both, in order to obtain maximum competition from the private sector.

Market Survey: Based on agency requirements, GSA conducts a market survey with agency representatives to identify properties that meet the agency's requirements. This is a critical step in the procurement process.

The Request for Lease Proposal (RLP): GSA develops the RLP package, a standard document tailored to the requirements of each particular solicitation, and sends it to all prospective offerors identified during the market survey. It is available upon request to any party.

Negotiations and Evaluation: Once offers are received and evaluated, GSA begins negotiations. GSA establishes negotiation objectives (acceptable ranges for rental rates, costs for tenant improvements, and cost ranges for additional requirements) and conducts discussions with potential lessors in the competitive range.

Final Proposal Revisions: Once negotiations are completed, GSA requests Final Proposal Revisions, wherein offerors are requested to submit their "best and final offer" to the Government.

Final Evaluation and Award: After submission of final revisions, GSA reviews and evaluates offers and makes an award determination. Award is made based on price, or price and other factors explained in the RLP. Most leases are awarded to the offeror who meets the Government's minimum requirements at the lowest price. For more complex requirements, however, GSA sometimes conducts "best value" procurements, where a higher-rated technical proposal may prevail over a lower-rated and lower-priced proposal. These cases require a determination that the technical superiority offered by the higher priced proposal is worth the cost differential.

Contract Execution: GSA compiles and sends an executable lease document with all negotiated terms and conditions to the successful offeror for signature. Upon return of the signed lease from the successful offeror, the GSA Lease Contracting Officer also signs the lease.

Build-out and Acceptance: The lessor completes the build-out of the space in accordance with the requirements of the lease and GSA inspects and accepts the space when completed. Following GSA's acceptance of space as substantially complete, the Government starts payment of rent to the lessor.

Move-in: Concurrent with GSA's acceptance of space from the lessor, we assist our tenants in occupying the space, at which time their payment of rent to GSA begins. This step completes the lease acquisition process.

What percentage is handled by in-house employees and what percentage is handled by a contractor?

GSA handles all lease executions; only warranted contracting officers can bind the Federal Government in a lease contract. In some instances, regional offices have relied on short-term contracted leasing specialists for staff support.

GSA also utilizes the services of brokers through the National Broker Contract. This contract enables GSA to leverage the expertise of private-sector brokers, allowing us to continue delivering expert workplace solutions to agencies housed in leased spaces. Real estate brokers negotiate and collect commissions directly from building owners as is typical in commercial real estate transactions.

If done by a contractor, how much do they get paid per lease execution?

Contracted leasing specialist services are paid under firm-fixed price contracts, not on a per lease basis.

The amount brokers are paid under the National Broker Contract depends on the market, the size of the lease and the percentage of commission they offered under the contract. The cost of the commissions is built into the rental rate of commercial leases. GSA directs the broker to use a portion of its commission to reduce the cost of the lease. GSA does not use appropriated funds to secure the services of these brokers, since they receive compensation through the private sector practice of commission payments from landlords.

How much has GSA spent on lease contractors for each FY05-FY10?

GSA has contracted for assistance with leasing tasks as workload levels have changed over the past five years. It should be noted that these costs are *pro rata* shares as contracted leasing specialists may spend part of their time working on tasks related to aspects of leasing other than lease acquisition (e.g., post award services, lease terminations). Below are the costs associated with each of the years requested:

Fiscal Year	Cost
2005	$3,636,955.09
2006	$3,804,343.41
2007	$4,083,876.15
2008	$4,273,477.00

2009	$4,346,270.66
2010	$4,006,272.95

How long does GSA sign prospectus level leases for?

40 U.S.C. § 585 authorizes GSA to enter into lease agreements to accommodate Federal agencies in buildings (or improvements) that are in existence or will be constructed by the Lessor. The agreement may not bind the Government for more than 20 years. The term of any lease, including prospectus level leases, may vary based on space requirements and mission needs of the tenant agency. Prospectus leases are executed for the term specified in the signed Committee resolutions.

How much has GSA spent in short term holdovers in prospectus level leases when an Agency has had to stay past the end of the lease, broken down for each FY05-FY10?

Where GSA is faced with an impending expiration of a prospectus-level lease and has not been authorized to proceed, GSA is faced with either attempting to negotiate short-term extensions when possible or slipping into holdover, meaning that the Government would be occupying space without the contractual right to do so. These short-term extensions often result in our paying higher rates than we are currently paying, and higher than one can negotiate for a longer-term lease. In addition, our current policy is to only negotiate short-term extensions when we can do so for an amount below the statutorily prescribed prospectus threshold. Holdovers present more serious implications. They expose the Government to claims and the potential for increased costs.

How many leases have had additional build out and how much has GSA or another agency paid to build out leased space in the last 2 years of a lease since FY05?

GSA typically does not conduct above-standard build-out during the last two years of a lease. Prior to contracting for alterations during the last two years of a lease, GSA lease contracting officers consider:

(1) early exercise of any existing lease renewal option;
(2) cancelation of the lease and procuring new space;
(3) acquiring a succeeding lease; or
(4) acquiring a superseding lease.

8. Energy efficiency technologies, especially lighting technologies, have been advancing rapidly in recent years. Keeping in mind that these advancements can save taxpayer money, what is GSA doing to keep pace with technological advances in energy efficiency? How is GSA being proactive instead of reactive? How is GSA ensuring that the specifications they have for making decisions are up to date with new technology?

GSA is committed to keeping pace with technological advances in energy efficiency and other sustainable technologies so as to remain proactive and save taxpayer money over the lifetime of the agency's buildings. GSA facilitates Federal Government-wide adoption of the most robust and cost-effective green building practices as standard operating procedure – thereby leading the marketplace to sustainability as well. GSA's experts help to convert the most promising research on sustainable

technologies and practices into guidance, standards, tools and measures for incorporation into Federal operations, which are in turn conveyed to decision makers and building professionals through collaboration, coordination and outreach.

In terms of research, as discussed in previous questions, GSA is conducting a wide variety of research through its demonstration project at the EPA Regional HQ in Denver, CO, through submetering pilots at multiple locations, and through other projects. GSA's Green Proving Ground project is accelerating agency knowledge of promising sustainable technologies not currently in widespread use in Federal buildings. The agency is also involved in numerous workgroups with industry and other agencies through which it gains access to knowledge and experience about technologies and approaches being tested by others.

GSA works to incorporate its latest findings in standards and specifications in a variety of ways. The Facilities Standards for the Public Buildings Service (P-100) establishes design standards and criteria for new buildings, major and minor alterations, and work in historic structures.

GSA also closely monitors the rating systems, as distinguished from certification systems like LEED or Green Globes, that are appropriate to the business of the agency and participates in the development of many rating systems and industry standards. Recently, GSA supported and participated in the 3-year development process for the American Society for Heating, Refrigeration, and Air-Conditioning Engineers (ASHRAE) Standard for the Design of High-Performance Green Buildings (ASHRAE 189.1). The standard provides a code-enforceable "total building sustainability package" to enable Federal buildings to comply with Federal green building requirements, and serves as a compliance option to the International Green Construction Code (IgCC), which regulates the construction of new and remodeled commercial buildings.

In regard to lighting technologies, as GSA executed projects funded by the Recovery Act, the agency recognized that significant advancements in lighting technology—including controls, measurement, fluorescent and LED lamps and fixtures—represented a significant opportunity to improve energy efficiency, improve organizational performance and help the electric lighting industry in the United States. GSA met with the National Electrical Manufacturers Association and industry representatives to explore the latest technological opportunities in lighting.

Additionally, GSA's Federal Acquisition Service is taking a systematic approach to greening its schedule offerings. Each schedule is being reviewed to determine if: a) a defined green standard exists, and b), if sufficient market availability of green products/services exists within the specific categories.

For lighting, in September 2010, a new requirement was added requiring that all future lighting additions meet the energy star standard. This means that only energy star lighing products have been awarded since September 2010.

Additionally:

- Is the GSA up-to-date with the Solid State LED Lighting technology in the 2x2 troffer down light space versus the older 2x2 fluorescent lighting technology?

Yes, most recently GSA developed lighting and energy savings specifications for all of its projects funded under the Recovery Act. These specifications allowed for use of LED lighting for outdoor use, parking lots, and garages, as well as indoor applications such as stairwells, corridors, lobbies, and restrooms.

- What are the initial costs differences for purchasing and installing 2x2 fluorescent troffers versus LED troffers? What are the energy consumption differences between the technologies? What are the cost maintenance differences between the two technologies over a ten year period?

GSA is working with researchers at the Pacific Northwest National Laboratory (PNNL) and the Lawrence Berkeley National Laboratory (LBNL) to conduct lighting performance research in selected Recovery Act projects using different lighting systems. The research will begin this fiscal year and will continue through next fiscal year. It will focus on the installation of new high performance lighting systems that are intended to not only reduce energy, but also improve satisfaction and overall lighting quality. LBNL's research is building upon results of a recent pilot test of a new workstation specific lighting system. It is anticipated that this research, once completed, will inform GSA of the initial cost differences between fluorescent and LED lighting systems, as well as the energy consumption and maintenance cost differences. We would be happy to provide this requested information once the research has been completed.

The U.S. Department of Energy (DOE) prepared a Technology Fact Sheet on this topic that can be found at the following link: http://www1.eere.energy.gov/buildings/ssl/factsheets.html. The factsheet compares LED linear replacement lamps to fluorescent lamps in terms of light output, distribution, color quality, energy efficiency, and cost-effectiveness. In summary, the fact sheets states that LED linear replacement lamps available today do not appear to compete with linear fluorescent lamps on the basis of light output, color quality, distribution, lumen maintenance, or cost-effectiveness.

- In which federal facilities have new 2x2 LED or fluorescent lights been installed? Please include either GSA managed or non-GSA managed federal government buildings.

Interior and Exterior LED Projects: 26 Recovery Projects

Project ID	Project Name	Region	Project Type
NPR00001	PR, San Juan FBI Field Office Consolidation	2	New Construction
LCA00021	CA, San Francisco 50 United Nations Plaza	9	Modernization
LCO00041	CO, Grand Junction Federal Building - CTH	8	Modernization
LDC94005	DC, Washington Department of the Interior Building	11	Modernization
LDC01213	DC, Washington Herbert Hoover Building	11	Modernization
LDC01049	DC, Washington Mary Switzer	11	Modernization
LHI00006	HI, Honolulu Prince Kuhio Kalanianaole Federal Building-Courthouse	9	Modernization
LMA44201	MA, Andover IRS Service Center	1	Modernization
LME00001	ME, Bangor Margaret Chase Smith U.S. Post Office Courthouse	1	Modernization
LMN00004	MN, Fort Snelling Whipple Federal Building	5	Modernization
LMS00002	MS, Jackson McCoy Federal Building	4	Modernization
LOR00007	OR, Portland Edith Green-Wyndell Wyatt Federal Building	10	Modernization
LVA44204	VA, Roanoke, Poff Federal Building	3	Modernization
LWA00013	WA, Seattle Federal Center South	10	Modernization
LWV44202	WV, Huntington Federal Building	3	Modernization
RAK00080	AK, Fairbanks Federal Building	10	Limited Scope
RME00031	ME, Portland Edward T. Gignoux Courthouse	1	Limited Scope
LNH00002	NH, Concord Warren B. Rudman US Courthouse	1	Limited Scope
RNY00343	NY, New York-Manhattan Alex Hamilton US Customs House	2	Limited Scope
RNY00346	NY, White Plains White Plains U.S. Courthouse	2	Limited Scope
RTX00440	TX, Corpus Christi Corpus Christi Courthouse	7	Limited Scope
RTX00437	TX, Houston B Casey Courthouse	7	Limited Scope
RTX00447	TX, Houston Labranch Federal Building	7	Limited Scope
IL0205Z4	IL, Chicago Everett M. Dirksen_BA04	5	Small Project
IL0231Z4	IL, Chicago Federal Parking Facility_BA04	5	Small Project
WV0016F4	WV, Huntingtown Sidney L. Christie Federal Building_BA04	3	Small Project

Exterior LED Projects: 22 Recovery Projects

Project ID	Project Name	Region	Project Type
NAZ00001	AZ, Nogales, Nogales West U.S. Land Port of Entry	9	New Construction
NCA00006	CA, San Ysidro Land Port of Entry	9	New Construction
LCO00015	CO, Denver Chavez Federal Building	8	Modernization
LIN00008	IN, Indianapolis Minton-Capehart Federal Building	5	Modernization
LCA00029	CA, Laguna Niguel Chet Holifield Federal Building	9	Limited Scope
LIA00017	IA, Sioux City Federal Building & US Courthouse	6	Limited Scope
RIL00433	IL, Urbana US Courthouse	5	Limited Scope
LMO00096	MO, St Louis Goodfellow Federal Complex	6	Limited Scope
LNE00040	NE, Lincoln Robert Denney FB&CT	6	Limited Scope
LNE00021	NE, North Platte Federal Building	6	Limited Scope
RNY00336	NY, Holtsville IRS Service Center—Holtsville	2	Limited Scope
LOH00017	OH, Columbus Kinneary US Courthouse	5	Limited Scope
LPA00008	PA, Philadelphia Byrne-Green Complex	3	Limited Scope
LPA44203	PA, Philadelphia US Customhouse	3	Limited Scope
LSD00001	SD, Pierre Federal Building - U.S. Courthouse	8	Limited Scope
LTX00156	TX, Austin Veterans Administration Auto Center	7	Limited Scope
RTX00439	TX, Farmers Branch The Centre Phase 5	7	Limited Scope
LTX00149	TX, Fort Worth Lanham Federal Building	7	Limited Scope
RTX00441	TX, Tyler Tyler Federal Building-Courthouse	7	Limited Scope
LWV00003	WV, Martinsburg 244 Needy Road	3	Limited Scope
MD0778A4	MD, Suitland Census Bureau Office Complex_BA04	11	Small Project
NV0014Z4	NV, Carson City Federal Building_BA04	9	Small Project

Interior LED Projects: 31 Recovery Projects

Project ID	Project Name	Region	Project Type
NTX00162	TX, Austin U.S. Courthouse	7	New Construction
LAL00881	AL, Birmingham Robert Vance Federal Building Courthouse	4	Modernization
LCO00005	CO, Denver Byron Rogers Federal Building	8	Modernization
LDC00032	DC, Washington 1800 F Street	11	Modernization
LDC00033	DC, Washington Lafayette	11	Modernization
LDC91002	DC, Washington Truman Building	11	Modernization
LIL00025	IL, Chicago Kluczynski Federal Building & U.S. Postal Service Loop Station	5	Modernization
LIL00028	IL, Chicago State Street South - 10 West Jackson	5	Modernization
LIN00009	IN, Indianapolis, Birch Bayh U.S. Courthouse	5	Modernization
LMI00006	MI, Detroit McNamara Federal Building Complex	5	Modernization
LMO00376	MO, Kansas City Richard Bolling Federal Building	6	Modernization
LTX00867	TX, San Antonio Hipolito Garcia U.S. Courthouse	7	Modernization
LWA00015	WA, Spokane Foley U.S. Courthouse	10	Modernization
LCO00004	CO, Boulder David Skaggs Research Center	8	Limited Scope
RDC01142	DC, Washington Howard T. Markey National Courts	11	Limited Scope
LDC00054	DC, Washington Reagan ITC and Garage	11	Limited Scope
LDC00048	DC, Washington Theodore Roosevelt Building	11	Limited Scope
RMT00022	MT, Bozeman Federal Building-Post Office Bozeman	8	Limited Scope
RNY00341	NY, New York-Manhattan Federal Building--201 Varick St	2	Limited Scope
RNY00332	NY, New York-Queens Joseph P. Addabbo Federal Building	2	Limited Scope
RSC00041	SC, Columbia Matthew Perry US Courthouse	4	Limited Scope
LUT00002	UT, Ogden IRS Service Center	8	Limited Scope
RWA00290	WA, Seattle U.S Courthouse	10	Limited Scope
RWY00021	WY, Cheyenne Joseph C OMahoney Federal Center	8	Limited Scope
IL0033Z4	IL, Chicago William O. Lipinski Federal Building_BA04	5	Small Project
NV0294Z4	NV, Reno Bruce R. Thompson Courthouse_BA04	9	Small Project
NY0311Z4	NY, New York Howard Street Garage_BA04	2	Small Project
PA0143Z4	PA, Philadelphia Robert N.C. Nix Federal Building US Post Office_BA04	3	Small Project
PA0158Z4	PA, Pittsburgh US Courthouse_BA04	3	Small Project
PA0599N4	PA, Scranton William J. Nealon US Courthouse Annex_BA04	3	Small Project
SD0040Z4	SD, Aberdeen Federal Building_BA04	8	Small Project

Senator WHITEHOUSE. Thank you, Administrator Johnson.

You are presently at work in the Pastore Federal Building in Providence, RI, named after my illustrious predecessor, John O. Pastore, doing energy refits there in the air conditioning system, with additional insulation and advanced metering that are estimated to save $15,000 to $35,000 per year once they are completed. We are also very pleased that a Rhode Island contractor is doing that work and creating jobs.

But I am interested in how that fits into the larger picture of how you identify buildings for that kind of work. Do you conduct energy audits of all buildings to identify energy savings projects such as these, and what criteria does GSA use for selecting building retrofits? What is that process?

Ms. JOHNSON. Thank you for that, and thank you for the comments about the building. Some of these projects are terribly exciting. It is good to see them.

We have a regional structure that has people across the United States, experts in both sustainability, energy design and, of course, building maintenance. One of the things that is important for us is that real estate is a local business. It is what is going on in that community and in that environment, in that weather, in that altitude. So, we need to take a number of factors into consideration as we consider which buildings to invest in and to assess.

But there is no question that one of the great things about the sustainability effort is that it asks us first for data. We need to know what we are talking about. We need to know the baseline we are working from or we cannot demonstrate performance improvement or make good decisions.

So, we do a fair amount of auditing and we are aware of our buildings and we survey and understand what is going on in them, look at the energy costs, look at what is happening to them, their age, their usage. One of the amazing things about buildings is that of course every day a couple of hundred little heaters walk into a building and walk out. They distort and change the environment all the time. We need to be monitoring very carefully to understand what is happening in those buildings. It is using that kind of data that helps us make our priority list.

Senator WHITEHOUSE. Is it systematized though so that you know that every single one of your buildings is at some point going to be triggered for a retrofit review?

Ms. JOHNSON. We have a process that, it is called re-commissioning. Every 4 years we look at the entire, every 4 years we look at buildings and we assess whether or not from the baseline——

Senator WHITEHOUSE. So this is baked into that 4-year process.

Ms. JOHNSON. Yes. It is a very, very rigorous systematic data base project.

Senator WHITEHOUSE. On the purchasing side, back in the 1990s there was an evaluation criterion for environmental performance on the Federal purchasing schedules which I understand was removed in a subsequent rewrite of the Federal Acquisition Regulation. It seems to me that it makes sense to help people who want to do business with the Federal Government, particularly small businesses, to be able to identify which products would be the most effective from an efficiency point of view.

Would you be willing to work with me and with the Chairman to develop a non-binding factor for the Federal schedule that takes into account energy and environmental performance?

Ms. JOHNSON. We would certainly be delighted to work on that. There are a number of ways of going about trying to figure out which products perform in what ways along a green scale. I think we are at a time when that whole conversation is unfolding. There are all sorts of ways of assessing the performance of products and it is a, it would be a delight to work on that with you. Yes.

Senator WHITEHOUSE. Good. My last question is that you are, the Federal Government, which you tend to administer behind, is the Nation's largest consumer of electronics and you dispose of around 10,000 computers every week. You have a task force working right now on your strategy for managing this electronic waste stream.

What are your initial thoughts at this point on where GSA can make an impact in managing that electronic waste which, as you know, has considerable metals and both potential hazards and potential opportunities from recycling and capturing the waste?

Ms. JOHNSON. Yes. E-waste is a huge and emerging critical issue and we are working with the EPA to figure out, in a partnership, how we can attack this problem. There is a lot of baseline that we need to do. We are expecting to issue our guidance and thoughts in May and that will, I will be happy to provide that to you so that you can understand where our thinking is.

It is about trying to figure out the entire stream, how do we, specify what we want to buy to put into the system and then how do we dispose of what we already have. There are enormous, there is toxic waste, there are precious metals that we should be recapturing rather than re-buying, and there is, of course, landfill considerations. There are international trade issues. We need to be sure this is a problem that we take care of here and not export.

Senator WHITEHOUSE. Well, we will followup in May once they are out and my time has expired so I will yield to Senator Inhofe.

Senator INHOFE. Thank you, Mr. Chairman.

As I mentioned in my opening statement, I have been concerned about the rating systems that are out there. It was 2006 that the GSA concluded that the LEED was the most appropriate rating system. I would ask you, what kind of steps have you taken since then? I know you have not been here all that time, but have you taken to look at other rating systems, other technologies?

Ms. JOHNSON. We have. Under the ESA, under the Act, we are asked to indicate a predominant system that we trusted and used. But we are asked also to review and reconsider every 5 years which one we are focused on.

LEED has been the one we have been using. We have also, however, been looking at Green Globe, and we are more than interested in finding out the usefulness and the applicability of any of these standards and performance measurement systems so that we can guide the asset management of our inventory better.

So, the bottom line is we are open to considering and always reviewing which systems steer us in the best directions, and we have a 5-year cycle that we are——

Senator INHOFE. Yes, I was going to mention that ESA is not just an encouragement to look in, you actually have a deadline of 2012, I think.

Ms. JOHNSON. Yes.

Senator INHOFE. Will you commit to a deadline of that 2012, as the regulations require, so that we can really get a chance to have a robust study of this system as opposed to others that are available and all that?

Ms. JOHNSON. Oh, absolutely. We think of this in two ways. One is that we want to be sure that we are guiding our own assets well. We are a major player in the real estate market. At the same time, we want to be sure we are signaling to the market because we are a big player and in spite of ourselves, we signal, that we are signaling with the best practices and the best data and the best performance measures.

So, yes, I completely commit to being rigorous in our review and being sure that we are steering both ourselves and the signals that we are sending about those kinds of——

Senator INHOFE. Let's get, I think between now and 2012 we could get some updates because things are moving pretty fast right now.

Ms. JOHNSON. They are. That is one of the reasons why this cycle is an important one to observe and not delay on.

Senator INHOFE. Yes. Now, let me ask you a question. I have been on this committee, well, actually, before coming here in 1994 I was on the same committee in the House, and I can remember so many different times you had to make these decisions as to are we talking about a new building as opposed to a renovated building, all these, it becomes very political. I have been guilty of that myself a few times, of looking and saying, what would benefit us the most.

In many of the boards and commissions that we have, Administrator Johnson, we have the opportunity to have a consulting group or someone, a board that we consult, to make determinations. Now, I know you do have a board in terms of green energy and technology that is moving and looking at the financial considerations. Have you given thought to, is there anything out there that would serve as a consulting group that you could talk to beyond just the GSA or within the GSA that could help make these determinations?

Because it is pretty heavy lifting when you are talking about having something over a period of time, when you write it off, all these considerations, like we do in the private sector because that is what I did in the private sector.

Ms. JOHNSON. Are you talking about disposal or are you talking about disposal of real estate or——

Senator INHOFE. Both. Creating new, if you are a, we went through the thing on transportation, I remember, some years ago, and the question is always do you take something that is existing right now and you go through a renovation, or do you build new? All of these proposals are out there, but the proposals are always coming from someone who, obviously, stands to benefit from it.

So, is there any group, or do you think there is any necessity for, a group to consult on these things? This would be a fiscal consultation.

Ms. JOHNSON. Yes. One of the joys of being in the real estate business is that you are involved in a lot of local stakeholdering that is——

Senator INHOFE. Yes, you are.

Ms. JOHNSON. One of the things that I have to say I am very proud of is that GSA, by virtue of its size and its history and the range of its portfolio, we have, I think, a tremendous expertise inside the organization that is then honed as we have to explain within the Administration and then to Congress how we are thinking about what building projects and so on. These are huge building projects and require, I think, that kind of scrutiny and care.

I am more than interested in being sure that our process is as robust as possible. I had not thought about a particular board or source of other input. I am happy to consider ways in which we can be getting the right kind of support and advice.

Senator INHOFE. Yes, yes, I think, and I am the last one to advocate a new board for anything around here, but I do know this, that it is even for your own protection because there are always accusations that certain groups are getting benefits. It is easier to talk about this before it comes up than afterwards.

Ms. JOHNSON. Yes, I think the governance of the process and the way you get expertise is ——

Senator INHOFE. Good. Thank you very much.

Ms. JOHNSON. Thank you.

Senator INHOFE. Thank you, Mr. Chairman.

Senator WHITEHOUSE. Thank you, Senator Inhofe.

Chairman Boxer.

Senator BOXER. Thank you so much.

I am so delighted to have this opportunity to see you again.

Ms. JOHNSON. It is good to see you.

Senator BOXER. The last time I saw you we were freezing.

Ms. JOHNSON. We were freezing.

Senator BOXER. We were freezing on the San Diego border with Mexico and we were there because there is a wonderful new crossing point that is being built at that border with Mexico because we have tremendous trade there and we have terrible, terrible congestion there. So the Administrator came out to beautiful San Diego and we froze that day.

It was cold. You know that song, It Never Rains in Southern California? Do not believe it all the time. It is not always true.

Senator INHOFE. Where is global warming when you need it?

[Laughter.]

Senator BOXER. Well, that is right. I needed global warming that day. Actually, we got it 2 days later, but that day it was freezing.

So, here is the thing. Do you know the cost of energy that the Federal Government from, the total cost? I saw it in one document and it was $24 billion a year. Is that accurate? Do your people know how much we spend on energy every year?

Ms. JOHNSON. Not if you include DOD. I think it is even greater if you include DOD.

Senator BOXER. Well, what you are in charge of?

Ms. JOHNSON. What I am in charge of?

Senator BOXER. Yes.

Ms. JOHNSON. Four hundred fifty million.

Senator BOXER. Four hundred fifty million a year?

Ms. JOHNSON. Four hundred fifty million for buildings a year.

Senator BOXER. OK, $450 million for buildings every year. So I want to point out that that is a lot and we also, you have to deal with water and all of the other activities that go on. Is that an electric bill? Does that include heating, cooling, what is that?

Ms. JOHNSON. That would be everything, yes, and that is about 10 percent of the Federal Government's overall usage.

Senator BOXER. Only 10 percent, GSA? OK, interesting. Is it fair to say that, well, it may not be fair to say, but is there any coordination, since you only are involved with 10 percent, where is the other 90 percent coming from?

Ms. JOHNSON. From DOD, I would assume.

Senator BOXER. Do you talk with them about any of this?

Ms. JOHNSON. Yes, we do. There can always be more and I know that they are embarking on a lot of different efforts. I am particularly in touch with the Navy because, of course, they are really very serious about their energy reduction so that they can spare themselves the costs and the security issues of carting fuel around.

Senator BOXER. Yes.

Ms. JOHNSON. So, the Navy is one of the places that I am——

Senator BOXER. I know the DOD is doing a lot. I was reading, Senator Inhofe, which is, this is totally your territory, but I am understanding that in foreign places we are looking to more solar, portable type of energy because it is so dangerous to move the fuel in some of these areas where we are in theater. So, I think that $24 billion is probably about right if you figure you are using 10 percent. Is that right? Does somebody have a calculator there? If $450 million is 10 percent, what is the rest of it? How do we get $24 billion?

Ms. JOHNSON. The $450 million, that is buildings. So then you add fuel for ships, vehicles, airplanes, it can add up quickly.

Senator BOXER. OK. Because the President used a $24 billion number and that is huge.

Ms. JOHNSON. That would probably be the whole thing then.

Senator BOXER. OK. So just the buildings, I want to go back again, 10 percent of the buildings, or 10 percent of the bill is $450 million that you are in charge of. Now, could you describe your role in implementing the Executive order of the President, both Presidents actually reduced it, saying the Federal agencies need to account for and reduce their energy and water use and pollution.

Ms. JOHNSON. We have a number of different roles. The first one, of course, is to see that we ourselves are efficient. That is GSA, for GSA. Then of course through our policies and our high performance green buildings organization, we are doing a fair amount of data gathering, analysis of best practices, running pilots.

Senator BOXER. Are you quantifying your savings?

Ms. JOHNSON. Yes, we are quantifying our savings.

Senator BOXER. Do you have any numbers for me as to what you are saving?

Ms. JOHNSON. I do not have any numbers right now, but I can certainly provide them.

Senator BOXER. When will you have the first accounting of the savings from some of the things you have been doing?

Ms. JOHNSON. Oh, I can get them for you this week.

Senator BOXER. That would be really good.

Ms. JOHNSON. I am just talking about quoting them off the top of my head.

Senator BOXER. No, I understand. Anybody behind you know those numbers of the savings?

Ms. JOHNSON. Some are real, some are projected and we will get you what we have.

Senator BOXER. Would you do that? That would be very helpful. I appreciate it, to get that this week and hand it on to my colleagues.

Do you have a goal of savings that you want to make out of this $450 million a year? What is your goal?

Ms. JOHNSON. Well, our goals are constructed in a number of different ways. We are looking at significant goals around energy consumption.

Senator BOXER. How much do you want to save? What is your goal of savings?

Ms. JOHNSON. We are aiming to save 30 percent in our energy consumption by 2015, by 2020, and we are looking to save 16 percent of our water consumption by 2020, and we are also looking at——

Senator BOXER. Off of what year's base?

Ms. JOHNSON. Two thousand and three.

Senator BOXER. OK. So I need to know what you have done so far. That would be, so you are going to get that to me on water, and on electricity.

Ms. JOHNSON. On waste disposal, we can do that, too.

Senator BOXER. Yes. That would be very, very helpful because frankly, we had President Bush and President Obama say this really key.

Ms. JOHNSON. Yes.

Senator BOXER. As we struggle to find our savings, and I think, if you could, so I will close with this. I mean, I think if you could be a model and learn from the private sector, which you said you are doing, it is terrific because if we can do it here and it works, then best practices can go out to, for example, city governments, county governments. If you tally all the buildings that are run by government at every level and they all became cost effective and efficient, this is a good thing, I think.

So, we are looking to you. I am going to look to you as Chairman of this committee for these answers and we are going to talk to you every few months about it and it probably, with the Chairman of the subcommittee with his leadership, I think this is key. So, I am hoping we can do this again in about 6 months and see where you are at that time.

Thank you, Mr. Chairman.

Senator WHITEHOUSE. Thank you very much, Chairman Boxer. Senator Boozman.

Senator BOOZMAN. Thank you, Mr. Chairman. Thank you, Ms. Johnson, for being here.

The LEED rating system discriminates against the use of most American wood products. So GSA, using the LEED system, discriminates. Can you tell me why?

Ms. JOHNSON. I cannot tell you exactly why. I can say that we are looking at the LEED system to be sure that it is setting us up for success on all the dimensions that are environmentally fragile that we need to be paying attention to.

Certainly, the understanding that I have about wood is that the wood content in GSA buildings is too little for us to use a LEED point for certification. But we can certainly, so we are not trying to set limits on the choices of wood supplies through that standard. So, it is about a sizing issue, I understand. But I can supply a little bit more for the record to, to verify that.

Senator BOOZMAN. No, I think that is important because I think it is clear that LEED does discriminate and that you all are discriminating and that most of the wood products produced in the United States do not qualify. I would argue that certainly wood is very environmentally friendly, it stores carbon, and so I guess the other thing is that as you do the study, the review process that is done, are you going to have a public comment or are you going to be able to have it put in that way?

Ms. JOHNSON. OK, I understand that the Secretary of Energy will do a public comment. So yes, there will be some public comments possible, absolutely.

Senator BOOZMAN. Very good. So, you are looking into the wood.

Ms. JOHNSON. Thank you very much.

Senator WHITEHOUSE. Senator Cardin?

Senator BOOZMAN. I am sorry. Can I reclaim for just a second. If that is the case after looking into it, how can that be changed?

Ms. JOHNSON. Well, the LEED, LEED specifically is not a government measurement. It is managed by a not-for-profit organization. So, it is not necessarily for us to change, but we can——

Senator BOOZMAN. No, but how can you change the fact that that is what you are using exclusively?

Ms. JOHNSON. Oh, well, we are under a five-year cycle in which we are committed to reviewing our use of whatever performance measurement standards we are setting up. We are currently in the middle of that and in 2012 we will be deciding what we should be——

Senator BOOZMAN. So, you could administratively say, if you agreed that wood was a problem, you could administratively say that we are going to continue to use LEED but also we want to use more of this product or that product?

Ms. JOHNSON. I think our——

Senator BOOZMAN. I mean, you are not locked into this legislatively.

Ms. JOHNSON. No. We are asked to promote good performance measures and in that sense we have looked to LEED over the last period of time and we are in constant review of that and we are in a specific 5-year cycle review of it. I think it is important for us to be as open as possible about what we understand about these

techniques and tools so that the rest of industry can understand why we are leaning in the way we are.

Senator BOOZMAN. Right. But if you wanted to, tomorrow you could change your rule? I mean, this is your rule.

Ms. JOHNSON. Well, we can certainly, yes, we can change, we can change it. What we want to do is be sure that we are in concert with the Department of Energy about it. The National Labs are involved in helping us to do these reviews. We are in the business side. They are in the science side. I want to be sure that we are in good alignment with them. So, it is not like I want to act like a solo player on that.

Senator BOOZMAN. OK. Thank you.

Senator WHITEHOUSE. Senator Boozman is the Co-Chair of this hearing. I would be very interested in working with you and with Ranking Member Inhofe and the Chairman on that issue.

Senator Cardin.

Senator CARDIN. Thank you, Mr. Chairman. Again, welcome, Administrator.

Let me just make one comment about LEED certification. One of the things that we are pretty sensitive about in Congress is to make sure that what we do as Federal agencies are in compliance to what we would expect in the private sector. It is interesting that in the private sector, LEED certification seems to be the most popular use.

So, I think before the Federal Government charts out on a different standard, that it is important that we be in compliance with what is generally accepted in the private sector. I think that it is an important point. Because otherwise it looks like we are exempting ourselves or using special rules, which I think the public does not want to see from the Federal Government.

But let me point out, in your statement you said you want to root out waste. Yes, I will bring up the Federal Courthouse, but not for your specific reply to that, but I am convinced that if this was a privately-owned structure doing private business that it would be knocked down and rebuilt or the owner would sell it and move on to a new location because the budgeting in the private sector does not have the same restraints that we have in the public sector.

Now, you cannot change the budget rules that we have. Only we can do that. But it makes no sense to pour good money into a structure that is costing us a lot of money and waste. Although it may make sense in your annual budget, it does not make sense for the taxpayers of this country.

I just think you have a responsibility to inform us when you have facilities that really need replacement or significant change and that yes, you have to comply with the budget rules and the budget money that you receive. But we need your guidance to root out waste.

I would hope that you would take a look at a building such as the Federal Courthouse in Baltimore and give us your recommendations as to whether it makes sense to put in the tens of millions of dollars that are going to be necessary for renovation or whether it is time to consider putting it on replacement. I would just urge you to take a look at that and work with us so that we can respect the best interests of the taxpayers of this country.

Ms. JOHNSON. I would be delighted to. I would also just like to mention that the sustainability agenda is a tremendous tool for the leaders of organizations because it is about finding the waste. It is about the culture of the organization and the forward leaning that we need to do in order to act on all accounts to be sure that we are not wasting money or making poor decisions.

Clearly, the asset base that we have as part of, in our real estate portfolio, is one that has at times gotten a little long in the tooth and a lot of that needs to be aired, understood, and I do think we need to be in close dialog about it. I would welcome the opportunity to work in that vein, absolutely. Thank you.

Senator CARDIN. Thank you very much. I want you to bring us up to date as to how the Federal Government is in compliance with the best practices on stormwater runoff on their new facilities. I want you also to comment to me whether we, what we are doing when we are doing the lease to suite or are using existing facilities as to how we are sensitizing the developer as to their needs in regards to storm runoff issues.

Ms. JOHNSON. Stormwater runoff is a tremendous issue, as you have pointed out. I am happy to say that all new construction and all major repair and alteration projects have the pre-development hydrology provisions that are included in the 401 Recovery Act Projects.

But I will also say that we are really, as an organization, we are quite committed to stormwater runoff work and I am happy to say that internally we have sort of gone through all of our constraints and our loops that we needed to go through and we will be paying the fees for the stormwater runoff in the Washington area. So, I just wanted to be sure you knew we were talking with money as well.

Senator CARDIN. Well, I thank you for that. I would hope that you would keep us informed as to how the provisions in law that require you to use best practices are affecting your building decisions, I mean, whether it is cost effective, whether there are other things that we can do, and whether we have any concerns as to the landlords we deal with in complying with best practices as it relates to stormwater issues.

Ms. JOHNSON. All right.

Senator CARDIN. If we need to change policy here or at least reflect upon the policy, we need to have that information from your Agency.

Ms. JOHNSON. I think one of the wonderful things about GSA is that we are on the front line so we can see how policy is playing out and we are happy to share our observations and our understanding as a result of that.

Senator CARDIN. Thank you very much.

Thank you, Mr. Chairman.

Senator WHITEHOUSE. Senator Merkley.

Senator MERKLEY. Thank you, Mr. Chairman, and thank you, Administrator Johnson.

One of the things that I would find very helpful is to see how the GSA has ranked the cost effectiveness of strategies. In other words, is the very most effective thing you can do per money spent is, the White Rose Initiative, are you familiar with that concept

where essentially you have white colored roofing material, it reflects heat and therefore greatly reduces cooling costs? Is that more cost effective than putting photovoltaic on the ceiling or adding insulation?

Because I think there is just kind of a thirst for being smart about what we do. I do not see anything in your testimony that gives any sense of any sort of cost effectiveness ranking effort. I suspect that has gone on, but do you want to share a little bit about that?

Ms. JOHNSON. Yes, we are eager to understand what we are saving when we are engaging in some of these new techniques or tools or products or services. I will say the market is rather immature on understanding all that performance. So, we are sort of at the beginning of gathering the data and understanding it. Where we know it, it certainly needs to play into our decisionmaking.

This is a complex portfolio and just the dimensions of it, is it energy or stormwater runoff or recycling or waste disposal, what are all the tools and techniques and how do we balance, where do we put our energy? I would say we are getting smarter by the day about tradeoffs. But it is not like a pair wise comparison where these two things, one is more efficient than the other, then you have a whole other dimension you are working on.

So, it is a portfolio management problem. I think that we are pretty smart about portfolios. But it is multidimensional. So, it is hard to have one checklist to say, go there first and go second.

Senator MERKLEY. No, I certainly understand that. But in terms of a lot of these technologies around saving energy, and a lot of them around greenhouse gases, and understanding kind of how for what we invest we get back, even if it has multiple dimensions, would be very helpful because if it turns out that one technology is twice as cheap on the energy front and three times as effective on the greenhouse front but we are doing something different because some of us thought it was a good idea, that may not be, we would like to put a little more science behind this, which is something I think you have already expressed.

Ms. JOHNSON. Yes. The Energy Star Program was a good example of it, helping consumers to be informed consumers around energy consumption of the appliances that they were buying. I think that we would like to work toward those kinds of, more, of intuitively understandable tradeoffs about cars, about buildings, about systems. We play a part in that.

Senator MERKLEY. Do you have any aspect of your efforts that is related to vampire electronics, that is, that so many of our electric appliances utilize energy when they are not in use, and Europe, I think, is far ahead of the United States on this, but when something is sitting there humming when it is not being used and it could be programmed differently? Even chargers. I just saw one cell company advertising that its charger will turn off when there is no load on the transformer. Very simple, very straightforward and saves on electronics. If you are not familiar with that term vampire, I mean it kind of represents the bleeding of electricity in a harmful way.

Ms. JOHNSON. Well, it makes the point. We are really, in our buildings, trying to look at tight metering, the sub-metering, so

that we can understand what is going on in rooms rather than just in the whole building. So that is one way in which we are trying to get more precise.

As I travel around the country, I was recently in Silicon Valley, and talking to people who are, there are dozens of these kinds of products coming out and we need to be on the front edge of knowing them and then being sure that we are offering them for the Federal buyer.

Senator MERKLEY. I have to say I am guilty of leaving my cell phone charger plugged in behind the dresser day in and day out, and I would love to have a version that shuts off when I unplug my phone.

Ms. JOHNSON. As would I.

Senator MERKLEY. A couple of other things I wanted to mention. I know I am running out of time here. One is that the 100 plug-in vehicle goal does not sound very aggressive for the size of GSA. There is in your testimony, GSA is looking for innovative technologies in alternative fuel vehicles and would like to initiate a pilot to lease 100 plug-in electric vehicles in five cities across the United States.

The Fiscal Year 2012 budget proposes language that would allow GSA to acquire motor vehicles that operate on emerging clean-burning technologies. Now, I am not sure if clean-burning technologies is related to the source of electricity or actually fuel combustion in a car, but you are impeded by a statutory price limitation clause. I am assuming that clause does not take into account the life cycle costs of operating vehicles. But why is the initiative so small and how does the clean-burning technologies relate to the plug-in electrics?

Ms. JOHNSON. We would like to initiate a 100 car pilot project with plug-in electric vehicles. These are new items in the American economy. But we cannot purchase them because right now the statutory price level is set so that we cannot get our hands on it.

When you run pilots, you find out what is in your way. This is one of the things that is in our way. Then when we can, we hope to launch with 100 and see what the challenges are and how do we synchronize the plug-in capability with the vehicles and how do we figure out how one would deploy this.

There are a lot of questions that we need to get through and I think 100 is just literally a starting place.

Senator MERKLEY. My time is out. I would love to followup on that. I would love to echo the concern about the standards in which one standard really looks at, the LEED standard looks at energy conservation at the point and therefore discriminates against wood, where if you look at the life cycle of wood versus concrete and steel, you find significant life cycle savings.

The good thing is we are debating among fine tuning standards as opposed to whether or not to utilize standards. So, it is a, we are moving quickly in the right direction and thank you.

Ms. JOHNSON. Thank you.

Senator WHITEHOUSE. Let me thank the Administrator for her testimony today. I appreciate very much that you took the trouble to come up and you are excused onto your other duties and I will call up the second panel.

Ms. JOHNSON. Thank you so much. It was a pleasure.

Senator BOXER. Administrator, as you are leaving, I really need those numbers. Thank you.

Senator WHITEHOUSE. Let me welcome all of you to our second panel. I appreciate very much that you are here. I will ask, I will do a brief introduction of each of you and then we can take the testimony all the way through and then have questions at the conclusion of all of your testimony.

I would urge you to pay attention to the little light in front of you that lets you know when your time has expired. Your full testimony will be a matter of record, but as a courtesy to the members and to each other, if you could try to comply with the time restrictions, that would be much appreciated.

Mr. Sindelar will be our first witness. He has served as Client Industry Executive for HP Enterprise Services since 2007, supporting the U.S. public sector with a major focus on sustainability, Smart Grid and cloud computing.

Previously, he was the Deputy Associate Administrator for the Office of Governmentwide Policy. Before that, he acted as Acting Associate Administrator for OGP. As Acting Associate Administrator, Mr. Sindelar directed an office with a policymaking role for information technology and accessibility, electronic government, smart cards and other emerging technologies.

He received a Bachelor's Degree in Business Administration at the University of Maryland.

We are delighted that he is here and why don't I ask you to begin with your remarks, Mr. Sindelar.

STATEMENT OF JOHN SINDELAR, CLIENT INDUSTRY EXECUTIVE, HP ENTERPRISE SERVICES

Mr. SINDELAR. Good morning, Senator Whitehouse and other distinguished committee members. Thank you for the opportunity to testify on behalf of HP Enterprise Services. It is an honor to be here today.

HP is the largest IT corporation in the world with over 325,000 employees in more than 170 countries. As a major producer of products, energy is the significant cost driver, in many parts of the world a scarce resource. Therefore, we must manage those costs to keep our products competitive in the marketplace. This fact brings our commercial practices in line with the Government's desire for improved energy use resulting in a cleaner environment.

GSA, as the major procurement agency for the Federal Government, is tasked with helping to procure energy efficient and environmentally-friendly products, and we have the same goal. Further, both HP and GSA are committed to sustainability by reducing energy consumption, increasing the use of renewable energy, consolidating real estate and data centers, greening our supply chain, and leveraging the acquisition of sustainable technology products and services.

Adding to this portfolio, HP includes cloud computing, telework, telepresence, applications modernization and shared services as key organizational strategies to lower the carbon footprint.

HP has proactively addressed most of these areas for 20 years or more. As a result, HP long ago learned that the green way is the

way to optimize costs, reduce waste, increase energy efficiency and be environmentally responsible. I will touch briefly on some of these areas.

HP understands that operational sustainability is nearly synonymous with energy use and a catalyst for innovation. On March 10, HP established a new line of business, Energy and Sustainability Management, that leverages our data center energy efficiency and now applies it to facilities.

We know that organizations that can see their total energy spent and address priorities for reducing consumption can save 10 to 30 percent of their energy costs because we have seen those savings our self. We urge GSA in their acquisition process to emphasize the energy side of the sustainability equation as a best practice that will result in the Agency spending less on energy and more on their mission.

In renewable energy, HP continues to set aggressive goals to buy more energy from renewable resources such as wind and solar. In 2009, HP purchased 3.6 percent of its electricity from renewable sources and in 2010 we surpassed our goal of 8 percent by the end of 2012.

HP is in the third year of implementing its Global Workplace Initiative. This initiative captures under-utilized space that results from an increasingly mobile work force which now, through enabling technology, is no longer tied to a desk. It has allowed HP to reduce its real estate portfolio from a baseline of 30 percent and operating costs by 25 percent. The environmental attractions are many.

HP has the industry's most extensive supply chain with more than 700 production suppliers in over 1,200 locations worldwide. For over 10 years, HP has embraced the challenge of raising standards in our supply chain through our Social and Environmental Responsibility Program with positive results. We are aggressively addressing ways to lower supply chain costs and reduce greenhouse gas emissions in manufacturing, packaging and transportation. Likewise, we urge GSA to be aggressive in greening their supply chain.

HP was the co-founder of the Electronic Industry Citizens Coalition established to provide a code of conduct for the global electronics supply chain and improve working conditions and the environment. HP is partnering to develop sustainability standards with EPA and DOE as well as organizations represented at this table and the World Resources Institute.

HP embeds these standards throughout the life cycle of its products including leadership in Energy and Environmental Design, LEED, certified data centers and an end of life asset management program second to none. In fact, HP complies with over 100 eco-label standards worldwide.

In that regard, HP supports a collaborative approach in the development of standards between industry and Government to keep costs as low as possible. As these standards are finalized, we advocate that GSA incorporate them in a meaningful way as part of the acquisition process as an incentive for industry investment.

This concludes my opening statement and I look forward to your questions.

Thank you.
[The prepared statement of Mr. Sindelar follows:]

Testimony – Long Statement
Senate Committee on Environment and Public Works
Subcommittee on Oversight
March 30, 2011

John Sindelar
Client Industry Executive
HP Enterprise Services

Good morning Madam Chairwoman and Distinguished Committee Members. Thank you for the opportunity to testify on behalf of HP Enterprise Services regarding GSA Opportunities to Cut Costs, Improve Energy Performance, and Eliminate Waste. It is an honor to be here today and a pleasure to join with my panel members in addressing this important topic.

HP is the largest IT Corporation in the world with over 325,000 employees in more than 170 countries. As a major producer of products, energy is a significant cost driver, in many parts of the world a scarce resource, therefore we must manage those costs to keep our products competitive. This fact brings our commercial practices in line with the Governments desire for improved energy use resulting in a cleaner environment. GSA as the major procurement agency for the Federal government is tasked with helping to procure energy efficient and environmentally friendly products and we have the same goal. Further, both HP and GSA are committed to sustainability by reducing energy consumption, increasing the use of renewable energy, consolidating real estate and data centers, greening our supply chains, and leveraging the acquisition of sustainable technology, products and services. Adding to this portfolio approach, HP includes cloud computing, telework, telepresence, applications modernization and shared services as key organizational strategies to lower the carbon footprint. HP has proactively addressed most of these areas for 20 years or more. As a result, HP long ago learned that the "green way" is ***the*** way to optimize cost, reduce waste, increase energy efficiency, and be environmentally responsible. I will touch briefly on some of these areas.

HP understands that operational sustainability is nearly synonymous with energy use and a catalyst for innovation. This month HP established a new line of business -Energy and Sustainability Management (ESM) – that leverages our data center energy efficiency and applies it to facilities. We know that organizations that can see their total energy spend and address priorities for reducing consumption can save between 10 to 30 percent of their energy cost because we have seen those savings ourselves. Delivery of the new ESM offering includes a discovery workshop, a tailored roadmap to energy efficiency, base lining services, deep dive analytical tools for comprehensive measurement and recommendations, and transitioning to real time energy monitoring. We applaud GSA's Smart Buildings initiative and urge GSA in their acquisition process to emphasize the energy side of the sustainability equation that will result in agencies spending less on energy and more on their mission.

In renewable energy, HP continues to set aggressive goals to buy more energy from renewable sources, such as wind and solar. In 2009, HP purchased 3.6 percent of its electricity from renewable sources with a goal of 8 percent by the end of 2012.

HP is in its third year of implementing the Global Workplace Initiative. This initiative captures under-utilized space that results from an increasingly mobile workforce which now through enabling technology is no longer tied to a desk. The program is beginning its final year of a three year program to reduce the size of our base-line real estate portfolio by 30 percent and operating cost by 25 percent. We are currently 90 percent of the way to achieving these goals. There are many contributors to the space and cost reduction including the consolidation of key activities such as engineering, training, and data centers, the outsourcing of facility operations, and improvements in procurement practices. But by far the largest reduction of space is attributable to a redefinition of the space standards. This includes a heavy adoption of mobile working practices – in federal parlance telework. The environmental attractions have been many: less heating, cooling and energy use, less commuting for employees and less need for additional space. Furthermore, a portion of the savings has been set aside to improve the quality of the remaining workspace. This investment includes sustainable adaptive re-use of existing conditions, improvements in energy efficient building systems, and the use of environmentally friendly materials throughout.

Similarly, HP's consolidated its IT infrastructure of 85 data centers to 6 energy efficient data centers located in 3 communities supporting HP's internal requirements. The data center consolidation alone reduced IT spending by $1 billion annually while our business continued to expand. The HP data centers are designed to be "lights out" data centers capable of being managed remotely.

HP has the industry's most extensive supply chain with more than 700 production suppliers in over 1200 locations worldwide. For over 10 years, HP has embraced the challenge of raising standards in our supply chain through our social and environmental responsibility (SER) program with positive results. In 2008, we were also the first major IT company to publish an aggregated supply chain green-house-gas emissions report. Throughout our supply chain, HP's strategy is to encourage transparency, accountability, and performance improvement. We want suppliers to manage energy as effectively as we do, setting targets, disclosing performance, and engaging their own suppliers. Improving their energy efficiency and increasing the use of renewable energy will reduce their operating costs and green-house-gas emissions. We continue to aggressively address ways to lower supply chain cost and reduce green-house-gas emissions in manufacturing, packaging, and transportation.

For example, in transportation HP uses the best-in-class logistic service providers (LSPs) to transport our products. These LSPs maintain their own programs and initiatives to help reduce their environmental impact as well as that of HP. Our requirements include environmental criteria such as calculating green-house-gas emissions specific to HP's freight and developing proposals to help HP reduce carbon emissions. Secondly, we are continuing to convert shipments from air to ocean which reduces cost and green-house-gas emissions because ocean

shipment emissions per ton of product are only 1/60th of those from aircraft. Third, we continue to optimize distribution networks to decrease the distance that products need to travel, consolidate shipments, reduce the weight of packaging pallets by using plastic and then recycling them after use.

HP was the founder of the Electronic Industry Citizen Coalition (EICC) established to provide a code of conduct for the global electronics supply chain and improve working conditions and the environment. HP is a partner in developing sustainability standards by working with EPA and DOE as well as organizations like World Resources Institute, U.S. Green Buildings Council, and the World Wildlife Fund. HP embeds these standards throughout the lifecycle of its products and services including Leadership in Energy and Environmental Design (LEED) certified data centers and an end of life asset management program second to none. In fact, HP complies with over a 100 eco-label standards worldwide. In that regard, HP strongly supports a collaborative approach in the development of standards between industry and government to keep cost as low as possible. As these standards are finalized, we also advocate that GSA incorporate them in a meaningful way in the acquisition process as an incentive for industry investment.

HP is proud of its long record of accomplishment in sustainability. All lifecycle phases of our products and services are evaluated starting with our Design for the Environment program beginning in 1992; to efficient packaging and shipping; to operational efficiencies in energy and resources; to our end-of-use options under the Planet Partners program. As result, a brief overview of our accomplishments follows:

- In 2010, HP reduced green-house-gas emissions by 25 percent below 2005 levels, a year ahead of the target of 2011. With acquisition of EDS in 2008 resulting in the addition of 465 sites, the new goal for HP owned and HP leased facilities is 20 percent below the 2005 on an absolute basis by 2013.
- HP is close to recycling an accumulative 2 billion pounds of IT equipment and supplies.
- HP's Wynard data center in the UK that opened in February 2010, is one of the largest and most efficient data centers in Europe. It has a PUE rating of 1.2, 40 percent below the industry average – saving HP an estimated $4 million a year.
- Design and construction administration of the first LEED certified data center: Fannie Mae (250 sf Data Center, Office Building, and Operations Center)
- Client LEED Certified Data Centers (designed by HP Critical Facility Services) – 31 including 5 platinum and 15 Gold.
- Recent Recognition: Newsweek ranked #1 High Tech Green company of the Fortune 500 in 2009
- Ranked #1 Best Corporate Citizen by Corporate Responsibility magazine 2010
- Ranked #1 in Electronics Sector by ClimateCounts.org in 2010
- Fortune's one of ten Green Giants in 2007

Senator WHITEHOUSE. Thank you very much, Mr. Sindelar.

Our next witness is John Bautista, Vice President of New Business Development at Arrowhead Systems Incorporated, a veteran-owned small business employing approximately 250 employees at two Wisconsin manufacturing plants.

The company is comprised of three divisions, the Busse material handling division, did I pronounce that correctly?

Mr. BAUTISTA. That is correct.

Senator WHITEHOUSE. Arrowhead conveyor division and A & B Engineering. We are delighted to have you here, Mr. Bautista, and are eager to hear your testimony.

STATEMENT OF JOHN BAUTISTA, VICE PRESIDENT, NEW BUSINESS DEVELOPMENT, ARROWHEAD SYSTEMS, INC.

Mr. BAUTISTA. Good morning, Senators, thank you very much for allowing me to testify.

Our customers are predominantly Fortune 100 companies. Our products can literally be found on every continent around the world. Recently we decided to diversify into the spray foam insulation business and that will create five new jobs in 2011.

Our business model is straightforward and simple. We are very serious about our responsibility to our customers, creditors, employees and the environment. So, we strive for excellence and work very hard to minimize our costs because we have to as a small business.

We have recently been asked to participate in the GSA small business pilot program to reduce our carbon footprint. Our motivation for participating in this program has been to collaborate and exchange best practices and ideas with other pilot program participants.

We also see that we have ourselves a competitive advantage because we are able to put ourselves outside of the rest of the customers that we deal with. So, some of our customers are already Tier One Government contractors so we are, therefore, subcontractors and look to help GSA facilitate their sustainable goal in acquisitions.

Some of the contracting opportunities that we see are part of this initiative is because GSA's rewriting the purchasing powers into new rules. We want to add the Federal Government as a contractor as well. These new rules equal opportunities for us. So, because of the small company that we are and we have established policies and procedures and products and services that we feel the Federal Government can use, we feel that it is a great fit.

Another reason for our participation in the program is because it makes business sense for us. We exercise cost savings opportunities as we go through this and our employees are very enthusiastic in participating in this program.

Some of the initiatives that we have been able to achieve is using recycled steel in our manufacturing where possible. We use more efficient motors that consume less energy and we also use sophisticated controllers that very carefully control energy consumption. We have also taken steps to reduce energy consumption by installing more efficient lights in both plants and we have committed to

spraying our own plants with polyurethane foam to improve the insulation in the building envelope.

Having said all of this, our participation is not without challenges. In some of the challenges we see, there is a hard dollar cost associated with attending meetings and participating in the program. Another challenge for us is return on investment and payback. For us, a good return on investment and payback are 10 percent and no more than 24 months, respectively. Currently, some of these green technologies fall significantly outside of this window.

As I mentioned, we can offer sustainable options in our manufacturing to our customers. However, these customers have to be willing to pay the added costs associated with sustainable upgrades to their products.

That concludes my comments and I look forward to your questions.

Thank you.

[The prepared statement of Mr. Bautista follows:]

Testimony Prepared for:

United States Senate

Committee on Environmental and Public Works and its Subcommittee on Oversight

Hearing on "GSA Opportunities to Cut Costs, Improve Energy Performance, and Eliminate Waste."

Wednesday, 30 March 2011

John Bautista

Vice President, New Business Development, Arrowhead Systems, Inc.

Company background

Arrowhead Systems, Inc is a verified veteran owned small business. The company employs approximately 250 employees at its two Wisconsin manufacturing plants.

The company is comprised of three divisions. The Busse material handling division, and our aftermarket division - A & B Engineering are both located in Randolph, WI. Each has been in business since 1946 and 2007, respectively. The Oshkosh, WI location houses the Arrowhead conveyor division and it has been in operation since 1963.

Chances are that a consumer product you use has either been conveyed, wrapped, unwrapped, chilled, warmed, rinsed, palletized, de-palletized; or otherwise handled by one of the pieces of equipment we manufacture. Additionally, you'll find our equipment in every continent. We go wherever our customers are; and some of our customers include:

- Abbott Laboratories
- Absopure Water
- Amcor Beverage cans
- Anchor Glass
- Anheuser-Busch
- Ball Corporation
- Ball Europe
- Baxter Healthcare
- BP Lubricants
- Campbell Soup
- Coca-Cola
- ConAgra
- CPMC (China)
- Crown Beverage Cans Ltd (Hangzhou)
- Crown, Cork, and Seal
- Crown Embalagens SA
- Del Monte
- Diageo
- E & J Gallo
- Exal Corp
- Ford Motor Company
- General Mills
- General Motors
- Grupo Jumex
- GZ Industries (Africa)
- H. J. Heinz
- Proctor and Gamble
- Johnson & Johnson
- Joseph E Seagrams Bottling
- Kellogg's
- Kimberly-Clarke
- Kraft Foods
- Longhorn Glass
- Lotte Aluminum
- M & M Mars
- Mahmood Saeed Cans
- Miller-Coors Brewing
- Morocco Beverage Can
- Nabisco Brands
- NDH Technical Services (Iraq)
- Nestle Purina Pet Care
- Parmalat
- Pepsico, Inc
- Perrier
- Proctor and Gamble
- Quaker Oats
- Rexam Containers
- Sara Lee Foods
- S. C. Johnson Wax
- Schreieber Foods
- The Gillett Company
- United Can Company
- Welch's
- Whirlpool Corporation

Strategic decision to diversify

After several years of research; in 2010 we made the strategic decision to diversify into the insulation business. We have positioned ourselves as a full service insulation provider primarily focused on the domestic commercial, institutional, government, and residential markets. We will carry the full line of insulation products. However, we will primarily focus on spray polyurethane foam because of its superior properties and performance. Our goal is to provide up-grade and retrofit solutions in our target markets at a cost that provides the greatest insulation benefit per dollar.

The timing for our new business venture couldn't be better. The awareness to reduce energy consumption in the building envelope is on everyone's radar. We will leverage our proven corporate track record to provide insulation solutions that are grounded in building science. This new business will create five jobs in 2011 alone.

Business model

We have a straightforward business model:

1. Know your costs,
2. Integrity in words and actions,
3. Do what you say you're going to do - execute,
4. Bad news first,
5. No surprises/excuses,
6. Exceed customers expectations,
7. Manage resources wisely,
8. Be safe,
9. Cash, cash, cash.

We take our responsibilities to our customers, creditors, employees, and the environment very seriously. We have weathered some very difficult economic cycles. We've done so predominately because we've cultivated a culture that strives for excellence. We also work very hard to minimize waste in everything we do. We are either number one or two in the material handling market because of our uncompromising adherence to our core principles.

Developing a relationship

1. *GSA Pilot Program.* We are one of 60 small businesses that have volunteered to identify and inventory their sources of green house gas emissions. We will pledge a GHG emission reduction goal once our team completes the review of our GHG emissions. We anticipate that we will submit our plan to GSA no later than May 2011.

2. *Executive Order 13514.* We were invited to participate in the one day GreenGov Supply Chain Summit because of our participation in the pilot program. The summit was held on 16 November 2010 in Chicago and was hosted by Nancy Sutley, Chair, White House Council on Environmental Quality; and Martha Johnson, Administrator, U.S. General Services Administration. Among other goals, E.O. 13514 called on GSA to lead the development of recommendations for greening the Federal supply chain and reducing greenhouse gas pollution. The summit focused on how the private sector could move forward with the Federal government to achieve these goals.

3. *Senate hearing.* A milestone in our participation in the GSA pilot program has been our invitation to testify before the U.S. Senate Committee on Environmental and Public Works and its Subcommittee on Oversight. For a small business, and perhaps for any business, the task at hand is both hugely complex and immensely challenging: "examining how the Federal government can eliminate waste, cut costs, and improve energy and environmental performance through improved building management and purchasing, while promoting sustainability and performance in products and services provided to the Federal government by the private sector." Notwithstanding, we welcome the opportunity to help the Federal government with this challenge.

Motivation to participate

1. *Collaboration.* The 60 small business participants were invited to the 16 November 2010 summit that was held in Chicago. Some large prime contractors were in attendance as well. We had an opportunity to exchange ideas and best practices during the event; but most importantly, some of the challenges associated with participation were identified. The specific challenges are addressed below.

   GSA and EPA have also sponsored several webinars to educate the participants on GHG inventory collection strategies. In fact, a telephone help line has been established to assist us with completing our inventory.

2. *Competitive advantage.* We are grateful for the business opportunities which we have had. Some of this business has been a result of good fortune. However, the vast majority of it has been earned because we follow our business model and remain focused on our core principles. Some of our customers are prime contractors; therefore, that makes us subcontractors. GSA identified its "sustainable acquisition goal (2.2.8)" in their 2010 – 2015 Strategic Sustainability Performance Plan:

   > "By FY 2011, GSA will ensure that 95% of new contract actions, including task and delivery orders under new contracts and existing contracts, require supply or use products and services that are environmentally preferable."

   Our proactive participation in the GSA pilot program sends the right message to our customers about our commitment to them and the environment. In fact, one of our biggest customers, Proctor and Gamble announced their sustainability plan during the latter half of 2010. In short, we believe that participation in the GSA pilot program sets us apart from our competition.

3. *Contracting opportunities.* The GSA is using their purchasing power to write new rules for participating in the Federal market place. We view this as an opportunity because of our established practices and procedures, but also, because of our financial critical mass as compared to other small businesses. It bears mentioning that there's a difference between financial health and unlimited resources. We work very hard to simply maintain the former.

   As I've previously mentioned, we're already a subcontractor. However, conspicuously missing from our customer list is the Federal government. We can certainly design a material handling solution directly for the Federal government that meets the sustainability criteria. But equally as important, we can help GSA achieve its "high-performance green building sustainable design goal (2.2.4)." One of the key tenets of this goal is the reduction of energy consumption by their buildings through cost effective building strategies.

Motivation to participate

A cost effective strategy that would help GSA achieve this goal is to apply spray polyurethane foam to new construction, renovations, and other planned building modifications. Several spray polyurethane foam insulation contracts have been awarded by various agencies. Consequently, the Federal government is already realizing the benefits associated with the superior insulation properties of spray polyurethane foam. Because of our new business venture, we can perform on this type of contract and offer the added benefit of being a small business that's aligned with GSA's strategic sustainability plans.

4. *Business case*. Future contract opportunities aside, it does make business sense for a company to inventory their sources of GHG emissions, and set a reduction goal. In its simplest form, the exercise amounts to an evaluation of cost savings opportunities. There will be low hanging fruit that requires minimal capital outlay. There will also be more complicated green/sustainability initiatives that require sophisticated decision models and substantial investments. Either way, companies will have to carefully weigh their financial positions and monitor their business metrics to ensure their predictions shake out at an acceptable business level.

   One could also make the business case that employees may find that participating in the pilot program is both interesting and stimulating. In fact, that was the case for our organization. Our solicitation for volunteers to help with the various inventories resulted in a better than expected response. Individual company staffing levels will drive the response to a large degree. We run a lean operation, and everyone has more than enough on their plate which is why the enthusiastic response for help was a pleasant surprise for us. Our employees are also keenly aware about the environmental and resource challenges we all face. This last point also explains their enthusiasm.

Accomplishments and initiatives

We use a lot of metal, motors, plastic, and other components in our finished manufactured products. We have used recycled steel where possible and more efficient motors that consume less energy. We have also used sophisticated controllers that sense a need to slow down or speed up; and they can also enter a sleep mode if necessary. The technology is certainly there for us to offer a greener more energy efficient product.

Prior to the joining the pilot program we took steps to reduce our energy consumption by installing more efficient lights in both plants. I mentioned that our team will meet to set a reduction goal prior to submitting our GHG emission inventory to the GSA. This will give us an opportunity to review all our opportunities to reduce our GHG emissions.

Accomplishments and initiatives

We've committed to spraying our own plants with polyurethane foam as part of launching our insulation business. This is certainly putting our money where our air leaks are. This is an example of the business decision that involves a significant capital outlay.

Challenges

1. *Talent.* The majority of our leadership team has come from publicly traded companies. Some also have strategic level government experience. We are fortunate to be able to attract and retain the talent we currently enjoy. This level of talent may or may not be present at some of the other small business participants of the pilot program. The talent depth of an organization is critical because as I already mentioned, the problem we're attempting to solve is both hugely complex and immensely challenging. Talented people that are good problem solvers with a solid business mind are needed to tackle some of the issues we've identified.

2. *Collateral issues.* Few, if any, small businesses can afford to staff their organization with someone who performs one or two functions. That means that certain responsibilities will slip as they travel for, work on, or engage others on the issues related to the pilot program. While we want to involve our people in interesting and stimulating projects from time to time, financially the business can't always afford to do it.

   Business interruption associated with any level of sustainability upgrade is also a consideration. For example, structures that have been sprayed with polyurethane foam can't be inhabited for at least 48 after the spraying has stopped. This interruption has to be factored into the manufacturing plan.

   There's a hard dollar cost associated with participating in the pilot program. Whether it's travel and lodging, the labor that's diverted to perform the necessary tasks, or the other resources that are consumed – there's a traceable cost related to this initiative.

3. *Return on investment and payback.* We stayed in Chicago the day after the 16 November 2010 summit to attend the annual Green Build Expo (Green build 2010). It took us three days to walk through the entire show. We saw a lot of interesting green, sustainability technologies that where simply economically unfeasible. A good portion of these interesting technologies included some sort of government incentive.

   For us, a conservative ROI is somewhere around 10% and a 24 month payback is somewhat pushing the envelope. For example we look at commercial and residential wind turbines. In almost every case the payback was somewhere between 4 and 11 years with the government incentive. Consequently, this falls outside of the feasibility range for us.

3. *Return on investment and payback.*

   I mentioned that we are able to offer recycled materials and efficient motors in our manufactured products. We can crunch the numbers and show the long term benefits to the customer, but they have the final say on the design.

   The choice to upgrade the insulation of our plants with spray foam insulation involves a significant capital outlay. We view this as a cost of launching a new business; but at the same time we will include the energy savings as part of our GHG emissions reduction target.

Summary

As a small business, we would not participate in the GSA pilot program if there wasn't a solid underlying business case for our participation. Regardless of the soundness of the case, we would also be unable to participate if we were financially stressed.

Regardless of the above we have a responsibility to our customers, creditors, employees, and the environment. We believe that participating provides us a competitive advantage in both the commercial and Federal government market place.

There is a cost that may become significant as a small business attempts to become greener and environmentally friendlier. Right now some of the green product costs appear to be outside of the feasibility range.

We believe that it would be good public policy to incentivize the small businesses that are participating in the pilot program.

Senator WHITEHOUSE. Thank you, Mr. Bautista.

My next witness is Doug Gatlin who is the vice president of Leadership in Energy and Environmental Design, LEED, at the U.S. Green Building Council and is responsible for oversight of the family of LEED ratings systems in all major commercial market segments.

Previously, he has worked at the Environmental Protection Agency, including as Team Leader for the Energy Star Commercial Buildings Program, he has managed the Energy Smart Cities Campaign, and helped the U.S. Department of Energy launch the Rebuild America Program. We are delighted that he is here.

Mr. Gatlin, please proceed.

STATEMENT OF DOUG GATLIN, VICE PRESIDENT, LEED, U.S. GREEN BUILDING COUNCIL

Mr. GATLIN. Thank you.

On behalf of the U.S. Green Building Council and our nearly 16,000 member companies and organizations and 80 local chapters, I would like to thank the Chairman and the members of the committee for this opportunity to testify.

Green buildings are an essential element of any business management strategy. They reduce energy, save water, cut waste and, perhaps more importantly, have a positive impact on occupant health and productivity.

With an inventory of over 7,000 leased and 1,500 owned buildings, GSA has an extraordinary capacity to reduce the environmental impact of our Nation's buildings and save taxpayer dollars. GSA has already taken significant steps to this end, implementing many far reaching energy efficiency and green building initiatives.

I would like to focus on three particular areas. These are first, maintaining a robust budget for the Federal Buildings Fund at GSA, second, focusing on existing buildings as a primary opportunity to reduce waste, and then third, examining financial mechanisms that can boost efficiency in both the public and private sectors and support GSA's goal to achieve zero environmental footprint.

So first, sustained investment in the Federal Buildings Fund. This significantly reduces long-term costs to the Federal Government and taxpayers. According to recent estimates, including those of GAO, tens of billions of dollars are needed to repair or restore Government building assets so that they may function properly. A failure to update these buildings forces taxpayers to unnecessarily subsidize excess utility bills in the short-term, while leaving them exposed to additional long-term expenses as restoring and upgrading facilities becomes more costly over time.

The Federal Government is now achieving significant long-term cost savings through buildings that use substantially less energy, cost less to operate and maintain and that lead to greater occupant health and satisfaction. In 2010, GSA testified that a study of the Agency's 12 first sustainable Federal buildings shows energy use is down 26 percent compared to commercial office benchmarks, and top performers have actually achieved over 50 percent lower maintenance costs.

Yet, significant cost savings associated with sustainable Federal building properties are in jeopardy should GSA's Buildings Fund be cut under the Full Year Continuing Resolution Appropriations Act of 2011. That is why in February USGBC joined nearly 30 real estate, business, trade and environmental organizations in a letter to the House and Senate leadership, which I have submitted along with my testimony, to express serious concern about the proposed cuts.

One of the activities that is funded by the fund and Administrator Johnson referenced is ongoing commissioning of GSA facilities. I want to stress the importance of this activity, which is part of the funding that could potentially be cut.

According to the latest Lawrence Berkley National Lab's studies, commissioning, and that is essentially tuning up the energy systems, it is not replacement but it is tuning up existing energy systems to make sure they are working properly, has a typical payback time of 1.1 years and a 91 percent return on investment. This type of commissioning is arguably the single most cost effective strategy for reducing utility costs in Federal buildings today and is a very important part of GSA's current efforts toward greening its Federal building stock and simply managing its buildings more efficiently.

Second is a focus on existing buildings. To tap into the building sector's full potential for saving costs and resources, it is essential to update both public and private existing building stock. A focus on existing building operations leverages taxpayer dollars through investment in cost saving energy and water saving measures and provides a return in investment over time.

The LEED for Existing Buildings Operations and Maintenance System uses measured performance data to track the efficiency of building systems and requires whole building metering and reporting through the Energy Star System for at least 1 year prior to certification. There are now over 900 projects and roughly half of the certified square footage in the USGBC's LEED System that have used this O&M ratings system.

Then the third I wanted to mention is financing of retrofits. This is critical for congressional support and for achieving deeper cost savings from GSA's portfolio. It is tax incentives for private building owners to make their buildings more energy efficient.

One of the key elements of the President's recently announced Better Buildings Initiative is to reform the current Commercial Buildings Tax Deduction, Section 179(d) of the Internal Revenue Code, which was signed into law by President Bush as part of EPAct 2005. With a few key changes to this mechanism, which are outlined in my written testimony, the deduction could be used more broadly and effectively by commercial owners.

Thank you for the opportunity to testify and I look forward to your questions.

[The prepared statement of Mr. Gatlin follows:]

STATEMENT OF DOUG GATLIN OF
OF THE U.S. GREEN BUILDING COUNCIL

BEFORE
THE SENATE ENVIRONMENT AND PUBLIC WORKS COMMITTEE
ON
GSA: OPPORTUNITIES TO CUT COSTS, IMPROVE ENERGY PERFORMANCE AND ELIMINATE WASTE

Wednesday, March 30 2011

On behalf of the U.S. Green Building Council's (USGBC) nearly 16,000 organizational members and nearly 80 local chapters, I would like to thank Chairwoman Boxer, Chairman Whitehouse and Ranking Members Inhofe and Johanns for the opportunity to testify about opportunities to reduce waste, increase efficiency, and cut costs at the General Services Administration (GSA). My name is Doug Gatlin and I am the Vice President of LEED at the U.S. Green Building Council (USGBC).

Green buildings are an essential element of any business management strategy: they reduce energy, water, waste, reduce owners' utility bills, and have a positive impact on occupant health and productivity.

With an inventory of more than 7,000 government-leased and 1,500 government-owned buildings – representing more than 354 million square feet of space nationwide – GSA has an extraordinary capacity to reduce the environmental impact of our nation's buildings and save taxpayer dollars. GSA has already taken several significant steps to this end, implementing a number of far-reaching energy efficiency and green building initiatives. The Committee must also be commended for its leadership in convening this hearing today to explore additional opportunities to improve energy efficiency and environmental performance in GSA facilities.

I would like to focus on three particular areas for Congressional and agency cooperation today to ensure that these efforts taken by GSA are continued and enhanced. These are, first, maintaining a robust budget for the Federal Buildings Fund at GSA; second, focusing on existing buildings as a principal opportunity to reduce waste; and, third, examining financial mechanisms that can boost efficiency in the public and private sectors and support GSA's goal to achieve a "zero-environmental footprint."

1. Sustained Investment in the Federal Buildings Fund Significantly Reduces Long-Term Costs to the Federal Government

The Government Accountability Office (GAO) has identified aging and deteriorating federal facilities as a growing and costly problem for property-holding agencies: According to recent estimates, tens of billions of dollars are needed to repair or restore these assets so that they may function properly.[1] A failure to update these buildings forces taxpayers to unnecessarily subsidize poor utility bills in the short-term, while leaving them exposed to additional long term expenses as restoring and upgrading facilities becomes more costly over time. The cost of retrofitting these buildings is small when compared to the dramatic cost savings achieved in the long-term.

The federal government is achieving significant long-term costs savings by requiring GSA to deliver buildings that use substantially less energy, cost less to operate and maintain, and lead to greater occupant satisfaction. In 2010, GSA testified that a study of the Agency's 12 earliest sustainable federal buildings shows energy use is down 26% compared to commercial office benchmark data[2]. More importantly, it found that the top third of studied buildings deliver

[1] The GAO Report can be accessed here: www.gao.gov/new.items/d09801t.pdf page 16

[2] Statement of Kevin Kampschroer, Director Office of Federal High Performance Green Buildings before the Subcommittee on Government Management Organization and Procurement

significantly better results with 45 percent less energy consumption, fifty three percent lower maintenance costs, and 39 percent less water use[3]. The current retrofitting of the Byron Rogers Federal Building in Denver is expected to result in 70 percent energy reduction from existing energy use from efficiency alone[4].

Yet the significant cost savings associated with sustainable federal building properties are in jeopardy should the GSA's Federal Buildings Fund be cut as proposed under H.R. 1, the Full Year Continuing Resolution Appropriations Act of 2011. That is why in February USGBC joined nearly 30 real estate, business, trade and environmental organizations in a letter to the House and Senate leadership, submitted along with my testimony, to express serious concern about proposed cuts and underscore the need to maintain adequate levels for this program. While we understand the enormous budget constraints facing the federal government and acknowledge the need to realize savings by postponing new construction projects, cutting the Federal Buildings Fund by the amount proposed in H.R. 1 ignores the fact that sustained investment in the Fund decreases the federal government's operating expenses in the long-term and reduces the deficit.

With these reasons in mind, we strongly urge the Committee to work with your colleagues to ensure that funding for the Federal Buildings Fund continues to be stable and consistent in 2011and in future years.

2. *Focus on Existing Buildings*

To tap into the building sector's full potential for saving costs, energy, resources, it is essential to update both public and private existing building stock. A focus on existing building operations leverages taxpayer dollars through investment in cost-saving, energy and water efficient measures, generating a return on investment over time. Tools like USGBC's LEED for Existing Buildings: Operations and Maintenance are particularly important to GSA and other federal agencies in this task as they work to meet the energy and environmental requirements of the 2005 Energy Policy Act (EPAct), the 2007 Energy and Independence and Security Act (EISA), and the President's Executive Order on Federal Leadership in Environmental, Energy, and Economic Performance.

- **LEED for Existing Buildings: Operations and Maintenance (O&M)**

LEED for Existing Buildings: Operations and Maintenance (O&M) uses performance data to track the efficiency of building systems and effectiveness of environmental measures. It requires whole-building energy metering and reporting via ENERGY STAR for at least 1-year prior to certification and points are awarded to incentivize improved performance. Buildings using this rating system have demonstrated on average use 35 percent less energy versus their peers, use 17

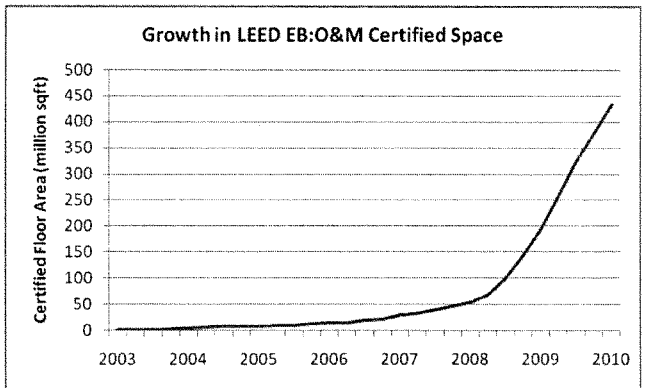
Committee on Oversight and Government Reform (July 21, 2010) *available at*: http://www.gsa.gov/portal/content/159125

[3] Id

[4] Project Case Study: Byron Rogers. Rocky Mountain Institute, Snowmass, CO. 2010. Available at: http://www.retrofitdepot.org/Content/Files/ByronRogersCaseStudy.pdf

percent less in potable water consumption from plumbing fixtures and reduce waste by nearly 60 percent through recycling and other efforts.[5]

LEED for Existing Buildings: O&M has seen explosive growth since 2008, with more certifications awarded under this rating system by square foot than any other LEED rating system. As a result of this growth, LEED projects are becoming predominantly existing buildings that have demonstrated their high performance. The federal government has also been part of this explosive growth: To date, more than 219 federal projects are pursuing LEED for Existing Buildings: O&M, including 40 GSA projects. The agency is also utilizing leased facilities that have achieved LEED O&M certification.



- **Expanded Education and Training**

Reaching the full potential of a building during operations, as I have described, also requires the training of building operators and other key personnel. A recent study by the International Facilities Management Association shows that for every $1 spent on facility management training, organizations reported receiving an average of $3.95 in return[6]. In 2009, the GAO reached a similar conclusion, and identified a lack of proper expertise and training as a major challenge for the federal government in reaching its energy reduction goals.[7] In light of this finding, Congress passed the Federal Buildings Personnel Training Act of 2010, which allows GSA to identify competencies and ensures that the workforce performing operations and maintenance on federal buildings perform this task as completely and effectively as possible.

---

[5] USGBC LEED project data.

[6] from the International Facility Management Associations, "Facility Management Staffing Report, Research Report #33," (http://www.ifma.org/resources/reports/pages/33.htm)

[7] Ungar, Bernard & Wells, James. Statement to the House, Committee on Government Reform by the Government Accountability Office. *Federal Energy Management: Facility and Vehicle Energy Efficiency Issues,* Hearing March 12, 2003. Available at: http://www.gao.gov/new.items/d03545t.pdf.

We commend this Committee for its passage of this legislation and are pleased to update that USGBC has already begun work with the GSA, additional agencies, and private stakeholders to support the implementation of the Federal Buildings Personnel Training Act.

- **Ongoing Commissioning**

During the 111th Congress, Senator Carper introduced a comprehensive package of common-sense reforms to increase energy efficiency and renewable energy use by the federal agencies including GSA. Among other provisions, the bill – entitled Improving Federal Use of Renewable Energy and Energy Efficiency Act of 2010 – would have required commissioning for all federal properties above $10 million in value, greater than 50,000 square feet, or with a greater than $2 per square foot energy intensity. Such commissioning would serve to identify "tune-ups" for buildings and equipment that would lead to operational savings. According to the latest research by Lawrence Berkeley National Lab, commissioning costs, on average, $0.30/ft2 and generates between $0.25-$0.30/ft2 in whole building energy savings for a payback time of 1.1 years, and a 91% return on investment (ROI)[8]. This type of commissioning is arguably the single most cost effective strategy for reducing utility costs in buildings today and is an important part of GSA's current efforts toward greening the federal buildings stock.

USGBC encourages the Committee and Congress to enact changes such as those proposed in Senator Carper's legislation to further enhance the performance of the federal government's existing building stock.

3. *Financing for New Green Construction and Retrofits*

- **Improving Tax Incentives for Commercial Buildings**

The Commercial Buildings Tax Deduction (CBTD), Section 179D of the Internal Revenue Code, was signed into law by President George W. Bush as part of EPAct 2005. The CBTD currently provides up to $1.80 per square foot to commercial building owners that install certain energy efficient systems is part of a plan to reduce energy consumption of the whole building by 50 percent below the thresholds set in ASHRAE 90.1-2001, a standard building code. These systems include energy efficient interior lighting, HVAC, hot water systems, and building envelopes improvements. The CBTD also allows for a partial deduction of up to $.60 per square foot for the energy savings within building subsystems and provides prescriptive guidance for how interior lighting systems can meet this requirement. The deduction is also "assignable," meaning that non-profit organizations and government agencies can allot the deduction to the entity contracted for work on a building, to offset the building costs incurred by the project.

While some buildings owners have had success in utilizing the deduction more needs to be done so that it can be utilized for all building stock. Reaching the targeted performance level of 50% savings relative to ASHRAE 90.1-2001is achievable for new construction design, however such a target is very challenging for existing buildings, where a corresponding building upgrade is in

---

[8] Mills, E., Friedman, Building Commissioning:
A Golden Opportunity for Reducing Energy Costs and Greenhouse Gas Emissions (July 21 2009), *available athttp://cx.lbl.gov/documents/2009-assessment/LBNL-Cx-Cost-Benefit.pdf*

many instances not practical. USGBC, along with real estate organizations including Real Estate Roundtable (RER) and environmental organizations including the Natural Resources Defense Council (NRDC), support the inclusion of modest revisions that could make deduction more effective in the existing building market.

Specifically USGBC recommends that the following changes be made:

- ***Measure energy savings compared to the existing building performance.*** Rather than comparing to code, energy savings within an individual building are a much more appropriate point of comparison for existing buildings. Present tools such as the Environmental Protection Agency (EPA) Portfolio Manager allows projects to readily document the total energy use of the building. This information, commonly used by building owners today, can serve as the starting point for implementing and documenting energy saving measures within a building.

- ***The deduction should not support an all or nothing approach.*** As already detailed, the deduction currently only provides incentives for projects that achieve an aggressive 50 percent below ASHRAE 90.1-2001. As a result, a project that reaches a 49 percent energy reduction would not be eligible for the deduction. USGBC supports changes that provide benchmarks to incentivize smaller energy savings, while maintaining maximum incentives at highest-level energy savings. This change would still reward ambitious projects while also encouraging projects that achieve more moderate levels of energy savings.

- ***Remove barriers for owners of certain building types.*** Commercial office buildings are owned by a variety of entities and organizations, some of which that cannot utilize traditional tax deductions. USGBC supports provisions that would allow building owners to allocate the incentive to other parties related to the transaction, such as a contractor, tenant, or financier. Furthermore, the incentive should be available for a Real Estate Investment Trusts (REITs) to immediately reduce earnings and profits.

Such changes would have positive effects for those commercial owners who lease property to the federal government and would strengthen financing mechanisms for modernizing federally owned property. Some of these ideas have been reflected in the Obama Administration's Better Buildings Initiative (BBI) announced earlier this year. We look forward to working with Congress and the Administration in advancing these common-sense solutions.

Government and Green Building

Governments at all levels have been highly influential in the growth of green building, both by requiring LEED for their own buildings and by creating incentives for LEED for the private sector. Currently, [14] federal agencies or departments,[34] states, [200+] local governments, [17] public school jurisdictions and [41] higher education institutions have made various policy commitments to use or encourage LEED. Indeed, Government-owned or occupied LEED buildings make up 29% of all LEED projects. The federal government has 398 certified projects and another 3713 pursuing certification. State governments have 589 certified projects and 1982 pursuing certification. Local governments have 877 certified projects and 3221 pursuing certification.

In 2006, the U.S. General Services Administration (GSA)--the nation's largest civilian landlord--submitted a report to Congress evaluating the applicability, stability, objectivity, and availability of five different sustainable building rating systems.[9] Based on this study, GSA concluded that LEED "continues to be the most appropriate and credible sustainable building rating system available for evaluation of GSA projects."[10] In particular, GSA noted that LEED "[i]s applicable to all GSA project types; [t]racks the quantifiable aspects of sustainable design and building performance; [i]s verified by trained professionals; [h]as a well-defined system for incorporating updates; and [i]s the most widely used rating system in the U.S. market."[11] GSA currently requires its new construction projects and substantial renovations to achieve at least a LEED Gold certification level[12].

USGBC and LEED

The U.S. Green Building Council (USGBC) is a non-profit organization committed to a prosperous and sustainable future through cost-efficient and energy-saving green buildings. To achieve this goal, we work closely with key industries and research organizations and federal, state and local government agencies.

USGBC includes more than 16,000 member companies and organizations, including nearly 200 Fortune 500 companies, as well as architecture and engineering firms, developers, builders, home owners, contractors and manufacturers, students, and teachers.

---

[9] Pacific Northwest National Laboratory (operated for the U.S. Department of Energy by Battelle), *Sustainable Building Rating Systems Summary (*July 2006), completed for General Services Administration under Contract DE-AC05-76RL061830, *available at https://www.usgbc.org/ShowFile.aspx?DocumentID=1915.*

[10] Letter dated Sept. 15, 2006 from GSA Administrator Lurita Doan to Sen. Christopher Bond, Chairman, Subcommittee on Transportation, Treasury, the Judiciary, HUD, and Related Agencies, Committee on Appropriations (accompanying report), *available at https://www.usgbc.org/ShowFile.aspx?DocumentID=1916; see also* Pacific Northwest National Laboratory (operated for the U.S. Department of Energy by Battelle), *Sustainable Building Rating Systems Summary (*July 2006), completed for General Services Administration under Contract DE-AC05-76RL061830, *available at https://www.usgbc.org/ShowFile.aspx?DocumentID=1915.*

[11] Letter dated Sept. 15, 2006 from GSA Administrator Lurita Doan to Sen. Christopher Bond, Chairman, Subcommittee on Transportation, Treasury, the Judiciary, HUD, and Related Agencies, Committee on Appropriations (accompanying report), *available at https://www.usgbc.org/ShowFile.aspx?DocumentID=1916.*

[12] GSA's Sustainable Design Program available at: www.gsa.gov/sustainabledesign

Through the LEED (Leadership in Energy & Environmental Design) Green Building Rating System™, the preeminent program for rating the design, construction and operation of green buildings and other tools, USGBC works toward its mission of market transformation. It also promotes green building through robust educational offerings, a nationwide network of 80 chapters and affiliates, the annual Greenbuild International Conference & Expo, and advocacy in support of public policy that encourages and enables green buildings and communities.

Doug Gatlin
Vice-President, LEED

As the Vice President for LEED at the U.S. Green Building Council, Doug Gatlin has oversight for deploying the family of LEED rating systems in all the major commercial market segments and for managing overall customer relations for LEED and the Council's Portfolio Program.

Doug has 16 years experience in energy and environmental policy and has worked on climate change response strategies and voluntary pollution prevention programs for most of his career. He has authored publications on climate change mitigation strategies, energy efficiency program design, and energy efficiency project financing.

Prior to joining USGBC, Doug worked at the US EPA for nearly 10 years. For most of his tenure there, he served as Team Leader for the ENERGY STAR Commercial Buildings program, spearheading numerous activities including the launch of the first vertical sector marketing strategy, a new public sector program for governments, K-12 schools and universities, an energy efficiency financing initiative, and the launch of new partnership program with utilities. From 1992-1996, Doug served as a project manager at the Washington, DC based Climate Institute, where he managed the Energy Smart Cities campaign and helped the U.S. Department of Energy launch the Rebuild America program.

Doug holds a Bachelor's in political science from Duke University and a Master's in public policy from Georgetown University. He lives with his wife and two children in Silver Spring, MD.

RESPONSE BY DOUG GATLIN TO AN ADDITIONAL QUESTION FROM SENATOR BOXER

Question. Mr. Gatlin, GSA is undertaking a variety of efforts to improve the efficiency and environmental performance of both new and existing Federally-owned and leased buildings.

What more can GSA do to improve the buildings it oversees?

Are there any barriers—statutory or otherwise—that inhibit the Federal Government's ability to continue to improve the efficiency, performance, and sustainability of the Federal building stock?

Response. While the General Services Administration (GSA) continues to be a leader in advancing efficient sustainable buildings. As I discussed in my full testimony there are a number of areas that would assist GSA in this mission.

- Provide constituent funding to the Federal Buildings Fund;
- Focus on existing buildings performance through use of LEED for Existing Buildings Operations and Maintenance, expanding commission and implementing education and training requirements passed in the 111th Congress; and
- Improve financing for new green construction and retrofits.

RESPONSES BY DOUG GATLIN TO ADDITIONAL QUESTIONS FROM SENATOR INHOFE

Question 1. How does LEED award points for the use of local products? How does this process work?

Response. Like all credits in the LEED rating system the credits dealing with local procurement requires documentation and verification. Specifically, the current material and resource (MR) credit 5, encourages the use of local and regional materials from within 500 miles of the project for a minimum of 10 percent or 20 percent, based on cost, of the total materials value. This strategy is frequently adopted, as project data indicates that almost 90 percent of certified commercial LEED projects attain this credit.

Question 2. Who are the board members of the U.S. Green Building Council and how do you avoid any conflicts of interest that may arise?

Response. USGBC board of directors is located on our website: http://www.usgbc.org/DisplayPage.aspx?CMSPageID=2382&. In compliance with Internal Revenue Service (IRS) guidelines USGBC, has in place a conflict of interest policy that board members are required to disclose any conflicts they have relative to each call or meeting agenda. That information is reflected in official minutes, and the person with a stated conflict can participate in the discussion (as long as the board or committee does not object) but must abstain from voting on the matter. Our full conflict of interest policy is also on our website: http://www.usgbc.org/ShowFile.aspx?DocumentID=3351.

Question 3. In your opinion, has the emergence of additional building rating systems had a positive impact of building efficiency?

Response. While having additional rating systems can assist in broader market transformation LEED continues to be the only true market leader in the United States. The GSA concluded in its July 2006 study on green building rating systems that "LEED® is not only the U.S. market leader, but is also the most widely used rating system by Federal and State agencies, which makes it easy to communicate a building's sustainable design achievements with others." LEED is also the only rating system that provides opportunities to scale green building principles across an entire enterprise by providing certification in Volume-Build, Portfolio, Multi-Building Campus, Neighborhood Development and Residential programs. By aligning its green building goals within the framework of LEED, GSA and other agencies ensures that green building principles are credibly evaluated on true apples to apples comparison.

Senator WHITEHOUSE. Thank you very much, Mr. Gatlin.

Our next witness is Ward Hubbell. Mr. Hubbell is president and CEO of the Green Building Initiative which he established in 2004. Under his leadership, the Initiative became the first green building organization to be certified as a standards developer by the American National Standards Institute and is in the process of establishing its proprietary tool, the Green Globes Environmental Assessment, as an official and the standard.

I should note, as Senator Merkley is well aware, he serves on the board of the Portland Chamber of Commerce and the Oregon Business Association.

So, we welcome you from the far coast and look forward to your testimony, Mr. Hubbell.

STATEMENT OF WARD HUBBELL, PRESIDENT, GREEN BUILDING INTIATIVE

Mr. HUBBELL. Thank you, Mr. Chairman.

Chairman Boxer, Chairman Whitehouse, Ranking Member Inhofe and distinguished members of the committee, thank you so much for having me here today.

I represent the Green Building Initiative of Portland, OR, the exclusive U.S. licensee of Green Globes, which is an online green building assessment and ratings system for new and existing commercial buildings. Our Green Building Assessment Protocol became an ANSI standard last year in 2010.

The scope of my testimony today will be to share with you how our organization has worked with Federal agencies in ways that I believe have resulted in improvements in both the quality and the value of green building assessment and certification in the Federal sector in hopes that we can encourage this committee and the GSA to promote policies that allow for competition in this area.

Green Globes is an established and proven means of evaluating and improving the environmental performance of new, renovated and existing commercial buildings. Green Globes delivers a comprehensive sustainability assessment through an interactive, web-based platform which results in greater ease of use, lower costs, and enables the evaluation of building performance over time. We also offer what we believe is the most credible, comprehensive and cost effective third party certification process that exists today.

Green Globes has been used to certify about 7 percent of the cumulative number of Federal buildings certified to date. Green Globes is also used by major corporations, school districts, State and local governments and higher education institutions. It has been incorporated into law as an equivalent standard to LEED in more than 20 U.S. States.

Green Globes is highly compatible with the guiding principles for sustainable buildings and the Executive orders that have been previously mentioned due to its focus in areas such as energy and water conservation, carbon emission reduction and continuous improvement. Green Globes is recognized as an equivalent standard to LEED by the U.S. Departments of Veterans Affairs, Interior and Health and Human Services. The U.S. Navy and the Army Corp of Engineers have broadened their LEED-only policies to allow for the use of Green Globes as well.

In my view, one of the reasons an increasing number of Federal agencies are using LEED alternatives such as Green Globes is due to their realization that an approach for building assessment and certification that works well under one set of circumstances may not in another. The U.S. Department of Veterans Affairs is an excellent case in point.

The VA came to us in search of a cost effective and efficient way to assess and certify their existing building portfolio. We began

with a 21 building pilot program 2 years ago. In the course of this collaboration, we found a way to more accurately assess the unique systems within healthcare facilities, and then used that knowledge to create a variant of Green Globes specifically designed for these kinds of facilities. Recently, we won a competitive bidding process to assess nearly 200 additional buildings in the VA portfolio.

In addition to being able to more accurately assess and certify these unique building types, the Green Globes tool will also enable the VA to cost-effectively screen a large number of buildings and implement selective improvements before spending time and money on third party certification.

Another good example is the U.S. Department of State. Like the VA, the State Department was in search of a less costly, more user-friendly and faster way to evaluate their portfolio of buildings. They tried Green Globes on a few buildings and recently decided to use it to evaluate one of their campuses in Arlington, Virginia. They like the ease of use of Green Globes, its low cost, and its emphasis on energy performance. They also found it useful as a benchmarking tool since it is based on 12 months of operational data, enabling them to evaluate and improve their buildings over time.

Finally, despite their current LEED-only policy, we are also very pleased to be working successfully with several regional offices of the GSA to benchmark and certify some of their existing buildings.

I give you these examples not to suggest that Green Globes is the only green building rating tool that Federal agencies should ever use. Rather, to make the point that an open playing field has given several agencies much more flexibility to choose an assessment and rating tool that best fits their needs.

It also incentivizes organizations like mine to be innovative, to keep its costs to the consumer low and to focus intensely on good customer service in order to win and keep business.

In conclusion, I would like to say that given our many successful experiences with other Federal agencies, we do not believe that GSA should have a LEED-only policy. If general performance goals are set, as they have been, agencies should have the flexibility to use a variety of tools to help them achieve their sustainability goals.

In their 5-year sustainability plan, GSA lists as one of their key accomplishments that they are a proving ground for new green building technologies. We believe their policy toward green building rating systems should reflect that.

Thank you.

[The prepared statement of Mr. Hubbell follows:]

GSA: OPPORTUNITIES TO CUT COSTS, IMPROVE ENERGY PERFORMANCE, AND ELIMINATE WASTE

Green Building Initiative testimony to the US Senate Environment and Public Works Committee

By Ward Hubbell, President, Green Building Initiative

March 30, 2011

Chairman Boxer, Ranking Member Inhofe and Members of the Committee, thank you for the opportunity to share my views as you consider how to utilize private sector technology to improve the energy and environmental performance of the federal government's vast building portfolio.

I am President of the Green Building Initiative, a non-profit organization dedicated to accelerating the adoption of green building practices. The GBI is the exclusive U.S. licensee of Green Globes, an online green building assessment and rating system for new and existing commercial buildings. The GBI's Green Building Assessment Protocol for Commercial Buildings is now an ANSI standard which reflects our commitment to utilizing recognized consensus processes in the development of green building rating systems.

The scope of my testimony today will be to share with you how our organization has worked with federal agencies in ways I believe have resulted in improvements in the quality and value of green building assessment and certification. By sharing our experiences, it is our hope that we can encourage this Committee and the GSA to promote policies that allow competition -- and all the benefits that accrue from that – in the area of green building assessment and certification.

About Green Globes®

Green Globes is an established and proven means for evaluating and improving the environmental performance of new, renovated and existing commercial buildings. Green Globes delivers a comprehensive sustainability assessment through an interactive, web enabled platform, resulting in greater ease of use, lower cost and the convenient evaluation of building performance over time. In addition, we offer what we believe is the most comprehensive third party certification process that exists today.

My organization introduced Green Globes into the US market in 2005. Since then, Green Globes has been used by a growing list of federal agencies. Green Globes has been used to certify

CORPORATE OFFICE | 2104 SE Morrison Portland, Oregon 97214 | Phone: 877 GBI GBI / 877 424 4241 | Fax: 503 961 8991 | Email: info@thegbi.org

about 7% of the cumulative number of federal buildings certified to date. Green Globes is also used by major corporations, school districts, state and local governments and higher education institutions. It has been incorporated into law as an equivalent standard to LEED in more than 20 US States.

Green Globes is highly compatible with the Guiding Principles for Sustainable Buildings and Executive Order 13514 due to its focus in areas such as energy and water conservation, carbon emission reduction and continuous improvement.

Green Globes is recognized as an equivalent standard to LEED by the US Departments of Veterans Affairs, Interior and Health and Human Services. The US Navy and Army Corps of Engineers have broadened their LEED-only policies to allow for the use of Green Globes.

Competition Facilitates Product Innovation, Lower Cost and Better Customer Service

In my view, one of the reasons an increasing number of federal agencies are using LEED alternatives such as Green Globes is due to their realization that an approach for building assessment and certification that works under one set of circumstances may not be appropriate in another. The US Department of Veteran's Affairs is an excellent case in point.

The VA came to us in search of a cost-effective and efficient way to assess and certify their existing building portfolio. We began with a 21 building pilot project two years ago. In the course of this collaboration, we found a way to more accurately assess the unique systems within healthcare facilities and used that knowledge to create a variant of Green Globes specifically designed to meet the unique needs of these kinds of facilities. Recently, we won a competitive bidding process to assess nearly 200 additional buildings in the VA portfolio.

In addition to being able to more accurately assess and certify these unique building types, the interactive Green Globes tool will also enable VA to cost-effectively screen a large number of buildings and implement selective improvements before spending time and money on third party certification.

Another good example is the US Department of State.

Like the VA, the State Department was in search of a less costly, more user-friendly and faster way to evaluate their portfolio of buildings. They tried Green Globes on a few buildings and recently decided to use it to evaluate one of their campuses in Arlington, Virginia. They liked the ease of use of Green Globes, its low cost, and heavy emphasis on energy performance through its linkage to the US EPA's Energy Star program. They also found it useful as a benchmarking tool since it's based on 12 months of operational data, enabling them to evaluate and improve their buildings over time.

Finally, despite their current LEED-only policy, we are also very pleased to be working with several regional offices of the General Services Administration. They are using Green Globes to benchmark and certify several existing buildings and we understand they are also planning to certify one major renovation using both Green Globes and LEED.

I give you these examples not to argue that Green Globes is the only green building rating tool that federal agencies should ever use. Rather, to make the point that an open playing field has given several federal agencies much more flexibility to choose an assessment and rating tool that best fits their needs. It has also incentivized an organization like mine – and any others who wish to compete – to be innovative, to keep their costs to the consumer low and to focus intensely on good customer service in order to win and keep business. Yes, we benefit from that, but more importantly you, I and the rest of the American public benefit from that in the form of better products, better service, better prices and better outcomes.

In conclusion, I would like to leave you with the following points:

1. The federal building portfolio is exceedingly complex and assuming that there is one and only one way to fairly assess and certify the sustainability of all buildings ignores that fact.
2. Despite much public attention regarding the need to green our built environment, building assessment and certification is still in its infancy and we all have much to learn. Until then, market competition and the innovation it creates should be encouraged. Finally, given our many successful experiences with other federal agencies, we do not believe that GSA should have a LEED-only policy. If general performance goals are set as they have been, agencies, regions, and departments should have the flexibility to use a variety of tools to help them achieve their sustainability goals. In their 2010-2015 Sustainability Plan, GSA lists as one of their accomplishments that they are "a proving ground for new green building technologies." We believe their policy toward green building rating systems should reflect that.

Thank you.

Green Building Initiative Background and Relevant Information

The Green Building Initiative (GBI) is a 501(c)(3) non-profit organization based in Portland, Oregon, established to accelerate the adoption of sustainable design and construction practices by promoting credible and practical approaches to green building for commercial construction.

GBI Mission

The GBI is committed to accelerating the adoption of green building practices by offering credible and practical tools that make green design, management and assessment more accessible to a wider population of builders and designers.

GBI owns the rights to promote and distribute Green Globes®—a highly innovative green management tool that features an assessment protocol, rating system and guide for integrating environmentally friendly design into commercial buildings. It features modules for New Construction (Green Globes-NC) and the Continual Improvement of Existing Buildings (Green Globes-CIEB) and facilitates recognition of completed projects through third-party assessment.

Green Globes is successful because it is rigorous, yet easy to use and affordable. Due to its unique, Web-based platform, the detailed information and references users need to design energy-efficient, healthier and environmentally sensitive buildings are embedded in the tool, enabling it to provide relevant information as required.

Innovation and Competition

When GBI was established in late 2004, there were no green building rating systems with the specific objective of supporting mainstream design and building professionals. This is at the core of the Green Globes system and is fundamental to encouraging energy efficiency and other green building practices on the broad scale that is clearly necessary.

Of primary importance, having more than one rating system supports the diversity of buildings, design and building professionals, and budgets. It also creates an atmosphere of healthy competition, which does for green building what it has done in countless other areas—drives improvements, lowers costs and benefits the ultimate consumer, which in this case is our shared environment.

In the last six years, for example, GBI:

- Became the first green building organization to be accredited as a Standards Developing Organization (SDO) by the American National Standards Institute (ANSI),
- Completed ANSI/GBI 01-2010: Green Building Assessment Protocol for Commercial Buildings which was derived from the Green Globes environmental design and assessment rating system for New Construction and was formally approved on March 24, 2010, becoming the first ANSI green building rating standard for commercial green building,

- Introduced Green Globes-CIEB (for existing commercial buildings) to strengthen the link between sustainable design objectives and actual building performance,

- Developed the first tool for integrating life cycle assessment (LCA)—widely considered to be the most effective way to compare the environmental impacts of building materials and assemblies—into a green rating system,

- Chose to advance the green movement as a whole by supporting the development of a generic version of its LCA tool—the ATHENA* *EcoCalculator for Assemblies*—which is available free of charge from the ATHENA Institute (www.athenasmi.ca), and

- Developed a healthcare version of Green Globes for initial use with almost 200 healthcare facilities operated by the US Department of Veterans Affairs.

As evidenced by these highlights, GBI's offerings have evolved as new opportunities have arisen to help mainstream practitioners accelerate their adoption of green building practices. Our goal is for green building to become the norm and, while GBI has arguably become a leading voice in the movement, we are committed to remaining nimble and continuing our role as an agent of positive change.

Having long recognized the power of collaboration, GBI has sought to foster relationships with a variety of organizations related to the built environment with the goal of helping to accelerate the acceptance of sustainable design and construction in the marketplace. To this end, GBI has a formal partnership with the US Environmental Protection Agency's ENERGY STAR® program, as well as Memorandums of Understanding with the following organizations:

- American Institute of Architects (AIA)
- American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE)
- Associated General Contractors of America (AGC)
- Association for Facilities Engineering (AFE)
- Building Owners and Managers Association (BOMA)
- National Association of Home Builders (NAHB)

GBI has also established collaborative relationships with, among others:

- Alliance to Save Energy (ASE)
- Architecture 2030
- Sustainable Buildings Industry Council (SBIC)

Green Globes – History and Credentials

Originally developed in Canada, the Green Globes environmental assessment and rating system represents more than a dozen years of research and refinement by a wide range of prominent international organizations and experts.

The genesis of the system was the Building Research Establishment Environmental Assessment Method (BREEAM), which has been used to certify close to 100,000 buildings in the UK demonstrating the important role of rating systems in the building sector.

Green Globes and the Green Building Initiative

In 2005, GBI acquired the rights to distribute Green Globes for New Construction in the United States. In adapting the system, the only changes made were those necessary to make the system appropriate for the US market (e.g., converting units of measurement and integration with the ENERGY STAR program).

Since then, GBI has committed itself to ensuring that Green Globes continues to reflect best practices and ongoing advances in research and technology. To that end, the GBI sought and received accreditation as an ANSI standards developer and began the consensus-based process of establishing Green Globes as the first ANSI standard for commercial green building. As part of the process, GBI established a technical committee and subcommittees featuring more than 75 building science experts, including representatives from four federal agencies, states, municipalities, universities and leading construction firms, as well as building owners. A complete list is available on the GBI Web site.

As part of the ANSI process, GBI relinquished control of the Green Globes tool to the technical committee, or consensus body, which determined the final standard. This is the first time an organization has committed its commercial building rating system to further development through ANSI's third-party codified, consensus-based committee process, which represents the ideals of balance, transparency and public input.

For example:

- In the energy section, the standard uses carbon dioxide (CO_2) as the basis for calculating the performance path instead of the previous kBtus per square foot per year of energy consumed, which requires the calculation of CO_2 equivalency. This is particularly important in the context of climate change and the need to consider buildings in terms of their total carbon footprint.

- The standard is the first green building rating system to fully integrate life cycle assessment (LCA).

  The green building movement is experiencing a fundamental shift in the way it approaches sustainable design, away from a prescriptive methodology—whereby materials are assumed to have environmental benefits based on rapid renewability, recycled content or other attributes—toward one that emphasizes measurable performance. LCA is a means to this end because it allows the impartial comparison of materials, assemblies and even whole buildings, from cradle-to-grave, in terms of quantifiable impact indicators such as embodied energy and global warming potential.

  LCA is widely accepted in the environmental research community as one of the best ways to assess building sustainability, but its use has been limited by the perception that it is too complex or time consuming for mainstream practitioners. To remedy this, GBI commissioned a tool that provides instant LCA results for hundreds of building assemblies, making it more accessible than ever before.

  Although developed for integration into Green Globes, GBI recognized the tool's importance to the broader sustainable design community and supported the development of a generic version,

the ATHENA® *EcoCalculator for Assemblies*, which is available free of charge from the Athena Web site (www.athenasmi.ca). GBI encourages the use of this tool among other green building organizations and universities, and at all levels of government.

- The standard incorporates a calculator that allows users to project water consumption of new buildings based on their designs. As with other elements of building sustainability, water use has a significant impact on energy consumption.

Green Globes and Energy Efficiency

The Green Globes system is unique in a number of ways that directly impact energy efficiency.

- Green Globes relies on information from the US EPA's ENERGY STAR program and, as such, uses data generated through the Department of Energy's Commercial Buildings Energy Consumption Survey (or CBECS). CBECS provides data on actual building performance by building type, which is the first step in determining how to achieve a building that performs significantly better than average.

- More than a third of Green Globes' point system is weighted to energy efficiency. To receive points under energy performance, a building must be compared to an average building using the ENERGY STAR system. Only those buildings projected to perform in the top 25% of buildings nationwide are eligible for points in this category.

- The two modules of Green Globes seamlessly connect new building design to existing building performance. Certification with Green Globes-NC is just the first step to achieving a truly green structure. Green Globes-CIEB has an important role to play in incentivizing the ongoing measurement and monitoring of building performance—as re-certification every three years is necessary to ensure that a building is in fact being managed in a manner that maintains the integrity of its initial assessment.

- As indicated above, changes to Green Globes made as part of the ANSI process include a shift in the way it calculates energy efficiency from kBtus per square foot to carbon dioxide equivalency and the integration of a tool that provides LCA results for hundreds of common building assemblies. Both are important in the context of climate change for determining and improving a building's energy efficiency as well as its overall carbon footprint.

- Because of its low cost, Green Globes is appealing to budget-sensitive projects such as those that utilize public funds or those that may not otherwise be considered in a green building context.

Using Green Globes for New Construction

Although many green building tools claim to be Web-enabled, this is typically limited to providing online information and templates. Green Globes' use of Web tools is far more complex and offers a fully interactive experience.

Once an online questionnaire is completed, the system generates a point score and project design highlights. The report generated includes an educational component, which emphasizes sustainability attributes of the building and provides detailed suggestions for improvements that should reduce the building's overall environmental impact. This is supported by links to further information regarding best design practices and standards or specific information on building systems and materials. Links are selected to provide educational information, government references, NGOs, and industry research relevant to each stage of project delivery and to help users achieve a higher performance design and thus higher Green Globes score.

In Green Globes-NC, projects are awarded up to 1,000 points based on their performance in seven areas of assessment:

1. **Project Management – 50 Points**

   The Green Globes system places an emphasis on integrated design, an approach that encourages multi-disciplinary collaboration from the earliest stages of a project while also considering the interaction between elements related to sustainability. Most decisions that influence a building's performance (such as siting, orientation, form, construction and building services) are made at the start of the project and yet it's common, even for experienced designers, to focus on environmental performance late in the process, adding expensive technologies after key decisions have been made. This is costly as well as ineffective.

   To ensure that all of the relevant players are involved, the system tailors questionnaires so that input from team members is captured in an interactive manner, even on those issues which may at first appear to fall outside their mandate. For example, while site design and landscaping may come under the purview of the landscape designers, the questionnaire prompts the electrical engineer to get involved with design issues such as outdoor lighting or security. Thus the Green Globes format promotes design teamwork and prevents a situation where, despite strong individual resources, the combined effort falls short.

   Also included under project management are environmental purchasing, commissioning, and emergency response.

2. **Site – 115 Points**

   Building sites are evaluated based on the development area (including site selection, development density and site remediation), ecological impacts (ecological integrity, biodiversity, air and water quality, microclimate, habitat, and fauna and flora), watershed features (such as site grading, storm water management, pervious cover and rainwater capture), and site ecology enhancement.

3. **Energy – 360 Points**

   To simplify the process of energy performance targeting, Green Globes-NC directs users to the Web interface used for the ENERGY STAR Target Finder software, which helps to generate a realistic energy consumption target. As a result, an aggressive energy performance goal can be

set—with points awarded for design and operations strategies that result in a significant reduction in energy consumption—as compared to actual performance data from real buildings.

As previously stated, Green Globes is the only green rating system to use energy data generated through the US Department of Energy's Commercial Buildings Energy Consumption Survey (CBECS), which is widely considered to be the most accurate and reliable source of energy benchmarking information.

In addition to overall consumption, projects are evaluated based on the objectives of reduced energy demand (through space optimization, microclimatic response to site, daylighting, envelope design and metering), integration of "right sized" energy-efficient systems, on-site renewable energy sources, and access to energy-efficient transportation.

4. **Water – 100 Points**

Projects receive points for overall water efficiency as well as specific water conservation features (such as sub-metering, efficiency of cooling towers and irrigation strategies), and on-site treatment (of grey water and waste water).

5. **Resources – 100 Points**

The resources section covers building materials and solid waste. It includes points for materials with low environmental impact (based on life cycle assessment), minimal consumption and depletion of resources (with an emphasis on materials that are re-used, recycled, bio-based and, in the case of wood products, certified as having come from sustainable sources), the re-use of existing structures, building durability, adaptability and disassembly, and the reduction, re-use and recycling of waste.

6. **Emissions, Effluents and Other Impacts – 75 Points**

Points in this section are awarded in six categories, including air emissions, ozone depletion and global warming, protection of waterways and impact on municipal waste water treatment facilities, minimization of land and water pollution (and the associated risk to occupants' health and the local environment), integrated pest management, and the storage of hazardous materials.

7. **Indoor Environment – 200 Points**

According to the US EPA, indoor air can be up to 10 times more polluted than outdoor air, even in cities where the quality of outdoor air is poor. This has obvious health implications, but the consequences are also economic. A study by Lawrence Berkeley National Laboratory found that improving indoor air at work could save US businesses up to $58 billion in lost sick time each year, with another $200 billion earned in increased worker performance.

This section evaluates the quality of the indoor environment based on the effectiveness of the ventilation system, the source control of indoor pollutants, lighting design and the integration of lighting systems, thermal comfort and acoustic comfort.

Projects that achieve a score of 35% or more become eligible for a Green Globes rating of one, two, three or four globes, as follows:

One Globe:	35-54%
Two Globes:	55-69%
Three Globes:	70-84%
Four Globes:	85-100%

However, buildings cannot be promoted as having achieved a Green Globes rating until the information submitted has been assessed by a qualified third party.

The Green Globes third-party assessment process features a rigorous two-stage approach. Stage I can be initiated by the design team as soon as the Construction Documents questionnaire is finalized. The completed questionnaire is assessed against the documentation generated throughout the design process and, once complete, the design team receives a Certificate of Achievement. However, a final rating cannot be achieved until after Stage II, which occurs post-construction and includes an on-site inspection by a qualified assessor. This stage can be initiated as soon as construction is complete. The GBI currently oversees a network of Green Globes-trained assessors comprised primarily of licensed architects and engineers with significant experience in building sciences and sustainability issues.

Green Globes for Continual Improvement of Existing Buildings

Considering that the United States is home to more than 100 million buildings, the need to improve the performance of existing structures is a necessary prerequisite for widespread energy efficiency. The missing element—until several years ago when GBI introduced Green Globes-CIEB—was a practical and affordable way to measure and monitor performance on an ongoing basis.

Green Globes-CIEB allows users to create a baseline of their building's performance, evaluate interventions, plan for improvements, and monitor success—all within a holistic framework that also addresses physical and human elements such as material use and indoor environment.

As in Green Globes-NC, energy is the most significant area of assessment within Green Globes-CIEB. A combined focus on energy use, building features and management helps to pinpoint where performance is lacking and what corrective action is required. The system uses the ENERGY STAR Portfolio Manager to determine a consumption target for each building type and, where appropriate, buildings must meet a minimum performance target of 75% based on the comparable ENERGY STAR building.

US Market Acceptance

To date, 147 buildings have successfully achieved Green Globes third-party certifications across the United States. An additional 50 buildings are at some stage in the certification process. Another 152

buildings are registered with Green Globes-NC (new construction) and 265 buildings are registered with Green Globes-CIEB (existing buildings).

Green Globes has also been formally recognized by the public and private sectors including the following:

- 22 states have incorporated Green Globes in law including: Arkansas, Connecticut, Florida, Hawaii, Illinois, Indiana, Kentucky, Minnesota, Missouri, Nevada, New Jersey, New York, North Carolina, Oklahoma, Pennsylvania, Rhode Island, South Carolina, South Dakota, Tennessee, Virginia and Wisconsin.

- Green Globes is included in insurance packages offered for green buildings by Aon Corporation, Fireman's Fund Insurance Company; Liberty Mutual; and Travelers Insurance.

- Several federal agencies—including the Department of Health and Human Services; Department of the Interior; and the Department of Veterans Affairs recognize Green Globes in their formal sustainability policies. The Department of Navy recently changed their Sustainability Policy to move away from their LEED only approach and to allow equivalent systems to be used. The Army Corps of Engineers has also begun to recognize Green Globes as a tool that can be used to certify buildings especially when LEED is not a good fit.

- To date, Green Globes certified buildings comprise about 7% of the cumulative total of certified federal buildings. This includes buildings from the US General Services Administration (GSA), the Department of Veterans Affairs (VA), the Department of State (State) and Department of Health and Human Services (HHS).

- Since the launch of Green Globes, some of the nation's premier corporations, educational institutions and foundations have chosen Green Globes to evaluate and certify their new and existing buildings. These include: Capital One, Bristol Myer Squibb, Pfizer, Whole Foods, Entergy, Drexel University, Purdue University, University of Arkansas, Arizona State University, The Clinton Presidential Library, along with many small business, local school districts and state and local government agencies. For a complete list, go to www.thegbi.org.

The Potential of Green Building Rating Systems to Accelerate Building Efficiency

In addition to the specifics associated with Green Globes, green building rating systems in general help to accelerate progress toward energy efficiency in three important ways:

1. Rating systems define achievable goals beyond mandatory codes.

    - A building must be approximately 25% more efficient than an average building built to the ASHRAE 90.1-2004 standard (or code) in order to achieve any points in the Green Globes section on energy performance.

2. Rating systems provide the means to measure progress against these goals.

- For example, the Green Globes system rates on a 1000-point scale, with points awarded based on the building's performance against a broad range of environmental and energy metrics. Using the system helps building owners set priorities during the design process, measure outcomes once the building is operational, and plan for improvements.

3. Rating systems create a market dynamic that rewards those who go beyond mandatory codes. In the private sector, this includes incentives such as green insurance products and mortgages and there is a growing body of information supporting the marketing benefits of green building certification. However, this is equally important in the public sector where buildings that perform well serve as examples for others—both at a technical level, for those who manage the performance of buildings, and as a more general encouragement to the community to follow suit.

Conclusion

We commend the Senate Environment and Public Works Committee for using its oversight authority to inquire into the role that GSA is playing in advancing the combined goal of cost effectiveness and improved energy performance of buildings.
GBI agrees that substantially improving the energy efficiency of buildings is one of the most important things Congress and the Federal Agencies can do to address climate change and other impacts associated with energy consumption. The GSA as the largest property manager in the federal sector has significant opportunity and responsibility to provide ongoing leadership in this area. One of the steps that this Committee can take is to direct GSA to open their LEED only policy and to encourage other agencies, regions and departments within the federal sector to pilot and use a variety of rating systems and tools to help them achieve functional, operational and sustainability goals in a cost effective manner. We will all benefit by this kind of leadership. Thank you for the opportunity to contribute our comments for consideration.

Speaker Biography

Ward Hubbell
President, Green Building Initiative

Since helping to establish the Green Building Initiative in 2004, Ward Hubbell has guided its evolution into a national organization promoting green building approaches in dozens of major U.S. markets across the country. Under his leadership, the GBI became the first green building organization to be certified as a standards developer by the American National Standards Institute (ANSI), and established its proprietary tool, the Green Globes environmental assessment and rating system for commercial buildings, as an official ANSI standard.

For nearly two decades, Hubbell has been a leading communicator and strategic adviser in the natural resources field, serving in a range of capacities in the public and private sectors. Hubbell also spent ten years as a communications executive in Washington, DC, working primarily in the areas of natural resources, environmental energy, transportation and health and safety policy. A native of Mississippi, Hubbell and his family reside in the Portland area, where he is very involved in the Oregon business community. Recently, he has served on the boards of the Portland Chamber of Commerce, Oregon Business Association and SOLV, one of the nation's largest volunteer networks devoted to environmental restoration and community building. He is a graduate of Mississippi State University and Wake Forest University.

Senator WHITEHOUSE. Thank you very much, Mr. Hubbell.

Now, our last witness is Mr. Jeffrey DeBoer who is the founding president and the chief executive officer of The Real Estate Roundtable, which represents the leadership of the Nation's top 100 privately-owned and publicly-held real estate ownership, development, lending and management firms.

He has served as president and CEO of the Roundtable since 1997. He also serves as chairman of the Real Estate Industry Information Sharing and Analysis Center, an organization that is dedicated to enhancing communication between the industry and Federal policymakers on matters relating to building security, terrorist threats and incident reporting.

We are delighted that he is here and look forward to his testimony.

Mr. DeBoer.

STATEMENT OF JEFFREY D. DEBOER, PRESIDENT AND CHIEF EXECUTIVE OFFICER, THE REAL ESTATE ROUNDTABLE

Mr. DEBOER. Thank you and good morning, Mr. Chairman. It is a pleasure to be here.

You mentioned the Roundtable. I would note that Roundtable members hold portfolios containing about 5 billion square feet of developed property that is valued, even in today's down market, at an excess of $1 trillion. We also hold about 1.5 million apartment units and in excess of 1.3 million hotel rooms.

I would like to begin by simply saying that our members, by and large, find working with the GSA and in particular working with the Public Buildings Commissioner, Bob Peck, to be a very positive working relationship. Obviously, doing business with the Federal Government requires some additional expertise and work. But again, our members who take the time to work in this area find the GSA to be a very positive business partner.

My comments today will focus on how the GSA, how we think the GSA can improve energy efficiency in buildings through their plans and through the discussions here in Congress on plans to dispose of assets in the Government's real estate portfolio.

I have provided to you a much more detailed statement for the record on a lot of different aspects of this and in particular I have detailed some of how we see the current markets across the country and the challenges that we think are continuing.

Beginning, I want to note that we do support Congressional and Administrative efforts to focus on a more streamlined efficient program to dispose of properties. These buildings are a drag not only on the Federal budget balance sheet, but also on the vitality of local communities.

I would caution a few things, that things be done deliberately and carefully as you always do, Mr. Chairman. But you need to understand there are difficult challenges right now in valuing of properties and that local markets are being treated differently across the country.

Specifically, I would bring up four points that as you move to streamline your disposal program that you keep in mind.

First, smart decisions about when, how and how many GSA controlled properties should be considered to put on the market have

to consider local market conditions. Today, the commercial real estate market across the country reads like a page from "A Tale of Two Cities." Our recovery is highly bifurcated. It is characterized by a robust, optimistic outlook in select gateway cities like Washington, New York, and western Los Angeles. But many other markets across the country in commercial real estate continue to suffer.

The point here is that new criteria and procedures cannot be a one size fits all program. These gateway markets should be where you focus now, not only because the local markets can absorb the product but because the Government can get a higher return than they otherwise might be able to get.

Seasoned professionals need to be involved. The Administration has proposed this in their discussion. We think that was a very valuable thing. We also think the list of identified properties must be made public on a website and it should be update regularly.

We think that the disposal process presents a rare opportunity to improve building energy efficiency across the board. I join my colleague on the panel talking about 179(d), the current tax incentive. It needs to be reformed, modified. The Administration has some good proposals in the Building Initiative and we urge you to take a look at this.

Fourth, I think that we have to keep in mind that as we want private sector investors and owners to come in and buy these properties, and return them to productive use in the communities, but they cannot be confronted with unnecessary regulatory burdens. In particular, and Senator Inhofe mentioned this, I do want to highlight a regulatory problem that we see in the proposed Lead Paint Program. We think that Congress needs to press EPA quickly to provide a study, as they are mandated, by the way, under the Toxic Substances Control Act, determining whether there is truly a health hazard when retrofitting buildings due to lead paint. We think it is very important that this done prior to these lead paint regulations being issued.

In conclusion, I guess I would say that the GSA real estate disposal program has a great deal of positive attributes to it. But, if not done correctly, it could hamper economic recovery and it could hurt local markets.

We do think that if done right, it will hasten economic recovery, it will stimulate jobs in certain parts of our country, and it will help drive energy efficiency not only in federally-owned buildings but in the entire building stock.

So, we at the Roundtable look forward to being a resource for you as this program moves forward.

Thank you again for the opportunity today.

[The prepared statement of Mr. DeBoer follows:]

STATEMENT OF

JEFFREY D. DEBOER

ON BEHALF OF

THE REAL ESTATE ROUNDTABLE

UNITED STATES SENATE
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS
AND SUBCOMMTTEE ON OVERSIGHT
JOINT HEARING

"GENERAL SERVICES ADMINISTRATION: OPPORTUNITIES TO CUT COSTS, IMPROVE ENERGY PERFORMANCE, AND ELIMINATE WASTE"

DIRKSEN SENATE OFFICE BUILDING
ROOM 406
WASHINGTON, D.C.

WEDNESDAY, MARCH 30, 2011
10:00 AM

Market Square West • 801 Pennsylvania Ave., NW • Suite 720 • Washington, DC 20004 • Phone: 202-639-8400 • Fax: 202-639-8442 • www.rer.org

UNITED STATES SENATE
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS
AND SUBCOMMTTEE ON OVERSIGHT
JOINT HEARING

"GENERAL SERVICES ADMINISTRATION: OPPORTUNITIES TO CUT COSTS, IMPROVE ENERGY PERFORMANCE, AND ELIMINATE WASTE"

DIRKSEN SENATE OFFICE BUILDING
ROOM 406
WASHINGTON, DC

WEDNESDAY, MARCH 30, 2011
10:00 AM

STATEMENT OF
JEFFREY D. DEBOER
ON BEHALF OF
THE REAL ESTATE ROUNDTABLE

I. INTRODUCTION

Thank you Committee Chairman Boxer, Committee Ranking Member Inhofe, Subcommittee Chairman Whitehouse, Subcommittee Ranking Member Johanns, and members of the Committee, for conducting today's hearing on the role and function of the General Services Administration (GSA) to cut costs, improve energy performance, and eliminate waste.

I am Jeffrey DeBoer, the President and Chief Executive Officer of The Real Estate Roundtable, an organization that represents the leadership of the nation's top 130 privately-owned and publicly-held real estate ownership, development, lending and management firms, as well as the elected leaders of the 16 major national real estate industry trade associations. Collectively, Roundtable members hold portfolios containing over 5 billion square feet of developed property valued at over $1 trillion; over 1.5 million apartment unit; and in excess of 1.3 million hotel rooms. Participating Roundtable trade associations represent more than 1.5 million people involved in virtually every aspect of the real estate business.

The GSA should be commended for developing a program for disposal of underutilized assets in the federal real estate portfolio. Aging properties that do not live up to their maximum potential are dead weight on the government's balance sheet and on real estate markets. While there is no cure-all measure to jump-start our nation's sluggish economic recovery, re-purposing buildings and putting them to more productive use can help reignite transactional activity and spur job creation in moribund markets.

To make the program as successful as possible, as I explain in greater detail below, any plans to sell-off GSA-controlled real estate must take the following into account:

- The economic problems presently confronting the commercial real estate sector largely concern depressed property values and the need to create more equity to increase those values. It is thus critical to accurately value federal assets for potential sale to the private sector.

- The GSA must be sensitive to the different reactions local markets will have when federal properties are released in terms of parochial economic and political impacts that might vary from region to region and community to community.

- Private sector participants with real estate expertise should be consulted by GSA as an important resource to increase the likelihood of success for any federal buildings disposal program.

- A federal property disposal program can provide great opportunities to improve the energy efficiency of the existing building stock. As aging federal assets are released by GSA, Congress should consider tax and other incentive programs to encourage interested purchasers to make these buildings more energy efficient.

- Potential buyers will not be attracted to a federal real estate sale that triggers burdensome and expensive regulations for building rehabilitation. In this regard, Congress must carefully consider the Environmental Protection Agency's plans to regulate renovation and remodeling activities in public and commercial buildings, arising from as yet unsubstantiated lead-paint hazards in those structures. Such regulations could greatly undermine the private sector's willingness to entertain purchases of older and underutilized federal properties.

II. COMMERCIAL REAL ESTATE AND ITS IMPACT ON THE ECONOMY

In considering the plans of the Obama Administration and GSA to identify and dispose of surplus federal properties – a large number of which will be commercial properties – it is important to provide an overview of the commercial real estate sector in terms of its impact on the national economy, as an agent to create jobs, its significance as an investment vehicle for Americans across the economic spectrum, and how my industry is faring in terms of recovery from the Great Recession.

When I speak of commercial real estate I refer to six principal property types: apartment, office, retail, industrial, health care and hotels. The commercial real estate market includes many diverse regional and local markets, as well as submarkets within these, each with their own dynamics. A common attribute through all is that they each depend on a healthy economy for occupancy and operating income (like rents and retail sales), and on a liquid financing market to facilitate investment, development and sales of properties.

The commercial real estate sector of the economy is large, in the range of $5.2 trillion in value, and is supported by $3.2 trillion in debt (much of which is coming due within the next five years). Before the recent economic crisis the value of commercial real estate in this country peaked at about $6.7 trillion, and during the depths of the crash fell to about $4.7 trillion, while the amount of supporting debt has remained relatively constant. In other words, there is a direct correlation between improving commercial property values and our national recovery from the recession. My industry's health is plainly vital to the economy and our nation's financial system. Estimates show commercial real estate constitutes 13% of GDP by revenue.

About nine million jobs are generated or supported by real estate — jobs in construction, planning, architecture, environmental consultation and remediation, engineering, building maintenance and security, management, leasing, brokerage, investment and mortgage lending, accounting and legal services, interior design, landscaping, cleaning services and more.

As we have seen during the nation's massive economic crisis of the last four years, when the real estate sector suffers – such as through rising defaults from a lack of refinancing options, falling property values, lower sales at retail outlets, and declining occupancy in office buildings and hospitality spaces and hence lower rents – a cascade of negative repercussions ripple throughout the economy:

- ***For millions of Americans whose pension funds invest directly or indirectly in approximately $160 billion of commercial real estate equity,*** increased loan defaults and lower property values will mean a smaller retirement nest egg.

- ***For millions of construction, hotel and retail workers,*** lack of commercial real estate transactions, underscored by a liquidity vacuum where banks are both unable and unwilling to extend capital for investments, translates into cancelled or delayed projects, layoffs and pinched family budgets — exacerbating rising unemployment and declining consumer spending. This, in turn, will further hurt U.S. businesses and intensify falling demand for commercial real estate space.

- ***For state and local governments,*** erosion of property values will mean less revenue from commercial property assessments, recording fees and transaction taxes resulting in bigger budget shortfalls.

- ***For the communities they serve,*** it will mean cutbacks in essential public services such as education, road construction, law enforcement, and emergency planning.

III. THE CURRENT ECONOMIC PICTURE

Since the start of the Great Recession, we have painfully witnessed these negative consequences manifest themselves as property values have plummeted and the credit crisis has strangled the flow of capital throughout our regional, national, and global economies. While there is still a long way to go to achieve complete recovery and stabilize real estate values, at least we are starting to see some areas of the country rebound.

The Real Estate Roundtable's members recently confirmed, through our 1st Quarter 2011 Sentiment Index,[1] that some commercial real estate markets are slowly mending. This survey is the industry's most comprehensive measure of leading executives' confidence in financial and real estate markets. Conducted by FPL Advisory Group, it captures the perspectives of over 100 senior real estate executives, including CEOs, presidents, board members, and other executives from a broad set of industry sectors including owners and asset managers, financial services firms and operators.

The Sentiment Index portrays a bifurcated recovery for commercial properties. So-called "gateway" cities have come back strong while smaller, more mainstream markets still struggle. There is greatly improved access to functioning liquidity and improving values (particularly for "Class A" assets) in cities like New York, Washington, D.C., Boston, San Francisco, and western Los Angeles. Contrast this to still-weak capital formation and lackluster fundamentals elsewhere around the country. Smaller, more mainstream real estate markets continue to face big challenges.

In markets outside of our key urban areas, rent and occupancy rates are weak while construction remains at its lowest levels in the past 40 years. From a position of comparative balance in mid-2008, as the economy shed 8.6 million jobs, demand for commercial space fell precipitously. To make matters worse, 2 million new jobs were needed to absorb the new commercial space delivered through the development pipeline. This 10.6 million job shortfall reflected directly in vast oversupply, lack of demand, and declining rents. Since we hit bottom only about 1.3 million jobs have been added to the workforce, leaving jobs about 9.3 million short of striking a balance. Thus, even with a solid recovery, it will take three to four years to make up this 9.3 million job shortfall. Rents and occupancy will therefore remain weak, though improving, and development will remain muted for the next three to four years while the job gap is filled.

Until private sector job creation picks up, we are not out of the economic danger zone. Commercial real estate markets tend to recover from the top down, when higher quality markets attract new capital and eventually other markets are affected. But legitimate headwinds remain, such as an unacceptable unemployment level, a huge pipeline of maturing commercial mortgages and large fiscal issues at the state and local levels of government. There may be an up-tick in tone expressed by The Roundtable's 1Q 2011 Sentiment Index, but it is tempered by the ongoing economic risk of unemployment.

---

[1] Available at http://www.rer.org/ContentDetails.aspx?id=10074.

Looming just around the corner is the roughly $1.5 trillion of commercial mortgage debt coming due in the next four years. Most commercial real estate loans have terms of 10 years or less, and therefore a significant percentage of outstanding debt matures each year which needs to be refinanced. Although the Commercial Mortgage-Backed Securities market is returning to life (with new issuance projected to reach as much $45 billion this year) capacity remains far off the 2007 peak of $237 billion – well below what is needed to refinance hundreds of billions of dollars in maturing debt.

The upcoming waves of debt coming due underscore the importance of improving commercial real estate values by injecting greater capital into the market. Consider this common situation. Assume an asset was purchased during better economic conditions at $100, and financed with $80 in debt. Now, under current conditions, the asset is "underwater" and only valued at $60. An infusion of equity is needed to improve the debt-to-value ratio to encourage any sale or refinancing of the asset as the present $80 mortgage becomes due. That is why, outside of this Committee and Subcommittee, The Roundtable has supported means to address the significant erosion of equity in the past two to three years and has advocated for a capital infusion of roughly $1 trillion, to rebalance loans on properties that are upside down. A key way to fill this equity gap would be to amend the Foreign Investment in Real Property Tax Act of 1980, in a manner that encourages foreign investors to steer their money to U.S. commercial real estate markets (as opposed to emerging real estate markets in China, India, and elsewhere).

Despite this tangible need for more capital to improve commercial property values, there is a strong hope among the respondents of the Roundtable's Sentiment Survey that 2011 will represent a return to a more typical marketplace in which buyers and sellers are actively competing for properties on reasonable valuations, with equity and debt providers each playing more normalized roles. One of The Roundtable's CEOs offered the following market analogy: "It's like a flywheel. You have to get the flywheel moving, get it to pick up momentum. Real estate has been slowly picking up speed, and I think this year we'll have momentum. Maybe not as much as we like, but momentum nonetheless."

Over the past four years, Congress and the Bush and Obama Administrations have taken extraordinary measures to calm financial markets, prevent the collapse of major institutions and encourage credit to flow again. I must stress the need for federal actions such as job creation measures, and new tax and incentive policies, before we return to a more typical marketplace. Until then, industry optimism will remain cautious due to weaknesses in the real estate sector that plague all but our marquee urban gateways.

On that note, "cautionism" is not a term you'll find in Merriam-Webster. But dictionary words fail us and recent market experiences defy description. At least for the first quarter of 2011, "cautionism" captures the sentiments expressed by the real estate industry's leaders who do business in these awkward and precarious economic times.

IV. DISPOSAL OF EXCESS FEDERAL PROPERTIES

Considering this current economic state of play, while there is no silver bullet to further enable economic recovery, federal plans to sell-off certain underutilized or excess assets (assuming they are properly priced) might help spur re-development and growth in some depressed markets. But the government must proceed carefully and deliberately with any building disposal process. According to the Government Accountability Office (GAO):

> Excess properties are buildings that agencies have identified as having no further program use, and underutilized properties serve a program purpose that could be satisfied with only a portion of the property. In fiscal year 2009, 24 federal agencies including the Department of Defense reported 45,190 underutilized buildings that cost $1.66 billion annually to operate. A June 2010 Presidential Memorandum continued government efforts to dispose of unneeded properties by establishing a new government target of $3 billion savings through disposals and other methods by the end of fiscal year 2012.[2]

The obsolete offices, buildings, and land in the federal real estate portfolio present significant risks to the government. They are costly to maintain, threaten the financial viability of GSA's Federal Buildings Fund, waste taxpayer dollars, and could be put to more beneficial uses or sold on the private market to create revenue. Encouraging greater transactional volume, with concomitant job-creating impacts, would have a positive ripple effect at state, local and national levels. And, reducing the federal government's annual budget deficit by saving billions of dollars in operating costs would redound positively throughout the economy. On the other hand, a cumbersome and complex disposal process could discourage interest in property investments. Moreover, imprudent valuation of federal properties could have devastating impacts. In markets where recovery has not yet taken hold, the injection of *under*-valued properties could further depress asset values and aggravate poor real estate fundamentals. *Over*-valued federal properties that fall short of their potential to generate sufficient incomes will worsen the problem I discussed earlier, regarding assets that are "underwater" where outstanding debt coming due is greater than underlying value.

In short, as the largest owner of property in the United States, the federal government's disposal of surplus assets could have significant consequences – both positive and negative – on commercial real estate submarkets and in the entire sector writ large. Any process to identify, re-purpose and sell-off federal assets must be efficient and streamlined, but also nimble enough to react to local market conditions and import property valuation criteria that reflect each parcel's characteristics and potentials.

I accordingly urge that any panels or task forces convened to establish procedures for federal property disposal must include the voices of seasoned commercial real estate professionals. For this process to be successful in a manner that minimizes red tape and bureaucracy while simultaneously considering the uniqueness of assets, economic conditions, and community needs, the perspectives and experiences of the private real estate network is critical. As a starting point, I would recommend that GSA and other involved agencies should:

---

[2] United States Government Accountability Office, *What GAO Found* in "Federal Real Property – The Government Faces Challenges to Disposing of Unneeded Federal Buildings; Statement of David J. Wise, Director, Physical Infrastructure Issues," GAO-11-370T (Feb. 10, 2011) (hereafter "GAO Report").

- ***Make an inventory of potentially underutilized or excess federal properties accessible to the public for review.*** The GSA has received a bipartisan request from the House Transportation and Infrastructure Subcommittee on Economic Development, Public Buildings, and Emergency Management, for a list of all properties under the agency's control to help identify assets that may be sold-off. The House request seeks information on building addresses, square footage, estimated market value, how much the property costs the government to maintain, and the current use and capacity of buildings. This list should be made available to the private real estate sector to help identify assets that might be released from the federal portfolio, how they might best be valued, and whether they can indeed be put to more productive purposes.

- ***Allow market experts to consult that inventory list and advise on the quantity, location, and timing of asset disposal.*** With regard to the point I made earlier regarding the bifurcated recovery of the real estate sector, facility sell-offs in markets that are already characterized by excess vacancy rates should be carefully scrutinized and might need to be avoided. The exceptions are properties well-located in international gateways like Manhattan, central Boston, Washington, D.C., San Francisco and west Los Angeles, where capital markets are pricing well ahead of actual demand recovery. In the near term these markets should likely be the primary focus of any GSA disposal program. As the recovery deepens and capital markets expand their interest, other locations will become better positioned to absorb excess federal properties.

- ***Include lenders and appraisers in the process early.*** From a private investment perspective, the success of any disposal program leans heavily on the availability of credit for financing, which itself depends on the accuracy of appraisers to fully and fairly value assets. While the Obama Administration should have deficit reduction goals in mind as it sells-off properties, caution is warranted to make sure that asset valuation is not unduly inflated or overly ambitious just for the sake of meeting those deficit targets. GSA and other agencies must accordingly communicate openly and frequently with the lending and appraisal communities, and The Roundtable and our members are well-suited to facilitate that dialogue.

- ***Seek input of real estate professionals on how to best manage and address concerns of citizen advocates.*** Federal facilities are often the face of the built environment in many local communities. As a result, their disposal can be controversial and trigger interest and apprehension from numerous stakeholders. Private real estate developers understand the art of compromise, and what it takes to "get the deal done" by navigating the public hearings processes at community planning, zoning, and other local board meetings. These professionals with expertise in their local markets will be an invaluable resource in assisting GSA address concerns of community stakeholders.

- ***Start working <u>now</u> with private sector experts and other stakeholders with skills in addressing special challenges that have impeded past efforts for efficient asset disposal.*** Certain complex legal and regulatory issues have been barriers that obstruct the government's ability to effectively dispose of unneeded assets. For example, action plans should be underway as soon as possible – with participation from private sector professionals with special expertise – in handling federal properties that might be listed on the National Register of Historic Places, present environmental clean-up and

remediation issues, or may implicate imminent Environmental Protection Agency lead paint regulations on renovations in public buildings (see section VI of this statement). These assets might be among the most potentially valuable in the government's portfolio, but processes must be in place to handle such special considerations as informed by experts who have overcome these obstacles to culminate successful private sector transactions.

In my experiences with leading real estate executives, they are driven by an entrepreneurial spirit, are always scouting out that next deal, and will see many opportunities in a federal program to unload unwanted assets. They are precisely the audience to whom GSA should market any available properties for sale, and they should be included among the federal government's advisers in addressing the management challenges to create an effective real estate disposal program.

V. BUILDING ENERGY EFFICIENCY ISSUES

The Roundtable's policy is to encourage measurable, quantifiable, and verifiable improvements in the energy performance of our built environment. In this regard, it is worth noting that the federal government is the largest consumer of energy in the United States. Millions of dollars in fuel costs and energy resources are squandered to maintain unneeded real estate, which "reflects an infrastructure based on the business model and technological environment of the 1950s." GAO Report, fn. 1 at pp. 1, 4. GSA's property disposal program thus presents a unique opportunity to improve the energy efficiency of a significant portion of this country's building stock – in keeping with the Obama Administration's "Better Buildings Initiative" and its plans to "win the future" by out-innovating and out-building the rest of the world.[3]

- **Tax Incentives for Building Retrofits**

A meaningful and usable package of incentives should be created to encourage building owners, who might take-on unwanted aging federal properties, to retrofit these assets with energy efficiency upgrades. Indeed, considering the far greater expenses for developing nuclear power and renewable energy technologies like wind and solar projects, incentives to encourage deployment of building efficiency technologies deliver greater "bang for the buck" and are a much more cost effective, safer, and less controversial means to reduce consumption of fossil-based fuels.

Existing law, originally signed by President George W. Bush as part of the 2005 Energy Policy Act, provides a tax deduction to incentivize commercial building retrofits at section 179D of the Internal Revenue Code. However, in the years since its enactment, we have learned that section 179D has had an anemic effect to motivate transformation in the retrofit marketplace.

[3] See http://www.whitehouse.gov/the-press-office/2011/02/03/president-obama-s-plan-win-future-making-american-businesses-more-energy.

The Real Estate Roundtable, in conjunction with our members, the U.S. Green Building Council, the Natural Resources Defense Council, and other groups, has carefully analyzed section 179D and has considered how it may be amended to have a meaningful impact to encourage building efficiency upgrades. As GSA develops its program to release excess properties into the marketplace, Congress should take complementary steps to enable retrofits of those assets by re-designing section 179D as follows:

- ***Use a "vintage-specific" baseline to measure savings as compared to a building's own prior energy performance.*** Currently, section 179D rewards buildings that reduce the energy consumption of the whole building to 50 percent of the amount the building would use if it were built to a particular code (in this case, the ASHRAE 90.1 energy standard for commercial buildings as adopted in 2001). This is an arbitrary baseline for buildings that were constructed decades ago. Additionally, the current savings threshold of 50 percent better than this standard is too aggressive for existing buildings. For instance, the project at the Empire State Building, owned by Roundtable member Anthony Malkin, represents the gold standard for commercial building retrofits. This project makes a $13.2 million investment in efficiency upgrades – but it would not meet the 179D tax deduction's incentive threshold, despite the fact that the retrofit is guaranteed to reduce the building's energy consumption by about 38 percent.[4]

  Rather than the ASHRAE 90.1 standard, energy usage pre- and post-retrofit are more appropriate points of benchline comparison for the vintage of existing buildings that may be disposed from GSA's portfolio. For example, many building owners today commonly use the Environmental Protection Agency's Portfolio Manager[5] tool to document the total energy use of a building. While Portfolio Manager is not available for certain building types, another benchmarking tool or protocol could be used for those assets as the basis to gauge a particular building's energy performance for purposes of qualifying for a re-designed tax incentive for retrofits.

- ***Link the amount of the incentive to energy savings achieved.*** This would calibrate the tax benefit to the value created. The Roundtable recommends that the minimum amount of the incentive should correspond to 20 percent total energy savings compared to the building's baseline energy consumption, and the maximum incentive should correspond to 50 percent savings. The amount of the incentive would increase for every 5 percent increase in energy savings within this range. This will encourage ambitious building upgrades while also rewarding projects that achieve meaningful yet more moderate levels of energy savings.

- ***Tie a portion of the tax incentive to implement efficiency measures and a portion to demonstrated energy savings.*** There are good reasons to reward a building owner for installing and implementing energy savings measures, and good reasons to reward energy savings actually realized at the utility meter level. We recommend that both should be incentivized by allowing the building owner to claim 60 percent of the deduction at the

---

[4] See http://apps1.eere.energy.gov/news/news_detail.cfm/news_id=12387; http://www.esbnyc.com/sustainability_project_finances.asp.

[5] See http://www.energystar.gov/index.cfm?c=evaluate_performance.bus_portfoliomanager.

time measures designed to save a certain percentage of energy (as certified by a professional engineer) are put in to service. The remaining 40 percent of the deduction would be available two years later, based on demonstrated energy savings (as measured using the ENERGY STAR Portfolio Manager tool or other more appropriate tools for certain building types).

- ***Allow owners or tenants to claim some incentive for improving a substantial space within a building.*** There is significant opportunity and appetite for building owners and tenants to improve energy efficiency during tenant build-out of office space, but current landlord-tenant arrangements seldom seize that opportunity. Similarly, there is also appetite and opportunity for building owners to improve the efficiency of a large space within a building, but where they do not necessarily have access to all tenant space. To encourage these objectives, Congress should direct the Departments of Treasury and Energy to develop guidance for how the tax incentive can be used for efficiency improvements for large defined spaces within an existing building.

- ***Make the tax incentive useable for a broad range of building owners and types, including REITS and multifamily buildings.*** Commercial office buildings are owned by a variety of organizations, some of which do not have appetite for conventional tax incentives. To gear a tax incentive for optimal benefit by Real Estate Investment Trusts (REITs), the full amount of the incentive should be available considering REITs' special tax requirements.[6] Furthermore, we believe it is important to enable a range of building efficiency stakeholders to realize the value of the tax incentive when making investments in energy savings. Hence, we suggest clarifying section 179D's current language that the building owner be permitted to allocate the incentive to other parties related to the transaction, such as the contractor, architect, a tenant, or a source of financing. Additionally, multifamily buildings should remain eligible for any commercial building incentive given their similarity to commercial buildings with respect to ownership, structure, and application of energy codes. To capture a larger set of multifamily buildings within the scope of the incentive, it will also be critical to ensure that the retrofit incentive complements the rules of the existing low-income housing tax credit to encourage energy efficiency upgrades in the affordable housing stock.

- ***The tax incentive should include increased incentive amounts for energy efficient cool roofs and historic buildings as well as incentives for improvements in exterior lighting efficiency.*** The tax incentive should encourage improvements that multiply energy efficiency benefits – namely, the renovation of historic buildings and installation of "cool roofs" to mitigate urban heat island effects. It should also incent improvements in exterior lighting at commercial and multifamily properties, which are not reflected in current law.

In short, The Roundtable and our colleagues have done much creative thinking on how the existing 179D tax deduction for energy efficient commercial buildings might be better designed to encourage building retrofits on a larger scale. We would welcome the opportunity to discuss our ideas with interested members of the Committee and Subcommittee.

---

[6] For example, see S. 3935, "Advanced Energy Tax Incentives Act" (111th Cong., introduced Sept. 29, 2010).

- **Department of Energy Loan Guarantees**

As GSA considers disposal of its excess properties, Congress and the federal agencies should enact policies that encourage commercial banks and energy efficiency financiers to extend financing for building retrofits. The Roundtable is working through a coalition that supports the Obama Administration's ideas to create a loan guarantee product designed to provide credit enhancement for building retrofit debt.

Under current law, at Title XVII of the 2005 Energy Policy Act, the Department of Energy administers a loan guarantee program geared to support debt that underwrites nuclear, large-scale solar, wind farm, and other renewable projects. We advocate that a loan guarantee should be created for less risky, less expensive and more cost-effective building retrofit projects. The idea is to scale such a program so that it is attractive to the lending community writ large (such as through pooling or securitizing retrofit debt), while also preserving the prime lien interest of first mortgagees in properties encumbered by prior financing. We will continue to work with stakeholders and the Administration to determine whether Congress might support such loan guarantee legislation. Ideally, such a loan guarantee should be created to coincide with the release of aging GSA buildings to encourage energy efficiency upgrades of such structures.

- **Green Appraisal Standard**

Currently, there is not a standardized metric for the real estate appraisal industry to value the energy efficiency attributes of buildings. The federal agencies in charge of financial regulation have existing legal authority to enact such a green real estate appraisal standard.[7] A green appraisal standard can help provide data and property comparables, to draw the connection between higher-performing buildings and increased asset values. In turn, this can help banks release capital specifically for retrofit project financing. Under existing authorities, a green appraisal standard must be developed through a public comment process. This is critical to ensure buy-in from stakeholders in the real estate, financing, appraisal, and energy services industries.

The Roundtable will continue to encourage the Administration to start the process and formally accept stakeholder input towards development of a green real estate appraisal standard. Energy efficiency property valuation can be another tool that encourages modernizing the properties disposed by the GSA.

---

[7] See Financial Institutions Reform, Recovery, and Enforcement Act (FIRREA), 12 U.S.C. §§ 3332, *et seq.* Under FIRREA, the "Federal financial institution regulatory agencies" have an obligation to "prescribe appropriate standards for the performance of real estate appraisals." *Id.* § 3339. FIRREA allows the financial regulatory agencies to develop new appraisal standards from time to time to suit changing economic conditions. The law states that "[e]ach agency ... may require compliance with ***additional standards*** if it makes a determination in writing that such additional standards are required in order to properly carry out its statutory responsibilities." *Id.*

- **U.S. Green Building Council: Leadership in Energy and Environmental Design, Existing Buildings Operations and Maintenance (LEED-EBOM)**

The GSA is committed to the U.S. Green Building Council's LEED program as establishing the minimum sustainability standard for federal building construction and rehabilitation.[8] For projects funded prior to FY2010 that are in the design phase, GSA now requires that LEED "Gold" be incorporated into ongoing designs where possible, after considering budget and schedule constraints on the current design and construction contracts. For GSA's leased properties, the requirement remains at the LEED "Silver" certification for new construction lease projects that are 10,000 square feet or more.[9]

An impressive cross section of Roundtable members are also USGBC members and participants. LEED recognition has been an important tool in transforming the way we design, build, operate, and manage buildings, spaces, and communities. LEED's existing buildings ratings product – EBOM – is evolving in such a way that will have particular resonance as GSA disposes of excess properties, and recognizes encourage energy efficient and sustainable retrofits of these assets.

Particularly, the present Energy and Atmosphere ("EA") "Minimum Energy Efficiency Performance" requirement offers two alternative "cases" to obtain LEED EBOM recognition. Case 1 provides that if the building is eligible for a performance rating using EPA's ENERGY STAR® Portfolio Manager tool, then it must receive a rating of at least "69." *See* LEED Rating System Draft, BUILDING OPERATIONS & MAINTENANCE (redlined version; Nov. 2010), at p. 56 (hereafter "EBOM Draft").[10] Case 2 addresses buildings that are not covered by ENERGY STAR®. These structures can either demonstrate energy efficiency "at least 19% better than the average for typical buildings of similar type" against national average energy data. *Id.* at p. 57. Or, ineligible ENERGY STAR® buildings can use an alternative performance measurement method as set forth in the applicable LEED Reference Guide. *Id.*

The November 2010 draft EBOM proposal re-names this EA prerequisite to "Minimum Energy Performance." Essentially, it retains the two alternative cases in the current system and provides a new "Option 3" as another compliance path, as follows:

> **"OPTION 3. Demonstrate Energy Efficiency Improvement**
> **Demonstrate energy efficiency improvement of at least 20%, normalized for climate and building use, by comparing the building's site energy data for the previous 12 months with the data from three contiguous years of the previous five. Buildings without four consecutive years of site energy data are ineligible."**

See EBOM Draft at p. 57. Similarly, a new Option 3 for the "EA Credit: Optimize Energy Efficiency" provides:

---

[8] See https://www.usgbc.org/ShowFile.aspx?DocumentID=1915.
[9] See http://www.gsa.gov/portal/content/197325; https://www.usgbc.org/ShowFile.aspx?DocumentID=1915.
[10] For purposes of this statement, all EBOM Draft page references are to the redlined version available at http://www.usgbc.org/DisplayPage.aspx?CMSPageID=2360.

> **"Demonstrate weather and building use normalized energy efficiency improvement comparing the building's site energy data for the previous 12 months to the source energy consumption from three contiguous years of the previous five. Buildings without 4 consecutive years of site energy data are ineligible for this compliance path."**

EBOM Draft at p. 62. This credit goes on to suggest that increasing points can be awarded to a building that achieves "Percent Improvement[s]" in energy performance. Extra points are being considered starting at 25% improvements and growing in 4% intervals up to 56% improvements, although the precise number of incentive points has not been suggested. *Id.* at 63.

The Roundtable agrees with the intent behind Option 3 for both the EA Prerequisite and the EA Credit. We understand that the purpose of the new alternative EA prerequisite path is to provide an avenue for LEED recognition to buildings that are not among the industry's higher relative scorers, but rather give recognition to buildings that actually and demonstrably improve performance regardless of relative standing. Currently, EPA recognizes buildings with a relative ENERGY STAR® rating of "75" or higher. And, the present EBOM rating establishes a minimum floor of an ENERGY STAR® rating of "69." As a result, buildings that demonstrate dramatic gains in efficiency improvement – but do not rise to the level of at least a "69" rating – are unable to participate in the industry's two leading energy recognition programs.

The Roundtable thus supports an additional option in the EA Prerequisite and Credit, to enable and recognize commercial properties that historically have not been among the top percentile of buildings on a comparative energy basis, but nonetheless tangibly reduce their energy consumption. Aging and inefficient properties released into the market by GSA may never garner an ENERGY STAR rating of "69" or higher, and thus would not receive LEED EBOM recognition under current standards. However, purchasers of these assets must be incented to make improvements in such buildings' energy efficiency. The direction in which the EBOM system is headed can help chart a new course for the real estate industry based on energy efficiency improvements (as opposed to relative standing among like structures).

Like USGBC, The Roundtable wants to encourage measurable, quantifiable, and verifiable improvements in the energy performance of our built environment. The proposed changes to LEED EBOM are thus quite timely as GSA develops a process to dispose of underutilized and inefficient federal properties.

VI. RENOVATIONS IN PUBLIC BUILDINGS; IMMINENT LEAD PAINT RULES

The energy efficiency issues discussed in section V present great opportunities to encourage productive use of GSA-released assets. However, incentives to encourage purchase of underutilized federal assets could be wholly undermined by the regulatory agenda of the Environmental Protection Agency (EPA), with regard to its *Lead: Renovation, Repair and Painting (LRRP)* rules for public and commercial buildings.[11] The Roundtable submits that this

[11]Lead Clearance Testing Revisions: http://yosemite.epa.gov/opei/rulegate.nsf/byRIN/2070-AJ57; LRRP Rules for Public and Commercial Buildings: http://yosemite.epa.gov/opei/RuleGate.nsf/byRIN/2070-AJ56; Lead Dust Hazard Standards: http://yosemite.epa.gov/opei/RuleGate.nsf/byRIN/2070-AJ82.

Committee, GSA, and others involved in the process to dispose of federal assets must carefully consider the impact of imminent LRRP Rules on the purchase and renovation of surplus federal buildings by the private sector.

EPA enacted LRRP rules for pre-1978 "target housing" in 2008. The agency is now undertaking actions that would expand the scope of the residential LRRP rule to institute new "clearance testing" obligations, which could require multiple dust-wipe tests using faulty field test kits, and examination of those wipes by EPA-accredited labs upon completion of renovation work. EPA is also looking to expand these very same LRRP rules to cover renovation and remodeling in commercial and public buildings. The Roundtable and our industry colleagues are tracking these components of EPA's regulatory agenda:

- Proposed LRRP rules for lead-safe work practices for ***exterior*** renovations of public and commercial buildings are expected by June 15, 2012, with final action by February 15, 2014. The Roundtable understands that the exterior commercial renovations rule will be based on the same lead dust hazard standards used by EPA for target housing.

- EPA plans to propose regulations to address lead-based paint hazards for renovations public and commercial building ***interiors*** by the later of July 1, 2013, or 18 months from receiving a report from its Science Advisory Board (SAB).

As EPA itself has noted and a number of SAB panel members have previously observed, the development of lead hazard standards for public and commercial buildings is fraught with uncertainty due to the minimal data that are available regarding the prevalence of lead dust in these types of buildings. For example, EPA acknowledges the "scarcity of data related to dust exposures in public and commercial buildings and other non-residential settings." *Approach for Developing Lead Dust Hazard Standards for Public and Commercial Buildings* (Nov. 5, 2010) at p. 32 ("*EPA Approach*").[12] Likewise, EPA has noted that an extensive literature search "revealed relatively little information concerning typical levels of floor and window sill dust lead in public and commercial buildings." *Id.* at 36.

This lack of data has led EPA to rely heavily on extrapolations from data and models that apply to residential settings. However, there appears to be little basis for making these assumptions. In fact, EPA acknowledges that:

> the validity of the empirical models in predicting children's blood-lead impacts depends crucially on the assumption that physical and behavioral determinants of exposure are the same (or very similar to) in public and commercial buildings as in residences. There is very little empirical evidence in support of this assumption, which adds to the inherent statistical uncertainty in these models.

Id. at 79.

[12] Available at http://yosemite.epa.gov/sab/sabproduct.nsf/0/9C733206A5D642578525769500 4F0CB1?OpenDocument.

In light of this paucity of data, the Committee should observe that Congress required EPA, in the Toxic Substances Control Act ("TSCA"), to conduct a study to determine which of the "various types of renovation and remodeling activities . . . disturb lead and create a lead-based paint hazard on a regular or occasional basis" before promulgating any regulations concerning renovation, repair and painting activities. 15 U.S.C. § 2682(c)(2). This statutory requirement to conduct a certification study explicitly applies to commercial buildings and to public buildings constructed before 1978. 15 U.S.C. § 2682(c)(2).

To date, EPA has not conducted a study that focuses on activities in commercial buildings and public buildings constructed before 1978 and the potential of such activities to create lead-based paint hazards. EPA has requested comments in its Advanced Notice of Proposed Rulemaking regarding the extent to which it should rely on previous studies it has conducted regarding lead-based paint in residential settings. 75 Fed. Reg. 24848, 24856 and 24858 (May 6, 2010). These studies include the 2007 Characterization of Dust Lead Levels After Renovation, Repair and Painting Activities (the "Dust Study") and the four-part study conducted by EPA between 1997 and 1999.

EPA cannot rely on such studies in undertaking regulatory activities concerning lead dust in public and commercial buildings because these studies did not focus on renovation, repair and painting activities in commercial buildings and public buildings constructed before 1978. Although the Dust Study may have included information on renovations at a school building frequently occupied by children, this is too limited a data set from which to draw any conclusions regarding RRP activities generally in public and commercial buildings. 75 Fed. Reg. at 24856. Indeed, EPA's ENERGY STAR office recognizes the varied and heterogeneous composition of the commercial building stock. It has identified 14 unique types of commercial buildings for purposes of energy ratings – and even these represent only about 50% of the commercial floor space in the United States.[13] Plainly, a dust study conducted at a single school is wholly insufficient as a basis to provide information on lead-paint hazards across the diverse suite of commercial and public building types.

The Roundtable respectfully suggests that, in light of TSCA's congressional directive to EPA to study renovation activities that cause lead hazards in public and commercial buildings, the Agency should seek to fill some of these glaring data gaps. The panel chair, Dr. Buckley, himself stated in his August 20, 2010 Letter to Administrator Jackson conveying the comments of the panel members on EPA's proposed approach that "[t]he lack of data to support the commercial building approach highlights the need for research and data collection efforts in this area." We wholly agree with this assessment, especially considering the potential impacts of the LRRP Rules on GSA's process to sell-off underutilized federal properties.

---

[13] See http://www.energystar.gov/index.cfm?c=evaluate_performance.bus_portfoliomanager. The 14 varied commercial building types that are eligible to receive ratings from EPA's ENERGY STAR office are bank/financial institution; courthouse; data center; hospital; hotel; house of worship; K-12 school; medical office; municipal waste treatment plant; office; residence hall/dormitory; retail store; supermarket; and warehouse.

CONCLUSION

The Real Estate Roundtable hopes to serve this Committee, the GSA, and other involved agencies as a resource in developing and navigating the process for disposal of excess assets in the federal government's real estate portfolio. Towards that end, we urge the following:

- Smart decisions about when, how, and how many GSA-controlled properties should be released to the private sector must be informed by local market conditions and the state of the industry's economic rebound. To this end, the bifurcated nature of the commercial real estate recovery – which is characterized by a robust and optimistic outlook in select gateway cities while many other markets are still suffering – is a critically important point to underscore the criteria and procedures for selling-off excess federal assets.

- Seasoned real estate professionals must be part of panels to identify and manage GSA's real estate proposals. Their insights on property valuation, capital and lending constraints, dealing with community stakeholders, and other technical components associated with challenged properties will prove invaluable.

- Disposal of surplus assets presents a rare opportunity to make significant strides in improving the energy efficiency of our building infrastructure. To seize this chance, Congress must work with the Administration, and real estate and efficiency advocates, to re-design the current tax incentive on the books and gear it towards encouraging retrofits; develop a federal loan guarantee product for credit enhancement of retrofit financing; and start the public comment process to develop a green real estate appraisal standard that adequately values the energy efficiency attributes of real estate. Meanwhile, the U.S. Green Building Council must be encouraged to proceed down the path it is pursuing and revise its existing buildings rating product (LEED EBOM) in a manner that recognizes actual efficiency improvements in buildings.

- Regulatory mandates that EPA may impose through its "Lead; Renovation, Repair and Painting Rule" for public and commercial building could seriously dampen private sector interest in purchasing and upgrading GSA-released properties. Congress must press EPA to provide its statutorily mandated study of lead hazards in public and commercial buildings, as opposed to taking a regulatory approach that presumes all such building are hazardous and subject to regulation.

Thank you for the opportunity to testify today.

Senator WHITEHOUSE. Thank you, Mr. DeBoer, it is good to have you with us.

I will yield my time to the Chairman. Chairman Boxer.

Senator BOXER. Thank you so much. I am really interested in this LEED versus Green Globes. Globe or Globes?

Mr. HUBBELL. Globes.

Senator BOXER. Globes. Because I asked Senator Inhofe, I was, when Senator Boozman was questioning about the wood, I was trying to find out from him about the issue and he, so I am going to ask the two of you to talk to me about this.

The point made by Senator Inhofe is that in order to meet the LEED standard, you have to have a certain type of wood and that means that the wood, the building, in order to qualify, you have to import the wood from other places rather than use the wood we have in this country. Is that an accurate statement? Mr. Gatlin, and then followed by Mr. Hubbell.

Mr. GATLIN. I think it is an inaccurate statement.

Senator BOXER. Inaccurate.

Mr. GATLIN. The standard relies on use of third party standards wherever possible and, in that case, the standard is for sustainable wood products and I do not——

Senator BOXER. Explain what sustainable wood products means versus unsustainable.

Mr. GATLIN. It is how they are harvested, it is the type of woods, it is the forest management practices.

Senator BOXER. I see.

Mr. GATLIN. We have a lot of sustainable forestry in this country.

Senator BOXER. So, it is not the wood itself. It is not hard wood versus soft wood.

Mr. GATLIN. It is not the type of wood. If I could just mention, this is a voluntary credit. It is pursued in maybe 40 percent of projects. But you have to understand wood is not that significant a building material in commercial buildings. So, but we are not in any way linked to a standard that encourages use of wood from a particular location or destination.

Senator BOXER. OK, and let me repeat this, and then I will ask Mr. Hubbell. Senator Boozman, I am very interested in your response.

So, what you are saying is the fact is that there is no standard that you cannot use a certain type of wood.

Mr. GATLIN. The third party standard, which we refer to in the LEED rating system, requires the use of sustainable practices in the growth and the production of the wood.

Senator BOXER. But it is not the type of wood.

Mr. GATLIN. It is not a type of wood, it is not a destination or a growing location of wood. We also have a credit that focuses on using regional materials. Those are materials that are grown or manufactured locally, and actually 90 percent of our projects pursue that credit. So, that credit is equally or more significant than the sustainable wood credit.

Senator BOXER. So, it offsets it?

Mr. GATLIN. Well, it does not necessarily offset it. It is just that we try to encourage the use of locally grown and manufactured materials wherever we possibly can.

Senator BOXER. Because of the shipping costs and all that?

Mr. GATLIN. For our members, it was first and foremost because of the environmental benefits with using and growing local materials. But also there is economic benefits to stuff that is manufactured domestically.

Senator BOXER. Sure, good. Now Mr. Hubbell, could you give me your answer to that?

Mr. HUBBELL. Sure. The difference between LEED and Green Globes on that particular issue is that LEED gives credit for forest certification under one forest certification system called FSC. Green Globes gives that same credit, but we recognize not just FSC but we recognize other major rating systems that are used in the United States.

The question you asked, Senator, about wood not being eligible under LEED. The vast majority of domestic wood in this country to my knowledge does not participate in the FSC program so they would not get——

Senator BOXER. FSC?

Mr. HUBBELL. Forest Stewardship Council, or whatever it is. The vast majority of domestically grown and produced wood does not participate in that program and so they are ineligible for those points.

Senator BOXER. Why is that?

Mr. HUBBELL. That is a question for Mr. Gatlin.

Senator BOXER. Mr. Gatlin, why is that?

Mr. GATLIN. Well, I think you would have to have an industry representative of the forest and paper products industry. Many of the forest and paper products industry associations and their member companies, companies like Kimberly-Clark, are active members of the U.S. Green Building Council.

I would like to mention that we have worked for about 4 years on developing our own benchmarks for sustainable wood certification and that initiative was put to our membership, we are a member organization, our members did not vote to support the adoption of that new initiative. I believe that, frankly, has to do with the wood industry not reaching a consensus on sustainable certification.

Senator BOXER. OK. I have one more question. Can I ask it?

Senator WHITEHOUSE. Yes.

Senator BOXER. I just wanted to say welcome to HP and I am proud of the work you are doing here. I want to quote you and I want to make sure I am getting it right. You said the green way is the way to reduce costs. Is that what you said?

Mr. SINDELAR. Yes, that is correct.

Senator BOXER. Well, good. Senator Boozman, the green way is the way to reduce costs, says HP.

Mr. SINDELAR. Thank you.

Senator BOXER. I think that is really important because I certainly believe that. I always think we argue here over the word sustainability. We do not have to use that word. It makes sense. You cut costs. So, for me, I do not want to get into a battle over sustainability. If you can reduce costs and reach it in a good way, I am thrilled with it.

So, I wanted, I was amazed to see, and tell me that this is true, that you saved $1 billion annually by consolidating your IT infrastructure. Is that correct?

Mr. SINDELAR. Thank you, Senator. It is correct. We reduced from 85 data centers that served our internal requirements down to six in three communities including Atlanta, Austin and Houston. We are saving $1 billion annually now, cost——

Senator BOXER. That is incredible.

Mr. SINDELAR. Over a 4-year period.

Senator BOXER. So, would you have any notion of what is possible for the Federal Government if we did data center consolidation on the scale that you did it, what we could save?

Mr. SINDELAR. I do not have that figure, but it would be very, very significant since the Administration's initiative is reduction of 800 data centers.

Senator BOXER. Would you be willing, just for me as Chairman, and I will share it with any colleagues who want it, I know Senator Whitehouse would and I hope Senator Boozman would, would you send us a little bit of a letter just in simple, like a white paper, just a paper, on how you achieved this over how many years. It is amazing. You did not lose any of your functions?

Mr. SINDELAR. No. Our business actually grew.

Senator BOXER. That is remarkable. I hold that up to the committee. It is such a wonderful statement by the private sector about what you could do. Thank you very much, Mr. Sindelar.

Mr. SINDELAR. Thank you. I will provide that. Thank you.

Senator WHITEHOUSE. Senator Boozman.

Senator BOOZMAN. Thank you, Mr. Chairman, and I agree, Senator Boxer, that one of my companies is Wal-Mart in Arkansas and they have done a tremendous job of putting so much of this in place and not only being environmentally friendly, but saving the consumers money, being able to pass those costs on, that these things actually do work.

I would like to get back, though, to the wood, and I think it really is important. In Arkansas, zero percent of the certified forests are eligible for LEED certification. Seventy-five percent of the certified forests in North America are not eligible for LEED's wood certification credit.

Can you tell me why, Mr. Gatlin?

Mr. GATLIN. I believe, as Mr. Hubbell mentioned, the owners of those firms are not participating in the FSC certification process. I do not believe it is necessarily that they are eligible or ineligible but that they opt not to participate. They may not like that system.

Senator BOOZMAN. Well, they are ineligible for your certification, based on your criteria.

Mr. GATLIN. Yes, sir. Our criteria for that is that wood products, in order to earn that point, and it is a voluntary point out of 100 points, that they would be participating in the FSC certification. That is simply because we try to refer to other third party environmental standards wherever we possibly can, and not come up with our own.

Senator BOOZMAN. Do you have any relationship with the FSC folks?

Mr. GATLIN. Not other than just communication. There is a dialog like there is with most other industry associations, but no relationship, no formal relationship.

Senator BOOZMAN. Why choose that as opposed to the certified forest designation? I mean, 75 percent are not able to qualify. Most of our producers in our States, which are Americans who pay taxes and stuff, they do not qualify.

Mr. GATLIN. Well, again, as I mentioned in response to Senator Boxer's question, our organization, we are a membership organization, almost 17,000 member companies, we spent several years working on an alternative. It did not pass our membership. So, those things happen sometimes.

The alternative was sort of our last fallback because we do not like to create our own benchmarks where there are existing ones in the market. We tried to look at a number of factors, management practices, clear-cutting practices, and so forth. There are a number of factors and I am not actually an expert on the forest industry. But we tried to look at a number of factors in creating that benchmark standard and it did not pass because a lot of the wood industry itself has not reached a consensus on those practices.

Senator BOOZMAN. I guess my problem is that then GSA is having, we as a Government are having to rely, I guess what you are saying is on your membership as to how they vote on these things, which to me is kind of crazy.

Mr. GATLIN. I think, unfortunately, we are sort of looking to the forest and paper products industry to come to a better consensus than they currently have on sustainable certification.

Senator BOOZMAN. Can you comment, Mr. Hubbell?

Mr. HUBBELL. Yes, sir. One of the reasons that we founded the Green Building Initiative 6 years ago is because we thought we could do a better job of involving all of the relevant stakeholders in the maintenance and development of a green building standard.

So, we licensed a consensus standard into the U.S. and then we immediately took it through a very rigorous process as dictated by the American National Standards Institute and essentially separated the organization from the content of the standard. We do not control the content of the standard.

The committee that looked at this consisted of people from the wood industry, and from the concrete industry, and a lot of places like that, but it also included representatives from the American Institute of Architects and the USEPA and a lot of folks. So it was a very balanced, transparent process that resulted in the inclusion of four major forest certification systems, FSC being one and the other three, SFI and a couple of others.

That was the collective wisdom of that committee over which we had no control. So that is how it has come to be the way it is with our system.

Senator BOOZMAN. So you agree that the 75 percent should or should not be included?

Mr. HUBBELL. I agree with the technical committee that recommended that four major North American forest certification systems should be recognized in our rating system.

Senator BOOZMAN. Yes, sir, I agree. Very good. I am glad you clarified that.

I guess, what is the rationale that that is not the approach that you all take, Mr. Gatlin? I mean, that, to me, is common sense. You said that they had not come to a consensus, but again, I do not understand why.

Mr. GATLIN. Well, in short, the way our process works is we have a technical committee similar, I think, to what was described and for energy, water, materials being one, and our materials technical committee years ago identified the FSC standard as the most objective, ideal standard for wood certification.

As I mentioned, in trying to be more open or at least perceived to be more open, we tried to create our own sort of benchmark criteria which, as I mentioned, did not pass.

But I think one of the points that is probably the most important, again, is 90 percent of our projects actually pursue materials credits that are focused on buying locally. That could include wood products and it could include many other types of products. So we see that as a real win and we are going to continue to work on the wood issue to the best that we can given that there is disagreement in the forest industry right now.

Senator BOOZMAN. Well, OK, thank you. Again, thank you, Mr. Chairman. I guess the only thing I would say is that you cannot buy locally in Arkansas because zero percent qualifies. That is true, again, in much of the States, much of our constituency. So we have a situation where the Federal Government is discriminating based on your membership and I think that is a real problem.

Thank you.

Senator WHITEHOUSE. Thanks, Senator Boozman.

If I could just followup for a point of clarification to the point that you are making, Mr. Gatlin? You referenced that there were two different benefits that one could get with respect to wood in LEED buildings. One had to do with having been produced under the approved sustainability standard. The other had to do with having been harvested locally.

Are they independent of each other, or do you have to be within the sustainability standard in order to get, to take advantage of the local harvesting benefit?

Mr. GATLIN. Two independent credits in the same general category of sustainable materials.

Senator WHITEHOUSE. So, somebody who was not within the FSC standard could, nevertheless, get a LEED credit for wood that was harvested locally, say in Arkansas? They could not get both, they could just get the one?

Mr. GATLIN. Absolutely. In fact, my well-informed staff has indicated that we have about 50, there are about 50 LEED certified products in the State of Arkansas and about 86 percent of those projects have used the regional credit, which includes regionally-grown wood.

Senator WHITEHOUSE. It does not fix the other problem but it is at least clarification on that.

Now, let me ask you, everybody on the panel, I am going to ask you all the same question, and it is what can GSA do better to accelerate its, I mean it has very significant market power. What can it do to accelerate the investment here?

I would like to start with Mr. Sindelar and if you have the chance to mention something about supply chain management, I know HP has been particularly good in supply chain management and in pushing your top tier suppliers to audit and manage their own energy use. GSA clearly operates at a scale similar to or greater than HP's and might have a similar capability.

So, whatever you wish to say, of course, but if you could just touch on your supply chain management program as well.

Mr. SINDELAR. OK, well, let me take the supply chain first. We are actually the largest IT supply chain with other 700 production suppliers and thousands of non-production suppliers. Our focus has been on a program called sustainability environmental, or Supplier Environmental Responsibility Program.

So, we have made that a corporate policy from the beginning and, being a founding member of the EICC, which is the Electronic Industry Code of Conduct, we build that into our contract with suppliers and we focus on working directly with our suppliers and we have coverage of over 60 percent of them in terms of reviewing our work with them.

But we work with them directly on, to the contractual arrangements, the self-assessment, then we go in and look at the accuracy of that self-assessment, conformity with the standards that are built into our contracts with them, and then we take corrective action with them in a collaborative way from an audit process, and I mean audit in the good sense of the word, and then we help build their capabilities.

What we have found from 2004 through 2009 there is a 40 percent drop in conformance problems and we continue to achieve positive results there.

On things that I would like to see GSA do, from a leadership position they need, we had a saying in the Office of Governmentwide Policy, which was part of GSA and still is, of course, when I was the head of that, is make sure you align the incentives in your policymaking role or at least make everybody feel equally bad.

So, one of the things that I would like to see GSA do is build this into their acquisition process to the extent that they can, in terms of encouraging energy efficiency and sustainability through their acquisition process, through their technical evaluation and source selection processes. I think that is very important, particularly if you want companies to invest in energy efficiency and sustainability and reward the ones that did.

The other thing I would say is the Government needs, it does not have one throat to choke. Nobody knows their total energy spend in most organizations. It is not transparent. So, they need to look at the total energy spend and address it in ways that are metric based.

Senator WHITEHOUSE. My time has expired here and I have also been summoned to the last bit of a Judiciary Committee hearing I need to attend. So, I am going to depart and allow my distinguished Chairman to conclude the hearing.

For those of you who did not get a chance to answer that, I would very much appreciate it if you would make that a question for the record and give me written recommendations on what GSA

could be doing to improve its vigor in this area and the vigor of its suppliers in this area.

I thank you all very much, and I thank very much, again, the Chairman for her courtesy.

Senator BOXER [presiding]. Well, Mr. Chairman, thank you for chairing the hearing and good luck on your next mission.

Mr. Bautista, your company is one of the first to work with the Federal Government to analyze its operations and to identify opportunities to reduce emissions. Clearly, this is important to us, I think all of us on the committee that want to see cost reductions.

So far, what can you tell us? Do you feel that there are opportunities for cost savings? Do you feel that GSA is moving quickly enough? I really could not get from them too much of a sense of, I mean, it was broad, they did not have specifics for me. So, what is your sense of it?

Mr. BAUTISTA. We are one of 60 small businesses that are participating in a pilot program. For us, there are certainly opportunities to save costs as part of reducing our carbon footprint. At the same time, there is a significant investment for a company the size of ours to put an outlay such as that.

As an example, I mentioned that we changed the lighting out in both of our plants to increase their energy efficiency. That was a significant capital outlay. As part of the new business we are launching, which is spray foam insulation, we decided to spray our own plants to reduce the carbon footprint as well as reduce energy consumption. That is also a significant investment.

So, as part of this program, I do not think that GSA has really looked at what a small business has to do to participate in the program.

Senator BOXER. Thank you. That is important going forward.

Mr. DeBoer, when we were looking at carbon energy legislation, which I was sad to say we got out of this committee and then died a couple of times, a part of what was in that bill was an authorization of a program I thought would be helpful to the private real estate market, which was to set up a revolving fund that could be tapped at either no interest or low interest for the explicit purposes of old buildings, being able to get the capital to invest in energy saving projects.

I remember when I went to New York City and met with a group of real estate, I am sure you have many from there. They were excited about this idea because even for them, and you point out what a huge group they are, some of these up front costs are very expensive. They have a payback, sometimes 2 years, 5 years, the bigger ones take a little longer.

But I guess I would like to ask you, would you be interested in that type of a program? You would have to pay it back but it would be a revolving fund and as we got the funding back, we would lend it out.

It just seems to me the low-hanging fruit on all of this, for everyone, in other words, whether you care about importation of foreign oil, which none of us wants to depend on, so it is energy security, it is cost saving, it is lower the carbon footprint, it is save money, it is all these things, it is what I call a huge win all around.

So what do you think about that type of idea?

Mr. DEBOER. Senator, thank you, you raise a lot of excellent points that are irrefutable actually. I mean, we, clearly a significant way to address energy consumption and to reduce costs and to make businesses more productive is to make their buildings more energy efficient. We think you can get a very strong bang for the buck by focusing in that area, particularly on existing buildings, as you mentioned. We have statistics, and they range from 75 percent to as high as 90 percent, of the building stock that is going to be standing in America in 2030 is standing today.

Senator BOXER. How much? Say it again.

Mr. DEBOER. Well, some people say 70 percent, some people say as much as 90 percent. But the point is that a significant number of the buildings that are currently built today will be standing in 2030. So, if we want to achieve great energy efficiency many years from now, the focus is not on new development.

Senator BOXER. Yes.

Mr. DEBOER. New development will naturally be energy efficient. We need incentives and we need financial programs to make the existing buildings retrofit in a correct way. One of the problems is financing for a large number of individuals, even prior to the current economic situation. So, your revolving fund concept was one that we supported and our New York folks that you mentioned found it to be a very attractive thing to do.

We have suggested in our testimony another approach to this which might be to do a pilot program where you have a credit enhancement from the Department of Energy. Currently, there are financing programs out there for energy saving activities in nuclear and solar and some other things. Why not have a credit enhancement to get lower, more attractive financing if you are going to retrofit your building? We are not talking about a permanent program. We are talking about something that might jump start the private market in this area.

Senator BOXER. That is interesting. What I like about it is it is an existing program so you just have to add eligibility.

Mr. DEBOER. Correct. We think that current law allows DOE to go in this area.

Senator BOXER. Really?

Mr. DEBOER. We do. If they so chose. Perhaps a nudge from you would be very helpful there, Senator. But your points are absolutely well taken. It is very expensive to do this. We should focus on existing buildings, there are ways to do it, Energy Star, LEED, these other programs are all positive. But we need to be rewarding people to do things and to make their properties more energy efficient.

Senator BOXER. Well, in California, you probably know, we have terrific, when you put together this Federal credit for solar roofs and what we do in California, it is terrific. I mean you spend, I do not know, $35,000, I am making this pretty accurate, to put a solar roof on a home that will pretty much cover all of its electric bills and you get back a very nice, reduce it by one third.

Mr. DEBOER. May I?

Senator BOXER. Yes.

Mr. DEBOER. The other, obviously focusing on getting financing is a significant thing, but this tax incentive that you were very ac-

tive in when it was originally put in place, it does have some deficiencies that could be corrected that no one saw at the time and the Administration has put forward some very good proposals on this so-called 179 deduction to make it work and that would be very powerful as well.

Senator BOXER. Well, would you work with us? Because I am very interested, I mean, this is something that is really troubling me that it is such as obvious place. I mean, first of all, you get the capital, people are hired, small businesses, private sector people, terrific stimulus, and then the payback is so good, and then the businesses have more funding in their pocket to reinvest in another project, painting the building or hiring more custodians or whatever it is. I just think it is as jobs are the major consideration still for us, just this is an obvious one and reduces the carbon pollution.

Mr. DEBOER. We would be happy to work with you.

Senator BOXER. I would love it. So, first of all, I think we would like to write to DOE and raise this point. Then, these corrections, do you think they need to be made legislatively or could they be——

Mr. DEBOER. In the tax deduction area?

Senator BOXER. Yes.

Mr. DEBOER. They would need a tax bill, yes.

Senator BOXER. OK. All right. Well, let us take a look at what we can do and then I will look at also the program that I, there is a big move here to do an Infrastructure Bank and the Infrastructure Bank, it is a Kerry bill with Senator Hutchison, it is going to look at, I think the capitalization is $10 billion. Is that right? Yes, $10 billion. Then they are going to allow it to be used for various things.

I would like to talk to Kerry and Hutchison and see if they would put in these types, because it is all a revolving fund process where loans are made and then they are paid back to the Infrastructure Bank.

But the beauty of it is the savings would be generated from day one and would be paid back in 5 years just with the savings. So, the payback to the Federal Government could be pretty quick. We could say, in the number of years it takes to actually get the savings.

I just want to thank all of you. This is very important. It may not seem too exciting to the outside world when we are looking at how to save energy. But it is exciting to me. I know it is exciting to all of you. You have dedicated a lot of your time and efforts, and some of you your lives, to it.

I would love to see you two get together a little because I do not like to see the competition. We rate it this way and we are better. I honestly feel if you could get together and maybe have a project where you work together, it would be very good. Because what happens is, I am for this standard and I am for that, and then we lose the momentum. We cannot afford to do that.

I just thank you all very, very much. I am very proud of the work that you are all doing.

We stand adjourned. Thank you.

[Whereupon, at 12 p.m., the committees were adjourned.]

[Additional statements submitted for the record follow:]

February 17, 2011

The Honorable John Boehner
Speaker of the U.S. House of Representatives
H-232 The Capitol
Washington, DC 20515

The Honorable Nancy Pelosi
Minority Leader of the House of Representatives
235 Cannon House Office Building
Washington, DC 20515

Dear Speaker Boehner and Minority Leader Pelosi:

We, the undersigned organizations and companies, write to voice our strong opposition to provisions in H.R. 1, the Full Year Continuing Appropriations Act of 2011, which would decrease the General Services Administration's (GSA) Federal Buildings Fund by $1.6 billion. We encourage you to reject this proposal and work with the Senate and the Administration to produce a plan that does not hinder common-sense efforts to reduce federal operating costs while sustaining and fostering private sector employment in the building industry.

As the owner or lessee of space in 8,600 buildings across the nation, GSA initiates and manages a diverse range of facility design, construction, rehabilitation, restoration, renovation, and operations projects in communities throughout the country. The GSA Federal Buildings Fund is an important program that helps reduce the federal government's operating expenses through high performance facility upgrades, operations maintenance and new construction. GAO has identified that addressing the needs of aging and deteriorating federal facilities remains a problem for real property-holding agencies, and that according to recent estimates, tens of billions of dollars are needed to repair or restore these assets so that they are fully functional.[13] Failure to update these buildings would force taxpayers to unnecessarily subsidize poor utility bills in the short term while leaving them exposed to additional long term expenses as restoring and upgrading facilities becomes more costly over time.

The GSA Federal Buildings Fund also provides a critical role in sustaining and fostering private sector employment in the building industry. At a time when unemployment in the construction sector still exceeds 22%, reducing funding for the Fund would exacerbate an already dire situation for the industry.

Again, we urge you to reject the dramatic cuts to the GSA's Federal Buildings Fund that are proposed in H.R. 1. We appreciate your consideration of this serious request and your ongoing support of a cost efficient federal government that promotes, not hinders, private sector employment.

Sincerely,

---

[13] The GAO Report can be accessed here: www.gao.gov/new.items/d09801t.pdf page 16

AEC Science and Technology, LLC
American Institute of Architects
American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE)
American Society of Landscape Architects
American Supply Association
American Rivers
Bentley Systems, Inc.
Building Owners and Managers Association International
National Insulation Association
Polyisocyanurate Insulation Manufacturers Association (PIMA)
Institute for Market Transformation
Ecobuild America
Energy Future Coalition
Environment America
EIFS Industry Members Association (EIMA)
GREENGUARD Environmental Institute
HOK
Illuminating Engineering Society (IES)
International Association of Heat and Frost Insulators and Allied Workers
Johnson Controls Inc.
LonMark International
Mechanical Contractors Association of America
The Real Estate Roundtable
Service Employees International Union
Service Employees International Union Local 32BJ
Sheet Metal and Air Conditioning Contractors National Association
The Stella Group, Ltd.
U.S. Green Building Council
United Association of Journeymen and Apprentices of the Plumbing and Pipe Fitting Industry of the United States and Canada

CC:
Senate Majority Leader Harry Reid
Senate Minority Leader Mitch McConnell
Representative Hal Rogers, Chairman, House Appropriations
Representative Norm Dicks, Rnk. Member, House Appropriations
Senator Daniel Inouye, Chairman, Senate Appropriations
Senator Thad Cochran, Rnk. Member, Senate Appropriations
Representative Paul Ryan, Chairman, House Budget
Representative Chris Van Hollen, Rnk. Member, House Budget
Senator Kent Conrad, Chairman, Senate Budget
Senator Jeff Sessions, Rnk. Member, Senate Budget
Representative Jeff Denham, Chairman, Subcommittee on Economic Development, Public Buildings, and Emergency Management, House Committee on Transportation and Infrastructure
Representative Eleanor Holmes Norton, Rnk. Member, Subcommittee on Economic Development, Public Buildings, and Emergency Management, House Committee on Transportation and Infrastructure

SUSTAINABLE FORESTRY INITIATIVE

SFI-00001

Chairman
Bob Luoto
Vice Chairman
Larry Selzer
Secretary and Treasurer
Mary Motlow
President and CEO
Kathy Abusow

ENVIRONMENTAL SECTOR:
George Finney
President
Bird Studies Canada
Tom Franklin
Senior Vice-President
Theodore Roosevelt Conservation Partnership
John M. Hagan
President
Manomet Center for Conservation Sciences
Roger Sedjo
Senior Fellow
Resources for the Future
Larry Selzer (Vice Chair)
President and CEO
The Conservation Fund
Mike Zagata
President & CEO
Boiled Scouts Society

SOCIAL SECTOR:
Stewart Hardacre
President & CEO
Habitat for Humanity Canada
Steven W. Koehn
Director and State Forester
Maryland Department of Natural Resources, Forest Service
Mary Motlow
(Secretary and Treasurer)
representing family forest landowners
Richard W. (Dick) Brinker
Dean Emeritus
School of Forestry and Wildlife Sciences, Auburn University
C. Tattersall (Tat) Smith
Former Dean and Professor
University of Toronto, Faculty of Forestry
Bill Street, Director
Woodworkers Department
International Association of Machinists and Aerospace Workers

ECONOMIC SECTOR:
John B. Crowe
Chairman & CEO
Buckeye Technologies Inc
Matthew Donegan
Co-President
Forest Capital Partners LLC
Daniel S. Fulton
President and CEO
Weyerhaeuser Company
Rick R. Holley
President & CEO
Plum Creek Timber Company Inc
Harry H. (Hank) Ketcham
Chairman, President and
Chief Executive Officer
West Fraser Timber Co. Ltd
Robert A. (Bob) Luoto (Chair)
representing independent professional
loggers and the American Loggers Council

Statement for the Record
Senate Environment and Public Works Committee Hearing on "GSA: Opportunities to Cut Costs, Improve Energy Performance, and Eliminate Waste"
March 30, 2011

Submitted by Nadine Block
Senior Director of Government Outreach
Sustainable Forestry Initiative, Inc.

SFI Inc. is an independent 501(c)(3) non-profit charitable organization, and is solely responsible for maintaining, overseeing and improving the internationally recognized Sustainable Forestry Initiative (SFI) program (www.sfiprogram.org), which includes measures to protect water quality, biodiversity, wildlife habitat, and other forest values. Across North America, more than 180 million acres are certified to the SFI forest management standard, making it the largest single forest standard in the world. SFI Inc. is governed by a three-chamber board of directors representing environmental, social and economic sectors equally.

We appreciate the Committee's examination of GSA's efforts in regards to energy performance and related activities, and the opportunity to submit a statement. We are concerned that GSA's current approach to green building rating systems creates unintended negative consequences for the nation's forests and communities and we urge a new direction that opens the door to other green building rating systems and to the use of wood from responsibly managed forests. Wood is a renewable, durable resource that also stores carbon and is energy efficient to produce. Lifecycle analysis shows that wood has a lower carbon footprint than steel and concrete. As GSA strives for a "zero environmental footprint" in its buildings, it would be well served to examine ways to use more wood from responsibly-managed forests in federal buildings.

We are concerned about GSA's policy that explicitly requires the use of the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) rating system. LEED has made significant contributions to improve building design and efficiency and offers a useful tool for GSA on many fronts. Unfortunately, LEED fails in two areas: it discourages the use of wood due to an insufficient point allocation for wood-based materials and discriminates against several forest certification programs in use in the U.S., including SFI, as LEED continues to recognize only the Forest Stewardship Council (FSC). GSA has in other ways demonstrated its support for forest certification and specifically for SFI – its Solicitation for Offers states that "for all new installations of wood products, the Lessor is encouraged to use independently certified forest products. For information on certification and certified wood products, refer to the Forest Certification Resource Center (*www.certifiedwood.org*), the Forest Stewardship Council United States (*www.fscus.org*), or the Sustainable Forestry

Initiative (*www.sfiprogram.org*)."[1] But its reliance on LEED for new construction and renovations creates an inconsistency that should be addressed.

LEED's wood certification credit is structured to give credit only for FSC certified wood. Approximately 75% of the certified forests in the US are certified to the SFI and American Tree Farm standard, yet neither is recognized by USGBC. However, approximately 90% of FSC's certified acres are located outside the U.S. While USGBC does give a credit for local materials within a 500-mile radius of the building site, domestic wood products often travel further than that to a building site. While we are supportive of free and open trade, we feel strongly that domestic certified forest products should not be discriminated against in domestic green building rating tools like LEED and we certainly are concerned that government agencies like GSA are unintentionally condoning this discrimination by giving preferential treatment to the LEED rating tool.

The USGBC began a process several years ago to revise its wood policy. SFI (a USGBC member) has been actively engaged in trying to improve the LEED system. Fourteen governors and 87 Members of the House of Representatives have joined thousands of stakeholders urging the USGBC to accept all credible forest certification systems under LEED and to offer greater credit for the use of wood. In late 2010, however, the USGBC's lengthy process and flawed attempts at a neutral set of certification benchmarks failed, and LEED continues to recognize only one certification system (FSC) and discriminate against domestic wood. This result escalates our concerns about LEED's discrimination against domestic forest products and our concerns regarding government reliance on this rating system. Until such time as USGBC rewards wood and recognizes SFI, we cannot support GSA's use of LEED.

GSA's has stated its intent to use federal buildings "as a green proving ground for new technologies and techniques." As such , we recommend that that GSA's policy on green building be modified to include other green building rating systems besides LEED, including the Green Building Initiative's Green Building Assessment Protocol (based on the Green Globes system) for commercial construction and the National Association of Home Builders' National Green Building Standard (NGBS) for residential construction. Both are American National Standards Institute (ANSI)-approved standards, available for use by GSA, reward the environmental benefits of wood, and recognize multiple forest certification systems. In fact, Green Globes is already in use by several federal agencies including Veterans Affairs, State Department, and Health and Human Services. Of particular note is the March 30 announcement by the Department of Agriculture to promote the use of wood as a green building material. Within their 3-part strategy, they will look for opportunities to "demonstrate the innovative use of wood as a green building material... using recognized green building standards such as LEED, Green Globes, or the National Green Building Standard." We applaud this strategy, which makes it clear that opportunities for wood and choice in green building rating tools are part of the solution, and suggest it as a model for GSA.

We look forward to working further with this Committee to identify opportunities for GSA to use certified wood in their buildings and to level the playing field for green building rating systems that do a solid job of recognizing wood.

[1] http://contacts.gsa.gov/webforms.nsf/0/16A3F7C2E0044E4485256F4D00628BE3/$file/SFO_09_09.pdf

Weyerhaeuser

CH 2D23
P.O. Box 9777
Federal Way, Washington 98063-9777

Weyerhaeuser Statement for the Record
EPW Hearing: "GSA: Opportunities to Cut Costs, Improve Energy Performance, and Eliminate Waste."
March 30, 2011

Submitted by Cassie Phillips
Vice President, Sustainable Forests & Products
Weyerhaeuser Company

Weyerhaeuser Company, one of the world's largest forest products companies, has been producing forest products and providing high-skilled American manufacturing jobs for more than 110 years. We grow and harvest trees, build homes and make a range of forest products essential to everyday lives. Our goal is to do this safely, profitably and responsibly. We are committed to increasing energy and resource efficiency, reducing greenhouse gas emissions and conserving natural resources throughout our operations.

Wood is an important component of environmentally-friendly green building. When built with wood, a typical American home stores more greenhouse gases than the average car emits in a year. As trees grow, they absorb CO2 and break it into carbon and oxygen molecules. They release the oxygen back to the air, and combine the carbon with other building blocks to form wood fiber. After trees are harvested and manufactured into building products, the carbon remains in wood for the life of the building and beyond.

The Consortium for Research on Renewable Industrial Materials found that for a typical house, wood framing generated 26 percent less greenhouse gas emissions than steel and 31 percent less than concrete. According to the EPA, wood and paper products produced in the U.S. annually store the equivalent of 100 million tons of carbon dioxide, equivalent to the emissions of 18 million (13 percent) of all passenger cars in the U.S.

We commend the committee's interest in examining the General Services Administration (GSA) policy regarding green building standards. Currently, GSA maintains a policy that requires any new construction to be certified by the U.S. Green Building Council's (USGBC) Leadership in Energy and Environmental Design (LEED) Green Building rating system, which is the most widely recognized green building program in the United States. Unfortunately, as currently designed, LEED discriminates against domestic forest products.

LEED's treatment of wood raises two concerns. First, LEED gives more credit for the use of steel and concrete than the use of wood. Scientific lifecycle analyses show that wood has a lower

carbon footprint than steel and concrete, as well as a host of other environmental benefits that should put it on at least an equal footing with these other materials. Reliance on LEED may therefore not be producing the full energy savings and environmental benefits desired by the federal government.

Weyerhaeuser

CH 2D23
P.O. Box 9777
Federal Way, Washington 98063-9777

Second, for builders who use wood, LEED awards its wood certification credit only for wood certified to the Forest Stewardship Council (FSC) standard. Forest products are the only building material to broadly adopt independent, voluntary certification. Most U.S. forest owners are certified to the American Tree Farm System or the Sustainable Forestry Initiative (SFI) standard, which is the largest single forest certification standard in the world. Together Tree Farm and SFI account for more than 82 million acres of certified forest in the U.S. Neither, however, is recognized by LEED. FSC, which accounts for only 31 million acres in the U.S., has standards that vary by country and region.

Thus, the majority of FSC-certified acres are located abroad, and an unintended consequence of the USGBC's FSC-only policy is that builders, architects and designers seeking the forest certification credit are often choosing wood from China and other foreign markets over domestically produced wood. This is an unacceptable outcome for buildings and furnishings paid for by the federal government.

Five years ago the USGBC began a process to revise its wood policy. Unfortunately, the USGBC excluded forest owners and primary wood products manufacturers from its committees, with the decision-making process taking place behind closed doors.

Other green building standards – such as the National Green Building Standard developed by the National Association of Home Builders and the Green Building Assessment Protocol for Commercial Buildings developed by the Green Building Initiative – are ANSI-approved and do not have this discriminatory effect. These standards are in use by other federal agencies, such as the Department of Agriculture, the Department of Veterans Affairs and the Department of State. In fact, USDA recently announced a three part plan to recognize multiple green building certification systems and actively pursue opportunities to give preference to domestic wood products in all new construction projects.

We ask that you work with GSA to review its current policy and open its process to other green building certification systems.

Cassie Phillips

Vice President, Sustainable Forests & Products
Weyerhaeuser Company

Testimony from the
National Association of Home Builders

United States Senate
Committee on Environment & Public Works

"GSA: Opportunities to Cut Costs, Improve Energy Performance, and Eliminate Waste."

March 30, 2011

Written Statement

Overview

On behalf of the over 160,000 members of the National Association of Home Builders (NAHB), we appreciate the opportunity to provide testimony on the oversight of the U.S. General Services Administration (GSA) and energy efficiency in public buildings. While most NAHB members do not construct federal buildings, the impact of buildings belonging to and constructed by GSA on the building sector as a whole directly affects our industry. NAHB members are affected by the overall performance of GSA buildings as all buildings are responsible for some measure of energy and resource use, as well as greenhouse gas emissions. As our industry moves forward with a rigorous green building program, the National Green Building Standard™ - the first and only residential green standard approved by the American National Standards Institute (ANSI) – and promoting energy efficiency improvements in both new and existing homes, it will be important for the nation's biggest landlord, i.e., GSA, to have sound policies on energy efficiency, sustainability, and green building.

The policies and procedures promoted and supported by GSA on energy efficiency, sustainability, and green building are relevant and important precursors for other types of development, including residential. General support for improved energy, resource, and water efficiency in public buildings coincides with many of the green building advances that the housing industry has voluntarily implemented over the last 30 years. However, one potential area of concern is with the GSA's endorsement and support for specific green rating systems over criteria-based or benchmarked targets for green building. NAHB supports a holistic approach to green building that is based on actual performance of homes and buildings, rather than promoting specific, or privately-developed and managed green rating systems, particularly for publicly-owned and funded property.

Energy Efficiency and Green Building

The energy performance of newer homes and buildings has dramatically improved over the last decade. Since the introduction of national model energy codes and standards in the early 1990s, energy consumption has dropped and efficiency has increased. As the Energy Information Administration (EIA) reports, homes built between 1991 and 2001 consumed only about 2.5% of total U.S. energy consumption in 2001, while homes built before 1991 consumed 17.1%.[1] Additionally, the growing momentum of the green building movement in the 1990s began delivering more sustainable buildings that both conserved energy and natural resources.

In 2005, Congress passed the *Energy Policy Act* (P.L.109-58) that provided additional incentives for building efficiency under Sections 25C, 25D, 179D, and 45L of the Internal Revenue Code. These incentives further pushed efficiency thresholds beyond code minimums (up to 50%) to promote the construction of super-efficient homes and commercial buildings. The same law also established a grant program to improve the energy efficiency of State and locally-owned public buildings by 30% - for both new construction and renovated existing buildings (Section 125).

Also in 2005, NAHB released the first set of national green building benchmarks for residential construction called *The National Green Home Building Guidelines* (the Guidelines). The Guidelines, developed by many stakeholders in the building industry – i.e., builders, suppliers, manufacturers, and government officials – served to improve not only energy efficiency, but also resource efficiency and indoor environmental quality as part of the design and construction of new homes.

As greater emphasis on the design and performance of new buildings continues to enhance energy savings and consumption reductions for new stock, fewer resources and focus is continually afforded to the energy lost in existing buildings and older, less efficient structures. While it seems easier to control the efficiency of buildings *before* construction through various regulatory measures, the government risks losing out on the most substantial energy savings if policies are focused inordinately on newer, more efficient buildings.

Developing a Legitimate National Consensus Standard

The challenges of addressing efficiency improvements in both new and existing construction at the same time was answered by NAHB with the development of the first nationally-applied green building standard approved by the American National Standards Institute (ANSI). Working off of the success of the Guidelines, NAHB convened a stakeholder group [see Appendix A – Consensus Committee] in 2007 to begin development of a rigorous set of green benchmarks for single and multifamily construction, renovation, and site development that holds impartial integrity through its approval by an unaffiliated third-party accreditation authority like ANSI.

The Consensus Committee convened several public meetings, negotiated countless proposals, and reviewed thousands of public comments to produce a set of criteria that preserves environmental quality, saves energy and natural resources, and supports affordability metrics that could apply to every price-point and building type in the residential market. The finished product was approved by ANSI on January 29, 2009 and is currently the only residential green building standard to have earned ANSI's seal of approval.
The importance of gaining integrity through third-party approval by groups like ANSI is to protect against undue private or corporate influence, to align with federal laws that govern recognition of technical standards by government agencies, and to ensure that such standards are updated and improved on a regular schedule. These safeguards ensure that one interest holds no greater weight over others in developing product design specifications or techniques and that neither industry nor public interest groups supersede government and enforcement officials' authority in setting benchmarks.

For instance, standards approved by ANSI have to meet strict balance requirements during development to include equal representation by stakeholder groups – public interest (nonprofit), industry and government, essentially those entities that develop criteria, those regulated by it, and those enforcing it. If the government supported and used only green criteria established entirely by interest groups or unaffiliated corporations, for example, it would effectively stifle any input from industry or government officials that ultimately bear the regulatory costs and burdens of enforcement.

In order to clarify confusion over the potential proliferation of privately-developed systems, Congress passed legislation to specify how government agencies should recognize voluntary consensus standards in the marketplace with the passage of the National Technology Transfer Act of 1995 (P.L.104-113). This law provides:

> *(1) In general.--Except as provided in paragraph (3) of this subsection, all Federal agencies and departments shall use technical standards that are developed or adopted by voluntary consensus standards bodies, using such technical standards as a means to carry out policy objectives or activities determined by the agencies and departments.*
>
> *(2) Consultation; participation.--In carrying out paragraph (1) of this subsection, Federal agencies and departments shall consult with voluntary, private sector, consensus standards bodies and*

> *shall, when such participation is in the public interest and is compatible with agency and departmental missions, authorities, priorities, and budget resources, participate with such bodies in the development of technical standards.*

The law is clear that greater weight be given to those standards that have undergone development by consensus bodies, particularly those in which the federal government participates, and for which approval by consensus standards bodies has been granted.

Lastly, one of the most important aspects of the ANSI-approved standard is that it must be regularly updated with schedules for including ongoing technological advancements. This consistent improvement inclusion protects the standard from ever lagging behind technology and provides that its benchmarks will accommodate continued evolution in construction practice and design, which is particularly important in the rapidly-changing green movement. In March of 2011, the first such review began and will continue throughout the year.

The combined gains in energy efficiency and green for new buildings continue to shine despite reports of the energy consumption stats of the building sector as a whole. Because of its largess, government property owned and built under GSA plays a major role in the impact on buildings generally. Similarly, the principles and policies embraced by GSA to improve efficiency and implement green for GSA buildings also impacts development and construction of other buildings not owned or leased directly by the federal government.

As an industry that has made great strides to help initiate the development of the first-ever ANSI-approved consensus standard on green, the housing industry is deeply committed to embracing technology advancement and flexibility in pushing the next generation of buildings. It is our hope that GSA shares the same commitment and does not stifle growing innovation or adopt measures that counter current federal laws designed to promote voluntary consensus standards in lieu of privately-developed rating tools.

Oversight and Implementation of the *American Recovery and Reinvestment Act (ARRA)*

The provisions set forth in the ARRA covering high performance building, green, and green jobs have implications for the residential construction industry. The provisions of the ARRA generally cover public, commercial buildings and schools, but the approach and direction taken with respect to implementing rating systems and training related to such construction runs counter to housing industry efforts on green. Thus, the actions taken by GSA in implementing the ARRA will be critically important because of its potential to set precedents for non-government related contracting, building, and training in green and green jobs.

If the goal is ultimately to save energy, with the supplementary benefit of producing jobs and training in the efficiency and green construction industries, then the policies embraced in ARRA with respect to green are rather exclusionary and may not accomplish this goal. For example, not only does the requirement for a privately-developed and managed green rating system apply to the school construction provisions under the Act (and in practice applies to the High Performance Green Building provisions), but also the training and workforce development procurement in the ARRA to promote this work is also limited to industries with affiliation to specific labor organizations.

NAHB, through its workforce and development arm – the Home Builders Institute (HBI) – has been providing training and workforce development in residential construction for 30 years. Furthermore,

HBI's main program, Job Corps, is the nation's largest and oldest residential education program for training at-risk youth to provide hands-on skill acquisition in the trades and in preparing youth for employability. The Job Corps partnership with the U.S. Department of Labor places more than 2,000 young people annually in construction jobs. With the new Job Corps Green Curriculum program, these future construction professionals are getting the training necessary to build the high performing green buildings of the future.

To be sure, NAHB is training and preparing not only the current generation of builders to construct new and retrofit old homes and buildings for efficiency, but also the next generation of builders and professionals. The provisions in the ARRA are limited such that many successful programs and workforce training in the green and efficiency field would not be funded or promoted, despite the fact that they can deliver results towards the ARRA goals of efficiency promotion and high performance green building.

With respect to public buildings, the costs of certification fees and commissioning for use of private rating systems and their affiliated professionals extend well beyond the hard material costs of improving efficiency in these buildings. For instance, with limited resources and many buildings to address, the money from ARRA should be used for actual construction costs and materials fees and not for paperwork and professional fees associated with some of the rating systems through which have been required under these types of public construction programs.

Ultimately, NAHB hopes to see the most robust approach to efficiency and green building under GSA and for every building. This includes providing training development and resources to *every* eligible professional that is doing the necessary efficiency work, as well as not saddling such programs with extraneous fees and paperwork that saves zero energy and ultimately threatens the long term viability of efforts to truly improve efficiency in public buildings – and *all* buildings.

Conclusion

Embracing a robust energy efficiency and green building policy that accommodates new and existing buildings is the most appropriate way for the government to realize efficiency gains in all building types, both in public buildings and beyond. The programs and policies embraced by the GSA will be templates for future construction types, even outside of the scope of federal construction projects.

While providing resources to efficiency and green projects under GSA through the ARRA appears to be an appropriate policy direction, the implications of the accompanying requirements could negatively impact a number of successful programs outside the scope of public buildings. Because of the limited scope of the ARRA with respect to green and promoting greater efficiency in public buildings, NAHB remains concerned that such limitations will be similarly placed on private development in the future, as state and/or local governments attempt to model policies after the federal government.

Therefore, it is incredibly important that GSA's implementation of energy efficiency and green building policies be open and flexible to allow for technological innovations that will continue to push sustainable building above and beyond current practices. The current policy of GSA to embrace a specific green rating system, developed by a private interest group, will limit its ability to respond to changing construction advances and to include improvements in building materials. This will have implications for other types of construction and NAHB hopes that policies can be promoted at GSA to avoid exclusionary rating systems and instead embrace green building and energy efficiency performance as a metric of compliance.

[1] U.S. Department of Energy, Energy Information Administration. *Residential Energy Consumption Survey*, 2005.

AMERICAN WOOD COUNCIL

Statement for the Record
Senate Environment and Public Works Committee Hearing on "GSA: Opportunities to Cut Costs, Improve Energy Performance, and Eliminate Waste"
March 30, 2011
Submitted by Robert Glowinski
American Wood Council

The American Wood Council (AWC) is the voice of North American traditional and engineered wood products, representing over 60% of the industry. By responsibly using a renewable resource, the wood products industry makes products that are essential to everyday life and employs 360,000 men and women in well-paying jobs. AWC's engineers, technologists, scientists, and building code experts develop state-of-the-art engineering data, technology, and standards on structural wood products for use by design professionals, building officials, and wood products manufacturers to assure the safe and efficient design and use of wood structural components.

We appreciate the Senate Environment and Public Works Committee's (EPW) interest and concern in ways to cut cost and improve energy performance for federal agencies such as GSA. We also appreciate the opportunity to submit our comments on that issue.

AWC members produce wood products, which are naturally some of the most environmentally friendly building products available. Wood is a renewable resource, requires less energy to produce than competing materials, sequesters greenhouse gases – even as a finished product, is an efficient insulator, and produces less waste in the manufacturing process than its competitors.

Given those attributes of wood, AWC is concerned that GSA's current approach to green building rating systems creates unintended consequences for the wood products industry and the jobs it provides for this nation. GSA's current policy provides a monopoly to one privately-developed green building rating system, the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED). Unfortunately, LEED discourages the use of wood due to an insufficient and discriminatory point allocation for wood-based materials and discriminates against several credible forest certification programs.

AWC urges GSA to provide opportunity for other green building rating systems to compete for their business. Other green building programs providing a level playing field

for wood products include the Green Building Initiative's Green Globes program for commercial construction and the National Association of Home Builders' National Green Building Standard (NGBS) for residential construction. Unlike LEED, both are American National Standards Institute (ANSI)-approved standards and available for use by GSA. We strongly encourage GSA to open their green building policies to these and other credible green building programs.

AWC also urges GSA to understand the impact the choice of green building programs can have on the use of wood from responsibly managed forests in North America and the jobs associated with that use. The choice of the LEED rating system will favor importation of overseas wood products.

We look forward to working further with this Committee to identify opportunities for GSA to increase the use wood in their buildings and to level the playing field for green building rating systems that provide an equal opportunity for wood to compete as a green building material.

Statement for the Record
American Forest Foundation
For the
Senate Environment and Public Works Committee
Oversight Hearing on GSA: Opportunities to Cut Costs, Improve Energy Performance, and Eliminate Waste
April 13, 2011

The American Forest Foundation, a nonprofit conservation organization that works on the ground with families to promote stewardship and protect our forest heritage, believes that policies by the General Services Administration should recognize the benefits of wood products as an energy efficient and environmentally friendly building material. Wood products that are legally sourced from responsibly managed forests have the benefit of being good for the environment. Wood products store carbon, helping to reduce greenhouse gas levels, and compared to other building materials, wood processing results in lower energy consumption and emissions.

Current GSA building policies, which have wide-reaching implications due to the vast number of construction projects across the country, do not recognize the benefits of wood and in many instances discourage builders from choosing American wood products over other building materials by requiring builders to meet the U.S. Green Building Council's LEED rating system standards. LEED does not encourage builders to use wood products over other, less environmentally friendly materials like steel and concrete. If a builder does decide to use wood products, they can get a "certified wood credit" for using wood certified by the Forest Stewardship Council but not for wood from forests certified by the American Tree Farm System®, a program of the American Forest Foundation that helps 95,000 family forest owners meet third-party standards for managing nearly 26 million acres of forest land. The certified wood credit also excludes wood from Sustainable Forestry Initiative certified forests. Most certified forests in the U.S. are certified by ATFS and SFI, which severely limits the supply of certified wood eligible for builders to use to receive the "certified wood credit" toward their LEED rating.

Recently, the U.S. Department of Agriculture, Forest Service, revised its green building policy to encourage construction of USDA buildings to meet LEED, the Green Building Initiative's Green Globes, or other credible green building rating systems. The new policy levels the playing field and gives builders the option to use wood products in the construction of green buildings. USDA went a step farther to encourage the innovative use of wood products for energy efficient design.

The American Forest Foundation supports GSA policies that:

- Open its green building rating system to include other rating systems that incentivize building with wood products.
- Promotes the use of wood products for its benefits as an energy efficient and environmentally friendly building material.

The America Forest Foundation works nationwide and in partnership with local, state and national groups to provide hands-on support for America's 10 million family forest owners, giving them the tools they need to manage healthy and sustainable woodlands. Strong wood products markets are one vital tool to help more private forest owners, who own over two-thirds of the nation's forests, keep their forests as forests with the income they generate from selling their timber for use in wood products.

A commitment to the next generation unites our network of forest owners and teachers, working to keep our forests healthy and our children well-prepared for the future. The American Forest Foundation also works with tens of thousands of teachers each year, giving them peer-reviewed, award winning environmental education curriculum.

The American Forest Foundation appreciates this opportunity to present its views to the Committee regarding the goals of building increasingly energy efficient and environmentally friendly buildings. We strongly urge the Committee to encourage GSA to recognize the benefits of building with wood and promote the use of wood products in its buildings. The American Forest Foundation looks forward to working with the Committee, others in Congress, and federal agencies on this important issue.

○