

A first in the movement toward energy efficiency



Martin Luther King Apartments, Bronx, NY

1212 Martin Luther King (MLK) Apartments has a mission. The **state-of-the-art building**, located in the Bronx's Highbridge neighborhood, **provides affordable housing** to low-income working families, formerly homeless families and adults with developmental disabilities. But that's not all. **It's also a landmark of energy efficiency—leading the way as the first of 22 buildings in the nation to earn the ENERGY STAR® Multifamily High-Rise designation.**

Thanks to a coordinated effort from Dunn Development and local non-profit

Beulah HDFC, Inc., with key assistance from NYSERDA's Multifamily Performance Program (MPP) and MPP Partner Steven Winter Associates, Inc., 1212 MLK boasts an array of energy-efficient features. By making energy-conscious decisions during construction and incorporating select high efficiency equipment, **the team responsible for 1212 MLK created a marvel: a trailblazing high-rise building that proves energy efficiency and affordability can go hand in hand.**

About NYSERDA's Programs for Multifamily Buildings

New York State Energy Research and Development Authority (NYSERDA) offers a portfolio of programs and incentives for owners, facility managers, developers and condo/co-op boards of multifamily buildings with five or more units. Our initiatives make it easier to assess, fund, implement and measure energy efficiency upgrades that improve building performance and your bottom line.



Setting a new standard in affordable housing and high-rise construction

In co-developing 1212 MLK, socially conscious private developer Dunn Development and South Bronx-based non-profit Beulah HDFC, Inc. took on a daunting challenge. They planned for the building to set a new standard in affordable housing by combining high-performance design, durability, spaciousness and eye-catching allure. At the project's inception, no residential building in the United States had achieved the ENERGY STAR® Multifamily High-Rise rating. The co-developers planned for 1212 MLK to be the first.

Well-chosen solutions achieve important goals

Through NYSERDA's Multifamily Performance Program, the co-developers worked with Steven Winter Associates, Inc. to choose a suite of energy efficiency measures for 1212 MLK. The team set out to achieve the program's performance target of 20 percent energy savings relative to an equivalent building designed per ASHRAE 90.1-2004 standards.

The measures chosen included both conventional and custom components. Two 87 percent efficient, direct-vent natural gas boilers were used instead of the atmospheric boilers typically installed in multifamily buildings. The builders installed custom made, low-e, argon-filled aluminum frame windows with removable insulated panels that allow the installation of window air conditioners in the summer. The use of high-performance insulation and energy-efficient lighting also resulted in significant energy savings.

An accomplishment in energy efficiency performance and affordability

1212 MLK made good on its promise and achieved both its goals, an ENERGY STAR rating and affordable rent for its specialized target population. The construction of the building cost \$145 per square foot in hard costs, with only an additional \$3 per square foot to install the energy-efficiency measures. Through the Multifamily Performance Program, NYSERDA provided incentives that covered the bulk of this additional cost. The energy efficiency measures are expected to save the building owners and tenants a combined \$12,631 per year.

Background & Challenges

- Build an apartment building that is affordable, comfortable, attractive and energy-efficient
- Incorporate energy efficiency measures without a significant increase in building costs
- Achieve a 20 percent energy savings relative to a similar building built according to ASHRAE 90.1-2004 standards
- Become the first building in the U.S. to earn the ENERGY STAR® Multifamily High-Rise designation

Solution

- Highly efficient direct-vent natural gas boilers
- Custom made, low-e, argon-filled aluminum frame windows with removable insulated panels to accommodate air conditioners
- High-performance insulation and energy-efficient lighting

Benefits

- Energy efficiency measures cost only \$3 per square foot to install
- NYSERDA's Multifamily Performance Program incentives covered much of the additional cost
- Building owners and tenants expected to save combined \$12,631 per year
- The first of 22 buildings to earn ENERGY STAR® Multifamily High-Rise status

Developer/Owner	Dunn Development Corp.
Number of Units	54
Energy-Efficient Measures Cost	
Baseline Cost	\$174,601
As-Built Cost	\$328,845
Total Incremental Costs	\$154,244
Observed Energy Savings	
Annual Gas Savings	327 MMBtu
Annual Electricity Savings	51,066 kWh
Demand Savings	10.9 kW
Total Annual Savings	\$12,631
Gross Lifetime Savings	\$252,620
Simple Payback	12 years
Savings to Investment Ratio	1.22

The energy efficiency elements we incorporated at 1212 MLK Apartments will directly result in lower utility bills for the residents and for the building, and because they are easily replicable, will help contribute to the long-term viability of affordable housing in New York City.

—Martin Dunn, President, Dunn Development Corp.

▶ **Opportunity's knocking!** Call 1-877-NY-SMART or visit nyserdera.ny.gov/multifamily



Participate in NYSERDA's Multifamily Performance Program and take advantage of funding for whole-building energy assessments and low-cost financing for energy upgrades through Green Jobs – Green NY. Green Jobs – Green NY is a statewide effort to strengthen our communities through energy efficiency. It enables New Yorkers to make a significant difference in our homes, businesses and neighborhoods—making them more comfortable, more sustainable, and more economically sound. Green Jobs – Green NY is administered by NYSERDA and made available by the Green Jobs – Green New York Act of 2009.



About NYSERDA

New York State Energy Research and Development Authority (NYSERDA), a public benefit corporation, offers objective information and analysis, innovative programs, technical expertise and funding to help New Yorkers increase energy efficiency, save money, use renewable energy, and reduce their reliance on fossil fuels. NYSERDA professionals work to protect our environment and create clean-energy jobs. NYSERDA has been developing partnerships to advance innovative energy solutions in New York since 1975.