



## **Q&A with Valerie Neng: Retrofits Now Starting to Become Part of Language Used by MF Building Managers**

May 28, 2009

Valerie Neng, director of Housing & Community Development, joined WHEDCo in 2007. She leads WHEDCo's green building efforts, including programs for whole building health, tenant education, green property and asset management practices, and implementing a multi-year energy retrofit project. She also seeks new development opportunities in the South Bronx that align with WHEDCo's mission to provide beautiful, green and affordable housing. Prior to WHEDCo, Neng worked in several capacities at the NYC Department of Housing Preservation & Development (HPD), including project management and underwriting for multifamily new construction projects. Before entering public service, Neng was a researcher with consulting firm McKinsey & Company. She talks to MHN Online News Editor Anuradha Kher about benefits and challenges of retrofits, how they can help in job creation and increasing savings.

**MHN:** What are the benefits of conducting energy retrofits in existing buildings in New York City?

Neng: First, the benefits far outweigh the cost. This is partly because the benefits accrue not just to landlords, but to tenants and to the local and regional environment. For nonprofit affordable housing operators like WHEDCo, saving on energy and water bills means we can afford to continue to maintain our buildings, and provide healthy, low-cost homes for low-income and formerly homeless families. For our tenants, it means more to spend on necessities such as food and medical care. And for the city, it means we are creating less heat and less pollution. The urban heat island effect is a very real thing in the South Bronx. Asthma is widespread. Retrofitting existing buildings is one of the few ways to begin to address these larger problems.

**MHN:** What are the challenges and can they be overcome?

Neng: Raising capital is the biggest one. Through participation in a cutting edge state program - NYSEDA's Multi Family Performance Program - and through the generous support of private funders, we have been able to invest in new appliances, water saving fixtures, lighting, weather stripping and sealing penetrations in our 132-unit building. Now we are ready to move on to the

big-ticket items and must secure the capital. We need to replace our entire boiler system and, for maximum efficiency, we would like to install a combined heat and power system that recovers the building's thermal energy to heat hot water. Incentives exist, but they only cover part of the cost. The new system will pay for itself in less than five years. But nonprofits like WHEDCo, and many other landlords as well, will always be challenged to find the capital necessary to make these larger investments.

MHN: Can you provide examples, data, and an on-going case study showing the economic, as well as environmental, advantages of retrofits to tenants and building owners?

Neng: Good examples are surprisingly hard to find, partly because multifamily housing is bit late to the game when it comes to retrofits. The Empire State Building comes to mind as a more 'typical' retrofit example: it is commercial and highly visible. There's also a disproportional focus on new construction, considering how little of New York City's building stock is comprised of 'new' buildings. But retrofits are starting to become part of the language used by multifamily building managers. WHEDCo's Urban Horizons is undergoing a thorough energy efficiency retrofit. It is living proof that retrofits make economic and environmental sense. We are just now beginning to collect the data necessary to 'prove' the case, and this includes data from a sample of our tenants' utilities bills. So far we can show that our tenants' electricity bills are going down while the average bill in the rest of New York City is going up. This kind of benchmarking and data collection are labor intensive and not usually done by building managers, but they are important. Hopefully benchmarking will become the norm as retrofits become more widespread.

MHN: Can you quantify the savings that WHEDCo can help achieve?

Neng: We started the Urban Horizons retrofit a couple of years ago because energy costs were threatening the building's long-term economic sustainability. Instead of rising by 5 percent per year, as anticipated, building-wide energy costs have increased by double digits and were 21 percent higher than originally budgeted. The retrofit promises to reverse this trend. According to an energy audit and plan prepared by Steven Winter Associates, the Urban Horizons Retrofit, when it is complete, will save 4,150 MMBTU annually. It will reduce energy and water/sewer bills an estimated \$164,448 in the first year after completion, which corresponds to 28.1 percent of the current building energy and water/sewer annual expenses. For our low-income tenants, we found that just changing appliances and lighting, and sealing penetrations, has brought their electricity bills down 6.1 percent and brought their consumption down 12.9 percent.

MHN: What are the long-term benefits of energy retrofit in green-job creation, preservation of affordable housing and environmental sustainability?

Neng: There is great potential for retrofits to fuel green jobs, and we need to create those jobs for retrofits to become more widespread. In New York City, and I would imagine in other places as well, there is a dearth of skilled property managers, superintendents, energy efficiency auditors and consultants to work with landlords to accomplish a retrofit. We need training programs in building sciences, in high schools and for young adults, and for current building managers. There is a major learning curve to tackle as we try to green existing buildings, and we can tackle it through training and creating new jobs. If done with the right level of investment, this could have a terrific long-term economic impact. In terms of preserving affordable housing, nonprofit landlords like WHEDCo do not have the option of raising the rent and passing down the cost of inefficiency to our tenants (nor would we want to). Lowering costs is the only solution, and utilities cost is one of the precious few costs that can be decreased with smart investments. All

affordable housing operators should be retrofitting their buildings for energy efficiency.

Environmental sustainability: In New York City, buildings contribute 75 percent of all citywide carbon emissions, significantly more than cars. The city has called for fully one-third of New York City's planned carbon reduction to come from increasing the energy efficiency of buildings. In the environmental target year, 2030, 90 percent of the buildings standing will have been built well before environmental standards were in place. Therefore, the carbon reduction goal must be met largely by retrofitting existing buildings.

MHN: WHEDCo is in the second year of a three-year cellar-to-roof energy retrofit of its 85 year-old historic building adapted for reuse as low-income apartments in the Bronx. Can you elaborate on this?

Neng: WHEDCo created Urban Horizons through the 1997 gut rehabilitation and adaptive reuse of the Morrisania Hospital building. The Morrisania had been built in 1926 and served as one of the few public hospitals in the Bronx until it was shuttered in 1976. By the time WHEDCo began the gut rehab, it was a brownfield site requiring asbestos removal and major environmental clean up. We restored the intricate facade of the building to its former glory, and we created 132 apartments for low income and formerly homeless families. Many of the apartments have high, arched windows - - they're beautiful apartments with lots of light, but present a challenge for conserving energy. The building is also home to WHEDCo's 40,000 square foot economic development center. Between the historic architecture, adaptive reuse design (there are more than 50 different apartment types in the building), multiple uses, and tight budget, I think we're showing that if Urban Horizons can become energy efficient, so can any other multi-family building.

MHN: How many other projects is WHEDCo working on?

Neng: We recently completed construction on Intervale Green, the nation's largest, affordable multifamily high-rise Energy Star Certified building. It is home to 128 low income and formerly homeless families. Concurrently we developed the adjoining Louis Nine House, also with many green features. Louis Nine houses 46 youth aging out of foster care. In the coming years, we are hoping to develop artist housing: intergenerational affordable homes for both senior musicians and families, in a building that would include performance and rehearsal space, also in the South Bronx. We are also seeking out opportunities to preserve existing affordable housing by rescuing buildings from disrepair and retrofitting for energy efficiency.