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FIRST IN A SERIES: GREENING WASHINGTON AND THE NATIONAL CAPITAL REGION

(110–117)

HEARING

BEFORE THE

SUBCOMMITTEE ON
ECONOMIC DEVELOPMENT, PUBLIC BUILDINGS, AND
EMERGENCY MANAGEMENT

OF THE

COMMITTEE ON
TRANSPORTATION AND
INFRASTRUCTURE
HOUSE OF REPRESENTATIVES

ONE HUNDRED TENTH CONGRESS

SECOND SESSION

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Committee on Transportation and Infrastructure
Washington, DC 20515

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April 16, 2008

SUMMARY OF SUBJECT MATTER

TO: Members of the Subcommittee on Economic Development, Public Buildings, and Emergency Management

FROM: Subcommittee on Economic Development, Public Buildings, and Emergency Management Staff

SUBJECT: Hearing on "First in a Series: Greening Washington and the National Capital Region"

PURPOSE OF THE HEARING

On Thursday, April 17, 2008, at 10:00 a.m., in room 2167 of the Rayburn House Office Building, the Subcommittee on Economic Development, Public Buildings, and Emergency Management will hold a hearing on greening initiatives for Washington D.C. and the National Capital Region.

BACKGROUND

Current trends and future initiatives regarding facility management increasingly include concepts of sustainability and how "green" buildings contribute to sustainability. These concepts are quickly becoming fundamental requirements for both the facility owner and the facility tenant. Although there are many definitions of sustainability, all contain the notion of environmental balance and the goal of meeting present needs without jeopardizing the ability to meet future requirements. The goal is no net loss. Sustainability applies not only to the built environment but also to a variety of systems such as water systems, ecosystems, agriculture systems, and energy. Green buildings generally refer to buildings designed and built in such a way that they adhere to the tenets of sustainability. All aspects of the building process, including construction, renovation, alteration, operation, and maintenance include actions that can produce a green building.

Although it is difficult to precisely measure sustainability, various facility rating systems such as Leadership in Energy and Environmental Design ("LEED"), Energy Star, and Green Globes have been developed and can help make the case for a building's sustainability rating through rating

the building's green aspects. Such things as site selection, distance from public transportation, bicycle storage, other alternative modes of transportation, stormwater run off, roof surfacing, natural light, commissioning, energy performance and energy consumption, building recycling and reuse, indoor air quality, mechanical, electrical, and plumbing systems, and noise control are just some of the items that are given points which are then used in a rating system to determine if a building is green. In addition, life cycle costing is a vital consideration in determining if a building is green.

There are several local examples of facilities that have achieved a high green building rating. Nationals Park is the first stadium in the United States to be certified by the U.S. Green Building Council using its LEED rating system, achieving a LEED Silver rating. The LEED rating system represents benchmarks for design, construction, and operations of green buildings. Nationals Park stadium includes a 6,300-square-foot green roof to help absorb water and reduce runoff into the Anacostia River, the use of recycled materials in construction, low-flow plumbing, green light fixtures, bike racks, and preferential parking for high mileage features. The construction of the stadium in close proximity to public transit also contributes to the Nationals stadium being considered a Silver-rated, green building.

In addition, the Federal Government's sustainable specifications for the U.S. Department of Transportation ("DOT"), located at the Southeast Federal Center, produced one of the largest green roofs on the East Coast. The design received an award from the Chesapeake Bay Foundation. The roof covers more than 68,000 square feet. The building's location, 400 feet from the Navy Yard metro stop (green line) and along a major Metrobus route, is also one of the most significant sustainable features of the project. The building also includes bicycle storage and changing rooms to accommodate alternative transportation methods.

Regarding energy savings, the DOT headquarters building contains several energy saving systems. According to DOT facility managers, these systems include:

- Fan motors and pumping systems for heating and cooling that automatically adjust fan speed to ambient conditions.
- Variable Air Volume ("VAV") systems that automatically adjust air flow in reaction to heating and cooling requirements.
- Heating, Ventilation and Air Conditioning ("HVAC") systems configured to support an open-closed office space ratio of 70-30.
- Boilers with natural gas as the primary fuel and as backup fuel source. This allows flexibility to manage energy use.
- A state-of-the-art Building Automation System ("BAS") with a web interface. The BAS controls help to efficiently modulate the building systems to meet differing seasonal and occupancy loads.

These systems reduce energy consumption by 15 to 30 percent over traditional systems. Additionally, through mandatory lease requirements, the project includes a fundamental commissioning process to ensure that the building systems' performances are optimized.

In addition to energy performance measures, the building also contains interior "green" finishes, which include carpeting and ceiling materials for the office areas that have a recycled content. There is more than one million square feet of carpeting and ceiling materials for the project, which is an area equal to the size of 17 football fields. All workstations panel fabrics have recycled content and all wood panel veneering is Forest Stewardship Council ("FSC") certified.

Finally, in addition to the points that have already been identified, 100 percent of the electricity consumed by the DOT headquarters building is contracted with PEPCO Energy from renewable/green sources (wind, solar, landfill gas, etc.). Given that the Office of Management and Budget denied the agency's request for funding for a LEED certification, the building does not have a LEED rating.

In 2007, the Sidwell Friends Middle School, located in Northwest Washington, received a top green award from the American Institute of Architects. Award features included bicycle storage, public transportation access, passive solar design, and a green roof.

PRIOR LEGISLATIVE AND OVERSIGHT ACTIVITY

The Subcommittee has not previously held a hearing specifically on sustainability and green buildings. However, on May 11, 2007, the Committee on Transportation and Infrastructure held a hearing on "Administration Proposals on Climate Change and Energy Independence". Acting Architect of the Capitol Stephen Ayers and Chief Administrative Office Daniel Beard testified at this hearing regarding energy efficiency and climate change mitigation initiatives in the Capitol Complex.

On June 20, 2007, the Committee on Transportation and Infrastructure ordered reported H.R. 2701, the "Transportation Energy Security and Climate Change Mitigation Act of 2007". The bill included several provisions to promote energy efficiency of the U.S. Capitol Complex and in federal buildings under the jurisdiction, custody, and control of the General Services Administration. These provisions were incorporated into P.L. 110-140, the "Energy Independence and Security Act of 2007". Sections 431 through 441 are devoted to High Performance Federal Green Buildings. Section 436 specifically directs the Administrator of General Services to establish in GSA an Office of Federal High Performance Green Buildings.

On April 1, 2008, the Subcommittee on Economic Development, Public Buildings, and Emergency Management held a hearing on the Capitol Complex Master Plan and the Capitol Visitor Center, with a focus on transportation, security, greening initiatives, energy, and maintenance. The Architect of the Capitol's Master Plan contains a sustainability component that calls for implementing sustainable operations practices and procedures to reduce the environmental and carbon footprint of the Capitol Complex. The Plan calls for the use of renewable and alternative forms of energy like photovoltaic, wind power, and fuel cells. In addition, the Plan would create and implement policies to encourage green purchasing. The Sustainability Framework Plan also calls for energy, water, and waste audits for the facilities of the Capitol Complex to promote efficiency while also pursuing cleaner sources of fuel to reduce the Capitol Complex contribution to air pollution in the Washington, DC metropolitan area.

WITNESSES

Mr. Doug Siglin
Federal Affairs Director
Chesapeake Bay Foundation

Mr. David Winstead
Commissioner
Public Building Service
General Services Administration

Mr. George S. Hawkins
Director
District Department of the Environment
District of Columbia

Ms. Joan Kelsch
Environmental Planner
Department of Environmental Service
Arlington County

Mr. Robert Shovan
Apartment and Office Building Association of Metropolitan Washington (AOBA)

FIRST IN A SERIES: GREENING WASHINGTON AND THE NATIONAL CAPITAL REGION

Thursday, April 17, 2008

HOUSE OF REPRESENTATIVES,
COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE,
SUBCOMMITTEE ON ECONOMIC DEVELOPMENT, PUBLIC BUILDINGS, AND EMERGENCY MANAGEMENT,
Washington, DC.

The Subcommittee met, pursuant to call, at 10:13 a.m., in Room 2165, Rayburn House Office Building, Hon. Eleanor Holmes Norton [Chairwoman of the Subcommittee] presiding.

Ms. NORTON. Good morning to all, and I am happy to welcome all of you to today's hearing. I thank our panelists especially for coming to offer testimony in this first of several hearings the Subcommittee is conducting on climate change and energy issues. Because of our Subcommittee's jurisdiction over Federal leasing, construction, and economic development, we have a special obligation and a special opportunity to ensure that in carrying out these missions the Federal Government is an appropriate national environmental partner and leader, beginning with the National Capital Region, where the Federal Government is the preeminent leader in the region itself.

Last year this Congress began to face the seriousness of the escalating financial and environmental costs of existing energy policy, and the Subcommittee itself has made a good start. The Subcommittee's provisions became part of the path-breaking Energy Independence and Security Act of 2007, which the President signed as Public Law 110-140. The Subcommittee's provisions authorized high-efficiency light replacement; a photovoltaic provision; extension of life cycling calculations for government energy contracts out to 40 years, to have a greater beneficial effect on financing energy-efficient projects than previously was possible; and the creation of an Office of High-Performance Green Buildings that is required to coordinate with the Department of Energy, which is focusing on green issues in the private sector.

In July, the Subcommittee held a hearing focused on low-cost fixes for energy conservation, titled ″Federal Leadership by Example on Energy Conservation: No Cost Quick and Easy Steps for Immediate Results.″ This hearing will examine the range of ″green thinking″ and the steps being taken, planned, or that should be taken, especially by the Federal Government as this region's leader, but also by local agencies, commercial developers, businesses and organizations to improve the environment and protect energy

conservation and efficiency in existing buildings and new construction.

We begin this series by looking at the National Capital Region because of the Federal Government's outsized presence here, particularly its huge leasing and construction footprint that is unmatched anywhere else in the Nation. The Federal Government is in a position to provide environmental leadership nationwide because of its consistent presence in the construction and leasing market, especially here, where Uncle Sam is the major influence on the region's daily life and can set the example for the public and private sectors throughout the United States.

Green building activities generally cover products and practices that conserve energy and water, promote clean indoor air, protect natural resources, and reduce the impact of a building on a community. Examples include insulation, such as double-paned windows that reduce or conserve the heating loads of buildings, or positioning buildings in order to reduce the need for cooling or heating the building. Green buildings include reduced-flow toilets and low water-need plants for landscaping.

Green building improves the indoor environment with the use of nontoxic chalks and adhesives, nonformaldehyde cabinets, and the use of filters. Green building protects natural resources by promoting the use of products with recycled content like carpet, tile, and wallboard, while promoting the use of rapidly renewable products like bamboo flooring and natural linoleum.

Green building protects waterways like the Anacostia and the Chesapeake Bay by promoting practices that reduce the impact of structures on the environment, by mitigating the effects of storm water runoff, using green roofs, cisterns and permeable pavers, locating buildings close to mass transit, and including bike racks and storage units.

This Subcommittee is especially interested in new frontiers in green thinking and action, in greening and conservation practices such as reusing energy and water, in various types of green roofs, especially for existing buildings, and the difference and value among the various LEED designations in energy saving technology, and in reducing practices that harm the environment in constructing and leasing near waterways.

We also have a strong interest in comparisons of cost to benefit, and whether savings in energy and cost are actually resulting. For example, testimony was offered at our recent hearing on the Capitol complex that using photovoltaics here in the Rayburn Building would not be cost-effective.

There are several buildings in the backyard of the United States Capitol that exemplify green building. The Washington Nationals' Stadium is the first LEED-certified sports stadium in the United States. The Nationals' Stadium achieved its LEED Silver rating in part because of its bike racks, its green roof, and its use of low-emitting materials during construction.

Just to the east of the Nationals' Stadium, the new Department of Transportation building, authorized by this Committee, sits on the banks of the Anacostia River, one of the most polluted rivers in America. Federal structures are heavy contributors to the estimated 75 to 90 percent of the storm water runoff to the river. How-

ever, the DOT building has a 68,000 square foot green roof, one of the largest green roofs on the East Coast.

In addition to the DOT green roof, which limits storm water runoff into the Anacostia River, the DOT building has energy-efficient boiler systems, heating, ventilation and air conditioning systems, and other building operations systems to maximize energy efficiency.

The recent green attention to the Anacostia River needs to be repeated nationwide around the literally hundreds of polluted rivers. And this recent attention also needs to be much more the case in this region. Many Federal buildings, particularly in the District and Maryland, border or are close to waterways, giving Federal authorities particular responsibility for assisting clean water efforts here in managing real estate and in managing construction.

The GSA has long engaged in energy conservation efforts well before climate change issues became prominent because the Agency has understood the cost implications. However, the Agency's efforts fall far short of what we now know will be required to meet what scientists tell us about the global risk we face and the energy crisis that is already upon us.

Surely the Federal Government should be the first to step up in its leasing and construction. This hearing will help the Subcommittee to consider the benefit as well as the cost of any new requirements and new legislation.

I am pleased now to hear remarks from our Ranking Member, Mr. Graves.

Mr. GRAVES. Thank you, Madam Chair, for holding this hearing. And thank you to all our witnesses for being here. I in particular want to thank Public Buildings Commissioner David Winstead for his testimony today.

GSA's Public Buildings Service manages approximately 95.6 million rentable square feet of space in 190 federally owned buildings and 500 leased buildings in the National Capital Region. As the largest property owner and manager of office and warehouse space in the National Capital area, GSA has an opportunity to lead by example.

Part of GSA's mission is to help its client agencies meet their environmental obligations. GSA practices energy conservation, it builds green, it provides recycled services to its client agencies. There are simple and cost-effective steps GSA can take to reduce energy consumption in Federal buildings. Even small reductions in the energy consumed in each building can have a large cumulative effect.

For example, GSA operates buildings at costs that are 5 percent lower than the private sector and pays 12 percent less for its utilities. These savings are the result of energy conversation solutions GSA has already implemented. Greening initiatives, like the ones I mentioned above, can benefit the environment and save taxpayers money, and make a lot of sense when they result in improved efficiency and real energy reductions, and are done in the most cost-effective way. However, when done without regard to the costs or real benefit to the environment, they can be completely illogical and a waste of taxpayers' money.

Green roof projects can be a good example of both these categories. While installing a green roof on new construction makes all the sense in the world, installing that same roof on an existing building will require expensive modifications to support a heavier roof and generally doesn't make economic sense.

A couple weeks ago we had a hearing on some of the initiatives occurring right here at the Capitol complex. And it was noted that the House spent around $80,000 last year on carbon credits. Meanwhile, that money didn't reduce our pollution one bit. Essentially, the House paid for somebody else's efficiency and didn't do a thing to use that money towards improving its efficiency. There was no real benefit whatsoever.

Paying for carbon credits in my opinion doesn't do a thing to reduce pollution. All it is doing is paying for somebody else to be efficient and doesn't do anything to fix the problems that we have here. If we are going to spend taxpayers' money, we should be getting something for it. It seems that all we are doing is ridiculous things around here at the Capitol that don't take into account any of the costs or any improved efficiency. It is all done for the purposes of putting out a press release that sounds good and tries to make the House look good.

I hope the rest of the Federal Government is not doing the same thing. If we are going to spend taxpayers' money for these projects, then we should see some real benefit to it and have it done in a cost-effective way.

Again, I thank our witnesses for being here, and I look forward to the testimony. Thank you, Madam Chair.

Ms. NORTON. Well, thank you, Mr. Ranking Member, Mr. Graves. You will note that I am particularly interested in cost-effectiveness, as I said in my earlier remarks. But I think that the Speaker is doing exactly the right thing. We cannot sit here enacting laws, telling businesses they must spend money to in fact meet the challenge, and we do not do anything. We should not only be first; if there is any experimenting to be done we should do it, rather than to require others to do it.

So, yes, we will not always be on the same page about what techniques to use, but I don't think there is any question now that we have a serious energy crisis in this country and none of us is doing enough.

This Subcommittee hearing will help us to hear the plusses and minuses of what we are doing. I am very anxious to hear that from all of our witnesses.

We will have two witnesses after Mr. Winstead. We will have witnesses across the board from the public and private sector.

Mr. Winstead, before you begin your testimony, I do want to indicate to you that last time, we were put in the position of barely receiving your testimony and had indicated to you that that was unacceptable. And so I am going to put on the record the following remarks. That hearing was on the Old Post Office, and you indicated that the late testimony would not happen again. We don't have this hearing just to hear from you. We need to hear your testimony so that the staff can prepare questions and we can understand more what you are saying. Testimony on this green hearing arrived at 5:01 last night, Wednesday night, less than 24 hours

prior to the hearing, and well past the 48-hour framework in the witness letter. Even that puts a real burden on the staff, with only 2 days to go; but, of course, with hardly any time to go, giving the staff, upon whom we depend certainly, at least partially, you just are essentially giving them no time.

When the Old Post Office hearing of April 10th was originally scheduled, it was part of a two-part hearing. It was to be on the Old Post Office and, of course, on green initiatives. And the GSA was told by phone on both April 2nd and again on April 3rd to plan for both topics. And the hearing date then was told orally by April 10th. The Subcommittee staff is correct, even before their letter goes out to inform Agency staff orally, so that everyone will have the earliest notice. We could not get agreement on the greening part from the Minority because we needed it over the weekend, not because they were unwilling. So GSA was told that this part of the hearing would be today, April 17th. Remember, GSA already had started, apparently, or should have, green testimony in anticipating an April 10th hearing. The GSA always gives the answer that it is not us, it is them. And ″them″ is always the mean, old, slow, old, OMB. I am sure that that is the case some of the time.

I very much recall when my good friend Mr. Shuster, my Republican friend, was Chair of this Committee. He was continually frustrated with timely submissions from GSA, and got so frustrated that at a hearing that he held, he would not accept late material at all, just simply asked questions.

I don't want to be pushed to that. What I did, when staff suggested that that was one of my options, was to ask them to go to the law and the circulars. And here is what the law requires:

Submissions. Before an Agency transmits proposed legislation on a report, including testimony outside the executive branch, it shall be required—it shall submit the proposed legislation or report or testimony to OMB for consideration and clearance. Report is defined in section 5(b) as views prepared by an Agency on a pending bill. GSA was specifically told that there was no pending bill. We don't know if there is going to be a bill. That is one of the reasons we want to hear this testimony, to see if any legislation is required at all.

So, literally, this testimony by the circular wasn't even required to be submitted. And if in fact it is going to be submitted, then we are going to have to come to an agreement between you, us, and OMB about timely submission of testimony in order to avoid further steps. Mr. Winstead.

Mr. WINSTEAD. Madam Chair, I appreciate it. It is great to be before the Committee again. I thank both you and Congressman Graves for your leadership and support of GSA and our program.

I also recognize your comments about the issue of the process of our testimony getting up here on time. As I said to you before the hearing, I will make sure that I meet with OMB and figure out how this clearance process can in fact be expedited. I know that we sent it up as soon as we got it back from OMB last evening at 5 p.m. But I do recognize both the circular you mentioned, section 5(b) requirements, and I have been told there were, because of the nature of the testimony today and their interest in this panel, there is obviously a lot of involvement with DOE and EPA and in

working partnership with GSA and our programs both on the energy side and, obviously, sustainability side.

It is my understanding, and I will verify this in following up this hearing and with the Committee, that took a little bit longer to try to get some feedback. So I will meet with them and I will make sure that we are in the future—as, obviously, we had some issues here in the last week or two—try to get it timely. I think we did receive notice. As you said, we knew this was coming, but the notice of the hearing came on April the 8th. But I am sensitive to your issues, and I will meet with OMB and try to see how we can expedite that.

TESTIMONY OF DAVID L. WINSTEAD, COMMISSIONER, PUBLIC BUILDINGS SERVICE, U.S. GENERAL SERVICES ADMINISTRATION

Mr. WINSTEAD. Madam Chair, I am very pleased to be here. I think as you mentioned, and Congressman Graves, GSA is in fact a leader by example, and we are very focused on some unusual new buildings and retrofitting, through major R&A as well as minor R&A, our existing inventory.

I would also tell you, and I think it is helpful for you all to be aware of this, that the industry is very engaged in this. Just in the last 3 weeks there have been national conferences held by the Urban Land Institute, by the Real Estate Roundtable.

I was sitting two nights ago at dinner with BOMA, the National Association of Industrial and Office Parks, ULI, and a lot of these industry groups that are facing and committed to greening and LEED certification and other energy-sustainable features in our buildings. This Committee in prior hearings has talked a lot about the consumption of energy, some 40 percent of energy consumed by the built environment. So we really do understand our obligation and leadership of this Committee and Congress in that regard. I do think it is a very positive message, however, in terms, as you mentioned, in terms of what we are doing.

I also want to acknowledge that there are a number of people here today that I should give credit to in terms of our efforts; obviously, your focus on the National Capital Region. We have got Bart Bush, who is ARA for the National Capitol Region for PBS; Amy Hudson who is our Energy Coordinator in NCR; Michael Carter, who is our sustainability manager; Mike McGill, who you all know well, works with this Committee, is our communication legislative person at NCR. Also from my staff, Kevin Kampschroer, who is sitting right behind me, is our Acting Director of our Federal High-Performance Green Building Office at GSA that was formed subsequent to the Energy Act signed in December by the President. Also Pat Fee, which I know the Chairman and Ranking Minority Member would be very interested in knowing what we are doing in terms of managing our properties and getting greater efficiency and actions by our property managers both in their management of the buildings and equipment, but also leadership with our tenants so we can educate them on actions they can take. And Pat Fee, who leads up that nationally for GSA, is here today.

You know, since 1985, Federal agencies have been very effective in reducing energy intensity in Federal buildings. And if you look

back from 1985 to 2005—and it is increasingly enormously since then—but we had a 23 percent decline in energy consumption. We have also found that the same Federal inventory has cut carbon emissions, which obviously under this 2007 act is requiring that we have essentially carbon-neutral buildings by 2030, which is a major goal, a very aggressive goal. But we are, because of the actions we have taken, we have saved about 3.3 million metric tons in terms of reducing that amount in terms of carbon emissions since 1990.

GSA has also cut energy consumption overall by 30 percent since 1985 and carbon emissions by 281,000 metric tons. We are using green principles, as you know, in our building program, looking at efficient use of energy, looking at efficient water consumption and water equipment in buildings that gets less water use and higher efficiencies there, as well as using recycled materials.

We are also promoting space that—as our mantra really—is delivering productive and efficient workspace to the Federal employee at the best value to the taxpayer. This Committee is one of our major stakeholders in that regard, and we very much appreciate your interest in this.

As the first Federal Agency to join the U.S. Green Building Council, which is very engaged in this, I will, I told the Ranking Minority Member, Madam Chair, before you came in, that they have a huge demand on them now by the private sector as well as us in submission of green buildings. But since 2003 we have basically required all our new construction projects to use the Green Building Council Leadership in Energy and Environmental Design rating system as our design criteria, with the goal of obtaining silver designation.

To date GSA has earned LEED ratings in 25 of our buildings, the most of any governmental organization at the State, Federal level. Using green to measure our success is a part of our daily operations in our capital program, which as you know, is, on average, about 1.2 billion a year of expenditure. In studying 19 of these buildings, of these LEED buildings, we have actually discovered the following: that these buildings do reduce indoor water use and have reduced indoor water use by over 38 percent as compared to the baseline year. And they also represent about 33 million kilowatt hours of green power purchases.

As the market becomes increasingly aware of commitment to sustainability, GSA is also—because half of our inventory, as you well know, 175 million square feet, is delivered by the private sector, generic office space in most cases, but we do have some specialty buildings like the FBI field offices. But we are developing new green, in the leasing side, new green lease provisions, and updating existing provisions to become standard lease requirements in 2007, in this year—or last year, rather.

We have realty professionals that are delivering LEED-certified—we have 13 LEED buildings, 6 silver and 7 gold. Also our energy conservation efforts between 2003 and 2007 have achieved an 8.2 percent reduction in energy consumption. We are operating our buildings, as Ranking Minority Member Graves said, at 1.6 percent below comparative buildings in the private sector. And we pay about 10 percent less for utilities as a result of these energy efforts in our management of the buildings.

Some of this reduction is directly attributable to the investments both that Congress and this Committee has approved in terms of major R&A renovation as well as stand-alone energy conversation projects over the last decade and a half.

Here a considerable part of this reduction is a result of a concerted effort by GSA property managers working closely with our customers. Madam Chair, last year at the hearing you and the Committee were very interested in what we are doing to encourage energy saving activity in the management of buildings and also in terms of working with our tenants in both training them and providing leadership. And we have incorporated tenants in an energy conservation activity.

And I would just like to highlight some of these just recent activities. I just sent a note out, or memo out, in February to the heads of all our properties around the country, highlighting the aspects of the new Energy Independence Act of 2007, which was signed in December, and providing recommended course of actions. We have sent out newsletters to energy managers and building managers which highlight practical, easily implemented tips of energy conservation in buildings.

And this month we have designated April, because of Earth Day, as the Energy Resource and Conservation Month at GSA. And we are really urging every region to sort of heighten their conservation efforts. We are also stressing best practices. And I have submitted to the Committee I believe, or could with this testimony, what several regions are doing in regards of perfecting communications with tenants to get their commitment and to get their action in turning off lights and other energy saving measures. In parallel with this sort of outward-facing initiatives we have designated energy managers for every building in the GSA inventory. We are operating and implementing standard performance criteria for property managers as a part of their performance plan. It is a critical element in our annual review of their performance.

And the key techniques that we are focused on in some of the building managers, and the tenants, are clearly the issues of turning off perimeter lights. I remember one time, I think a year ago at a hearing, you commented about your concern, which is shared by us and by many, about lights on in Federal buildings and properties that are unnecessary. In fact, a lot of the cleaning, as you know, because of our contracts with NISH providers is during the day, but not using space heaters as a part of this, lighting, retrofitting, adjusting lighting control systems to match the tenant needs, to replace exterior and emergency lights with LED, which is not L-E-E-D but L-E-D, which is light emitting diode light fixtures, and also reducing gas engines with electric motors in our buildings.

We are also meeting with our principal custodial contractor to reinforce the roles that they have. I have dealt and met with NISH, as an organization representing a lot of these contractors, to make sure that they are training and that our contractors are in fact doing energy conservation actions, cleaning with green building materials and cleaning, as well as revising specific standards in our contracts with our custodial providers to reinforce energy conservation activities.

Specifically of interest here today, and that is why I brought in some of our crowd from NCR here, is that we have really made enormous strides. And I think it is great that it has been in our largest region, the National Capital Region, but we really have made major strides in incorporating green programs. In particular, a lot of that has been in our Federal inventory here at the NCR. In new construction of green buildings, NCR has earned three LEED Gold ratings, one in an owned product, an owned building, as well as two in leased projects. The Suitland Federal Center Maryland, is GSA-owned, and that is the new NOAA facility. That was the owned product. And then we have in Arlington, Virginia, we have the EPA buildings which were leased, which were called Potomac Yard One and Two.

Another example of NCR's green building efforts is the development, as you know well, the Bureau of Alcohol, Tobacco, Firearms, and Explosives, ATF, new headquarters down on New York Avenue next to the Metro in the NoMa area. This was once a brownfield site. It was previously used by the District Government, Public Works. And there was also an abandoned railroad trestle which required cleanup. NCR destroyed the trestle, remediated some 79,000 tons of contaminated soil, and now we have what I think will prove to be a landmark, probably award-winning architectural building designed by Moshe Safdie right next to a Metro station, which again is a sustainable design.

The more we can drive Federal employee ridership on this Metro system, getting them out of automobiles, the better off we will be.

I also mention suburban Maryland. We have the Food and Drug Administration at White Oak. We have some really remarkable features there and I would urge the Committee, if they have not been there, we will be happy to give you a tour. We have sustainable new construction features, including natural ventilation, solar heating, reduced water consumption, the use of recycled content in buildings. We also have a co-generation facility out there which provides reliable uninterrupted onsite electric generation for the facilities currently occupied on the campus. And this co-generation facility is one of 10 projects in the NCR where, essentially under existing authority, we have been able to leverage private sector capital through energy saving performance contracts, as well as those with the utility energy saving contracts to finance this new co-generation facility.

Another major project is NCR's Heating Operation and Transmission District, or HOTD as it is known, which provides steam and chilled water utility service to government and quasi-government customers. NCR completed the chilled water expansion co-generation project in December 2004. This was a $69 million project, and it installed eight chillers and co-generation facilities in our central plant. And it also provides non-Federal—well, there are also non-direct Federal agency users like the Smithsonian that have their energy supplied by that plant with this new investment.

Green roofs, as you mentioned, and the Committee is interested, and over the last 2 years there have been four NCR buildings that have come on line that feature extensive green roofs. And these planted roofs can really substantially reduce rainwater runoff during storms and provide significant insulation for the building.

As you will hear from the Chesapeake Bay Foundation, the biggest challenge to the estuary system of the Potomac, Anacostia, and Chesapeake Bay is in fact runoff. So these roofs do contribute enormously to mitigating that. And those where we currently have these four projects are the Census Bureau headquarters in the Suitland Federal Center, which has an 85,000 square foot green roof, the NOAA Satellite Operations Center at the Suitland Center, which has a green roof of 110,000 square feet, and ATF on New York Avenue, I mentioned earlier, has a green roof of 55,000 square feet. And also as you mentioned, DOT, which has a green roof of 65,000 square feet.

I would also note that landscaping and water conservation is important to this whole effort as well. And building green isn't just confined to the building itself. It extends to the landscape. And NCR has designed and maintained more than 100 federally owned landscaped sites in the Washington metropolitan area. We have utilized a variety of landscape materials to minimize our reliance on turf, which requires, obviously, more irrigation, chemicals, energy and water consumed, and have chosen plant materials in these hundred landscape sites that can essentially tolerate drought to a greater extent than the turf, and also have a natural sort of pest resistance. So we are saving in terms of pest control.

NCR also composts all of its yard waste, comprising about 330 tons alone in 2007, using 100 percent organic poultry manure spread on these landscapes. I would note, Madam Chair, back in my earlier days in my law firm, I recall that was one of the biggest threats—you will hear later from Chesapeake Bay—is runoff from poultry waste on the Eastern Shore. And we are actually recycling that through our use in some of these landscapes.

So we actually received the first Rain Leader Award from EPA in October of last year for innovative low-impact design projects in one of the EPA headquarter buildings in the Federal Triangle. GSA and EPA have developed this project, in partnership to convert an area that headquarters had previously used as a construction project staging area, into quite an attractive landscape garden.

Some of the other issues in green operations, just to move this to a conclusion, extend beyond just new construction, green roofs and modernization, but also focus on buildings in our inventory, some 154 buildings where we are actually paying utility bills and institute changes in operating procedures to really save energy and obviously money spent on utility bills, as well as improving management. And we have done that through monitoring energy consumption on a monthly basis, conducting tenant awareness programs, performing building audits, and providing training.

I would mention that in the past our energy audits had been administered on about 10 percent of our buildings on an annual basis. With the new law, that is going to have to go up to about 25 percent in those that are worst performers. So essentially the new act requires more audits sooner for the worst-performing buildings.

Also advanced metering has helped us manage power consumption more strategically. I think at the last hearing that I was here, we talked about a surge issue and a high-heat temperature issue about two summers ago and how our prediction of energy and man-

aging the energy supplies in that building were able to control consumption and save money.

We also in 2007 reduced energy consumption in these 154 buildings by 6.6 percent over the 2003 base. And we are procuring currently about 3 percent from renewable energy sources. Recycling is a part of this as well, as you mentioned. In all three branches of government, GSA is helping some 100 Federal agencies in that regard. Our recycling contractors pick up paper, cardboard, cans, bottles from 120 buildings, housing more than 110,000 employees. And in 2007 we had 8,000 tons of materials collected and sold, generating an additional revenue of some $355,000.

Diverting that amount of waste from landfills actually saved some $1.2 million in landfill disposal fees, avoided some 25,000 cubic yards of landfill, saved 3 million gallons of oil, and also 56 million gallons of water.

The new act, as I mentioned, does present some new challenges for the Federal Government and for GSA. For the first time, GSA is going to be required to reduce consumption of fossil fuel-generated energy in new buildings and major renovations. And for new design, our target is to be about 55 percent below comparable private sector commercial buildings in 2010.

Much more difficult, quite frankly, is the goal of using 100 percent nonfossil fuel-generated energy in our buildings by 2030. And this is quite a challenge. And I would tell you that it is going to require GSA to meet with industry, to meet with BOMA and some of the other people testifying today, to be able to achieve that goal. It will not be easy.

I would also mention that we continue to be a national leader in terms of purchase and use of renewable power. In 2006 we had about 4.5 percent of our energy generated by renewable sources and through the use of energy certificates. If given the authority to expand—I think the last time I spoke to this Committee I did tell you that we were going to submit legislation, which we have, called the General Services Enhancement Act, that is currently before Congress and will allow us to extend authority for utility contracts from 10 to 20 years. Without that kind of extension, we cannot provide the economies in renewable energy that we think we need nor benefit from relatively inexpensive energy that can be generated from some of these sources. The least cost-efficient is in fact wind power.

In conclusion, I do hope that this testimony and our submissions highlight that I feel GSA is, in fact, in a leadership position in this regard. Obviously, our impact on the National Capital Region, both in our own building inventory as well as our leasing actions, is enormous. Twenty percent of the commercial real estate industry in Washington, D.C. is driven by our leasing actions.

And so our requirement, for example, by 2010 to have Energy Star building systems or rated buildings is going to have an impact in a positive way, but we also hope with that we can have adequate competition as well.

So Madam Chair, Ranking Minority Member Graves, I do want to thank you for this opportunity. And I would be happy—I know we submitted a lot to the Committee, I have a bunch of experts

here behind me that have answers to absolutely every question, and I will try to answer any that you have at this point.

Ms. NORTON. They are certainly invited, when you think they are relevant, to answer questions.

You have a reason to be proud of the very large roofs, DOT headquarters for example, which I mentioned and you mentioned both. Does the DOT have a LEED rating?

Mr. WINSTEAD. Madam Chair, DOT does not have a LEED rating, although it has a green roof, as you mentioned and I mentioned. And that is because when we actually signed that lease, it was actually before the requirement that I have currently given. So it is not LEED-certified, unfortunately.

Ms. NORTON. Does the ATF building have a LEED rating?

Mr. WINSTEAD. Yeah. When it is totally completed. We still have a bunch of punchlist items, but it is going to be submitted.

Ms. NORTON. So your testimony is both the—your testimony is that the ATF has a LEED rating?

Mr. WINSTEAD. It is going to be rated. Unfortunately, we have to complete—there are still some punchlist buildout issues there that, once completed, it will be in the LEED certification. DOT is not because, unfortunately, we contracted for that, and we have a—basically, you have to have one full year of operations to get that certification. So we are still in that process with the ATF building.

Ms. NORTON. So your testimony is you are seeking LEED ratings for both buildings?

Mr. WINSTEAD. We are seeking LEED rating for the ATF building. And one full year of operations is——

Ms. NORTON. You are not seeking a LEED rating for—the DOT building may be in better—may be better able to receive a LEED rating than the ATF building. Are you seeking a LEED rating for the DOT building?

Mr. WINSTEAD. We are not. When we contracted for that building and the requirements in that 1998 period, we did not have the LEED requirements in these current 2007 requirements when that lease——

Ms. NORTON. The testimony I don't understand, because the ATF building preceded——

Mr. WINSTEAD. That was the DOT building I was commenting on.

Ms. NORTON. I know. The ATF building preceded the DOT building.

Mr. WINSTEAD. The DOT building preceded the ATF building.

Ms. NORTON. The ATF building, that contract was put out many years ago. It took forever to get out. I certainly do not believe that the DOT building preceded the ATF building.

Mr. WINSTEAD. Madam Chair, I will get you all the information on DOT in terms of what the requirements are when we signed that contract with JBG and the ATF building so that you understand when those contracts were signed and commitments versus our requirements at that time, and also obviously what we are now trying to seek with the ATF building. I am being told by both Bart and Kevin that the DOT building will not receive LEED designation.

Madam Chair, I would be happy to also do——

Ms. NORTON. I don't understand Federal policy on LEED designations. One of the things we are looking for is for the Federal Government to set an example. You know, State governments know that if the Federal Government builds a building, it tries to get it LEED-certified. Is there a cost to getting a building LEED-certified?

Mr. WINSTEAD. There are fees that are paid. And the biggest cost——

Ms. NORTON. Has OMB authorized those fees to be paid?

Mr. WINSTEAD. Yes, ma'am. On our new construction projects we are in fact——

Ms. NORTON. You have got two new construction projects, certainly the most recent ones here, which you are telling me are not LEED-certified, but OMB does in fact allow you to spend Agency funds to get LEED certifications. I don't understand why that did not occur for those buildings.

Mr. WINSTEAD. Well, I will get you background on both DOT in terms of when we signed the contracts with the contractor and the developer of that building, which is JBG, and what the requirements were for us at that point in terms of LEED-certified, as I mentioned, what we are committed to now. And you know——

Ms. NORTON. Can a building be LEED-certified only when the contract is let, or can you ask for LEED certification once the building is open?

Mr. WINSTEAD. You can ask for LEED certification after a building has been built, but my understanding is the features at DOT, I think the SFO for DOT was in 1999, before—and we adopted LEEDs in 2003. We have added green features such as a green roof, but it is not enough, really, to certify, apparently, for everything.

Ms. NORTON. Have you sought LEED certification?

Mr. WINSTEAD. We have not for DOT.

Ms. NORTON. You do not believe that with all the energy efficiency in that building and the huge green roof that it would be LEED-certified at any level?

Mr. WINSTEAD. Madam Chair, I am being told that it would be—that we essentially would have had to redesign the building, after contract commitments were made in 1999, to have done enough in order to have gotten this building either certified or silver. So I am being told that, unfortunately, our requirements started—or we started in 2003 with LEED certification on lease construction, new construction. But these——

Ms. NORTON. I don't——

Mr. WINSTEAD. I will be happy to get you——

Ms. NORTON. I don't want to belabor this point. For the record, is it your policy to seek LEED certifications for all new construction now?

Mr. WINSTEAD. Yes, ma'am.

Ms. NORTON. Particularly since you say this should be done at the beginning on, does GSA incorporate green requirements and LEED requirements when it puts out a contract to construct?

Mr. WINSTEAD. Yes, we do. We have, both in terms of our facilities standards, P100, as well as our design and the ASHRAE equipment standards, we do have those requirements within our con-

struction contracts to have sustainable green buildings. And we also look for, obviously, the energy efficiency in the building. We look at siting, design and construction compatibility as well.

So all those factors are taken into consideration in getting a green building designation. We actually have 70 projects in that pipeline now to have buildings certified. We have some 70 that are currently in the Green Building Council to get certified.

Ms. NORTON. Your testimony is that all projects now are going to be LEED- or Green Globes-certified?

Mr. WINSTEAD. LEED.

Ms. NORTON. LEED-certified?

Mr. WINSTEAD. Yes, ma'am.

Ms. NORTON. That is very important testimony. We very much appreciate that testimony. It sets the kind of example we think we will be unable to get lots of others to set if they don't see that we are willing to go through the process ourselves.

You testified about an impressive decline in energy consumption, 23 percent. How was that achieved?

Mr. WINSTEAD. That was achieved basically in terms of both updating, through major R&A projects this Committee authorized, as well as minor, both with Energy Star equipment in remodeling projects, as well as looking at issues such as computer and task lighting in the interior of the building, compact fluorescent lamps, Energy Star products, looking at basically actions around in terms of energy glazed windows and heating and cooling systems that are ASHRAE standard and Energy Star-rated.

So that is what we are essentially doing and focusing on in terms of our modernization, is lighting, retrofitting control systems; and occupancy sensors are also other techniques and equipments that create the energy savings.

Ms. NORTON. Well, one thing that Congress continues to turn out is courthouses. We don't build lots of other things, but courthouses we build. Do courthouses get LEED ratings?

Mr. WINSTEAD. Yes. And we are—the most—I guess the one that is going to be completed and opened, it is the newest, is up in Springfield, Illinois—I mean Springfield, Massachusetts. And it is actually going to be LEED-certified.

And again, as I mentioned earlier, you have to basically have a full year of operation before the Green Building Council will give that certification. But we are going to be getting certified. And what we have seen, which I think is very positive, is that the paybacks for some of these new lighting systems, HVAC, solar and the like, are becoming shorter. That has changed enormously. I think if you look back 5 years ago, some of the paybacks were 10, 12 years. Now we are looking at the payback in terms of these new energy systems being cut in half in 5 years.

Ms. NORTON. For what kinds of systems?

Mr. WINSTEAD. For lighting systems, for HVAC systems, for solar——

Ms. NORTON. And payback cut in half. This is very important for us to hear. Payback cut in half, meaning——

Mr. WINSTEAD. In terms of amount of years to recoup capital.

Ms. NORTON. So give us an example of the amount of years we are talking about.

Mr. WINSTEAD. If you look back 5 years ago, we were seeing payback periods of 10 to 12 years for some of these technologies. And now, for example, with control systems within, electronic control systems on the electric consumption buildings, we are seeing paybacks of about 3.8 years. So, under 4 years.

Ms. NORTON. And in 3.8 years the system has paid for itself?

Mr. WINSTEAD. That is correct. You are recouping the cost that is the additional cost for this more energy-efficient lighting system in basically 4 years. We are looking at HVAC paybacks now between 6 and 8 years on average. And about 4 years ago, the industry and GSA were looking more in the neighborhood of a decade long to recoup those asset investments.

As you know, before we proceed on any of these prospectuses, we do cost estimates in terms of return based on revenue to the Federal Building Fund. And now these new systems are returning revenue, and we get a higher return because their payback and efficiency of them is shorter than it used to be. More people are getting involved in providing more energy-efficient equipment, basically. And the average is about 6 years in terms of all these products and lighting systems we are putting into buildings.

Ms. NORTON. This is really the good news from this hearing. The investment was substantial before. One might have expected the government to make it, but now it seems to me there is nothing that the government can do but make it.

By the way, you have a relationship or are a member of the U.S. Green Building Council. Do you get any discount on the costs for LEED because of your relationship to U.S. Green Building Council?

Mr. WINSTEAD. We do not.

Ms. NORTON. Does anybody?

Mr. WINSTEAD. I do not think so. I do know, Madam Chair, that that organization, because I met with the head of it the other night, is expanding rapidly to deal with its demand. And one of the concerns I have, the Committee should be aware of, is their capacity to, you know, to handle these 70 projects that we alone have in the pipeline. But they are a nonprofit organization, and we are not getting a break. I suspect that——

Ms. NORTON. If you do enough LEED buildings, if you LEED all your buildings, as you now say you will, if ATF is a huge building, if DOT, another huge building, then it seems to me——

Mr. WINSTEAD. Madam Chair, I would be happy to look at this and to meet with them to see. You are absolutely correct, if we have got 70 projects——

Ms. NORTON. We are about to build the biggest construction project in the National Capitol Region since the Pentagon, and the biggest ever in this city. And it is not even just one building, it is the Department of Homeland Security. That is going to be five or six buildings.

Mr. WINSTEAD. Right.

Ms. NORTON. So it does seem to me that there is something to be said there.

Mr. WINSTEAD. I will meet with them and inquire as to their capacity to give us some equities, because we do have 70 in the pipeline.

Ms. NORTON. Again, in part, because we are trying to set examples, so we are trying to do it everywhere.

Mr. WINSTEAD. Right.

Ms. NORTON. And we aren't on PAYGO here, we don't want to meet that as an issue here, when what we are really trying to pay for is the energy efficiency.

Mr. WINSTEAD. Right.

Ms. NORTON. Perhaps 3 years ago, we opened an annex to a courthouse here, Bryant Annex to the Prettyman Courthouse. Is that LEED-certified?

Mr. WINSTEAD. Madam Chair, that was not. Again, I suspect—but we will get this Committee also—DOT——

Ms. NORTON. That is like a whole new building. We can call it an annex if we want to, but it is the functional equivalent of an entirely new building.

Mr. WINSTEAD. You are correct. And I suspect, because it is not, I suspect that those contracts were signed before 2003.

Ms. NORTON. Let me ask you this. If one puts an annex on a building as part of a building, would that building be separately certified LEED? I don't know it is part of the same heating systems and the rest.

Mr. WINSTEAD. Yes, you can. We did it with the Metzenbaum Courthouse Annex. So you can in fact get LEED. And a lot of contributions, the energy systems, if the annex has the same HVAC system and utility systems within the older portion, upgrades in that would in fact perhaps get certified. As well as obviously with the Prettyman, you have different, obviously, wall systems, you have different insulation than you do in the older courthouse portion. But we did with Metzenbaum, we were able to get LEED certification for an annex addition to an existing older courthouse.

Ms. NORTON. The gold standard for a developer in this region is to get a GSA lease. To what extent are green or energy conservation requirements a part of those RFPs?

Mr. WINSTEAD. Well, we do have, on our leasing action we do have requirements for LEED—sorry, energy-rated system and a preference for LEED buildings. And one of the things that we are concerned about is in fact making sure that there is enough competition and supply in the market for LEED-certified buildings. And what we are seeing is more and more of the developers are in fact providing and having LEED buildings.

JBG for one, that did the DOT building. Now all the buildings they are doing are LEED buildings in the District and surrounding area. We do give preference——

Ms. NORTON. You are saying we are seeking. Our resolutions say you have to give preference——

Mr. WINSTEAD. Right.

Ms. NORTON. —to energy-efficient buildings. But I have to say I am perplexed by you; are talking about supply of leasing in this region? You know well about NoMa and M Street; NoMa, where we had some difficulty getting the Federal Government to understand that they could get reduced leases there compared with more expensive parts of the city, where the whole part of the District of Columbia is being built up; not to mention M Street, which has vacant buildings, brand-new vacant buildings.

You are talking about—this is the time, it seems to me, to press a deal precisely because it is your market. The competition is in your hands. Everybody wants to lease. We are in hard times. So I don't understand the competition notion in this market at this time.

Mr. WINSTEAD. I must—I do concur that I think what we are hearing from the industry recently, the ULI conference, which basically was a D.C. Development group, that they are all moving to offering up green buildings simply to be able to compete for GSA leases, as well as D.C. requirements and suburban Maryland.

We just recently rewrote our sort of standard lease solicitation to incorporate many of the features that we have talked about, sustainable design and energy conservation. Some of these clauses are looking at and requiring daylight dimming controls, carpet replacement over the life of the lease. It must be recyclable materials. At least 50 percent of construction waste must be recycled as well as lessors are encouraged to purchase electricity from renewable sources if that is possible. So we are incorporating that in our contract, our lease clauses currently.

Ms. NORTON. Are you taking energy costs into effect in deciding the overall cost of the lease as we see energy costs go up?

Mr. WINSTEAD. Yes. Most of our leases are, in fact——

Ms. NORTON. You are paying them?

Mr. WINSTEAD. Yes, that is correct. And one of the issues in that regard is clearly that any energy improvements within our existing lease inventory to be more energy-efficient accrues some values to the landlord to the leaselord.

Ms. NORTON. I am very concerned about the language we have allowed in the resolution. You can have two—in fact, you will have two, three, four buildings or developers competing, and all of them have energy efficiency. Because they are competing today, some have upgraded, some—there are existing buildings on one hand, new buildings on the other. We have said preference. I wonder how you would calculate which of those competing, all of whom will tell you they are energy-efficient and will submit information to prove it—how you would rate green or energy efficiency as part of the RFP in deciding who ought to get that lease.

Mr. WINSTEAD. Well, in terms of the actual requirements, as I mentioned, under these new standard lease clauses are actually giving best value consideration in that SFO and procurement to these features so that anybody—out of three that are qualified, there may well be an acknowledgment of a higher standard or better energy efficiency that would have——

Ms. NORTON. You see what I am after. Because everybody wants your lease, everybody is going to try to meet high energy standards if you make them do so. Then when everybody is trying, then I don't know how you are going to decide. I know we do best value——

Mr. WINSTEAD. Right.

Ms. NORTON. —because there is no calculation, there is no way do this in any kind of strict mathematical fashion. But I am a little worried, when we know the worth of the lease to a developer, as to how you would, in effect, rate energy efficiency in deciding among the many very important factors. There are many very im-

portant factors. The Committee is well aware of that. And I don't mean to deprecate any of the others, but with energy going up in an escalating fashion, no hope of it really coming down in the way it once did, it does seem to me one has to look at energy calculations in a very special way and very different from whatever GSA may have been doing in the past.

Mr. WINSTEAD. That is right. It is—the documents, both in terms of the construction documents and specification of performance of equipment, we do have a very—it is sort of third-party verified. We do have a sense of these offerors in terms of what their design specs will, in fact, do in terms of energy efficiency, but, you know, we do look at total consumption of BTU per square foot, and we are using the ASHRAE 90.1 model in that regard.

So I would say, though, as you well know, from location to past performance, all these other factors are a part of that. This is clearly one that I think you are correct in saying the offerors are going to be much more attuned to try to be competitive in terms of what they are offering in energy performance and sustainable features in buildings. I mean, they realize that that is a factor that we, by the 2007 law, are committed to, and since 2003 are preferred LEED construct on these lease construct projects. So it will be coming.

I think you are correct. I think given all the factors, it is going to probably be more important, but not—and it is not going to—it is going to be just be as important as it always has been in location and obviously the ability to deal with that agency's housing needs in that location. But we also——

Ms. NORTON. I would think the energy part of the RFP needs very special, expert inspection.

Mr. WINSTEAD. Yeah, we do have third-party verification.

Ms. NORTON. It needs it because you are dealing in some ways with an unknown. You are certainly dealing with a country that doesn't pay a lot of attention and doesn't look like it is about to do anything radical. And you are dealing with you paying it. It is as if we were talking about the Capitol. There is no difference.

Mr. WINSTEAD. Right.

I will tell you I am concerned. In our own construction projects, I think it is a different situation, but I am concerned about these goals, about our commitment about the law and requiring it and its impact on competition. And we need to—I would commit to this Committee, I have talked to our leasing people here, NCR. I think we do need to do a much more aggressive outreach to the ULIs, the D.C. building industry, the northern Virginia NAIOP, groups like that in the NCR that are supplying our spaces under these leased actions and are building new buildings to meet our future space needs to make sure that they understand what we look at in terms of these specifications and performance, and that we make it very clear well in advance so that they can—if it is a question of bringing existing buildings up to par in energy rating, that they have enough time to do that to continue to be competitive, because the last thing we would want to is have requirements that diminish our competition, because obviously what we are at is best value.

Ms. NORTON. I think that is a very good point. The GSA and I have had forums before. It may be—I think this is such a matter apart from other items in RFP, it is such an unknown, it is so im-

portant, and your concern with competition is especially important to this Subcommittee. We think you are in the catbird seat, of course——

Mr. WINSTEAD. Yes. Madam Chair——

Ms. NORTON. —that I think it would be well worth it if we had a conference or a forum——

Mr. WINSTEAD. Be happy to do so.

Ms. NORTON. —on leases—focusing not only on energy, but especially energy, so that people are not caught. If we had a forum where you laid out what is far too technical to lay out in this hearing, the kinds of things, kinds of matters particularly involving energy that the government is faced with, then, in fact, we wouldn't be faced with putting RFPs out, people competing and they don't know if they are competing with somebody who really gets it, because they don't know what ″getting it″ means.

Mr. WINSTEAD. Right.

Ms. NORTON. So I would like to have discussions with you afterwards.

Mr. WINSTEAD. I would be happy to.

Ms. NORTON. How can we—beginning with this region, because it has so much Federal construction and leasing—but inviting people from other parts of the country to sit in as well to give some kind of notice about where the government is headed on requirements when it leases spaces so that people know what they are going to have to do. Of course, I am interested in this because I think it encourages them to upgrade their own energy efficiency and conservation.

Now, you commission buildings; that is, you invite in third parties after a building is constructed, usually some kind of engineering company. Do you do that routinely?

Mr. WINSTEAD. Yes, we do. In the case of ATF, for example, that certification process cannot be totally completed until a full year of operation, which we are coming up on. But we have had commissioning. We are looking at those energy systems.

Interestingly enough, on the lease side of it, which we were just talking about, we have mechanical engineering certified energy managers, some in house, but also some by contract, who review all these lease submittals we were just talking about. So, we do have a commissioning process after a building is opened, and we do have these both in-house-certified energy reviews and some contractual companies that are doing that for us for the lease submissions that we are getting in terms of——

Ms. NORTON. Thank you very much. I just want to make sure that process is continuing.

I asked the Ranking Member if he had any questions. He did not. Mr. Dent is here.

Mr. Dent, do you have any questions or anything you would like to say?

Mr. DENT. No.

Ms. NORTON. This is focused on the National Capital Region, this hearing is, but what we are talking about applies elsewhere. The difference between here and elsewhere is the huge footprint. If we do it here, it will have a leadership effect elsewhere as well. That is why I am particularly concerned about what is happening here.

I am also—I would also like to know about what may be an even greater part of your budget; that is, the renovations that go on. You are in the process of a very expensive renovation that seems to go on forever of the Old Executive Office Building. Are there any green initiatives or conservation initiatives associated with that building in particular?

Mr. WINSTEAD. The EEOB project, as you know, is putting in basic new energy systems which will have Energy Star requirements based on the 2010 objectives on the lease side. It is also retrofitting fire and safety. It is also restoring historic properties, but we do—HVAC, but it is not LEED—and lighting as well, Madam Chair. So both in terms of the lighting, retrofitting and EEOB as well as the energy systems, they are Energy Star rated. I do not believe—I think that is it, Madam Chair.

Ms. NORTON. So is it your testimony that when you renovate a building, these are Energy Star rated, not simply are you looking for LEED in new construction.

Mr. WINSTEAD. On the renovation side we are focusing on Energy Star systems in these new buildings, but if their performance would allow for—if it is a substantial remodeling and renovation of the energy systems, then we could potentially be submitting that for LEEDs. But I don't know.

Kevin, do we have many examples of that?

Mr. KAMPSCHROER. We have two.

Mr. WINSTEAD. We have two? What are they?

Mr. KAMPSCHROER. The Duncan Federal Building.

Mr. WINSTEAD. We do have two examples, the Duncan Building and—we will get back to the Committee.

Ms. NORTON. The Old Executive Office Building, is that an example?

Ms. NORTON. The Full Committee energy hearing, at that hearing GSA was questioned about energy-inefficient products being on a GSA schedule. That seems to be a real nonstarter. Are these inefficient products now removed from the GSA schedule?

Mr. WINSTEAD. FAS requirement is to sell only at Energy Star and FEMP-designated——

Ms. NORTON. Are they removed from the schedule?

Mr. WINSTEAD. I do believe FAS is in the process of ensuring that all schedule-offered green products materials, cleaning materials are green products. I do not—I have to get for the record——

Ms. NORTON. This is the second hearing when we brought this up. We need to know that there may be circumstances, and I forget that at the hearing there may have been some described, where the only product that could be used is an old systems product. What disturbed us was that this was on automatic pilot, thereby encouraging old system use, and we were at cross purposes with one another.

I would like within 30 days, please submit the products on the schedule that are not energy-efficient and indicate why they are still on the schedule.

Mr. WINSTEAD. I will do so. I will be happy to do that.

Ms. NORTON. Thank you.

Mr. WINSTEAD. Because I know FAS has been working on it. I will just get you the current status of it.

Ms. NORTON. Our bill contained an Office of Federal High-Performance Green Buildings. Is that office operational?

Mr. WINSTEAD. Madam Chair, we are setting it up. We have—we are in the process of establishing a budget. Kevin Kampschroer, the reason I let him come up here is he is our Acting Director of that office. He was the head of our sustainability efforts.

Ms. NORTON. So it does have a Director?

Mr. WINSTEAD. Yes.

Ms. NORTON. Does it have any staff yet?

Mr. WINSTEAD. We do have staff that we have allocated to it in terms of some existing people within the central office of PBS that are supporting Kevin in his efforts. We do intend to go to public advertising for some of the obviously leadership positions in the new green building office. It is well under way now, and I would be happy to give you an organizational chart of how we intend to staff it out, and what the functions would be, and what both is in house and——

Ms. NORTON. Would you do that, and would you let us know when you intend to have a staff beyond the leader, the staff leader?

Mr. WINSTEAD. Sure. Because I know we are working on that with personnel now to staff out that office.

Ms. NORTON. As I indicated, Mr. Winstead, GSA didn't begin yesterday to work on energy conservation, except it never had anything like the challenge you have before you today, and there is no entity in the construction and leasing market even in the same ballgame as GSA. So some Committee is going to put a very special burden on GSA here. We are simply using this as the leading edge for the rest of the country because this is the place to see what works and what doesn't work because of the footprint of the Federal Government here in almost all aspects of our jurisdiction.

We are very sympathetic. We tried with you—on the last page of your testimony, we tried with you to get public utilities serve as long-term public utility service contracts, and this is an example of how government doesn't work, because this is just stupid. We were not able to get periods longer than 10 years because of something called scoring. I don't even want to go into scoring, which is counterproductive, but it scores—which is supposed to be like it costs—the government money, except that what we are talking about is saving the government money. And with such a large user, the longer the contract, the better able we are to save money.

There may be things that the government has to do to safeguard its own role in large contracts, energy contracts. We are simply classifying a way to correct this because that is where the big savings can occur. We are aware of that. We did make some progress here, but we are greatly in sympathy with your difficulty in meeting the goals as long as we are at cross purposes with you right here in the way in which we score.

I thank you very much for this testimony.

Mr. WINSTEAD. Thank you, Madam Chair.

Ms. NORTON. I do want to ask you—I told staff I was concerned about an issue. There was a bipartisan letter sent in December 2007 requesting GSA—this is very important to us, to you, and to the Congress—to produce a report on the use of 412 authority. We wanted this to review for opportunities for funding at St. Eliza-

beth's in particular. The report was due by the end of January. By agency request we extended the deadline to the end of February. It is now mid-April, and the report is still not here. You get almost weekly e-mails about where is the report. Where is the report, Mr. Winstead?

Mr. WINSTEAD. Madam Chair, the report—I have, in fact, approved the report several weeks ago, and I will make sure that it is up here today.

Ms. NORTON. Will you have the report back to me by the close of business today?

Mr. WINSTEAD. I will. Sorry.

Ms. NORTON. Thank you very much.

We call the next panel, which are the others witnesses. They are George Hawkins, director of the D.C. Department of Environment; Joan Kelsch, environmental planner, Department of Environmental Services; Doug Siglin, Federal affairs director, Chesapeake Bay Foundation; Robert Shovan, Apartment and Office Building Association of Washington; Jim Epstein, Chair, board of directors, D.C. Greenworks.

We will start with Mr. Hawkins, then Ms. Kelsch and then the others.

TESTIMONY OF GEORGE HAWKINS, DIRECTOR, DISTRICT DEPARTMENT OF THE ENVIRONMENT, DISTRICT OF COLUMBIA; JOAN KELSCH, ENVIRONMENTAL PLANNER, DEPARTMENT OF ENVIRONMENTAL SERVICE, ARLINGTON COUNTY; DOUG SIGLIN, FEDERAL AFFAIRS DIRECTOR, CHESAPEAKE BAY FOUNDATION; ROBERT SHOVAN, APARTMENT AND OFFICE BUILDING ASSOCIATION OF METROPOLITAN WASHINGTON; AND JIM EPSTEIN, CHAIRMAN, BOARD OF DIRECTORS, D.C. GREENWORKS

Mr. HAWKINS. Good morning, Congresswoman Norton, Ranking Member Graves, members of the House Subcommittee on Economic Development, Public Buildings and Emergency Management. My name is George Hawkins, and I am the director of the District Department of the Environment for Washington, D.C. I am very pleased to have this opportunity to discuss our involvement in efforts to green the National Capital Region.

Madam Chair, I have also had the pleasure of working at your side in the District in the clean-up of the CSX spill along Anacostia, as well as the plans I know you spearheaded for the development at the St. Elizabeth site that you have mentioned in your conversation with GSA. So it has been a pleasure to do so.

We believe that the development of the sustainability plan for the District or any city is one of the principal questions of the day. Any resident in the city uses less energy than their counterparts in the suburbs. They walk more, drive less, and the development covers less farms and habitat. Under almost any environmental basis, the footprint of a city dweller is smaller than others.

The question is how to make that sustainable, because at the same time a city dweller is often left with residues of development and operations from the past on brownfields, there are lead paint problems, there's aging infrastructure, ground-level ozone and less access to many natural resources. So there is a challenge on the

urban side as well. So the imperative of this agenda is to really make our cities sustainable.

We approached our testimony today to answer this question of how D.C. is seeking in an energy capacity to set a government in operation that is moving in this—in a green direction as a whole, so that energy is a piece of a part. We believe success on any of these, the whole would be bigger than each of the pieces.

I will quickly summarize four areas. The first is how we are organizing government, the second is how the laws are set up, the third is some of the programs we are running, and the fourth is some of the regional efforts we are undertaking.

First, as far as how we organized government, as you know, under Mayor Anthony Williams we elevated the importance of the environment by creation of the District Department of the Environment. Most cities do not have a stand-alone environmental department. They are frequently part of the Environmental Health Administration where many environmental issues at the city levels have started.

Since our inception 2 years ago, we have integrated elements of the Department of Health, the energy office—our director of the energy office is here, Jack Warner—Department of Public Works, District Water and Sewer Authority. We now have a full-service environmental department in the District, and we have had great support on that score. This does State-level work on regulations, county-level on slough review, as well as city-level work to look at permits and review sites and provide direct services to citizens.

In combination with setting up this department, Mayor Fenty has established the Mayor's Green Team. We just started in December. We have representatives of 40 agencies, now 80 people, meets once a month, and the idea is to coordinate all agencies going forth on green operations. This is a whole government effort, not just our department. I am pleased to say that we did an initial survey of how much green effort is going on in the District, and we tabulated 180 existing programs happening across agencies that had a green approach. We are delighted by that. So we are organizing our government to move forth.

Secondly, on the laws, the extensive set of laws in the District to support the greening of this city. I will mention just a few. The first is probably the most relevant here, which is the Green Building Act of 2006. It requires, incentivizes the development of high-performing buildings, and is one of most foremost laws of its kind in the country. It requires LEED certification and Energy Star certification for all new construction for District buildings as of October 1st, 2007. October 1st, 2009, it is publicly financed buildings. October 1st, 2011, it is all privately built buildings. So LEED Certification Silver will be the requirement of the day in the District.

I am happy to say we have many of our friends here on this panel. There are more buildings in the pipeline for LEED certification in the District than any other State in the country here in the District. Really we have tremendous support from folks right here on the panel to work in this direction.

We also have the Clean Cars Act of 2007, which will require low-emission vehicles standards, the same as used by California. We just negotiated a new MS4, Municipal Separate Storm Sewer per-

mit, with U.S. EPA, which has some of the most stringent requirements for new development on stormwater in the United States. The Mayor just formed a Green-Collar Jobs Advisory Council. We absolutely want to have this rising degree of requirement connect into opportunities for our at-risk youth in this city as well as our businesses to build a whole new focus of our economy as well as the environment.

Third, give you some sense of some of our specific programs as we are greening our District. I will mention our energy office. This is a full-service office that provides conservation efforts, including renewable energy outreach campaigns, small business assistance, appliance rebates, weatherization assistance and energy audits. Our low-income assistance of low-income residents has the highest penetration rates to low-income families of any district in the country. This office provides a full array of services both to businesses and individuals seeking to reduce their energy footprint.

We also are expanding significantly our effort on stormwater, and stormwater and energy requirements are often very much the same and are consistent. We have expanded this new permit obligations, which, according to the U.S. EPA, is the most stringent in this country. The stormwater requirements in this permit for low-impact design, for reduced footprint for facilities are very much related to energy as well.

A third comment I will make on programs is the Anacostia itself. I know how near and dear the Anacostia is to you. It is a jewel of the District. It is also one of the most polluted water bodies in the country. The Mayor has asked us for a specific plan with both long-, medium- and short-term actions to restore the Anacostia, which will be announced this spring. Elements of these plans are already being put in place. We have significant physical restoration projects going on in the Watts Branch and Pope Branch as well as cleanups.

A new set of development standards will be applied along the Anacostia that just went into effect this month. We have been happy to work with a tremendous array of nonprofits and community organizations in implementing these plans, and D.C. Greenworks I know is here today is one of our favorites.

The last mention on programs is that we also have a significant compliance and enforcement effort. We believe that when you set a high bar for performance, your first step is to make sure that those who are regulated understand and realize what the obligations are. So we take as very important to make sure that our regulations and our requirements are transmitted and communicated to those who must comply.

We will give every opportunity for folks to comply with requirements; however, we are building a strong enforcement program so that, if needed, particularly so that the businesses that do comply don't feel that there are others that are getting off, that we will enforce in the District and have initiated some of those actions so far.

Finally I will mention some of the regional efforts. There have been many. We absolutely know that at the District we will not succeed in the region unless we work collaboratively with our Federal, our State and our county partners, one of which is right here to my right. We are active in a whole slew of partnerships. I will

mention again just a few: The Anacostia Watershed Restoration Partnership, which is coordinated by COG. And Dana Minerva is here today vetting the Anacostia partnership. That partnership is D.C., State of Maryland, Prince George's and Montgomery Counties, U.S. EPA and the Army Corps of Engineers.

We are also involved in the Interstate Commission for the Potomac River, and have signed the Chesapeake 2000 agreement to try to improve as well, although we are not reaching all of those goals as we had hoped, but still working very hard at it.

Finally, the District takes very significantly the effort to reduce climate change. Cities may by the place where we see some of the consequence first. Most cities were located at the confluence of rivers or on waterways where rising sea level is likely to have the most significant first effect of climate change. Mayor Fenty has signed the Climate Protection Agreement. We have joined ICLEI's Cities for Climate Protection campaign. We have signed on the Climate Registry to calculate the city's carbon footprint, and we will be shortly announcing an effort to develop a climate change action strategy. We want to know the facts about carbon footprint as we take the next step into strategy itself.

I am also happy to say there has been a combined effort of the Green Building Advisory Committee, something established under the Green Building Act, to green the building codes in a proposal that was unanimously supported by that advisory committee, which has representatives from a wide range of interested parties, that will turn the rules of the game, the building code rules in the District, green, we believe, this spring. So this full set of initiatives—and we have a slew of partnerships.

I know I have run a few minutes too long.

There is tremendous commitment on behalf of the District to make sure our government is organized to produce green, that we have a legal set of rules to establish green as the practice, that we work in all of our programs in partnership with our many friends and allies to implement and also expand in our region to do as well. I thank you for the opportunity to testify.

Ms. NORTON. Thank you, Mr. Hawkins.

Ms. Kelsch.

Ms. KELSCH. Good morning, Gentlewoman Norton, Ranking Member Graves. Thank you very much for having me here today. My name is Joan Kelsch. I am an environmental planner for Arlington County, Virginia, where I coordinate the county's green building initiatives. I am a LEED-accredited professional, and I also serve as the Chair of the Intergovernmental Green Building Group at the Washington Council of Governments.

I appreciate the opportunity to present to you today Arlington's green building programs as well as the work being done to address green buildings regionally.

Arlington is an urban community, and because of the continued interest in development in Arlington, the county is working to make its building stock as sustainable as possible. For the past 10 years, Arlington has used the U.S. Green Building Council's LEED Green Building Rating System to guide both public and private development in the county with the intent of reducing environmental impact in all new construction. Arlington originally focused our

green building efforts on public facilities, and we now have three LEED Silver-certified public buildings in the county.

Private, commercial and high-rise development in the county also must incorporate green building components. Many developers are now choosing to officially become LEED-certified because certifying their projects makes both environmental and economic sense for them.

Arlington's Green Building density incentive program has encouraged more than a dozen projects to apply for LEED certification in the county.

In 2007, Arlington launched its Climate Protection Program called Arlington's Initiative to Reduce Emissions, which is also known as Fresh AIRE. Existing buildings are responsible for about two-thirds of the county's carbon emissions, and as such, county staff has developed programs to encourage existing building owners to improve energy efficiency through building retrofits and operational changes using EPA's Energy Star benchmarking program.

In addition to Arlington, several jurisdictions in the region have developed green building programs and are making continuous progress in the region. As Mr. Hawkins noted, D.C. has made some great strides including their Green Building Act. Montgomery County, Maryland, has also adopted green building legislation that addresses both public and private construction. In Fairfax, they have adopted policies that would green up growth centers such as Tysons Corner. And several jurisdictions in Maryland and Virginia require public facilities to achieve LEED certification so they are leading by example, and building codes are being addressed in several jurisdictions.

Several communities in the D.C. area also offer incentives such as expedited permitting or reduced permit fees for buildings that go green.

Through the Metropolitan Washington Council of Governments, local governments in the D.C. region have joined forces to share information and develop a common set of goals for local government green building programs.

COG issued a report that examines the building issues facing our region and offers specific recommendations to local governments for developing regionally consistent green building programs for public and private development. Specifically, the report recommends that, one, local governments adopt LEED as the common green building rating system for the region, thus offering consistency across the region so all building professionals know to expect the same standards.

Two, local governments should lead by example by designing and constructing public facilities to the LEED Silver standard.

Three, jurisdictions should establish green building programs for private development that focus specifically on the environmental issues of particular importance to the D.C. region, including energy efficiency and on-site power generation, heat island mitigation, stormwater management and construction debris recycling.

Finally local governments will coordinate in the region on education and outreach efforts so that we can optimize some of the innovation that is going on.

Greening our Nation's building stock offers one of the greatest opportunities to protect the environment and enhance energy independence. Nationally buildings generate one-third of the Nation's carbon emissions, primarily through the use of electricity and natural gas. Despite rapid growth and the widespread acceptance of green building, only a small fraction of new home and commercial construction incorporates green components at this time. Additional leadership and action is needed to spread the word about sustainable building practices.

The Federal Government can encourage green building practices through programs such as your Green the Capitol Initiative. Providing green building and energy efficiency tax credits would help encourage the private sector to adopt some of these green building components. Fully funding the Energy Efficiency and Construction Block Grant Program would support critical efforts at the local and State levels to further some of these goals.

Additionally, the Federal Government can play an important role in green building success by supporting EPA's Energy Star benchmarking system.

Finally, there is a critical need for additional research funding to develop and test new green building materials.

Madam Chairwoman, Ranking Member Graves, Arlington County and the Council of Governments applaud your leadership in convening this hearing, and I thank you again for the opportunity to testify today. Those of us working in local government are very encouraged by the increased focus of attention on these particular issues, and we look forward to being your partners and moving forward. Thank you again.

Ms. NORTON. Thank you.

Mr. Epstein.

Mr. EPSTEIN. Thank you, Madam Chair. My name is Jim Epstein. I am the chairman of D.C. Greenworks, a 501(c)(3) social and environmental enterprise organization whose focus is on every aspect of green roofs in the National Capital Region. We design and install, provide job training, provide technical assistance, educate the public, research the efficacy and benefit, and help create effective public policy regarding green roofs' roles in mitigating stormwater run-off.

In North America, the green roof movement already has enthusiastic support in Chicago, Portland, Toronto, Vancouver and New York, and an extensive history in Europe. Washington, D.C., as you heard from Mr. Hawkins, has made a commitment to join these cities as a leader in the green roof movement.

It is an honor and pleasure to have the opportunity to speak about the role green roofs have in greening Washington and the National Capital Region. In 2007, D.C. Greenworks worked with the District to install 12,000 square feet of green roofs in the Reeves Building and on One Judiciary Square, in addition to several commercial installations. So we completed $270,000 in green-roof installations and facilitated green-collar jobs, job training for 16 individuals.

There are many exciting projects in store for 2008 and into the future as we plan to double these numbers and administer a $200,000 grant awarded by the District of Columbia's Department

of the Environment for green-roof installation targeted at creating public awareness and facilitating research.

Green roofs offer many tangible benefits. I would like to highlight a few that would be of most interest to this Committee. Particularly during heavy rains, the combined sewer overflow system does not have the capacity to handle the influx, and much of the water that carries pollutants from our urban environment flow directly into the Potomac and Anacostia Rivers. Even basic green roofs hold about the first inch of rain and filter in cooler water that does run off.

Green roofs act as additional insulation on the buildings; also cooling agents as they reduce heat absorption. Quantifiable research in the United States, however, is limited, and the results will vary based on climate, but preliminary results from studies taken at the headquarters of the American Society of Landscape Architects here in Washington, D.C., have shown a 15 to 20 percent reduction in heating and cooling costs since the installation of their green roof.

A recent study performed in Germany showed that the cooling effect of green roofs increased photovoltaic efficiency significantly. Using green roofs and solar panels together could therefore decrease electricity demands and increase electricity production.

According to the green build-out model developed by K.C. Trees and Linotech, which should be a central reading for this Committee, and highlights of which are included in my written testimony, 260 million square feet of the District currently covered by buildings. About 195 million square feet of those buildings, that is about 75 percent of the total number of buildings, are capable of accommodating a green roof. So it is a significant number of buildings in the District of Columbia that could hold a green roof. That means between 10- and 13 million square feet of rooftop are replaced every single year in the District of Columbia alone. If 50 percent of the roof surface were replaced with green roofs, within 25 years, which is about the time that it takes to replace every single roof, stormwater discharges would be reduced by 882 million gallons annually.

The most effective incentives for green roof installation so far in the District appear to be on-site stormwater management regulation for new construction, which, as you heard, is already implemented to a large degree; both mandates and market-driven incentives for achieving LEED certification, again well underway; and direct subsidy programs and grants. The District of Columbia Water and Sewer Authority has recommended and is currently researching fee basis—a basis for impervious service charge to start accounting for the costs in natural capital of stormwater run-off.

Germany is the global leader in green roofing, with some municipal areas reporting 30 to 40 percent of all roofs to be green roofs. Their incentives include a mix of mandates, direct subsidies and tax credits. Other American cities are using a combination of these three approaches.

Federal facilities make up approximately 8-1/2 million square feet of the impervious footprint in the District of Columbia. If that same 75 percent proportion were applied, that would mean that

there would be 6.3 million square feet of green-roof-ready Federal buildings.

There is still a tremendous need for research into measurable benefits of green roofs in the National Capital Region. The Federal Government is perfectly positioned to support such research with assets that have expansive green roofs and mirror-image wings, which could be extremely useful in comparative studies.

More Federal subsidies for municipal projects are desperately needed. Funding for the National Fish and Wildlife Foundation, Chesapeake Bay Foundation and other providers of direct grants, and direct tax subsidies, especially for residents and other projects that do not fall under the stormwater and/or LEED mandates, could act as a catalyst to the growth of this movement in areas not covered by more widespread legislative acts which generally focus on new buildings.

Additionally, providing green-collar job training on these installations through groups such as Earth Conservation Corps and AmeriCorps could provide job growth in categories cited by the Environmental Protection Agency as lacking the skilled workers needed for industry-growth and cost-reduction strategies.

By managing rainfall where it lands through the use of green roofs, and on a significant scale, we can take the first and most important steps to cleaning up our rivers, transforming our cities and increasing the quality of life for citizens in the National Capital Region. Green roof installations in Federal buildings would demonstrate the Federal Government's commitment to greening the National Capital Region and pursuing energy security for the Nation as a whole.

I thank you for your valuable time and welcome your questions.

Ms. NORTON. Thank you, Mr. Epstein.

Mr. Shovan.

Mr. SHOVAN. Thank you.

Good morning, Chairperson Norton, Ranking Member Graves and members of the Subcommittee. Thank you for holding this important hearing on green buildings and inviting me to testify today. I am Robert Shovan, senior property manager and senior vice president of Transwestern. I am also a LEED-accredited professional. I am here today on behalf of the Building Owners and Managers Association, International, or BOMA International, and its Washington, D.C., affiliate, the Apartment and Office Building Association, or AOBA.

Transwestern is a privately held national commercial real estate firm focused on creating value for our clients in each market that we serve. Transwestern is proud to say that we fully embrace our sustainability concepts and our property facility management services. We constantly strive to improve the quality of the buildings we manage for the good of our clients, our tenants, our environment and asset value.

Over the last several years, Transwestern has found the shift to green or sustainable buildings is as good for business as it is for the environment. In our present economy construction costs continue to rise. Our operating costs, such as energy tax and payroll, continue to rise as well. Rent increases are not enough to com-

pensate for these rising costs. We simply need to find other ways to lower the operating costs.

Lowering energy consumption is an obvious way to start. But energy is only one component of green or high-performance buildings, and many other elements of a sustainably managed property are cost-neutral. For example, there is minimal cost to change policy, procedures or products on how to manage a building. It is also cost-neutral to fully implement recycling and to implement green cleaning programs that include training janitorial employees and switching to low-VOC-emitting cleaning products. Other components of green building operations include implementing environmentally friendly pest management programs and improving the building's air quality.

Because we believe in the value to our tenants, to the environment and our clients, Transwestern has committed 51 buildings totaling 17 million square feet to the U.S. Green Building Council's Leadership in Energy and Environmental Design Existing Building Portfolio Pilot. Transwestern's own corporate office in Chicago is LEED-certified.

We are proud to note that we recently won the EPA Energy Star Sustained Excellence Award for the third consecutive year. Transwestern has been involved with Energy Star programs since 1999. Here in Washington, Transwestern is not alone in our adoption of energy-efficient, sustainable management practices. Many real estate firms with properties in the region are participating in a broad and growing range of green initiatives independent, I may add, of statutory mandates to do so. We have provided an exhibit which contains a summary of a few of them.

However despite the presence of numerous cranes across the skyline, Washington, D.C., is largely a built environment, and there is an important role for management teams of existing buildings to find ways to increase efficiency and sustainability in our portfolios.

Property management professionals recognize the critical significance of energy conservation to contain costs and reduce environmental impacts, but it is also essential that elected officials and the public understand that realizing energy efficiency and sustainability gains in existing buildings presents an array of consideration and variables quite different from those involved in new construction.

For instance, I may be very persuaded of the merits of a green roof for an existing building, but there may be structural factors that render it impractical, or it could be the current roof is only 4 years into its useful life, and thus simply too new to justify its reconstruction. Storm or graywater capture and reuse techniques are increasingly being designed into new buildings, but as desirable as they may be, adopting them into an existing structure will often be impossible.

Similarly, the operating cost savings for more energy-efficient elevator technology may be demonstrable, but what about the capital costs of replacing 16 very functional elevators in my building? Will the owners and tenants be persuaded of the value of doing so and enduring the associated disruption? Will the answer be different if it is coming from GSA, which leases roughly one-third of the privately owned office space in Washington?

I must mention, too, for AOBA's housing providers that regulatory programs such as rent control and historic preservation can often constrain the ability to undertake proven energy-reduction measures like window replacements or individual utility metering.

These are some of the realities involved in undertaking green initiatives in a largely built environment. There is a growing interest and commitment to doing so. Increasingly it is a matter of when, not if; and how, rather than why. To that end AOBA is undertaking a number of initiatives to assist its members. This month it launched a new Energy Managers Roundtable to share best practices. AOBA is building a Going Green Web site specifically focused on existing buildings, which will include case studies, helpful resources and a comprehensive outline of all green-related local laws, regulations and incentive programs. In September AOBA will hold a green conference that will address the unique issues associated with the greening of existing multifamily and commercial office buildings.

AOBA is also one of the most recent BOMA affiliates to officially sign on to BOMA International's 7-Point Challenge, which has been voluntarily endorsed by many of the largest companies that own and operate buildings in the United States and is perhaps the best illustration nationally of the private sector's moving towards energy efficiency.

In the fall of 2007, BOMA International called on its member companies to take a proactive and aggressive step to lower energy consumption across their portfolios by 30 percent by 2012. To date over 30 companies have accepted the challenge. These companies include well-known names as Transwestern, CB Richard Ellis, Cushman & Wakefield, USAA Real Estate and RREEF, to name a few.

BOMA has also partnered with the Clinton Climate Institute to help bring many benefits of their Existing Building Retrofit Program to the private sector office buildings.

BOMA International strongly believes that energy efficiency and carbon reduction efforts are well under way in this commercial office building industry. Voluntary efforts and programs such as the EPA Energy Star program and the Clinton Climate Initiative are bringing tools to our members to assist them in their efforts. We look to Congress to continue to encourage this type of action and refrain from implementing unneeded and costly mandates.

We thank the Subcommittee for holding this important hearing and look forward to working with Congress and other public- and private-sector partners to achieve our mutual goal of market transformation. Thank you.

Ms. NORTON. Thank you very much, Mr. Shovan.

Mr. Siglin.

Mr. SIGLIN. Congresswoman, it is good to be back. Mr. Graves. I am Doug Siglin, I am the Federal affairs director for the Chesapeake Bay Foundation. I am going to try to set a context for much of the stuff you have heard.

I will say before we do that, we have some bona fides in this business. We chose 10 years ago to build what became the world's first Platinum LEED green building at our headquarters in Annapolis. I understand now there are a handful of Platinum buildings

in the world, but we were the very first, and it is still a tremendously amazing building on the shore of the Chesapeake Bay, and I would invite any of you to take a look if you are interested.

Secondly, I want to say I personally made the decision to go raise money and donate the green roof to the Nationals stadium so that the hundreds of thousands of people or millions of people who will come to Nationals baseball games would have an opportunity to see what a green roof looks like in practice.

The reason what you heard today is important is because the waterways of the National Capital Region and waterways of our entire region, in fact, continue to be very highly degraded. Ms. Norton, you know because of your long experience with this about the Anacostia. We call it one of the country's dirtiest rivers. It is officially listed as impaired for sediment, nutrients, bacteria, toxic chemicals and trash. This is the river that runs something like 2,000 yards from Capitol Hill, and every time one of the facilities flushes in this complex in a rainstorm, some part of it ends up in the Anacostia.

In a bigger sense, we, as part of an ecological region, the Chesapeake Bay watershed, have a responsibility to make sure that the Chesapeake Bay is a clean and healthy, productive waterway for our children and grandchildren. These efforts you have heard about this morning, the green building, the stormwater management—that, in fact, is an engineer's term for urban run-off, agricultural run-off—are the solution. These are the kinds of things that will have to be done on a very, very wide scale if, in fact, we are going to quit reading the horror stories about the Chesapeake Bay. Stormwater run-off carrying a load of nitrogen is the principal pollutant to the Chesapeake Bay, and the way we address those things is to make sure that our built infrastructure filters out rather than funnels to those pollutants down to the Bay.

If you read this morning's Post, there is yet another editorial about how bad a shape the bay is in. This one had to do with Governor O'Malley and Governor Kaine meeting this week to tell the watermen that they couldn't fish as many crabs anymore. The reason for that is because—in great part because there is too much nitrogen in the bay. The reason there is too much nitrogen in the bay is in great part because there is too much nitrogen in our lives that runs off into the Chesapeake Bay.

The kind of stormwater management techniques that we have been hearing about this morning, including green roofs, including green buildings in general, including the efficient energy use, are, in fact, the techniques. If you take a look at the bay, you are going to see that now it has a huge dead zone, like the Gulf of Mexico. In fact, the dead zone in the Gulf of Mexico is larger than several States, several individual States. The area of the dead zone in the Gulf of Mexico is larger than some of our smaller States. The area of dead zone in the Chesapeake Bay is not quite that big, but it is very significant.

A dead zone is a place where there is too little dissolved oxygen for fish and shellfish to live. The reason there is too little dissolved oxygen is because there is too much nitrogen, and we go back into the circle again.

If we are going to approach solving those dead zones so we can get back the crabs, we can get back the oysters, we can get back all the resources that are in the Chesapeake Bay, these kinds of techniques are tremendously important.

I am not going to go through a litany of all the things that have been done in the Capital region. I have it in my written statement, but you have heard it here today.

I want to make two points in closing. Number one, we are seeing a tremendous amount of activity with buildings, and that is all to the good. We need to have the same kind of level of activity with our highways. The highways is the next big frontier. There are things going on now. We are at the very beginning stages of trying to figure out how to green up our highways. I am the chairman of the board of an organization called the Low Impact Development Center. The Low Impact Development Center is part of a national program called Green Highways. As you move to the surface transportation bill, Congresswoman, I think this has gotten to be a theme, that we are going to have to figure out how to green up highways.

The last point I want to make, because I am just about out of time, is that I am a great baseball fan. It is one of the reasons I wanted to make sure that green roof was down at the Nationals stadium. Last night the Nationals scored two runs, but they lost the game. We are scoring a lot of runs in this region with all the things you have heard about this morning, but so far, as regards the Chesapeake Bay, we are still losing the game. These kinds of efforts have to be multiplied over and over and over again in the National Capital Region and throughout the entire Chesapeake Bay, and I would venture to say throughout the Nation. Anything that this Committee can do to make sure that these kinds of things are, in fact, replicated so that our waterways become clean again for our children and grandchildren would be highly appreciated. Thank you.

Ms. NORTON. Well, thank you Mr. Siglin.

I want to thank all of you for your work. We have asked you to come, and I have asked that you sit at the same table instead of dividing people up, officials and private, because I would like to have a conversation. We are really learning.

First let me say that we asked you to come because you represent the array of entities of various kinds who are trying to lead in this very, very challenging effort, and we think that your own efforts, and particularly the cross-talk we hope to elicit, could help the Subcommittee as we try to see what is the next step for the Big Kahuna here who can make a difference in almost every way and is going to try.

Let us start with baseball, Mr. Siglin, you and Mr. Hawkins.

Mr. Hawkins, do you know what the District has done first under Mayor Williams, now Mayor Fenty, is pretty impressive for a local jurisdiction starting up in this area. I must say, Mr. Hawkins, since we have State responsibilities, it is perfectly appropriate for us as a city to have a State agency, and other cities would not find that necessary. And I congratulate the District on moving this issue. They were pressed, frankly, in moving it to this level.

Ms. NORTON. We have heard testimony here that there is a Chesapeake Bay Foundation. Now, the reason we have a Chesapeake Bay Foundation, we are blessed with waterways. Well, the Anacostia flows into some things, and the Potomac flows into some things, and the tributary flows into some things, but they all end up in one of the great wonders of the United States.

And yes, Mr. Siglin, it makes you want to cry. Of course, if you are a native Washingtonian you know about the crabs; there goes the one thing this city and region are known for. And colossal, colossal reduction in just the take, much less the quality of what has been there forever.

Now, Mr. Siglin said, here is the Chesapeake Bay Foundation—a private organization, all right—went out to raise money not for what, its own work, but for what it knew would bring terrible harm to another entity on the banks of Anacostia and to get a green roof, for such roof as you need over a stadium.

The reason for that, Mr. Hawkins, is that there was a huge fight before our current mayor became mayor as to whether or not there ought to be a stadium at all. And I suspect that the reason that there would have been no green roof, particularly since the District was paying for it, was that the council had put a cap on the amount of money that the city could spend, because the city objected strongly to having to build a baseball stadium in the first place.

So my question here today is, is the stadium a factor, today in polluting the Anacostia? And what steps beyond the green roof have been taken by the District to keep it from being more of a factor in what many of us are trying do with the Anacostia?

First, let me ask Mr. Siglin, who perhaps would know best. Would you say, with your green roof, is the stadium a significant factor, I should say, in continuing pollution of the Anacostia?

Mr. SIGLIN. Congresswoman, the green roof is relatively insignificant. To tell you the truth, it is a demonstration roof. And the importance of the green roof at the stadium, for the most part, is the sign that goes along with it that tells the people walking by that it is, in fact, one of the techniques that can be used in an urban area to——

Ms. NORTON. So it is having—you wished it to have the kind of effect that in my questions to Mr. Winstead about whether or not the Department of Transportation or the Department of the ATF had a green roof and whether they are willing to spend the money to get a LEED roof—or excuse me, a LEED certification—you are trying to have that same effect?

Mr. SIGLIN. I was trying to achieve the goal of having the two million people that are going to come to the Nationals Park in a good season have some idea about that small green roof.

Now I would——

Ms. NORTON. Do they know about that, by the way? Is there any way to know about that?

Mr. SIGLIN. The people who come? Is that what you are asking?

Ms. NORTON. Yeah. How do they know?

Mr. SIGLIN. There is a sign that I am told just went up yesterday before the Pope's visit that explains what it is, and it should be

easily visible. I haven't seen it myself yet, but I am told that it is now up.

But—I do want to say for the record, though, that the larger green roofs that Mr. Winstead was talking about do, in fact, have a very significant effect on water quality. The one at the Nationals' stadium, because the stadium is an open environment, turns out to be relatively small and not that significant. What is significant about the stadium, however, is that from the very beginning members of the environmental community here, including myself, sat down with the architects and the designers of the stadium—and there were lots of meetings, and some involved Mayor Williams—and there were dozens and dozens of meetings, and the stadium has built into it some extraordinary water management systems. In fact, it has four different water management systems for different reasons, different parts of the stadium.

And I haven't seen any of the testing data since the stadium opened, but I can tell you that the stadium was designed in such a way that it is supposed to put clean water back in the Anacostia. And that is a great thing; that is a——

Ms. NORTON. That is a terrific thing. And let's get Mr. Hawkins to raise his right hand and tell us whether or not that, in fact, is occurring.

Have all steps—given the fact that you, I, and now I am going to say every jurisdiction in the region have been working on Anacostia issues, has the District done all it can, have the owners of the stadium done all they can to keep further pollution in the Anacostia from resulting from the new stadium, which is built on the Anacostia?

Mr. HAWKINS. I would try to answer that question in three phases.

First, I would agree there has been a tremendous partnership with members of the nonprofit and the private sectors to make the stadium the first LEED-certified stadium in the country, which is very impressive.

The question of whether or not this stadium and its associated areas, like the parking lots, have no effect on the Anacostia, I don't think that is something that we would state or claim, particularly in the heaviest rainstorms. Many of the systems that we have in place in the very biggest of the rain events, there will still be runoff coming from this area.

Ms. NORTON. Wait a minute. Mr. Siglin said that the water, the impression I got from your testimony is that the water that does come from the stadium—the runoff, I understand, but let's put that aside a minute——

Mr. SIGLIN. I think Mr. Hawkins' point is, surrounding the stadium there is a certain amount of surface parking. And the runoff from the surface parking outside the stadium will probably have an effect.

Ms. NORTON. Of course, that is controllable.

Mr. HAWKINS. Each of the parking lots we reviewed, and bioretention systems were built into the parking lots.

Is there zero effect of the development of the stadium on the Anacostia? The answer would be ″no.″ There will be some.

Ms. NORTON. I don't understand. I must say, since it is a new stadium, since it is LEED-certified, since Mr. Siglin's testimony is, they went to great lengths within the stadium, I don't understand if it is basically from parking areas.

Why can't it be controlled and have virtually no effect on—I am talking about only the stadium now. There is all kinds of land that you don't control.

Mr. SIGLIN. We should be able to do that, Congresswoman.

I am not sure the systems are in place on the parking lots. Frankly, they were put in place the week before the stadium opened. I am not sure that——

Ms. NORTON. But they were planned long before. They knew there was going to be a parking lot, it would hold only X number of cars. And so I am sure with all the work that was done—and you said that they do catch runoff.

So I am just trying to find out from this, just built in a climate-change environment, whether or not there is any from it. Because even if it doesn't—all kinds of places—so it will probably have an insignificant effect.

I am just trying to find where the effects from the Anacostia—from the stadium would come from.

Mr. Hawkins?

Mr. HAWKINS. What I would add to that is—here is how I look at it.

I don't think there is any development—it is very hard to say there is zero consequence, no matter how well a development is done, to a nearby piece of ecology. The question in part is, what was there before.

What is remarkable, there was development all along the Anacostia, some of which was parking lots and auto repair facilities that have been replaced by this development. You could—what is definitely true is that the current status of the Anacostia is better off with this new development and the new stadium than it was under the prior land use regime.

Ms. NORTON. Everybody shakes their head and says—I don't. A lot of that was vacant land. A lot of that, nothing was happening on it.

I mean, Mr. Epstein's testimony was interesting—when you talked about something that I am going to have a provision for, try to get into the appropriations this period—and that is, if we don't start measuring this stuff, we will be rightly accused of not knowing what we are talking about. I don't know.

And it seems that the Federal Government—what I am going to do is seek an appropriation provision that would have Federal money measure some of this. Because we are the biggest, we have the most to gain, I don't think you are the ones that should do it. I certainly don't think anybody else has the money to do it nor the incentive that we have to do it.

But if everybody, when it builds says, my parking lots are good, my water is being recycled, I don't accept—absolutely don't, Mr. Siglin—that it is better than it was before. I really don't. There is construction that went on.

I am a native Washingtonian. There is a notion of progressivism, that progress always happens if you are in America. Not true. We

now know the climate is going to hell; we might be going right along with it.

There was a bunch of land on which nothing much was happening. Private developers weren't developing on it; they were waiting to see if we were going to develop on it. My own project, the Southeast Federal Center, was a disgrace until we have gotten it now moving, with the first building going up. But, hey, nothing was happening.

So I can't say that because the Southeast Federal Center is going up now, the Anacostia is better off than when nothing was happening. What I did do was get the Southeast Federal Center cleaned up before we proceeded.

But I am making no assumptions. I think skepticism—this is the academic in me—is do everything we do, particularly everything that is new.

The Ranking Member, you know, complains about—I think he was within his rights to bring doubts to the table on some of what we are doing here. So I don't accept that because there is a brand-new stadium, hey, the Anacostia has got to be better off than when nothing was happening and nothing was flowing into it. I think we have got to measure it.

I am not asking this question for you; I am telling you—I hope my staff is listening—I am going to put a provision in to begin to measure not what the Nationals are doing.

But, frankly, it has a lot to do with your testimony, Mr. Epstein, which I thought was very candid, very important. You talked about the fact that you cited what was measurable. And then you said that there were no true ways to measure what we are doing in green roofs and the like.

And I pulled out your testimony. You spoke about a 15 to—here it is: Effect of promoting green roofing generally adds $10 to $20 per square foot to the cost of a roof, which is not insubstantial. Is that the cost of a building or a home?

Mr. EPSTEIN. It is the energy reduction that comes from——

Ms. NORTON. Period?

Mr. EPSTEIN. Yes. That particular piece of information is in relation to the energy savings that the insulating factor of a green roof provides.

Ms. NORTON. So it adds $15 to $20 per square foot to the cost of the roof now?

Mr. EPSTEIN. Yes.

Ms. NORTON. What everybody wants to know is what we elicited in part from our questioning of Mr. Winstead: Okay, when do we get our money back? And he was talking about recoup times that were very impressive, 3 to 5 years, for example, which I think, given the life of a roof of about 25 years, as you indicate in your testimony, might be well worth it.

Have these figures been documented?

Mr. EPSTEIN. They are documented, but they are not—the information is very regional. In other words, you know, studies that we get from Germany or from California are very hard to apply locally. So it is really important that we do these kinds of things locally. But the information is generally understood.

Ms. NORTON. You say in your testimony that Germany is reporting 30 to 40 percent. But I am looking for some indication that the return is substantial on green roofing; especially since we are a built city, as Mr. Shovan said, and in this city most of what we are going to do is encourage people to do what is already—only the Federal Government can build substantially, or a developer, one here and one there.

Mr. EPSTEIN. I can't say that there is a direct monetary—a significant monetary payback improvement at this point.

Again, we would love to do some more studies on it.

I think the important thing that Mr. Siglin points to is the extraordinary cost to the Chesapeake Bay. And that really is—really part of the factor that we have to consider as we look to——

Ms. NORTON. If you want to get practical about it, there goes the crab catch. Yeah, you say tremendous need for research, measurable effects in the National Capital Region, and that the Federal Government is perfectly positioned to do that research.

Mr. Siglin, your response to that question?

Mr. SIGLIN. Congresswoman, I just wanted to say this for the record: In 2003, the Chesapeake Bay Foundation created a Green Roof Incentive Grant Program in conjunction with District of Columbia WASA and the D.C. Department of the Environment; and in that program we offered private commercial entities about 20 percent of the additional cost of a green roof.

So we offered that we would pay about 20 percent for their additional costs in putting a green roof on the building. We found great interest in that.

And that incentive grant program has ended now; our program has ended. But we have been encouraging the District government and other governmental units to pick up that concept, because if a unit of government would pick up the concept of providing an incentive grant for about 20 percent of the incremental cost, the private building owner then picks up 80 percent of the cost, thereby achieving a public value, which is to stop or slow down the pollution that proceeds from that green roof for only $5—for 20 percent of the cost.

So the point I am trying to make, Congresswoman, is if, in fact, we could take an incentive approach to this we could choose to achieve a public value for 20 cents on the dollar.

Ms. NORTON. And that is something that interests me in light of our jurisdiction over GSA.

Mr. Shovan and—particularly, Mr. Shovan and Mr. Epstein; I think Mr. Epstein testified that some combination of photovoltaic and green roofs is sometimes more effective.

I indicated in my testimony—or excuse me, in my opening statement—that they tried the notion, asked for a study. The whole study isn't done yet, but when we had our hearing on the new Capitol complex and on the Capitol itself, we were told that the Rayburn Building could not—was not appropriate for a photovoltaic.

See, we don't know from here what kind of energy efficiency we are at, so we want what looks to us to have done some good. My question to you goes to the use of green roofs or photovoltaics in built environments such as we are dealing with here.

Ms. Kelsch, your jurisdiction is like the District—we were part of Arlington—one of the oldest in the country as well, many built, many already-built entities. Is there the capacity to work with already-built buildings so that there would be an incentive for the industry or for somebody—whoever is becoming expert in this—to, in fact, put a green roof on; and for the organization or the government agency to feel that it was worth while to go to this technology or to go to greening of this kind for already-built entities?

Ms. KELSCH. I will take a shot at that.

Ms. NORTON. Should this be done? Should we be encouraging, are we encouraging, because we believe that there is enough savings in energy and enough savings in costs; and it comes back quickly enough to encourage green roofs of various kinds, given the age of some of these buildings?

Some are huge, some are small, some were never meant—just let me elaborate on what my thinking is—some were never meant to hold hardly anything on them. They age. And we are not talking about what Mr. Shovan had in his testimony.

There may be practical reasons, too old, to new, whatever. I am talking about a built building, not too old, not too new, the owner doesn't know what to do.

Can we say at this moment in time that this is what people who own buildings or structures that have already been built should explore as a way to deal with runoff and to conserve energy?

Ms. KELSCH. I would say that green roofs are definitely a technology that are worth exploring. I think at this point they are a little bit more—they are more expensive than just replacing your roof. So if the building is structurally sound and can support a green roof, if there were incentives for building owners to put a green roof—to replace an existing roof that needed to be replaced with a green roof, I think that would move the market forward.

Ms. NORTON. Well, Ms. Kelsch, you testified about an impressive array of incentives.

Mr. Hawkins testified that if you build here, you have got to build to LEED, didn't you?

Mr. HAWKINS. For the private sector, the LEED requirement will be in 2011. For District-owned buildings, the current requirement is that any new building must be LEED-certified.

Ms. NORTON. That is a District-owned building. I thought you indicated there would be requirements for private——

Mr. HAWKINS. Absolutely, October 1, 2011, all private sector buildings need to be LEED-certified.

Ms. NORTON. Do you have incentives the way Arlington does in order to encourage this? How has the industry, Mr. Shovan, received this mandate? First, are there incentives?

Mr. HAWKINS. There are. Yes, there are incentives.

And one of the questions on what can be done with roofs in particular is, a green roof, in some respects, is one of the best solutions and one of the ones that needs research and analysis for a broader financial rollout.

Dollar for dollar, the best thing you can do for a roof in a built environment is to replace the old black tar roofs with a white cover. It reflects the heat rather than absorbing it. And that is by far, on an energy basis, per dollar, the best investment.

Ms. NORTON. So could you in Arlington or the District of Columbia—I hesitate to ask the Federal Government—replace a black tar roof with a black tar roof today? Do you have regulations that, say if you are going to use tar, it has got to be white at least?

Mr. HAWKINS. I do not believe in the District that that regulation has—that there is a regulation that requires that change.

Ms. NORTON. The other change requirement costs a lot of money. This looks like it is a little less expensive.

Mr. HAWKINS. Correct.

There is an incentive program, not big enough, that we worked with D.C. Greenworks to provide that came from the Department of the Environment. We have in the 2009 budget over a million dollars of incentives for low-impact design for built environment.

I agree that the single biggest challenge is the existing building stock of any city. And we can get new buildings to reach very high standards—for many, not all, it is still a challenge—to be built into the cost structure. The existing stock, which is most of what we have, is where a lot of the action is. And there are a lot of the economics that still need to be proven.

I think it is exactly the right place for government to step forward and provide financial incentives for the range of roof materials that can be experimented with to improve the technology.

Ms. NORTON. You are on the receiving end of regulation at the District. I am very impressed with what the District is doing. Let's see how impressed you are with it.

Is the industry going to be able to get in line by the dates Mr. Hawkins has indicated?

Mr. SHOVAN. It was in 2011?

Ms. NORTON. 2011.

Mr. SHOVAN. 2011 for new buildings. It is new construction.

I don't know. I would have to work with my AOBA folks and get back to you.

Ms. NORTON. Is there any incentive today given—let me ask the question another way.

Is there any incentive whatsoever, given the mounting costs of energy—probably the worst part of any single cost that a developer would receive—to do anything but what Arlington and the District are trying to, in fact, get to happen? Is there any reason not to do so, given the fact that you have got to pay, for the most part, for the energy yourselves?

Mr. SHOVAN. I think that there are a lot of market—real estate market factors are that are moving building owners towards green certifications like LEED-EB. So it is more that tenants are starting—larger tenants are starting to ask for that.

Ms. NORTON. What about commercial buildings?

Mr. SHOVAN. That is what I mean.

So, for a tenant who is going to be at the end of their lease and move, and they have two buildings that are comparable, if one is green, we have been seeing that, you know, they may go in that direction as opposed to the building that doesn't have some sort of green certification.

Ms. NORTON. So the development community must have testified. Or was this before this administration came into——

Mr. HAWKINS. The Green Building Act was passed before the Fenty administration, although it was in the Council when he was part of the Council.

Our sense is, there are always some developers who are not on board, but that the private sector is streaking ahead on this. And in the District most major commercial products that you see with the cranes around the city are being built to LEED-certified standards.

And the private sector has shown tremendous leadership. We have been impressed by it.

Ms. NORTON. I am going to try to make the Federal leasing process part of this incentive, because we are the ones that are the major lessors in the region. The District doesn't lease or build much, for that matter, it is still a government agency for all that that implies. And yet it has got this forward-looking code and—including private developers in it, which I see in league with what we are trying to do with lessors.

If the District says, you want to build new—of course, that's new; then you have to be LEED—and we say, LEED. And then they come together. And you are going to get other jurisdictions meeting it, because you meet it at both ends. You meet it from the Federal Government, you meet it from local government.

Mr. SHOVAN. It also becomes competition. Because if, as a property owner, you know that there are new buildings that are green buildings that are being delivered and your present portfolio doesn't have any green certification, that is going to move you towards that so you can compete and attract those tenants that are becoming available.

Ms. NORTON. Now, Ms. Kelsch, Mr. Epstein talks about subsidies and tax credits. Let me make sure I understand.

Is there any tax credit in these jurisdictions, in these two jurisdictions for this?

Ms. KELSCH. Not in Arlington.

Ms. NORTON. What are the incentives? Apart from the mandates, what are the incentives?

Ms. KELSCH. Arlington offers private developers a little extra density, so they can build a slightly bigger building if they meet LEED, green building standards. So they have a larger building they can lease out for the 40-, 50-year life of that building, which is—it is actually a great deal for developers.

And we have had about a dozen projects that have taken us up on that. Two of them are finished and 10 are in the pipeline.

Ms. NORTON. How about you, Mr. Hawkins?

Mr. HAWKINS. The significant incentive under the Green Building Act is faster permits. We offer sort of the green permitting notion that if you do the right thing, you will get faster decisions.

Ms. NORTON. That happens to be worth something in this town.

Mr. HAWKINS. That would be true.

One other thing I want to mention, I think is ripe: The green team we formed in the District, one of our first committees we formed was one about greening the leaseholds, because the District owns or leases a lot of buildings in the District, as well—not as many as the Feds, obviously.

One of the things that is coming down the pike in our renegotiated storm water——

Ms. NORTON. So what are you doing with those buildings?

I am sorry. What are you doing with those that you lease?

Mr. HAWKINS. We are seeking to renegotiate leases with green components within those.

Ms. NORTON. You mean, existing leases before they expire?

Mr. HAWKINS. Probably not. We are trying to do them in order. Let's get the new ones right first. There is a fair number up for renegotiation now.

Ms. NORTON. You are making more greening a significant factor in whether you release the building; is that what you are testifying?

Mr. HAWKINS. That's what we intend to do.

Combined with, it is an interesting sideline on reducing energy use, we are decreasing the average square foot size of each office for D.C. personnel to try to decrease the footprint in total of any building that we would own or lease.

But something that is coming down the pike that is very significant that connects to the Federal presence in the District is, we are redoing the storm water fees. And you have heard it mentioned. The new manner in which storm water fees will be applied is based on impervious cover. So currently, for example, if you own a parking lot you wouldn't pay a storm water fee, because it is based on how much water you use, even though we know a parking lot generates a lot of storm water.

One of the very significant elements we would like to bring in is that the Federal Government will pay its share—not a tax, because we know we can't tax the Federal Government, but a fee-for-service. We have got to manage the storm water coming from these Federal facilities and build into it a market system.

If you build better, lower your footprint, increase low-impact development, you pay less. If you decide not to, separate from the regulations one way or——

Ms. NORTON. A very important development, Mr. Siglin, and WASA has testified about it. They come to see us about it.

Would you like to comment on the impervious——

Mr. SIGLIN. Actually, Congresswoman, what I would like to say is that my understanding—and I am not an expert on this, but my understanding is that H.R. 6, which is the energy bill that was recently passed by Congress, in fact, requires new Federal buildings to meet something called ″predevelopment hydrology,″ which is a very high standard for storm water, an extraordinarily high standard for storm water, and great progress.

And the reason that that becomes important is because LEED is a voluntary point system. You can get your points for a LEED rating without doing the thing you need to do for storm water. So when we began to talk to the District about this not too long ago, we were talking about LEED-plus, that is to say, you need to have—it is a good thing to have incentives and even mandates for LEED certification, but that may not solve your water problem.

Ms. NORTON. So wait a minute. In my opening statement I indicated that an important part of greening has to do with whether you lease or build close to waterways. Is there any third party who

is capable of advising entities that build close to waterways so that we know whether somebody has, you know, a LEED certification——

Mr. SIGLIN. Sure.

Ms. NORTON. —who should not have one in that sense? Is that a part, at all, of what LEED is?

Mr. SIGLIN. It is a part. You can gain parts. And there are people here at this table who are much more expert at this than I. So I will try not to say anything wrong, and then you can ask them.

But my understanding is that you can gain points toward LEED certification for doing good things for storm water. But you can also gain LEED certification without getting those points if you get points elsewhere.

So if your objective is to actually do something for cleaning up the storm water down to a zero pollutant discharge, you may have to go beyond the LEED rating system to do something more.

Ms. NORTON. I think this is really important. I think it is really important. But I think we have to speak with the LEED people. We may need a different rating other than the LEED rating for people who build near waterways. This is important for the Nation, particularly because we are spending gazillions of dollars cleaning up, or trying to clean up; and others have just the problem we have in the District.

Mr. SIGLIN. And this is actually why full implementation of the H.R. 6 provisions are going to be important. Because that is going to put the Federal Government to—sorry to use this, but—in the leading position for storm water management, as well.

Ms. NORTON. I knew of your platinum signature. What is it, above all others, that gives one a platinum?

Mr. SIGLIN. Why don't I let one of my LEED-certified folks at the table answer how that works. I can answer it for our building specifically.

Ms. NORTON. Yeah. What is it about yours that is so much better than LEED buildings here we are very proud of?

Mr. SIGLIN. From the very outset of the design process we asked ourselves the question, what can we do with every element of this building to make it ecologically friendly? And I don't have the statistics in hand, but for example, our building has more than 100 people that work there. If I remember correctly, we use fewer than 60 gallons of water a day for those 100 people that work there.

One of the reasons we do that is because we put in a system that doesn't use water in its plumbing in its toilet system. And that is a huge use of water in most commercial buildings. We don't do that at all.

Every piece of wood was either sustainable or it was manufactured in some way. We sited the building so that we take full advantage of the sun. We have got systems that open the windows and close the windows automatically depending on what the ambient temperature is. We have got I think 36 geothermal wells that provide the heat.

We really went out on a limb to try do the very best we could.

Ms. NORTON. This is an environmental organization that decides the way to lead the environment is to lead by example in the building you built?

Mr. SIGLIN. Yeah.

Ms. NORTON. I just wanted to lay that on the record, because that is exactly what this Subcommittee hearing is about.

Now I want to give everybody at the table an opportunity to be helpful to the Federal Government and to the District of Columbia. We had before us, at the hearing on the Capitol complex, District officials, Capitol Police and CAO, people who operate the Capitol. And we heard testimony about how people would get to the new so-called ″CVC,″ the Capitol Visitor Center, whose opening we are anxiously awaiting; we expect it to be finished in November—if you are close to any wood, knock on it.

When it opens and after it is dedicated we have, as with all progress, yet a new problem. Or maybe we don't. Mr. Hawkins may be familiar with that testimony.

Here is the testimony: The tour buses will go to Union Station; 50 places, they say, have been set aside for tour buses at Union Station. I have asked them to submit for the record where they are going to be, because it was hard for us to understand, given the other buses that are already up there, but that is what they say. They say that the people will get off the tour buses at Union Station and then they will catch the so-called Circulator.

This is a tourist city, and these people are trying to get to the Capitol and to the CVC. Then after they get off their tour bus, they have got to pay a dollar to get on the Circulator to get to the CVC, which left me saying, Are you out of your mind? This is tourist friendly and environmental friendly, a two-stop process that costs you more money?

And then to add insult to injury, we were told that the closing of First Street would continue, even though they are coming on the Circulator—which, of course, people would have every opportunity to make certain did not, in fact, disturb the security of the Capitol and surrounding area. But, no, we were told they can't go through First Street; they have got to come all the way back down Louisiana and up Constitution Avenue.

When you get through with the bottlenecks, with the multiple environmental and traffic and clean air issues posed, one has to wonder how anybody would come up with a notion like this. Just sitting here, scratching my head, I said, Don't the tour buses drop off people now at the Botanic Garden and then go someplace? Yeah.

For people who need a walkup, don't we use nongas-powered golf carts? Yes.

Why don't we use that? No answer.

Let me just put everybody on notice, especially the District, we are not going to do that. There will be something in either the Legislative, probably because there has been a hearing of—since then there has been a hearing of the Legislative Appropriations Subcommittee, and they went up the wall to hear about this two-stop process.

And they are up the wall because they think of their constituents having to pay an extra dollar, having the two-stop process. I am up the wall because I represent a tourist-friendly, environmental-friendly city, particularly given the testimony we see today, and I see huge harm to both.

One thing we can say for sure, these tour buses—and because the tour buses just want to get there. So they are trying to really push back. They say, We have got just the answer for you, Congresswoman: Let us come up Independence Avenue and Constitution Avenue and drop the people right off at the CVC in our neighborhoods, clogging up two of the streets that are most congested.

No, they are not going to do that either. We are not going to have tour buses all around our neighborhoods.

Obviously, the question has to do with the consistent and continuous failure to find a way for tour buses. But they find someplace to go now as they are dropped off.

I am going to have to ask Mr. Hawkins, since we are all in the process of thinking this through, following that testimony, which was very recent, I am putting this on the table. I invite you to put on the table any suggestions you may have. Wouldn't it make better sense for them to continue to drop them off at the Botanic Gardens, go about their business; and then the Capitol, that I guess provides the golf carts, deals with those who don't believe, even given the obesity rate in this country, that they need to walk up the hill?

The fact is that people stand under that awning; I never heard people complain about it. I do my race walk back there. They look happy waiting.

So I am just looking—since I have asked them to come see me, once I heard that testimony, now they are going before yet another committee who complained. And one complained that she didn't want her little 8-year-olds walking that far. Okay, maybe she can put that person in the golf cart.

But, frankly, Mr. Hawkins, given how sensitive the District has been for years now to the environment, I was just shocked at the testimony. Now, it may have been the Capitol Police's fault, although I tell you, the Circulator, it isn't their fault.

I asked them all to work together. At the time I asked them to work together, they said First Street would be open. I will have to deal with that. But the whole notion of the two-step process will enrage people. And so I need to know from you—because you didn't have to do with this perhaps, or maybe you did—whether you think the Botanic Garden solution is a better solution, whether you can think of a better solution, and any insight or suggestions you can offer as we prepare to open the CVC, the new Visitor Center.

Mr. HAWKINS. This is not testimony or an issue that I am personally familiar with other than what I have seen in the press. I will commit to going back to my office, looking into it, and getting back to you.

Ms. NORTON. Because I thought you had a team approach. You mean to say, they didn't consult you about bringing a whole bunch of new buses to Union Station?

They couldn't even answer my questions about where they are going to go. Well, you know, they will go around Columbus Circle and they will somehow get up there. It was an atrocity. It was somebody deciding that the best way is to somehow get these people close to a Circulator.

I don't mind that, since we have people on the Circulator, we bring them here; fine, put them on the Circulator wherever they are. I know this is a traffic management problem.

But you said, everybody kind of works together. And this was a jerry-built matter that invites Congress—because 20 million people come here; most of them are their folks—to do something about it. I think you can see the difficulty——

Mr. HAWKINS. Yes.

Ms. NORTON. —of people who simply want to get there.

Mr. HAWKINS. You certainly have raised legitimate points. It was not an issue that was brought to my agency that I know of. But I will find out and we will get back to you.

Ms. NORTON. I would like you to speak with the traffic people.

We had Mr. Moneme, and he has been very good in working with us. We had the Capitol Police. They all are supposed to be coming in to see me.

But I would like the District to get together before you—you have even done a very good job in trying to deal with, really, traffic situations not in your control, and most of these people are going someplace else. And the District does very well. You know, we have done—with the renovated Frederick Douglas Bridge, we have done a lot of stuff.

But this looks like a real throwback that didn't have all hands on deck trying to think it through. There is far from a perfect solution to this.

Let me ask you this, Mr. Hawkins. Are you or anybody else, I would think you would be a part of this, involved in where these buses would go, no matter what we are talking about? We have hundreds of tour buses that come. Many of them involve children; half the tourists who come are school children. What do we do with tour buses?

What is our—Mr. Siglin testified that highways is—because he knows the highway bill is coming up. We are glad to have them here. It is very hard in this city, which doesn't have a lot of land, to just say, tour buses go here, go there—to find a place for them to go.

Now that we are going to have thousands more people coming, just because there is a new convention center—sorry, Capitol Visitor Center—what are we going to do with those tour buses?

Mr. HAWKINS. I will talk to Director Moneme this afternoon to determine what DDOT's role has been and what their——

Ms. NORTON. Quite apart from the CVC.

Mr. HAWKINS. Yeah. Our agency is connected to tour buses on engine idling.

Ms. NORTON. Say it again.

Mr. HAWKINS. On engine idling. There are regulations in the District that obligate buses or any vehicle not to sit and idle and be spewing air emissions.

Ms. NORTON. I understand this is not your jurisdiction, but I admire your team approach, and it is going to take a team approach to solve.

Mr. Siglin, I don't know, do you have something to say on that?

Mr. SIGLIN. Congresswoman, I ride a commuter bus into the District now. I moved from the District a couple years ago, after having lived here a long time.

Ms. NORTON. Shame on you, Mr. Siglin. Go ahead.

Mr. SIGLIN. But I do know that one of the things that is really important is to get the engine turned off on the bus as quickly as possible. And one of the challenges that Mr. Tangherlini taught me when he was the head of the DOT here was, you have got to get the buses to a place where they can sit and have their engines turned off; and I think that is our sort of ongoing challenge.

And I certainly don't want to put myself out on a limb about this CVC problem, but I would guess that what they are trying to achieve is to get the buses over to Union Station and get their engines turned off as quickly as possible.

Ms. NORTON. Well, Mr. Hawkins, the CVC, he wants to make sure they are not running, that the engines aren't running. And sometimes we see them in places and there is nothing we can do about it because we don't want to chase all the tourists out of town. We see them in places where they are cut off, and I am sure that is an enforcement matter.

Mr. Hawkins, you testified that much of your work has to do with enforcement. But this is a chronic problem—I noticed it only when I came to Congress—and it has to do with no land available here.

I don't know if the land around RFK can be used. That is Federal land. And I certainly would be willing to work with the District to finally settle this question as we now build on every blade of grass and nearly have no place in the city for them to find a place.

I anticipate a crisis is what I am saying, particularly given the plan they have come up with, that you go here and then you pay us a dollar and maybe we will get you to the Capitol of the United States. That is never going into effect. And so I would like to find a solution, a win-win solution that is agreeable to the District and that the Congress will accept, without trying to butt into our affairs.

One more question, and that is—this should be of some interest particularly to Mr. Siglin. I struggled, and finally after 2 years got a bill through the Congress that gives the District, which doesn't have much land, a great deal of land that it now owns, that the Federal Government owns, land which we call Reservation 13 near RFK and the land that is called Poplar Point. There was always some building on Reservation 13 because we had our own hospital, prison and the rest there, although I am sure that there will—in fact, there are plans for truly new residential and commercial, perhaps, construction there, which means new attention to the environment because that land is near the Anacostia.

The most precious land is the Poplar Point land. That land is on the banks of the Anacostia. Neither the Framers nor anybody else ever envisioned that there would be development on Poplar Point. Of course, that is 200 years back.

It is pristine land. Our bill says 70 percent of it must remain parkland. But it doesn't bar building on that land. The Park Service will have a small portion there. The District has already announced some of what will be built there.

I have to ask you, therefore, Mr. Hawkins, have you begun to work to assure that the pristine nature of Poplar Point will not be disturbed by the fairly monumental plan that has already been announced for building on Poplar Point?

Mr. HAWKINS. In fact, a whole crew of our team did a tour on Poplar Point just 2 days ago. We have been very engaged. We are grateful for the ″land swap,″ as we call it, where the District has gained—or will gain title to a significant piece of land. Poplar Point is probably the most significant.

There are stringent environmental regulations that will apply to this development since it is along the Anacostia. There is the 70-acre natural set-aside that you built into the legislation from the beginning that must be accommodated.

We sat, the Department of Environment sat on the review committee of the development proposals that came in, and at least in our judgment, of the proposals, the one that was selected was by far the most environmentally beneficial to the project. It is a large development project, however.

We will be there every step of the way to make sure every one of our regulations is applied, that the 70-acre set-aside is meaningful on an ecological basis, and that the site is developed in an environmental way to the best extent it can be. It ought to be truly, as you suggested, envisioning what can be done, rather than what has been done in the past.

Ms. NORTON. This is going to be a model for building on a river. It is your land now, and I am trying to make sure that the Park Service understands it is your land now.

Mr. Siglin, do you believe that the District of Columbia can build on this land without doing damage to the Anacostia?

Mr. SIGLIN. Poplar Point itself is pretty highly polluted because of the former use. And so one of the things that is important at Poplar Point is to get the current level of pollution down.

Ms. NORTON. You mean on the land itself?

Mr. SIGLIN. Yes. And oftentimes the way these things work is that that land sat there polluted for decades when it was in the hands of the Park Service, and the Park Service never got the money together to clean it up. Actually, it belonged to the Architect of the Capitol before that, and that is where the pollution comes from, when it belonged to the Architect.

But it has sat there, polluted, for a very long time. And the pollution runs through the groundwater into the river, 24/7, so we have been having a load of pollution go off that site for a long time.

Because it is often easier to get the money together to do clean-ups if the private sector gets involved, sometimes the way this stuff works is that you get a development project that promises to clean up the land in exchange for being able to develop there. And that seems to me to be an inevitability here, in this case, that there is probably going to be some kind of development there. And I guess that all I would hope for is that Mr. Hawkins and his folks are able to achieve what he says they can, which is to do it to the very highest environmental standards.

Ms. NORTON. Well, this project is going to be watched closely—it will be watched by me because of my concerns. But frankly, I think everybody is going to be looking. A lot of building is going

on on rivers. And this is perhaps the newest, when you consider how extensive the building along the river will be, or around the river, I should say.

Now, at the time that I worked on the Southeast Federal Center, I was able to get the Federal Government to do the cleaning because we were talking about Federal use of the land. When I tried to do that—we are the polluters of this land. It was our land, as Mr. Siglin said. The Capitol itself, the Park Service, no matter how you look at it, the guilty party here was the Federal Government. But what the District got—and Mr. Hawkins can call it a ″swap″ all he wants to—what the District got was, because the swap is very jerry-built, was essentially a virtual gift of very valuable private land in return for little snippets here and there. And I was not able, I was not even a little bit able to get Uncle Sam—I was even in the minority at the time, mind you—to get Uncle Sam to consider cleaning up his own waste the way he did with the Southeast Federal Center.

And as you know, a lot of my bill really means that the Southeast Federal Center is going to be used for essentially private purposes. We were able to put in the bill, Mr. Hawkins, a notion that essentially says the District may allow the developer—the District does have this responsibility, but may indeed allow the developer to contribute to this cleanup, because this cleanup and meeting the Federal environmental standards, which are still there, is going to be important. And I very much regret and apologize that the Federal Government didn't clean up what it messed up, but it thought it was offering a gift, and what more can you ask for was its attitude.

I am certainly convinced that your agency is in the frontiers of trying to work on these agencies. I think much more than the ballpark, you will have lots of folks looking at the District. And it may cost more. And you may decide not to build so close to the water; I certainly hope so.

But—it is a big challenge, but given the work that you have done, that Arlington has done, I am proud of the frontier approach you have, not simply dealing with things as they already were. I just can't say enough, as we deal with the Anacostia initiatives; Mr. Siglin was very helpful to me in all my work on that bill, which we finally got out of Congress last year.

Let me ask this final question. Have any of you been approached by the Corps of Engineers on—my Anacostia River bill, which was passed through this Committee as a part of the Water Resources Development Act, I guess last year, gives the Corps 1 year to work with all of the appropriate, surrounding jurisdictions to come up with a 10-year plan for restoring the Anacostia, which is the predicate for any substantial money that I and my colleagues here in the Congress can get for further Anacostia cleanup beyond what we get on a yearly basis.

Have you been approached? Are you in the throes of doing the plan? What can you tell me about the plan that the Congress says must be prepared within a year?

Mr. SIGLIN. Congresswoman, I haven't talked to the Corps since the last time I came to see you about that. I don't know where they

are in their planning now. But I would certainly be happy to find out and put it in the record, if that would be helpful to you.

Ms. NORTON. It would be even more likely that they would have approached the District——

Mr. Hawkins.

Mr. HAWKINS. They have approached——

Ms. NORTON. —and, for that matter, Arlington.

Ms. KELSCH. No.

Mr. HAWKINS. They have approached the District.

Ms. NORTON. They have?

Mr. HAWKINS. They have. We have talked to the Army Corps about how to approach building this plan.

I don't know if Dana is still here and may have an update from the Anacostia Restoration Partnership. Dana Minerva may be able to update you on the status.

Ms. NORTON. I can talk with you after. I just invite you to help me monitor this 1-year deadline so that we can make sure that the Corps is—we have had them in our office; and they have already done some work, Mr. Siglin, as you may be aware, on it.

But that work bothered me, that some of the first work they have done, it seems to me, should have been completed by now. So the more local jurisdictions not only cooperate with them but press them, the better off we are.

Now, finally, let me just put in the record the whole point is that the Federal Government is not going to alone clean up the Anacostia River. This is going to be a plan that involves all of those on the river. And all those on the river are responsible for what has happened to the river.

I happen to think, I believe I can show, that the Federal Government historically has been the largest, and continues in many ways, not entirely, to be a heavy contributor to the pollution of the Anacostia. And so the real challenge is not just getting the plan, but getting the local jurisdictions to agree that they will do their share if the Federal Government agrees to do its share.

The testimony of all of you has been very important, and it has been important for us to see you all at the table to hear whether Mr. Shovan agrees with our two colleagues from government; to hear Mr. Siglin, who is trying to do it with the river, incorporate his work into green roofs; as Mr. Epstein and D.C. Greenroofs works diligently to see happens in the private and public sector.

And as we try to figure what is the next thing for the real leader in the environment to do, the Federal Government, your testimony will be very, very important to any new legislation, new requirements we ourselves as a Subcommittee come forward with at this time.

Thank you very much for your testimony. The hearing is adjourned.

[Whereupon, at 1:04 p.m., the Subcommittee was adjourned.]

Subcommittee on Economic Development, Public Buildings and Emergency Management

Hearing on "First in a Series: Greening Washington and the National Capital Region"
Thursday, April 17, 2008

Statement – Congressman Jason Altmire (PA-04)

Thank you, Chairwoman Norton, for calling today's hearing – the first in a series – on greening Washington, D.C. and the National Capital Region. I look forward to hearing testimony from today's witnesses and also to the future hearings that we will hold on this important matter.

The 110th Congress has made environmental protection one of its top priorities, and has led the way on this issue through its "Green the Capitol" initiative. I am pleased that this subcommittee is also doing its part to further Congress' initiative by holding today's hearing focused specifically on greening the National Capital Region.

As we are all aware, the federal government's footprint in Washington, D.C. is quite large – comprising over 95 million square feet. Fortunately, this subcommittee can influence decisions made regarding this space through its oversight of the General Services Administration (GSA) and we should use this role to ensure that the proper steps are taken to further green our federal buildings.

This is not to say that GSA has neglected its environmental responsibilities. Over the past years, the agency has taken a number of significant steps which have resulted in the federal government reducing its energy consumption by 23 percent. Additional steps can be taken, however, and I look forward to hearing from Commissioner Winstead on his plans to further green the National Capital Region.

Madam Chair, thank you again for holding this hearing.

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ELEANOR HOLMES NORTON
DISTRICT OF COLUMBIA

COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE
SUBCOMMITTEES:
CHAIRWOMAN
ECONOMIC DEVELOPMENT, PUBLIC BUILDINGS, AND EMERGENCY MANAGEMENT
AVIATION
WATER RESOURCES AND ENVIRONMENT

Congress of the United States
House of Representatives
Washington, D.C. 20515

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FEDERAL WORKFORCE, POSTAL SERVICE, AND DISTRICT OF COLUMBIA
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COMMITTEE ON HOMELAND SECURITY
SUBCOMMITTEES:
TRANSPORTATION SECURITY, AND INVESTMENT PROTECTION
EMERGENCY COMMUNICATION, PREPAREDNESS, AND RESPONSE

STATEMENT OF
THE HONORABLE ELEANOR HOLMES NORTON
SUBCOMMITTEE ON ECONOMIC DEVELOPMENT, PUBLIC BUILDINGS AND EMERGENCY MANAGEMENT
HEARING
"First in a Series: Greening Washington and the National Capital Region"
APRIL 17, 2008 10AM

I am happy to welcome all to today's hearing. I thank our panelists for coming to offer testimony in this first of several hearings the subcommittee is conducting on climate change and energy issues. Because of our subcommittee's jurisdiction over federal leasing, construction, and economic development, we have a special obligation and a special opportunity to assure that in carrying out these missions, the federal government is an appropriate national environmental partner and leader, beginning in the national capital region, where the federal government is the preeminent leader in the region itself.

Last year this Congress began to face the seriousness of the escalating financial and environmental costs of existing energy policy, and the subcommittee itself has made a good start. The subcommittee's provisions became part of the path-breaking Energy Independence and Security Act of 2007 (P.L. 110-140). The subcommittee's provisions authorized high efficiency light bulb replacement; a photovoltaic provision; extension of life cycle costing calculations for government energy contracts out to 40 years to have a greater beneficial effect on financing energy efficient projects than previously; and the creation of an office of High Performance Green Buildings that is required to coordinate with the Department of Energy, which is focusing on green issues in the private sector. In July 19, the subcommittee held a hearing focused on low-cost fixes for energy conservation entitled "Federal Leadership by Example on Energy Conservation: No Cost Quick and Easy Steps for Immediate Results."

This hearing will examine the range of "green thinking" and the steps being taken, planned or that should be taken, especially by the federal government as this region's leader, but also by local agencies, commercial developers, businesses and organizations, to improve the environment and promote energy conservation and efficiency in existing buildings and new construction. We begin this series by looking at the National Capital

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region because of the federal government's outsized presence here, particularly its leasing and construction footprint that is unmatched anywhere else in the nation. The federal government is in a position to provide environmental leadership nationwide because its consistent presence in the construction and leasing, especially here where Uncle Sam is the major influence on the region's daily life and can set the example for the public and private sectors throughout the United States.

Green building activities generally cover products and practices that conserve energy and water, promote clean indoor air, protect natural resources, and reduce the impact of a building on a community. Examples include insulation such as double paned windows that reduce or conserve the heating loads of buildings, or positioning buildings in order to reduce the need for cooling or heating the building. Green building includes reduced flow toilets and low water-need plants for landscaping. Green building improves the indoor environment with use of non-toxic caulks and adhesives, non formaldehyde cabinets, and the use of filters. Green building protects natural resources by promoting the use of products with recycled content like carpet, tile, and wall board, while promoting the use of rapidly renewable products like bamboo flooring and natural linoleum. Green building protects waterways like the Anacostia and the Chesapeake Bay by promoting practices that reduce the impact of structures on the environment by mitigating the effects of storm water runoff, using green roofs, cisterns, and permeable pavers locating buildings close to mass transit and including bike racks and storage units.

The subcommittee is especially interested in new frontiers in green thinking and action; in greening and conservation practices such as reusing water and energy; in various types of greenroofs, especially for existing buildings; in the difference and value among various LEED designations; in energy saving technology; and in reducing practices that harm the environment in constructing and leasing near waterways. We also have a strong interest in comparisons of cost to benefit and in whether savings in energy and cost are actually resulting. For example, testimony was offered at our recent hearing on the Capitol Complex that using photovoltaics here at the Rayburn Building would not to be cost effective.

There are several buildings in the backyard of the U.S. Capitol that exemplify green building. The Washington Nationals' stadium is the first LEED certified sports stadium in the United States. The Nationals stadium achieved its LEED silver rating in part because of its bike racks, its green roof, and its use of low emitting materials during construction. Just to the east of National Stadium, the new Department of Transportation (DOT) building, authorized by this committee, sits on the banks of the Anacostia River, one of the most polluted rivers in America. Federal structures are heavy contributors to the estimated 75 to 90 percent of the storm water runoff to the River. However, the DOT building has a 68,000 square feet green roof, one of the largest green roofs on the east coast. In addition to the DOT green roof, which limits storm water runoff into the Anacostia River, the DOT building has energy efficient boilers systems, heating, ventilation, and air condition (HVAC) systems, and other building operations systems to maximize energy efficiency. This recent green attention to the Anacostia River needs to

be repeated nationwide and used much more often in this region. Many federal buildings, particularly in the District and Maryland, border or are close to waterways, giving federal authorities particular responsibility for assisting clean water efforts here in managing real estate and managing construction.

The GSA has long engaged in energy conservation efforts well before climate change issues became prominent because the agency has understood the lost implications. However, the agency's efforts fall far short of what we now know will be required to meet what scientists tell us about the global risk we face and the energy crisis that is already upon us. This hearing will help the subcommittee as we consider the benefit and cost of our new requirements and new legislation.

ARLINGTON
VIRGINIA

Testimony of Joan Kelsch
Environmental Planner
Arlington County, Virginia

Before the Subcommittee on
Economic Development, Public Buildings, and Emergency Management
United States House of Representatives
2167 Rayburn House Office Building
April 17, 2008
10:00 a.m.

"Greening Washington and the National Capital Region"

Introduction

Good Morning Chairwoman Norton, Ranking Member Graves and distinguished members of the Subcommittee.

My name is Joan Kelsch and I serve as an Environmental Planner for Arlington County, Virginia, where I coordinate the County's green building programs. I am a Leadership in Energy and Environmental Design (LEED™) Accredited Professional and I also serve as the Chair of the Intergovernmental Green Building Group at the Metropolitan Washington Council of Governments (COG).

I appreciate the opportunity to be with you today to discuss Arlington County's vision, past and current efforts, and future plans to encourage green development in our jurisdiction, as well as the individual and collective efforts of many jurisdictions in the National Capital Region through COG.

Arlington County, Virginia and Green Building Activity

Arlington is an urban county of about 26 square miles located directly across the Potomac River from Washington DC. Arlington had an estimated population of 206,800 on January 1, 2008, reflecting a 9.2% increase since 2000. It is among the most densely populated jurisdictions in the country with a population density of almost 8,000 persons per square mile.

Although perhaps best known to visitors as the home of the Pentagon and Arlington National Cemetery, Arlington also boasts high quality residential neighborhoods and commercial hubs. Arlington's central location in the Washington DC metropolitan area, its ease of access by public transportation, and its highly skilled labor force has attracted an increasingly varied residential and commercial mix. Arlington has a carefully crafted General Land Use Plan which promotes high-density commercial and residential development around Metrorail stations in the Rosslyn-Ballston and Jefferson Davis Metro Corridors, while maintaining lower density residential neighborhoods in the rest of the County.

Arlington has more private office space than downtown Boston, Los Angeles, Dallas, and Denver. Construction continues at a high rate in Arlington, offering an excellent opportunity to green the County's building stock. For example, approximately 756,000 square feet of office space was completed in 2007 and approximately 878,000 square feet of office space was still under construction at that time.

Because of the continued interest in development in Arlington, the County is working to make its building stock as sustainable as possible. For the past 10 years, Arlington has used the U.S. Green Building Council's (USGBC) LEED Green Building Rating System to guide both public and private development in the County with the intent of reducing the environmental impacts of new construction. LEED offers specific standards that must be met in order to earn points. Projects complying with seven basic prerequisites and earning at least 26 LEED credits are eligible for LEED Certification at one of four levels.

Greening Public Facilities in Arlington

Arlington plans, designs, and constructs its public facilities using LEED as a guideline, with the goal of achieving at least LEED Silver Certification. The Langston-Brown School and Community Center earned the LEED Silver certification in 2003. Two other projects (a community center and an office/trades building) are awaiting final certification from the US Green Building Council. The LEED process provides invaluable guidance, structure, and third-party verification to the construction process.

Greening Private Development in Arlington

For private development, Arlington also uses the LEED green building rating system as a guide. Developers building large commercial projects and high-rise residential apartments and condominiums use LEED as a guide and report progress on green building components to the County throughout the construction process. Although formal certification by the US Green Building Council is not always required, the goal is to meet the seven LEED prerequisites and earn at least 26 LEED credits on all private development. Although the County does not require developers to officially certify their projects through the

USGBC, many developers are now choosing to do so because certifying their projects makes both environmental and economic sense.

Arlington also offers a voluntary green building density incentive program. Developers may request a small amount of additional square footage in their buildings in exchange for full USGBC LEED Certification. This program has encouraged more than a dozen projects to apply for the program and will result in Arlington buildings that are more environmentally responsible and offer the owners long-term value.

Finally, Arlington offers homeowners and single family home developers a voluntary Green Home Choice program. Based on the EarthCraft model from the Southface Institute in Atlanta, Arlington's Green Home Choice program offers specific green guidance and a checklist for construction and renovation of single family homes. As with LEED, the projects must comply with guidance and accrue points which lead to final Green Home Choice certification. Several dozen new homes and major renovation/addition projects have benefited from the Green Home Choice program.

Arlington's Commitment to Climate Change

In 2007, the County launched Arlington's Initiative to Reduce Emissions (also know as Fresh AIRE). The program focuses on reducing carbon emissions from five major sectors: green buildings, energy efficiency, recycling and waste reduction, transportation, and water conservation. In Arlington, existing buildings are responsible for nearly two-thirds of the County's carbon emissions. As such, County staff has developed programs to encourage existing building owners to improve energy efficiency through building retrofits and operational changes in an effort to reduce carbon emissions. Extensive community outreach and education have resulted in seven new Energy Star labeled buildings in Arlington since January 2007 (for a total of 18 Energy Star labeled buildings in the County).

Green Building in the Greater Washington DC Region

Through the Metropolitan Washington Council of Governments (COG), local governments in the DC region have joined forces to share information and develop a common set of goals for local government green programs. The Intergovernmental Green Building Group issued a report in December 2007 entitled, "Greening the Metropolitan Washington Region's Built Environment." The report examines the building issues facing our region and offers specific recommendations to local governments for developing regionally consistent green building programs for public and private development.

Specifically, the report recommends the following:

- Establish LEED as the region's preferred green building rating system for new construction. This offers consistency across the region so all building professionals know to expect the same standards regionwide.

- Governments should lead by example, by designing and constructing public facilities to the LEED Silver standard.
- Governments should establish green building programs for private development that encourage and/or require private development to achieve the LEED baseline certification (26 points) with a focus on addressing environmental issues of particular importance to the DC region including energy efficiency and on-site power generation, heat island mitigation, stormwater management, and construction debris recycling.
- Governments will coordinate education and outreach efforts regionwide to maximize the opportunities for innovation.

Several jurisdictions in the region have developed green building programs. A few examples include:

- The District of Columbia passed its Green Building Act in 2006. The Act requires all public facilities over 10,000 square feet to meet LEED Silver certification. By January 2012, all commercial buildings over 50,000 square feet must meet the LEED certification standard. The District government will offer expedited permitting to green buildings prior to 2012 and will provide resources and guidance for public and private construction.
- Montgomery County, Maryland, has implemented a comprehensive green building program addressing new and renovated public and private facilities. This Building Energy and Environmental Design program requires that all new public buildings over 10,000 square feet achieve a minimum of LEED Silver certification (or equivalent) and that private buildings achieve a minimum of the baseline LEED Certified (or equivalent). As an incentive, Montgomery County developed a Green Building Property Tax Credit that provides substantial tax credits for new and existing buildings that achieve LEED Gold Certification.
- Fairfax County, Virginia, has also adopted policies addressing public and private development. Public buildings greater than 10,000 square feet strive for the LEED Silver certification; smaller facilities strive for baseline LEED Certification. The County's Comprehensive Plan includes broad support for green building practices, particularly in the County's growth centers such as Tyson's Corner, where LEED certification (or equivalent) is expected for certain nonresidential and multi-story multifamily residential proposals. ENERGY STAR® Qualified Homes designations are expected for other high density residential development.
- Several other jurisdictions in Maryland and Virginia require public facilities to meet specific LEED standards. Building codes are being addressed in several jurisdictions. Many localities provide green building guidance to private developers. Others offer incentives such as expedited permit review or reduced permit fees for green buildings.

Conclusion

Greening our nation's building stock offers one of the greatest opportunities to protect the environment and enhance energy independence. Nationally, buildings generate over one-third of the nation's carbon emissions, primarily through the use of electricity and natural gas. Despite rapid growth and acceptance of green building technologies and processes nationwide in all building sectors, green building today accounts for only a small fraction of new home and commercial construction. Additional vision, leadership, and action at all levels of government are needed to make sustainable green building practices the norm.

Local governments, non-profit organizations, developers, architects, engineers and other building professionals in the Metropolitan Washington area are working together to raise the bar for green buildings consistently across the region. Existing programs like Arlington's, are well-established and will continue to be evaluated and updated as the green building industry matures, as builders become more familiar with green practices and materials, and as building codes become more environmentally focused. Newer local government green building programs are incorporating the lessons of existing programs and creating implementation strategies that work for their specific jurisdictions.

While the transitions to more sustainable techniques and materials are continuing to emerge through building code updates and market forces, incentives have been very helpful in pushing the market toward more sustainable development. Local governments can offer incentives such as expedited permitting, density bonuses, fee reductions, education and training. Nonprofit organizations offer grants and educational support.

The federal government is critical and can play a catalyzing role in encouraging green building practices through leading by example with the Green the Capitol Initiative. Providing green building and/or energy efficiency tax credits would encourage the private sector to undertake green initiatives. Fully funding the Energy Efficiency and Conservation Block Grant Program would support critical efforts at the local and state level. Additionally, the federal government can play an important role in green building success by supporting EPA's ENERGY STAR benchmark system. Finally, there is a critical need for research funding to develop and test new green building materials.

Madame Chairwoman, Arlington County and the Council of Governments applaud your leadership in convening this hearing and we thank you again for the opportunity to testify today. Those of us working in local government are very encouraged by the increased focus of the Congress on addressing the challenges posed by our built environment (most notably climate change) and we look forward to being your partner in this important effort. Working together, we can create buildings that reduce environmental impacts and provide healthy indoor spaces for people to live, learn and work.

This concludes my testimony and I am pleased to answer any questions you may have.

Government of the District of Columbia

District Department of the Environment

Testimony

Of

George Hawkins

Director
District Department of the Environment

on

First in a Series:
Greening Washington and the National Capitol Region

The Honorable Eleanor Holmes Norton

U.S. House of Representatives
House Committee on Transportation and Infrastructure
Subcommittee on Economic Development, Public Buildings and Emergency Management

April 17, 2008

Room 2167
Rayburn House Office Building

Good morning Congresswoman Norton and members of the House Subcommittee on Economic Development, Public Buildings and Emergency Management. My name is George Hawkins and I am the Director of the District Department of the Environment. I'm pleased to have this opportunity to discuss our involvement in efforts to green the National Capitol Region.

I want to state directly that I believe the work of greening the District connects to one of the most critical public policy issues of the day, creating a more sustainable urban environment.

For example, residents in cities use much less energy than their counterparts in the suburbs, walk more and drive less, and cover less habitat and farm fields with buildings and concrete than sprawling suburban subdivisions. And yet this answer also generates its own set of challenges – those associated with more compact living and urban designs, neighborhoods with aging infrastructure, residual contamination from past activities, hazards from lead paint and ground level ozone, and reduced access to remaining natural areas.

The imperative then is an urban agenda that captures the great opportunity and benefits that are derived from urban living, while responding to the challenges that stem from this arrangement. The Department is charged with a critical component of the urban agenda – protecting and enhancing the natural habitat of the District and the lives of people who live and work here. Achieving these twin goals is a fundamental prerequisite to creating the economic, social and natural vitality that defines any great city of the world.

In my testimony today, I'd like to outline four ways in which the District Department of the Environment, as well as the District government as a whole, is working to transform the District into a leader in environmental practices. First are the measures that have been taken in order to more effectively organize the government in order to address environmental questions. Second, I will describe a series of legislative and executive actions that have significantly

strengthened the District's sustainability efforts. Third, I will discuss the work of DDOE programs on the specific issues of energy, stormwater, the Anacostia River and enforcement. Finally, I will briefly describe some of the regional environmental collaborations that the District is participating in as part of the greater National Capitol region.

The District government has long offered a variety of services and policies that address environmental issues. However, in 2005, Mayor Anthony Williams elevated the importance of the environment in the District through the creation of a new, Cabinet-level agency: the District Department of the Environment. DDOE's establishment signaled a new era; one in which environmental programs would be consolidated in a central structure, so as to better develop a vision for greening the District. Since its inception, DDOE has successfully integrated programs from the Department of Health, the District Energy Office, the Department of Public Works and the District Water and Sewer Authority. As a result, it is now a full-service agency charged with conducting both the state-level regulatory functions as designated by the U.S. Environmental Protection Agency and local, city-level functions such as implementation, inspections and outreach. Mayor Fenty has assured this agency's continued success by allocating appropriate staffing and funding for DDOE in the District's Fiscal Year 2009 local budget.

In addition to the efforts being undertaken by DDOE, Mayor Fenty has convened an interagency group, known as the Mayor's Green Team, in order to develop and implement innovative environmental policies and practices across District agencies. Since its formation in December 2007, the Team has grown to include over 80 members from over 40 agencies. It has formed work groups around 4 specific issues: Recycling, Greening your Building, Climate Change and Outreach. Most impressively, as part of its initial survey of existing environmental efforts within District agencies, the Team identified over 180 District programs and activities

related to improving the environment already in place. In the coming months, I expect that the Team will continue to solve implementation obstacles, reach out to District employees and residents alike, and contribute to an overarching environmental strategy for the city.

As the District government is expanding and restructuring to address environmental issues, a series of laws and executive actions will strengthen the District's green requirements. The Green Building Act of 2006 will require and incentivize the development of high-performing buildings and is one of the foremost laws of its kind in the nation. It includes Leadership in Energy and Environmental Design (LEED) and EnergyStar certification requirements for new construction and substantially renovated buildings, as well as a mandate that the District green its building code, to make environmentally-friendly construction standard practice. To limit the District's impact on our global climate, the Clean Cars Act of 2007 adopts the same low emission vehicle standards used by California and includes greenhouse gas controls. Additionally, the District recently finalized a new Municipal Separate Storm Sewer System (MS4) permit with U.S. EPA that contains meaningful and measurable deliverables to reduce pollutants carried by rain events into our waterbodies. Finally, the Mayor has appointed a Green Collar Jobs Advisory Council, which seeks to strengthen the District's economy by linking its businesses and labor force with the growing demand for environmental skills and services.

Much of the progress the District has made in recent years is a direct result of the DDOE's activities. Our individual programs cover a broad range of issue areas, from air quality to hazardous materials to fisheries and wildlife protection, and are central to implementing new environmental solutions at the ground level. For example, DDOE's Energy Office helps residents and businesses reduce energy consumption and promotes expansion of renewable

energy resources. Although only three percent of the District's energy is currently produced within the city limits, examining the District's energy use is an important part of understanding our impact on the environment both within the city and beyond its borders. Our energy conservation efforts include renewable energy source projects, outreach campaigns, small business assistance, appliance rebates, weatherization assistance and energy audits. Together, these energy programs, in combination with providing energy assistance to eligible households, help address global warming and our dependence on nonrenewable fossil fuels—two critical challenges facing this nation.

Another area in which DDOE's programs are fully engaged is in reducing the detrimental impact of stormwater on our regional watersheds. The issue of stormwater cuts across many of today's chief environmental efforts, such as the restoration of our rivers, the promotion of sustainable development and pollution of our lands and waters. In response, DDOE is taking a number of steps. First, DDOE established an aggressive stormwater mitigation agenda in the aforementioned MS4 permit with U.S. EPA. Among its many provisions, the permit requires wider use of low-impact design practices, more stringent regulations for new development, and a revised stormwater fee structure that links fees directly to the volume of stormwater that a site generates. In addition, DDOE is currently building a new Stormwater Management Division, which will oversee the District's MS4 permit obligations and implement strategies to reduce runoff. DDOE's efforts complement the District Water and Sewer Authority's Long-Term Control Plan, which will reduce the number of Combined Sewer Overflow events that discharge stormwater directly into our rivers and streams.

The issue of stormwater is directly related to another of the District's primary environmental resources—the Anacostia River. One of Mayor Fenty's highest priorities is the

restoration of the Anacostia and its tributaries, which is both one of the environmental jewels of the District, and one of the most contaminated rivers in the country. Our efforts on this score are wide-ranging. First, to fully realize the potential of this water body, the Mayor directed the Department to develop a comprehensive action strategy for reviving the Anacostia which will be released this spring. This plan outlines short, medium, and long term actions that the District of Columbia can take to improve the water quality and habitat of the Anacostia River. Elements of this plan are already being implemented and include restoration activities in Watts Branch and Pope Branch streams, river clean-ups and additional water quality monitoring. A new set of green development standards, including greatly increased stormwater controls, will take effect this month for public and publicly-financed projects along the Anacostia. In addition to the formal Anacostia plan, DDOE's Watershed Protection and Water Quality Divisions actively engage other agencies, regional entities, residents and businesses to build support for Anacostia restoration.

In addition to the specific initiatives supported by DDOE's programs, the agency has placed great emphasis on issues of compliance and enforcement. We remain committed to helping individual parties comply with the District's relevant environmental regulations, be it through education, plan review, or certification programs. DDOE seeks to ensure that all requirements are understandable and clearly communicated from the outset. However, in instances when compliance is not achieved, the agency stands ready to take the full range of available enforcement actions, using inspections, notices of violation, and fines. We believe that this dual focus on compliance assistance and enforcement will signal the seriousness that the District places on environmental protection.

Finally, although the District has placed a great emphasis on what environmental action it can achieve through its own agencies and laws, we also recognize that it is of paramount importance that we work with surrounding jurisdictions, federal partners and even national campaigns to achieve the breadth of success and change that we desire. Regional cooperation is particularly critical, given the extent to which air quality, watersheds and energy use cut across administrative boundaries. To that end, DDOE participates in a number of regional and national efforts related to key environmental issues.

First, DDOE is active in regional partnerships relating to three of the National Capitol Region's watersheds: the Anacostia, the Potomac and the Chesapeake. The Anacostia Watershed Restoration Partnership, which is coordinated by the Metropolitan Washington Council of Government coordinates Partnership, is a coalition focused on the cleanup and restoration of the Anacostia watershed. Key governmental members of the Partnership include: the District of Columbia; the State of Maryland; Prince George's and Montgomery counties; U.S. EPA, EPA Region III; and the Army Corps of Engineers. We are also involved in the Interstate Commission on the Potomac River Basin, which determined the Total Maximum Daily Loads for the Potomac River, and have signed the Chesapeake 2000 Agreement, which set goals for reducing pollution loads to the Bay by 2010 and beyond. We believe that participation in these entities is crucial to meeting the challenges faced by our watersheds and we are committed to working through these important regional partnerships in the years to come.

Finally, the District of Columbia considers the issue of climate change to be one of the most significant challenges faced by urban jurisdictions. Therefore, the city has engaged with national partners in a multi-faceted strategy to reduce carbon emissions and address global warming. To date, the efforts taken include Mayor Adrian Fenty signing the Mayors' Climate

Protection Agreement, joining ICLEI's Cities for Climate Protection campaign, and signing on to the Climate Registry in order to calculate the city's carbon footprint as a precursor to developing a climate action plan. Mayor Fenty has also taken a leadership position to call on all cities to green their building codes to mandate greater energy efficiency. The District will propose new green building codes this spring that do just that—requiring new construction and substantial renovations to be 30 percent more efficient that the 2004 standards. These initiatives, and our associated programs that address climate change, will enable the District to move to the forefront among jurisdictions who have decided to tackle this issue on a local basis. We believe that these local contributions, in aggregate, will ultimately spark a greater national trend of committing to reduce greenhouse gas emissions.

To conclude, I'd like to offer my thanks once again for the opportunity to highlight both the issues facing the District and the exciting ways in which we are rising to meet our challenges. My conviction is that implementing a new urban environmental agenda is simply one of the most important issues facing our species--indeed all species. I am honored to have a hand in these issues in one of the great cities of the world and the capital of this great nation.

APARTMENT AND OFFICE BUILDING
ASSOCIATION OF
METROPOLITAN WASHINGTON

Statement of

Robert Shovan
Senior Vice President
Transwestern

Representing the Apartment and Office Building Association of Metropolitan Washington D.C. (AOBA) and the Building Owners and Managers Association (BOMA) International

Before a Hearing of the Subcommittee on Economic Development, Public Buildings and Emergency Management

Committee on Transportation and Infrastructure
United States House of Representatives

"Greening" Washington and the National Capitol Region

April 17, 2008

BOMA

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NAA NATIONAL APARTMENT ASSOCIATION

Good morning Chairperson Norton, Ranking Member Graves, and members of the Subcommittee. Thank you for holding this important hearing on "green" buildings and inviting me to testify today. I am Robert Shovan, Senior Property Manager and Senior Vice President of Transwestern. I am here today on behalf of the Building Owners and Managers Association (BOMA) International and its Washington, DC affiliate, the Apartment and Office Building Association (AOBA). I am accompanied today by Karen Penafiel, BOMA's Vice President for Advocacy, and Shaun Pharr, AOBA's Senior Vice President of Government Affairs.

About Transwestern

Transwestern is a privately held, national commercial real estate firm focused on creating value for our clients in each local market we serve. We have a unique business model that combines fully integrated services and operates through six lines of business: development, tenant advisory, investment services, agency leasing, property and facility management and research. Transwestern is proud to say that we have fully embraced sustainability concepts in our property and facility management and we constantly strive to improve the quality of our buildings for the good of our tenants, for our environment, and for asset value.

About AOBA

The Apartment and Office Building Association of Metropolitan Washington (AOBA) is the leading membership organization representing commercial and multi-family residential real estate in the Washington Metropolitan Area. Its members own and/or manage commercial and multi-family residential properties, as well as provide products and services to the real estate industry. The current combined portfolio of AOBA's membership is over 160 million square feet of office space, and over 200,000 apartment homes in the District of Columbia, Maryland, and Virginia. In 2000, AOBA created a wholly owned subsidiary, the AOBA Alliance, Inc., which facilitates and streamlines low-cost procurement of energy services for multi-family and commercial office buildings throughout the metropolitan area. As the largest customer-based aggregation group in the area, the Alliance has aggregated loads for over 200 companies, with more than 600mw of peak electrical load.

About BOMA International

Founded in 1907, the Building Owners and Managers Association (BOMA) International is an international federation of more than 100 local associations and affiliated organizations. BOMA International's members are building owners, managers, developers, leasing professionals, medical office building managers, corporate facility managers, asset managers, and the providers of the products and services needed to operate commercial properties. Collectively, BOMA members own or manage more than nine billion square feet of office space, which represents more than 80 percent of the prime office space in North America. BOMA International has a long history of involvement in energy and the environment. BOMA's commitment to market transformation earned it the prestigious Energy Star *Partner of the Year* award in 2007 and 2008.

I was invited here today to discuss the sustainability efforts underway within the private sector and specifically here in the Washington metropolitan region, and what is driving the office building industry to adopt energy-efficient and sustainable operations and management practices. Over the last several years, Transwestern has found that the shift to "green" or sustainable buildings is as good for business as it is for the environment. In our present economy, construction costs continue to rise. Our operating costs – such as energy, insurance, taxes and payroll -- continue to rise, as well. Rent increases are not enough to compensate for these rising costs, so we simply need to find ways to lower our operating costs. Lowering our energy consumption is an obvious place to start.

But energy is only one component of a "green" or high-performance building, and many other elements of a sustainably managed property are cost-neutral. For example, to change policy, procedures, or products overall is cost-neutral for recycling, implementing a "green cleaning" program that includes training the janitorial employees and switching to low-VOC emitting cleaning products, implementing environmentally-friendly pest management programs, and improving the building's filtration system.

Because we believe in the value to our tenants, to the environment, and to our company's bottom line, Transwestern has 51 buildings equaling 17,000,000 square feet committed as part of the

U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) Existing Building Portfolio Pilot. Transwestern's own corporate office in Chicago is LEED certified. In addition, we are proud to note that we recently won the EPA Energy Star Sustained Excellence Award for the third consecutive year. Transwestern has been involved with the Energy Star program since 1999. Here in Washington, DC, Transwestern is not alone in our adoption of energy efficient and sustainable management practices. Many real estate firms with properties in the region are participating in a broad and growing range of "green" initiatives--independent, I might add, of statutory mandates to do so.

However, as you know well, Congresswoman Norton, despite the presence of numerous cranes across the skyline, commercial Washington D.C. is largely a built environment. That the construction divisions of AOBA's member companies are increasingly embracing the "green" movement and building new buildings to LEED standards is a growing, but fairly recent, phenomenon. There is an equally important role which falls to the property management side of such firms (or to outside firms brought in to manage buildings): that of finding ways to increase the energy efficiency and sustainability of the existing buildings in our portfolios. Property management professionals, too, recognize the critical significance of energy conservation to contain costs and reduce environmental impacts. But it is also essential that elected officials and the public understand that realizing energy efficiency and sustainability gains in existing buildings presents an array of considerations and variables quite different from those involved in new construction.

So, for instance, I might be very persuaded of the merits of a "green roof" for an existing building, but there may be structural factors that render it impractical; or, it could simply be that the current roof is only four years into its useful life and, thus, is simply too "new" to justify its reconstruction. Storm/gray-water capture and re-use techniques are increasingly being designed into new buildings; but, as desirable as they may be, adapting them to an existing structure will often be impossible.

Similarly, the operating cost savings from more energy-efficient elevator technology may be demonstrable, but what about the capital costs of replacing the sixteen, still very functional elevators in my building? Will the owners, and ultimately the tenants, be persuaded of the value of doing so, and of enduring the attendant tenant disruption? Will the answer be different if it's coming from GSA, which leases roughly one-third of the privately owned office space in Washington? I must mention, too, for AOBA's housing providers, that regulatory programs such as rent control and historic preservation can often constrain the ability to undertake proven energy reduction measures like window replacements or individual utility metering.

These are some of the realities involved in undertaking "green" initiatives in the largely built environment. The good news is that there is a growing interest in and commitment to doing so; increasingly, it is a matter of "when," not "if," and of "how?" rather than "why?" To that end, AOBA is undertaking a number of initiatives to assist its members. This month, it launched a new Energy Managers Roundtable, a peer-group forum that brings together executives responsible for energy management and conservation in local office and apartment buildings, to share best practices regarding energy management issues, technologies, equipment and vendors. AOBA is building a "Going Green" website, specifically focused on existing buildings, which will include case studies, helpful resources and a comprehensive outline of all green-related local laws, regulations and incentive programs. In September, AOBA will hold a "Green Conference" that will address the unique issues associated with the "greening" of existing multifamily and commercial office buildings.

AOBA is also one of the most recent BOMA affiliates to officially sign onto BOMA International's "7-Point Challenge." BOMA's 7-Point Challenge has been voluntarily endorsed by many of the largest companies that own and operate buildings in the U.S., and is perhaps the best illustration nationally of the private sector's movement toward energy efficiency. In the fall of 2007, BOMA International called on its member companies to take proactive and aggressive steps to lower energy consumption across their portfolios by 30% by 2012, in comparison to an average building (defined as a building earning a score of 50 on the EPA Energy Star benchmarking tool in 2007). To date, over 30 companies have accepted the challenge. These

companies include well known names such as Transwestern, CB Richard Ellis, Cushman & Wakefield, USAA Real Estate and RREEF, to name some of the largest real estate companies, as well as many smaller local and regional companies. Local governments across the nation are also beginning to partner with local BOMA associations to share knowledge, training and best practices to achieve the goals of the challenge.

BOMA has also partnered with the Clinton Climate Initiative (CCI) to help bring the many benefits of the CCI Existing Building Retrofit Program to private sector office buildings. To this end, BOMA has been negotiating with several large energy service companies (ESCOs) and lenders to create a model contract for energy performance contracting. Energy performance contracting is a method to finance energy retrofits that is commonly used in public sector buildings. ESCOs retrofit the equipment and the owner repays the loan with the money saved through lower energy costs. This method of financing has not been widely used in the private sector and the new BOMA-CCI model contract is expected to overcome many of the barriers to its acceptance by the industry.

BOMA International strongly believes that energy efficiency and carbon reduction efforts are well underway in the commercial office building industry. Voluntary efforts and programs, such as the EPA Energy Star program and the Clinton Climate Initiative, are bringing tools to our members to assist them in their efforts. We look to Congress to continue to encourage this type of action and other incentives and refrain from implementing unneeded and costly mandates.

We thank the Subcommittee for holding this important hearing, and look forward to working with Congress and other public and private sector partners to achieve our mutual goal of market transformation in the built environment.

APARTMENT AND OFFICE BUILDING
ASSOCIATION OF
METROPOLITAN WASHINGTON

EXHIBIT 1

BOMA International

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NAA NATIONAL APARTMENT ASSOCIATION

Blake Real Estate Creates DC's First High-Elevation Green Roof

In 2004, Blake Real Estate collaborated with their tenant, Casey Trees Endowment Fund, DC Greenworks, and DC Department of Health and Fish and Wildlife Foundation to establish at 1425 K Street the District's first and largest high elevation green roof in an urban, high-density commercial zone.

Following 13 months of research, the existing roof membrane was retrofitted, an electronic field vector mapping (EFVM) leak detection system was installed, 35,000 pounds of soil were hoisted 13 stories, and 10,000 one-inch, succulent sedum plants were hand-planted. A key component of the grant-funded project was to train at-risk youth to install green roofs as part of a "green collar" job training program.

The 1425 K Street green roof is an extensive system, which consists of 3-4 inches of engineered soil and low-maintenance, drought resistant sedum plants. A weather monitoring station was installed on the roof to document the roof's environmental impact by measuring the level of storm water run off and ambient air temperatures. Other than initial watering and weeding, our green roof has been maintenance-free.

Today, the 1425 K Street green roof serves as an interactive research project dedicated to educating the community on sustainable growth technology. The green roof is open to the public and the Property Manager at 1425 K Street provides guided tours twice each month. Over 4,000 people from all over the world have toured Blake Real Estate's green roof since June 2004.

To learn more about the 1425 K Street Green Roof, visit the Blake Real Estate website at **www.blakereal.com** and click on **What's New?** and download the **Green Roof Tour Packet**. To schedule a roof tour or to learn more, contact Kelliann Whitley at **kwhitley@blakereal.com** or **202-778-0400**.

VORNADO
CHARLES E. SMITH

Vornado/Charles E. Smith Pursuing Multiple Approaches "Going Green"

Vornado/Charles E. Smith is committed to the environmental responsibility to minimize our negative impact on the world around us and we are aggressively pursuing Green Initiatives feasible. Data from the U.S. Green Building Counsel reports that buildings in the United States consume more than 30% of our total energy and 60% of our electricity annually. Our Tenant Service Center plays a critical role in our efforts to minimize this impact. Listed here are brief overviews of the areas in which our Center is currently involved:

Leadership in Energy Management Technology – Vornado/Charles E. Smith's Tenant Service Center is one of the largest and most sophisticated remote monitoring and emergency response centers in the United States. Through this centralized hub, operated by licensed engineers, we continually maintain precise thresholds in power usage heating, ventilation, and air conditioning (HVAC) operations—over a 20 million square foot portfolio—resulting in energy savings which are consistently 8-12% below regional BOMA averages. Not only does this technology optimize energy efficiency, it ensures all systems are monitored before they impact comfort, business operations, energy efficiency or productivity.

Participation in the EPA Energy Star program – Many of our buildings in Arlington, VA have been recognized by the EPA's Energy Star Program. Through a combination of sound operating practices and conservation techniques these buildings, benchmarked against all buildings nationwide, achieve superior levels of conservation performance.

High Impact Day Program – We are committed to conserving energy, particularly on high impact (extreme hot or cold) days when our efforts to reduce consumption offer the most conservation benefit.

The Vornado/Charles E. Smith team performs the following conservation efforts on "peak days":

- Notify appropriate personnel of the upcoming "high impact day".
- Buildings are started early and sub-cooled when energy costs are less expensive
- All chillers are set to a conformed reset schedule
- Fan resets are lowered and raised in accordance with the electrical rate

In 2007 three properties with existing onsite Building Automation Systems (BAS) were connected to the Tenant Service Center. After reviewing system operation and making sequence of operation changes only, we were able to reduce energy usage an average of 8% in the first 3 months of operation. This represented a KWH/dollar reduction in excess of 300,000kwh and $42,000.00 dollars.

In addition to software changes, we are actively installing Enhanced Metering in our properties. Instead of reading a totalized electrical demand and usage, we are able to view itemized usage on individual feeds to both the Tenant and House loads. This will allow us to pinpoint any variances in electrical usage.

To learn more, contact Vornado/Charles E. Smith at **703-769-8200**.

Tower Companies Develops Nation's First Vedic and LEED Gold Commercial Property

The Tower Companies, a family-owned real estate development company, is Washington, DC's first and largest developer of Green Properties with more than 5.5 million square feet of office space and office parks and 3,500 apartments within the Washington Metro region, of which 1.25 million square feet are Green projects. The entire Tower portfolio is powered by 100% wind energy.

Currently under development: the first Vedic and LEED Gold commercial property in the country, **2000 Tower Oaks Boulevard**, (www.TowerOaks.com), a 200,000 SF world-class office building in Rockville, MD. This property will **reduce energy consumption by 41% and water consumption by 48%.** This property's healthy benefits include:

- dramatic reduction of air pollution that may cause 'sick building syndrome' by removing 85% of airborne pollutants and replacing 100% of the air in the building every 55 minutes,
- use of non-toxic building materials which do not emit toxic gasses, and other state of the art technological innovations combined with the beauty of its design,
- dual infinity pools at the entrance of the building,
- a state-of-the-art fitness center equipped with its own Pilates and meditation rooms, for tenant wellness of body and mind.

In addition, **1050 K Street**, (www.1050Kstreet.com) with development partner, The Lenkin Company, is an 11-story, 136,000 square foot LEED CS-Gold boutique office building in the District's East End that incorporates the latest techniques in green design combined with the natural elements of air, water, earth and light to create a livable indoor environment. The building features a penthouse gallery leading outside to a haiku-inspired rooftop-garden of natural bamboo and grasses that offers views of the Washington skyline.

In 2006 and 2003, The Tower Companies received the *Green Power Award* for being the largest purchaser of green energy from the US Environmental Protection Agency and the US Department of Energy for buying 100% of wind energy for their portfolio properties. Tower is a member of EPA's Climate Leaders and Energy Star programs and is committed to becoming carbon-neutral by 2008 and maintaining that through 2012.

To learn more, contact Marnie Abramson, Principal, at **301-984-7000** or visit **www.towercompanies.com**. For media requests, contact Elizabeth Lisboa-Farrow at **202-494-1977**.

Scott Management, Inc

- In the early 90's we replaced all our toilets with low flow 1.6 gallon toilets, we also replaced all showerheads and bath/kitchen sink aerators at that time. The payback was less than two years and our consumption company wide is from the low of 85 gallons/u/d in our mostly single occupancy apartments to around 160 gallons/u/d in our high occupancy apartment communities.

- We are currently and have in the past replaced windows. They are costly and the payback is slow, especially if the residents are paying all or part of their heating and air-conditioning bills. However, the environmental benefits are huge and marketing should be easier if resident utility bills are not sky-high.

- We are replacing most incandescent light bulbs with Compact Fluorescent energy saving bulbs. Both Virginia Dominion and PEPCO currently offer bulb rebate programs through Home Depot and Costco. Approximate savings are marked on packaging and is immediate.

- We keep hot water heaters well maintained and at low temperature settings.

- We regularly replace filters and perform preventive maintenance on HVAC systems and are replacing old AC systems with energy efficient SEER 13 models.

- We only purchase Energy Star appliances and computers.

- We monitor all utility consumption to quickly detect and resolve problems of high usage.

Harald Mangold
Scott Management, Inc
hmangold@scottmanagementinc.com

Cushman & Wakefield Awarded USGBC's Highest LEED rating

Cushman & Wakefield partnered with the owner of a large office facility in the Washington, DC area to obtain a Platinum LEED Certification from the US Green Building Council. The certification is a "nationally accepted benchmark for design, construction, and operation of high performance green buildings." The owner was awarded the Platinum LEED Certification in 2007. The on-site engineering team coordinated many of the efforts, as described below:

- Started to prepare for the LEED certification one year in advance. The first step included retaining an outside consultant to provide a green energy assessment. The scope included providing a report, gathering information, meeting with the team, making recommendations, reviewing systems, policies, specs, etc., and implementing steps into an acceptable format for LEED.
- Completed a lighting retrofit, installed ambient light sensors.
- Completed water fixture retrofits (i.e. in restrooms, installed dual flush values in water closets) (low flow urinals).
- Irrigation system – Installed a system to reclaim water from the irrigation system, circulating the water back into the sump pump system into storage tanks and recirculating back into the irrigation system. In a nutshell, recycling water.
- Installed washer/dryer to use for laundering hand towels instead of using paper towels.
- Retained outside contractor to verify/balance outside air; confirmed that building is using 33% outside air, which is extremely high.
- Utilizing 100% wind power – purchased wind power from the utility company (based on size of the electricity load) for one-year electricity, premium attached per kw if you want to derive your power from wind through Pepco.
- Purchased carbon offset for natural gas (used for tempering outside air during winter months and boilers for humidification). Organization is paid based on therms of natural gas that is used. The funds are used for studies, research for reductions of emissions into the atmosphere.
- Energy Star Rating – EPA issues a rating for a certain energy – the property was rated 87 out of 100. Industry average is 50. Our target was 60; baseline started at 79.
- Staff education – You may receive credit for engineers going to school for NAPE, NALCO, ACT (Air Cleaning Technologies) – on site training, refresher courses, average of 25 hours formal training on anything related to operation and maintenance of HVAC.
- Four Innovation Upgrades – credit for beyond what Green Council asks you to do: (1) ambient light sensors in areas near windows (2) community outreach, internal education market to employees, competition on saving paper, recycling, turning off computers; owner gave parking discounts to owners of Hybrids; (3) installed ventilation filters to increase purification of air; (4) employee participation.
- Building contractors who service the building partnered with the owner to go green – cleaning company, window washing vendor, water treatment, light bulb provider acted as a consultant, energy management contractor, landscaper using pesticides, recycling clippings, and office supplies recycled paper.
- Proactive water testing and air testing.

To learn more, contact Debbie Santano, Senior Portfolio Manager, at **Deborah.santano@cushwake.com** or **202-467-0600**.

HOF™
Intelligent Laundry™ Systems

Hof Intelligent Laundry™ Systems, a division of Mac-Gray, is strongly committed to promoting water and energy conservation and preserving our environment. Over the years, the company has developed a long list of products, services and programs to decrease consumption of water, electricity, gas, and detergent in multi-housing laundry rooms and to help its customers lower the cost of operating their facilities. To further the industry's adoption of environmentally friendly behavior, we have recently expanded our Internet presence with a site devoted to making multi-housing laundry rooms "clean and green." The new Web site highlights the environmental benefits of "clean and green" laundry rooms.

Clean & Green Highlights:

- In the 1980s we recognized the need for a more environmentally sound washing machine and looked for a manufacturer to produce a machine that would reduce energy consumption and provide a more economical energy footprint. Initially Maytag was unable to meet our needs, so we approached IPSO, a European manufacturer. In cooperation with them, we designed and produced the most economical, energy-efficient washing machine available in North America and deployed hundreds of them until the late 1990s, when Maytag began producing the Neptune high-efficiency washer, which was a more cost-effective appliance for us to use.
- Our Intelligent Laundry™ Systems benefit our customers on many levels. They are convenient, efficient and reduce environmental impact:
    - VentSnake™ employs high pressure air jets to efficiently clean dryer vent systems. Clean vent systems allow for maximum airflow, which enables dryers to operate efficiently, reducing the amount of drying time required and saving energy and the related CO_2 emissions from entering our atmosphere.
    - PrecisionWash™ is a detergent-on-demand system that ensures the correct dose of detergent is used, which is less than most consumers may believe. This reduces the concentration of detergent left in the wastewater that enters our environment. It also eliminates the need for plastic detergent containers which eventually find their way into landfills.
    - TechLinx™ and CollectorLinx™ are data-driven mobile application routing systems that provide our service technicians with better, earlier information to help them optimize their day, resulting in reduced fuel consumption and overall number of miles traveled per day.
- Since 2006 we have purchased 175 vehicles with smaller 4.6-liter engines for our service and collection fleet. This has resulted in at least 7% reduction in mileage, or a savings of approximately 37,000 gallons of gasoline, which equates to about 370 tons of related CO_2 emissions.
- We are also committed to recycling. Not only do we have paper and plastic recycling programs in place at all of our branches, we also strip used laundry machines of reusable parts and rebuild and reuse computer boards to keep harmful and unnecessary materials out of landfills.

To learn more about Hof Intelligent Laundry™ Systems, please contact Howard Lockhart at **301-595-1010, extension 7328** or visit **www.hoflaundry.com** and **www.cleanandgreenvision.com**.

GEMINI

Gemini Group Service Corporation – Janitorial Services "Gone Green"

Gemini's "Green" Corporate Philosophy encompasses more than simply stating we use environmentally friendly cleaning chemicals at our customer locations. Gemini is dedicated to pursuing responsible solutions that are of value to our customers, our employees, and the environment. Note that the cleaning industry can contribute up to 13 + credits for LEED Certification for Existing Buildings.

Some of the focal points of our Green Program include:

Establishment of a schedule, completed in February 2008, of janitorial equipment replacement with equipment that meets or exceeds "Green Seal™" GS-42 Cleaning Services Standards:

- Vacuum cleaners that meet the Carpet & Rug Institute's Green Label Program requirements and operation at a sound level of less than 70 dBA.
- Carpet extraction equipment that meets the Carpet and Rug Institute's Bronze Seal of Approval.
- Powered scrubbing machines equipped with a control method for variable rate dispensing to optimize the use of cleaning fluids.
- Powered floor maintenance equipment with controls for capturing and collecting particulates and operation at a sound level less than 70 dBA.

Use of environmentally preferable cleaning products and supplies on all customer locations:

- Chemical Dilution systems to limit workers exposure and over use of cleaning chemicals.
- Trash Can liners that contain a 10% post consumer recycled content.
- 100% recycled paper products.
- Microfiber cloths, mops, dusters to keep air particulates to a minimum.

Green Training Program for all employees in the proper use of chemicals and equipment as well as environmentally friendly cleaning methods and protocols.

Building Recycling Program responsibility including contracting with vendors for our customers' recycling requirements.

Corporate office location enrolled in Montgomery County Clean Energy Rewards Program resulting in a monthly credit on our electricity bill.

Corporate office location participation in Washington Gas Energy Services' Wind Powered Electricity Program. 100% of Gemini's corporate office's electricity is Wind Powered.

Contact: Debbie Gerald
Gemini Group Service Corporation
dgerald@geminicorporation.com

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(301) 428-3580

SHERWIN WILLIAMS

Sherwin-Williams: Green Isn't Just a Color, It's an Opportunity

Sherwin-Williams sees "green" as an ongoing initiative that describes their commitment to developing environmentally preferable solutions. They lead the coatings industry in implementing the best processes and practices that ensure air quality, treat wastewater, prevent pollution, reduce energy use, minimize emissions and manage waste.

Some of Sherwin-Williams' Green Highlights:

- Instituting manufacturing procedures that focus on solid waster reduction, recycling, the implementation of zero discharge processes and the conversion to energy-efficient lighting and utility optimization
- Designing new manufacturing facilities that include maintenance-free landscaping, UV reflecting glazing on windows, heat reflective roofing and maximized natural lighting.
- Purchasing more raw materials in bulk quantities and in reusable or recyclable containers
- Using returnable plastic pallets which have ten times the life of a wood pallet.
- Replacing diesel fuel with biodiesel fuel in their truck fleet
- Recycling stretch wrap in their Distribution Centers
- Promoting the importance of proper surface preparation and application methods that help increase the lifespan of coatings
- Educating on the importance of selecting top quality, durable coatings to minimize the need for frequent repaints and reduce emissions and waste.
- Sherwin-Williams has multiple projects that qualify for LEED certification and meet Green Seal's GS-11 standards.

To learn more, contact Mike Foster at **mike.foster@sherwin.com** or visit **http://www.sherwin.com/pro/green/**.

Statement of Douglas Siglin
Director of Federal Affairs, Chesapeake Bay Foundation

Before the Subcommittee on Economic Development,
Public Buildings and Emergency Management
House Transportation and Infrastructure Committee

For a hearing entitled "First in a series: Greening Washington and the National Capital Region"

April 17, 2008

Congresswoman Norton and members of the subcommittee, thank you for inviting me here today to offer some thoughts the greening of the National Capital Area. I appear here today on behalf of the Chesapeake Bay Foundation's nearly 200,000 members living in all 50 states and many countries around the world.

Although we know quite a bit about green buildings generally, (our Bay-side headquarters in Annapolis was the nation's first LEED "Platinum" building) I'm going to focus my remarks today on a particular subset of "greening" activities: those intended to protect and restore the local water quality of the region, which has been and in many cases continues to be severely degraded.

First, I want to place our National Capitol Region into the proper geographical context from a water perspective. The key geographic concept is the watershed, or the land area where all water runs to a particular stream, river, or Bay. The entire National Capitol area lies in the watershed of the Potomac River, except for parts of central, eastern and southern Prince Georges County, where the streams run east and south to the Patuxent. Within the Potomac watershed, most of the District of Columbia and the Maryland suburbs lie either in the Rock Creek watershed or in the Anacostia watershed. The Northern Virginia suburban area is more diverse, with several relatively large watersheds including Four Mile Run, Cameron Run, Difficult Run, Accotink Creek, Little Hunting Creek, and the Occoquan River, as well as some smaller ones. The Potomac and the Patuxent watersheds are parts the much larger

Chesapeake Bay watershed, which encompasses 64,000 square miles in six states and the District of Columbia.

For decades, most of the National Capital Area's streams and rivers have suffered from severe water quality degradation as a result of human-produced pollution. Perhaps the best known of the region's degraded rivers is the Anacostia, which flows only about a mile from here and captures polluted runoff and occasionally untreated sewage from the Capitol complex and much of the District's federal property. The Anacostia is officially listed as "impaired" for sediment, nutrients, bacteria, toxic chemicals, and trash.

However, many of the region's other streams are highly polluted as well. Four Mile Run, a heavily urbanized watershed less than 1/8 the size of the Anacostia's, has suffered badly from a mix of sewage and urban runoff problems since the 1940s, although most of its problems today are related only to runoff. Most of the remainder of the region's streams have been similarly degraded, sometimes from untreated or inadequately treated sewage, sometimes from polluted urban runoff known by engineers and water quality managers as "storm water", and sometimes from both. The severity of the degradation is often related to the density of population and the era in which settlement occurred, with the watersheds that provide a home to the earliest and densest settlements experiencing the most severe effects, stemming largely from the now-discredited belief that humans could simply use waterways for pollution disposal with impunity.

Throughout the National Capitol Region, the two principal causes of degraded water quality are 1) household, commercial and industrial wastewater, and 2) storm water runoff from rooftops, streets, and yards which has picked up oil, grease, chemicals, fertilizers, compounds related to air pollution, trash, and other contaminants.

The oldest, central parts of the District of Columbia are served by a "combined" sewer system, where sewage and storm water runoff are conveyed in a single set of underground pipes to the Blue Plains advanced wastewater treatment plant. The rest of the area is served by separate systems, wherein sewage is

conveyed to the wastewater plant through one set of pipes and storm water runoff is conveyed in newer developments through a separate system to a storm water pond, or in older areas directly to a convenient stream, into which it is dumped with little and often no treatment. The age and condition of the underground piping system that coveys the water is related to the settlement pattern, with the District still utilizing some conveyance pipes from before the Civil War, and other close-in jurisdictions using pipes many decades old. A good deal of pollution to our waters occurs when these old piping systems break or otherwise leak.

Pollution thus enters the region's streams and rivers in one of four ways, three of them related to wastewater: 1) Through broken and leaking sewage pipes and connections; 2) Through the built-in overflows in the District's combined system, used when more rainwater enters the system than it can handle; 3) Through inadequate treatment at the region's wastewater treatment plants; and 4) perhaps most importantly, through storm water runoff conveyance systems which, as I noted earlier, often puts polluted runoff directly into a nearby stream without the benefit of treatment.

Here is one way to understand the phenomenon of urban and suburban water pollution: generations ago, humans generated very little pollution and the land acted as a filter, capturing whatever contaminants there were and keeping them out of the streams and rivers. Today, with hundreds of times as many contaminants as there once were, the land has been covered over with houses, buildings, concrete and asphalt and crisscrossed with subterranean pipes, creating two largely separate pollution funneling systems in place of what once was a filter. Today, the amount of pollution that enters our waters is directly related to how well we clean it up at the end of our wastewater and storm water funnel systems.

The 1972 federal Water Pollution Control Act (commonly known as the Clean Water Act) is the legal means through which the federal government attempts to limit pollution to the nation's waters. The Act works somewhat counter intuitively: the government issues periodic permits to pollute the water. Over time, the intention is to reduce the allowable amount of pollution to something near zero, thereby achieving the stated objective of the Act: "to restore and maintain the chemical,

physical, and biological integrity of the Nation's waters." Congress appears to have believed that this would happen easily and quickly, as the Act's next line set a national goal to eliminate pollutants to the nation's navigable waters by 1985.

The Clean Water Act has forced notable progress in cleaning up the nation's waters, particularly with regards to limiting end-of-the-pipe "point-source" pollution. It has been considerably less successful in forcing cleanup of "non-point source" pollution, such as urban and suburban storm water runoff, or runoff from agricultural lands. We obviously have missed the 1985 goal by more than two decades, and most observers would agree that the Act will not completely end water pollution - as Congress intended - any time soon.

In fact, there is much evidence that after having made significant progress in the 1970s and 1980s limiting pollution from point sources, the Clean Water Act is just not up to the task of finishing the job, and our nation's waters are once again in serious jeopardy. For example, the Chesapeake Bay, to which all the streams of the National Capitol Area flow, each year experiences large areas where there simply isn't enough oxygen in the water to allow fish and shellfish to live. The common and very descriptive name for these areas is "dead zones", and they are a result of the process of nutrient over-enrichment of water called eutrophication. Waters overloaded with too many nutrients – nitrogen and phosphorus being prominent among them – cause algae to multiply rapidly, which then causes a depletion of dissolved oxygen in the lower parts of the water column when the algae die and are consumed by zooplankton and bacteria.

Although you can't see the depletion of dissolved oxygen in the water, you can certainly see the green algal blooms in the Chesapeake Bay and on the tidal Potomac and other rivers in the warm months, and anyone with a boat and an electronic fish finder can observe that there are simply no fish in certain parts of the Bay and its tidal rivers during the warmer months of the year.

The recently released report of the Chesapeake Bay Program confirms that 88 percent of the Chesapeake Bay and its tidal tributaries did not meet water quality standards for dissolved oxygen during the 2005 to 2007 monitoring period. This is

sharply down from the 72 percent meeting such standards during the 2004-2006 period. Some of the decline can be attributed to annual weather variations, but the trend in recent years is strongly in the wrong direction.

The problem of too much nitrogen flowing into coastal waters and reducing the amount of dissolved oxygen is not confined to the Chesapeake Bay. According to the EPA, 44 estuaries along the nation's coasts are highly eutrophic and an additional 40 estuaries have moderate levels of eutrophic conditions. The annual dead zone in the Gulf of Mexico varies in size, but it recent years it has commonly exceeded the size of several small U.S. states.

So what does this all have to do with the greening of the National Capitol Region? Simply this: a big part of the solution to the dead zone in the lower Potomac and the Chesapeake Bay and stream degradation elsewhere is a particular kind of beneficial "greening". This beneficial greening has as its principal purpose to prevent the pollution from densely populated urban areas from entering our waterways.

The National Capitol Region has many examples of this kind of greening that is critical to the quality of area streams and rivers, and ultimately the Chesapeake Bay. Some of this beneficial greening has been driven by the Clean Water Act, and some has been voluntary. I want to focus briefly on two beneficial greening techniques that are being pursued with a high degree of energy in our area:

Reducing impervious areas and creating permeable landscapes From a water quality perspective, perhaps the most important greening effort in our region is the movement to prevent storm water runoff from entering into streams and rivers by reducing impervious cover and allowing storm water runoff to infiltrate into earth near where it falls. Generally, these types of efforts go by the names Low Impact Development and Environmental Site Design. The National Capitol Region is one of the nation's epicenters of Low Impact Development techniques, which were pioneered in Prince Georges County, and quickly adopted by the District, the surrounding suburban jurisdictions, and several federal agencies in this area. The Low Impact Development Center, a nonprofit consulting organization based in Prince Georges County, remains the national and international leader of such efforts.

Low Impact Development and Environmental Site Design techniques seek to retain the built environment as a part of the natural ecosystem, retaining, infiltrating, filtering, and evaporating water close to where it falls. Conservation of resources and preservation of open areas are also fundamental to the LID/ESD idea. Sites that incorporate LID techniques will mimic to the greatest possible degree pre-development hydrology. Relatively simple and decentralized techniques such as the use of bioretention areas (sometimes known as raingardens) and swales to capture, and retain water are more ecologically effective and often more cost effective than traditional stormwater treatment and disposal techniques.

One example of a low impact development bioretention area built under the supervision of the Architect of the Capitol exists on the Capitol grounds, but unfortunately for the House of Representatives, it is located on D Street, NE, between the Senate Office Buildings and Union Station.

A particularly important place for Low Impact Development and Environmental Site Design techniques is in connection with highways, which of course generate a significant load of vehicle-related pollution. The Green Highways Partnership - a voluntary, collaborative initiative of the EPA, the Federal Highways Administration, the Maryland State Highway Administration and several private partners - is attempting to integrate environmental infrastructure, including storm water management into the region's highways. It is cutting-edge, high potential work. This Committee will have an opportunity to encourage such techniques in the next Surface Transportation reauthorization, and I sincerely hope it will consider doing so.

In heavily urbanized areas where reducing impermeable surfaces and creating green space simply isn't feasible, retaining water on site and/or filtering it before allowing it to pass back slowly into a stream or river are acceptable alternatives. While not necessarily allowing for recharge of underground water, these techniques do provide multiple advantages for water quality and erosion control.

Building "green roofs" The National Capitol Region is one of two areas of the country that has demonstrated notable leadership in encouraging the installation

of "green" or vegetated roofs on public and private buildings. Green roofs designed for water quality improvement are essentially shallow basins built on roofs with several inches of manufactured soil and a layer of short plants, often from the sedum family. These roofs capture a high percentage of the rain that falls on them annually, holding it on the roof and allowing it to evaporate rather than funneling it to the stormwater or wastewater system. In doing so, they reduce both the quantity of runoff (which in the central part of the District frequently causes the old combined sewer to overflow) and the contaminants that have fallen onto the roof from the air.

Green roofs also have other environmental benefits in terms of helping to save energy costs and prevent localized "urban heat island" effects.

There may be as many as 25 commercial green roofs now installed or under construction in the National Capitol Region. One of the largest (at nearly 70,000 square feet) is on the new federal Department of Transportation buildings just south of the Capitol complex along the Anacostia River. Smaller, but more prominent, is the green roof that just opened over the left-field concession area at the new Nationals Stadium. I'm proud to say that the Chesapeake Bay Foundation was a partner with the DC government, the DC Water and Sewer Authority, and the Summit Fund of Washington in promoting and paying for each of those, as well as six others commercial and institutional ones in the Anacostia watershed.

Arlington County, the District, and the GSA have all been aggressive partners in promoting the construction of green roofs in this area. As a follow up to our incentive grant partnership, the District government is currently exploring the possibility of providing partial tax incentives to selected recipients to interest. The value of this incentive-based approach is that the public sector and the private sector share the costs of the green roof as well as its benefits.

It is essential that water quality protection techniques as green roofs, permeable landscapes, and storm water runoff retention be integrated into building and site design from the beginning of the process. Many of the jurisdictions in the National Capitol Region require strict storm water runoff standards for all new buildings and building sites. One outstanding example is the legislation passed by

the DC Council requiring all new public and publicly-assisted private buildings in the area around the Anacostia River to protect the river by meeting some of the strictest standards in the nation. Among other things, these new standards require retention and beneficial re-use of all rainwater up to and including a "one inch in 24 hour" storm. While for the moment these standards only apply to the Anacostia waterfront development area, I understand that the District's Department of the Environment is considering new rules to expand the strict standards to development in all parts of the city.

Madame Chairman, I have only touched on part of the critical water quality related "greening" going on the National Capitol Region. Those of us who live and/or work here can be quite proud of the efforts of the federal government and our local jurisdictions.

However, I want to end with a bit of realism. The fact is that these efforts are a good start, but are not nearly sufficient to restore the chemical, physical, and biological integrity of the region's waters, as was promised in the federal Clean Water Act. Moreover, most other urban and suburban jurisdictions in the Chesapeake Bay watershed and around the nation are far behind ours in their water quality related greening activities. Stormwater-related runoff continues to be one of the most significant factors in the Bay's degraded water quality. The conclusion seems inescapable that in order to reach the promise of the Clean Water Act, Congress needs to recognize the good greening work being done in our region, but also to do all in its power to require much more.

STATEMENT OF

DAVID L. WINSTEAD
COMMISSIONER

PUBLIC BUILDINGS SERVICE

U.S. GENERAL SERVICES ADMINISTRATION

BEFORE THE

SUBCOMMITTEE ON ECONOMIC DEVELOPMENT,
PUBLIC BUILDINGS, AND EMERGENCY MANAGEMENT

COMMITTEE ON TRANSPORTATION AND
INFRASTRUCTURE

U.S. HOUSE OF REPRESENTATIVES

APRIL 17, 2008

Good morning, Chairman Norton, Ranking Member Graves, and Members of the Subcommittee. My name is David Winstead and I am the Commissioner of the Public Buildings Service (PBS) in the U.S. General Services Administration (GSA). I am pleased to appear before you today to discuss how GSA is leading by example in greening our public buildings, particularly those right here in our nation's capitol. Today, I would like to talk about our successes in greening the new construction and modernization of our buildings, energy management, and green building operations. Specifically, I would like to describe the ambitious programs in the National Capital Region (NCR) and share with you a number of outstanding examples of their efforts. I will also discuss how we are helping other members of the Federal community in the Washington Metropolitan area in their greening initiatives, as well as describe the challenges of the newly enacted energy legislation, and finally, I will offer a few ideas that may assist the Subcommittee in further promoting green efforts in our public buildings.

GSA's "green" programs nationwide

The Federal government is the largest single consumer of energy in the United States. According to the Department of Energy, Federal buildings account for 37% of the government's energy usage, use as much as 1.5 percent of the Nation's electricity and emit about 2 percent of all U.S. building-related greenhouse gases. Since 1985, Federal agencies reduced their energy intensity in Federal buildings by 23 percent in 2005 (for standard buildings). Agencies cut their carbon emissions from facility energy use by 3.3 million metric tons in 2005 compared to 1990. At GSA, since 1985, we have cut our energy consumption by 30 percent and carbon emissions by 281 thousand metric tons (comparable to removing 210 thousand vehicles from the road in one year) in our public buildings. We are using green principles and leading by example in the efficient use of energy, water and materials, as well as promoting space that enhances productivity and the work environment.

Some of our achievements include:

- Installing over 500,000 sq. ft. of planted roofs, including one of the largest on the Eastern seaboard that saved the government over $1 million in stormwater remediation
- Diverting over 106,000 tons of construction waste from landfills in 2006 saving an estimated $6.3 million in tipping fees
- Procuring nearly one million megawatthours (mWhs) of renewable energy, including 100% wind energy for the Statue of Liberty and Ellis Island over the last four years
- Producing nearly 3.4 billion British Thermal Units (Btus) of renewable energy in 2006, which offset burning 162 tons of coal in our buildings. We recently installed one of the first photovoltaic arrays embedded in a roof membrane on a Federal building. This project is generating 300 kilowatts

(kW) of electricity, supplies 50 percent of the building's electrical needs and will sell excess energy back to the grid.
- Earning the designation of Energy Star in 105 of our buildings as of 2006, the most of any Federal agency.

As the first Federal agency to join the U.S. Green Building Council (USGBC), GSA plays a major role in the advancement of green building practices. Since 2003, GSA has required all capital projects to use the USGBC Leadership in Energy and Environmental Design (LEED®) green building rating system as a design criterion with a goal of a Silver designation. GSA has the most LEED rated buildings of any government organization and uses LEED to measure our success. We currently have 75 projects registered for LEED certification. To date, GSA has earned LEED ratings in 25 buildings – 11 are GSA owned and 14 are GSA leased buildings. In a study of 19 of these buildings, we discovered the following:

- on average,LEED buildings are designed to perform over 32% better than a building designed to meet the ASHRAE/IESNA Standard 90.1 (American Society of Heating, Refrigeration and Air Conditioning Engineers/Illuminating Engineering Society of North America, Energy Standard for Buildings Except Low-Rise Residential Buildings);
- over 75% of the construction waste was recycled;
- these buildings reduced indoor water use by over 38 percent as compared to the baseline;
- they represent 33.7 million kW hours, or 33% of GSA's own green power purchases

In 2006, GSA appointed 15 of America's top experts in sustainable (green) design to its National Register of Peer Professionals to help select design teams and critique design concepts. All of our standards and guidance documents contain sustainable design requirements and expectations. For example, The Facilities Standards for the Public Buildings Service has integrated specific, and ever increasing, sustainability requirements since 2000. The latest revision places a new emphasis on integrated design and enhanced goals for sustainability and energy efficiency. Scopes of work for architectural/engineering services, commissioning, construction administration, and general contracting also contain new, measurable requirements related to sustainability.

As market awareness has grown, GSA has developed new green lease provisions and updated existing provisions to become standard lease requirements in 2007. As of today, GSA realty professionals have delivered 14 LEED certified projects - 7 LEED Gold, 6 LEED Silver and 1 LEED Certified.

GSA has a strong record of energy conservation

Between 2003 and 2007, GSA achieved an 8.2 percent reduction in energy consumption including credits for renewable purchases compared to the 1985 baseline. We operate our buildings at costs that are 1.6 percent below comparable buildings in the private sector, and we pay 10.3 percent less for utilities. Some of this reduction is directly attributable to the investments both Congress and GSA made in building modernizations as well as stand-alone energy conservation projects over the past 15 years. A considerable part of this reduction is the result of the concerted efforts of GSA property managers working closely with our customers.

In addition to those above, we have a number of programs nationwide that have been "greened," including building operation and maintenance, cleaning and recycling. I would now like to describe how the NCR is implementing some of our most forward-thinking programs.

GSA's "green" programs in the NCR

NCR manages about 26% of our total portfolio nationwide, or 93 million square feet comprised of 53 million square feet of leased space and 40 million of owned space. In both categories, the NCR has strived to incorporate green features as I will describe below.

New construction, modernization and repairs and alterations

Green Buildings
NCR has earned three LEED Gold ratings from the USGBC, one in owned space, two in leased space.

- The Suitland Federal Center in Suitland, Maryland (GSA-owned) (the new National Oceanic & Atmospheric Administration (NOAA) Satellite Operations Center received this designation in fall 2007).
- The two buildings at One and Two Potomac Yards in Arlington, Virginia (GSA-leased) housing the Environmental Protection Agency (EPA) received these designations in 2006.

Another example of NCR's green building efforts is the development of the new Bureau of Alcohol, Tobacco, Firearms and Explosives (ATF) headquarters facility. It is located on a Brownfield site which had been previously used as a District of Columbia government public works yard containing the ruins of an abandoned railroad trestle. NCR demolished the trestle and remediated 79,000 tons of contaminated soil, which was sanitized for reuse as construction material. New green features include:

- Green roofs to cover the entrance pavilion, parking garage, and exercise facility;
- Narrow floor plates and the abundance of glass to bring natural light to all workspaces;

- Close proximity to a new Metro station to promote employee use of public transportation and to encourage redevelopment of the immediate area.

Our development of the new headquarters facility for the Food & Drug Administration (FDA) at the White Oak Federal Research Center in suburban Maryland is another outstanding example. When complete in 2012, pending continued Congressional funding, the campus will comprise three million square feet and will house more than 7,700 employees.

- Use of environmentally sustainable practices began with the demolition of existing buildings on site, garnering NCR's first "GSA Demolition Derby" award for construction waste management.
- Hazardous materials were abated and disposed of and contaminated soils were removed.
- Concrete, brick, and masonry units were crushed for re-use as backfill on-site.
- Sustainable new construction features include a 22,000 square foot green roof on the central shared use building, natural ventilation, solar shading, reduced water consumption, and use of recycled content in many of the building products.
- A Co-generation facility providing reliable, uninterrupted on-site electricity generation for the facilities currently occupied on campus.
    - Heat is recovered from the generating process to produce hot water and chilled water in absorption chillers, further increasing the thermal efficiency of the plant by 30 percent and significantly reducing pollution emissions.
    - Planned expansion of the system will support 100 percent power generation for the entire campus after the remaining build-out is complete, keeping the local utility from having to accommodate the 25 megawatt load that would otherwise be required.
    - Photovoltaic array is located on-site and produces 38 mWh annually.
    - Coupled with related upgrades to HVAC, controls for lighting and improvements in glazing, these measures together will save more than 37 million kW hours, $1.4 million in energy costs, and $2.1 million in operation and maintenance costs annually.

The cogeneration facility at White Oak is one of ten projects in the NCR where private sector capital is being leveraged through the Energy Savings Performance Contract (ESPC) or Utility Energy Savings Contract (UESC) programs. Another major project is at the NCR Heating Operation and Transmission District (HOTD). HOTD provides steam and chilled water utility service to government and quasi-government customers.

- Chilled Water: NCR completed the chilled water expansion/cogeneration project in December 2004. This $69 million project installed eight chillers and a cogeneration system in the Central Plant that allowed HOTD to

extend chilled water service to the Smithsonian Institution (this portion of the project was financed by the Smithsonian).

- Steam heat recovery: The cogeneration system allows HOTD to use its heat recovery steam generator to produce steam and electricity as a byproduct from waste. Any electricity produced that exceeds HOTD needs itself, is made available to the power grid and is credited to GSA's account from the local electricity company.

Building Commissioning Process

We also have procedures in place to monitor performance once a new building or a major modernization is complete. For all new construction and major modernization, NCR now includes a Building Commissioning Process. This commissioning plan and team are established during the project planning stage. The process extends through the design phase, where the design and construction management contracts are checked to make sure they sufficiently define the commissioning requirements, and construction documents adequately detail what is to be achieved and who is responsible. Oversight continues throughout the construction phase, including periodic performance testing. Finally, during the one-year warranty period following construction, periodic testing occurs again to make sure that performance specification are achieved. At the end of this process, a final commissioning report is prepared that will serve as the benchmark for future re-commissioning studies.

Green Roofs

NCR has also been a leader in the use of green roofs. Over the past two years, Four NCR buildings "came on-line" that feature expansive green roofs. These planted roofs can substantially reduce rainwater run-off during storms and provide significant insulation for the buildings:

- Census Bureau headquarters at Suitland Federal Center in suburban Maryland, 85,000 square feet of green roof
- NOAA Satellite Operations Center, also at the Suitland Federal Center, 110,000 square feet – the largest green roof on the East Coast.
- ATF, as described above, 55,000 square feet of green roof
- New headquarters for the Department of Transportation, 65,000 square feet.

Landscapes and Water Conservation

Building Green does not stop at the edge of our building or the rooftop – it extends into our landscapes. NCR designs and maintains more than 100 Federally owned landscape sites in the Washington DC metropolitan area. We utilize a variety of landscape materials to minimize our reliance on turf, which requires more chemicals, energy and water to maintain and we chose plant materials that can tolerate drought and are naturally pest resistant. We further reduce maintenance costs by choosing plant materials that do not require extensive trimming and shaping.

At our larger sites, NCR designs and installs high-efficiency irrigation systems. This allows water to be precisely targeted and delivered rather than broadly cast over the landscape. These systems also deliver water according to the predicted need, based on daily downloads of weather information. For sites that are prone to erosion, we add retaining walls and plant soil-binding types of groundcover to reduce runoff.

In October 2007, GSA received the very first "Rain Leader Award" from the Environmental Protection Agency (EPA) for an innovative low impact demonstration project in one of the EPA headquarters courtyards in the Federal Triangle. GSA and EPA developed this project in partnership to convert an area previously used as a construction project staging area into a beautifully landscaped garden. This is part of

our ongoing partnership with EPA to green their headquarters. Other initiatives include a rain garden, permeable pavers to absorb runoff, landscape furnishings made of recycled materials, natural soil supplements to maintain aeration, use of cisterns to supplement the irrigation water supply, and solar lighting.

Green Operations

GSA's commitment to Green extends beyond our new construction, modernization, and repair and alteration activities. We seek to operate Green as well.

Regional Environmental Management Systems
Within our buildings, as a part of GSA's national implementation of Environmental Management Systems (EMS), NCR is implementing a Regional EMS. This is an internal management program that seeks to better coordinate and integrate efforts for meeting our environmental (including energy and transportation), health, and safety goals with our day-to-day operations. In addition to the portfolio EMS, and in collaboration with our customers, NCR is pursuing joint pilot EMS programs at a GSA-owned facility and a GSA-leased facility. The pilots are being conducted at the FDA White Oak facility (owned) and a Department of State leased facility. In both instances, the partnerships with the occupant agencies focus on sharing information and resources; lessons learned about EMS implementation and management; and measurable goals affecting both our operations and our occupants' operations.

Energy
For the 154 buildings where we pay the utility bills, NCR has instituted changes in operating procedures to promote energy conservation and management. These include:

- Monitoring energy consumption on a monthly basis
- Conducting tenant awareness programs
- Performing building audits and providing training
- Real Time Metering in 11 of our buildings. GSA has 25 more buildings scheduled for installation in FY 08 with funding available. GSA has a plan to install these meters in all government-owned buildings in the NCR by 2012.
    - Advanced metering allows us to manage our power consumption more strategically. It can also help us to buy power at better prices because we can predict our use patterns.
    - In FY 07 we reduced electric consumption in these buildings by 6.6% when compared with the FY 03 base year.
- Procuring 3% of our power from renewable resources.

In addition, in all of our buildings, we conduct energy awareness campaigns, issue seasonal bulletins to help our building managers prepare for the heating and cooling seasons, provide certified energy managers to advise our building managers on conservation techniques, and conduct annual updates of an energy curtailment plan.

Recycling

Over 100 Federal agencies from all three branches of government participate in NCR-procured recycling contracts. Our recycling contractors pick up paper, cardboard, cans and bottles from 120 buildings housing more than 110,000 employees. In FY07, 8,000 tons of materials were collected and sold, generating a sales income of $355,000. Diverting this waste from the landfill also saved an estimated $1.2 million on landfill disposal fees, 25,600 cubic yards of landfill, 133,000 trees, 3 million gallons of oil, 32 million kWs of energy, and 56 million gallons of water.

Landscape maintenance

Landscape maintenance practices in the NCR have become greener as well. For example, NCR composts all of its yard waste – composting 330 tons alone in FY 07. NCR also uses 100% organic pelletized poultry manure as fertilizer for turf and ornamental beds. This manure is obtained from poultry farms in the Chesapeake Bay watershed, thereby further reducing polluted runoff into that threatened body of water. During this year's annual application, NCR used about 80 tons of this innovative fertilizer.

NCR has reduced its pesticide use on landscapes by 89% since 1995, from 33,000 gallons to 3,700 gallons per year. NCR has an established integrated pest management program in place, and NCR was the first GSA region in the country to ban the use of 2.4-D herbicides and organophosphate insecticides.

GSA assists other agencies in the Washington Metropolitan area to green their facilities

Through our knowledge and expertise, and the contracts we have in place, GSA-NCR also assists other Federal agencies, who may not be housed in our space, in their greening efforts.

- As mentioned above, over 100 Federal agencies from all three branches of government use our NCR-procured recycling sales contracts.
- NCR increased the capacity and efficiency of the Main Steam Plant and was able to extend service to the Smithsonian Institution and helped avert the construction of another steam facility under the Mall.
- In the greater Baltimore-Washington area, GSA procured approximately 33.6 million kW hours of renewable energy on behalf of other agencies
- Both the Public Buildings Service and the Federal Acquisition Service in NCR provide goods and services that are key to the federal green purchasing program. This includes: recycled content products, environmentally preferable products and services, biobased products, energy- and water-efficient products, alternate fuel vehicles, products using renewable energy, and alternatives to hazardous or toxic chemicals.

On a national scale, since the issuance of the Executive Order 13423 in January of last year, GSA has formally agreed with three agencies to aid them specifically in meeting their environmental targets. In every transaction, we apply our internal standards for energy conservation, energy efficiency and sustainable design. We have revised our standard solicitation for offers for leasing to incorporate sustainable and energy conserving clauses. We are establishing and staffing the Office of Federal High-Performance Green Buildings, newly created by the Energy Independence and Security Act (EISA) of 2007. We continue our active participation in the Inter-Agency Energy Management Task Force and the Inter-Agency Sustainability Working Group—both of which focus keenly on how agencies can achieve the goals of the new Executive Order and the newly enacted EISA 2007.

Challenges of the new EISA (2007)

The EISA 2007, set challenging goals for the Federal government, and for GSA. For the first time, it requires GSA to reduce consumption of fossil fuel-generated energy in new buildings and major renovations. For new designs, our target is to be 55% below comparable commercial buildings, which may be difficult to achieve using today's technology. Much more difficult is the goal of using 100 percent non-fossil fuel generated energy by 2030 in new buildings. We are working with a broad and diverse group of organizations both inside and outside the Federal community. This includes the Department of Energy (DOE), EPA, the Department of Defense, ASHRAE, the American Institute of Architects (AIA),

the Alliance to Save Energy, the Commercial Buildings Initiative, Congress, and others—to explore both technology and techniques for achieving the goals in a cost effective way.

Further support for GSA's greening efforts

GSA is a national leader in the purchase and use of renewable power from utility companies. In 2006, 4.5 percent of our electricity was generated from renewable sources or bought through renewable energy certificates, compared with the national average of 2.3 percent. If given the authority to extend our utility contracts from 10 to 20 years, in the proposed General Services Enhancement Act, we could achieve even more. Currently, GSA may enter into contracts for public utility services for ten years. However, renewable power plant developers often need an energy purchase contract of up to twenty years in order to finance and develop increased capacity. Without the authority to contract for energy from renewable energy providers for more than ten years, GSA is unable to benefit from the relatively inexpensive energy they would generate and unable to use the government's purchasing power to spur new renewable energy production. Our proposal currently before Congress would continue to allow GSA to enter into contract for public utility services for periods not more than 10 years, but the provision would also allow GSA to enter into contracts for renewable energy utility services for periods up to 20 years.

Conclusion

At GSA, we are leading by example in the areas of green building design, construction, and alterations; we have a well-established energy program, and numerous other programs in place that promote the efficient, green management and operation of our facilities. And we have a number of outstanding examples of our efforts right here in the Nation's Capital.

Thank you for the opportunity to talk about GSA's leadership role in this area. I look forward to working with the Subcommittee on this matter of vital interest to our country.

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