

Good Morning, everyone, and thank you, Jack.

Thank you, Nora, for inviting me to the launch of your website. EPA Region 2 is delighted to have been able to support the work of the Newman Real Estate Institute and the Building Performance lab and in particular the development of the Building Performance Toolkit.

Why is this work so important? Most people spend about 90% of their day indoors. Indoor air is about 5 times more polluted than ambient air. This poor air quality affects both the health and productivity of the buildings occupants.

Additionally, in the US, buildings account for approximately 39% of all energy used and 69% of electricity used.

They are also responsible for 12% of water used and 36% of non-industrial waste generated.

So, buildings have a pretty big environmental footprint that we all need to try and work on reducing.

At EPA, we are working from several fronts to try and promote buildings that use processes that are environmentally responsible and resource-efficient throughout the building's life-cycle - We don't believe that just because a building is energy efficient that it is green. We have programs that address all stages of a buildings life - from the siting and design of the building through the construction, operation, maintenance of it and then at the end of the buildings life when it is either renovated or deconstructed.

How are we doing this? Well, aside from the Partnership Programs that we all know about (Energy Star, Water Sense, Waste Wise) we have developed a set of national goals and objectives that are guiding our work.

***We are looking to Strengthen** the scientific, technical, economic and institutional foundations of green building.*

***We are also Engaging with** stakeholders and the public to facilitate the adoption of effective green building practices.*

***And we are also looking to Expand the** public's understanding of green building technologies.*

Over the last year or two we have really made some headway in meeting these goals.

Nationally we have, for example:

We developed a set of EPA green building recommended practices and piloted these practices in 4 communities (Stamford, CT; Boston, MA; Savannah, GA; Cleveland, OH)

We did not develop these practices to replace or overshadow existing standards, but rather to help guide us in our work.

We have used these building practices to help us strengthen some of our existing programs and influence a variety of standards and codes such as the International Green Construction Code, LEED, ASHRAE 189, the Sustainable Sites Initiative, National Association of Home Builders' National Green Building Standard, and ASTM standards, among others.

We launched a Greening State Capitals program (see: <http://www.epa.gov/smartgrowth/greencapitals.htm>) and a Green Historic preservation program (see: [http://www.epa.gov/smartgrowth/topics/historic\\_pres.htm](http://www.epa.gov/smartgrowth/topics/historic_pres.htm)).

We have also developed a Sustainable Design Toolkit for Local Governments.

And we have augmented the EPA's Retail Portal to address green building issues.

We developed guides on topics such as Energy Efficiency in Local Government Operations, in K-12 Schools, in Affordable Housing, and Energy-Efficient Product Procurement practices.

Conducted a Lifecycle study on the Environmental Impacts of Commercial & Residential Buildings.

We hosted a Sustainable Materials Management (SMM) Web Academy on Residential Buildings: An Evaluation of Waste Prevention Practices Using Lifecycle Analysis

We have also tried to push the market through competitions and challenges. Some of you might remember the NYC Green Building Competition that we co-hosted

with NYC DEP. We started this competition to look at impediments to building green in NYC.

While we are no longer hosting that competition, we have instead developed a national Life Cycle Building Challenge that is helping to facilitate local building materials reuse and encourage buildings that are designed for adaptability and disassembly. This challenge won a Harvard award for Innovation in government.

And

We are also in the middle of the annual Energy Star National Building Competition. There are 245 Buildings across the nation competing to see who can reduce their energy the most. Finalist will be picked and then a national winner will emerge. Last year a dormitory at the University of North Carolina Chapel Hill won the competition.

This year there are only 6 NYC buildings in the competition. They are 60 Wall Street, the Hospital for Joint Diseases, the New York Hospital in Queens, 230 Park Avenue, and Columbia University's School of Social Work, and their Woodbridge Dormitory.

The neat part of this Competition is that you can go to the Energy Star Battle of the Buildings webpage to track each buildings progress! It would be great if we could encourage more NYC buildings to enter the competition next year and show the world what great work we are doing in NYC.

In Region 2, we have also been working hard across programs.

- Most recently, we co-hosted a Green Historic Preservation Symposium (see <http://www.greenhistoricpreservation.org/>) – we believe that the most sustainable building is one that is not built from scratch, but is rather reused. The historic building stock also helps preserve the character of the communities they are built in. In the spring, we co-hosted a deconstruction workshop in New York. We are also looking to host a Green Buildings Research Symposium next spring.

- We are actively working with our counterparts on the HUD/DOT/EPA Sustainable Communities Initiative. Under this Initiative, EPA has provided technical assistance to various communities across the country. One of those communities is Syracuse where we have a pilot to help Syracuse understand the key principles and decisions at the location, site, and building levels that can result in a more sustainable plan or development proposal (see: [http://www.epa.gov/smartgrowth/sg\\_guidelines.htm](http://www.epa.gov/smartgrowth/sg_guidelines.htm)).
- Through our assistance agreements, we have promoted green building principles. For example, we are currently working in Bed Stuy, Brooklyn with Steven Winters and the Bedford Stuyvesant Restoration Corporation to develop a training module as part of an on-going workforce development training program. This new training module is on improving ventilation systems in older buildings in the community.
- We are working with Columbia University on a green roof research project. The support for this project is jointly shared between our Headquarters Office of Research and Development and the Region.
- Worked with also worked with our headquarters counterparts on installing a rain garden and a green parking lot in our Edison facility. This is one of the few facilities that EPA actually owns. We are using the parking lot and rain garden as a living lab so that we can monitor and conduct research in 4 areas. These are:

The volume, flow rates and stressor loadings of stormwater runoff

The infiltration rates of the different permeable surfaces and rain gardens

The functionality and performance of the permeable surfaces and rain gardens over time

And the potential heat island (temperature) reductions associated with this technology. We want to use this information to look at the related to climate change impacts from the parking lot.

You can learn more about this project on our Region 2 Parking Lot webpage (see <http://www.epa.gov/region02/sustainability/parking/index.html>). We plan on

updating this webpage relatively regularly so that you can see how the research is going.

- We have also worked with developers around the region to incorporate more sustainable construction, operation and maintenance practices into their projects through voluntary agreements called memorandums of understanding (MOU's). The MOUs include targets on improving energy and water efficiency, increasing recycling and reducing waste, incorporating the use of clean vehicles and fuels – especially in the construction phase, using environmentally-friendly building materials, maintenance products and landscaping practices.
- We currently have MOUs with groups such as Cushman and Wakefield, Hartz Mountain Industries, Rutgers University, the New Meadowlands Stadium, the New York Mets, and the North Shore-Long Island Jewish Health System among others.
- I want to end by saying that we have also tried to lead by example. In Region 2, this has taken several forms. We have tried to make our Edison NJ facility as green as possible through creative water management (collecting condensate) to installing a high efficiency HVAC system, solar tubes, and BIMFA certified furniture– this is no small feat given that most of the structures are old quanza huts.
- In our NYC facility we are an energy star benchmarked building, and we are in the process of working with GSA to install sub-meters on each floor. We are hoping to use the information from these meters to begin to benchmark are energy use.
- In both Edison and NY we use green cleaning products, have implemented an EMS, and are purchasing 100% renewable energy.
- Finally, we are in the process of constructing a LEED for CI certified space for our new office space in Puerto Rico.

We are doing a lot, but we need the help of our partners like the Building Performance lab. Our partners help get the word out about the tools we develop and they are able to take our research and policies and adopt them for local use.

If you are interested in finding out more about any of these projects, feel free to give me a call or you can check out our website at [www.epa.gov/greenbuilding](http://www.epa.gov/greenbuilding).