

**B**etter Buildings Residential Network case studies feature members to fulfill our mission to share best practices and learn from one another to increase the number of homes that are energy efficient. The [New York City Energy Efficiency Corporation](#) (NYCEEC) is a Residential Network member that focuses on financing energy efficiency and clean energy upgrades for multifamily and commercial buildings in the city and surrounding communities.\* NYCEEC offers flexible, innovative financing solutions for small and large energy efficiency and clean energy projects. NYCEEC works closely with incentive providers and financial partners such as the [New York State Energy Research and Development Authority](#) (NYSERDA), utilities, and financial institutions. Following are some of the key offerings and lessons learned by NYCEEC since it launched in 2011, as described by its Director of Business Development, Jay Merves:

### What is NYCEEC, and how is it funded?

In New York City, buildings account for nearly three-quarters of the greenhouse gas (GHG) emissions. NYCEEC is a nonprofit specialty finance company that develops financing solutions to enable projects that save energy or reduce GHGs. We started with funding from the American Recovery and Reinvestment Act (ARRA), which was designed to stimulate the economy following the recession of 2008; \$16.1 million came from DOE's "Formula Grant" program to New York City, and \$21.4 million came from the Better Buildings Neighborhood Program grant through NYSERDA. The \$37.5 million was used to set up an entity to finance energy efficiency and clean energy, and the capital we have to finance projects has since expanded via funding from commercial banks and philanthropic organizations.

### What makes it hard for New York's multifamily buildings to obtain financing for upgrades?

Almost every building has an existing mortgage, and the typical mortgage covers the building and fixtures. "Fixtures" tend to be things that are core to operating the building—HVAC, boilers, lighting, etc. Projects such as replacing a boiler don't always resonate with financial institutions outside the existing mortgage lending

\*DOE shares the items above as information, rather than endorsement.



### NYCEEC Multifamily Financing Accomplishments to Date

- ▶ **5,415 units** have been upgraded in **63** multifamily buildings covering **4.1 million** square feet
- ▶ **58%** of NYCEEC's finance portfolio by total project cost is multifamily
- ▶ **3,544,414 MMBtus** of source energy saved
- ▶ **353,909 MTCO<sub>2</sub>E** of greenhouse gas emissions avoided

structure, so we've been working with banks to better define what a fixture is and creating a structure where we can get the project financed, creating a more efficient building with stronger cash flows.

### What is your approach for identifying and financing projects?

We focus on getting building owners to understand the benefits of energy efficiency. We try to really understand our borrowers' needs to create a financing solution that meets the project's objectives—for example, bridging incentive payments to match milestones. In order to be good stewards of the money we were given, we have to be prudent in our investments. We cover all types of buildings, from affordable housing to high-end residential, and all kinds of upgrade projects, from lighting upgrades to cogeneration.

### Who are your financial partners?

We've partnered with traditional banks, affordable housing agencies, utilities, and NYSERDA to offer financing programs for energy efficiency. For example, we approached Bank of America because they're aligned with our program goals. We're also a NYSERDA Green Jobs, Green NY lender, meaning that our market-rate loan is blended with NYSERDA's low-interest loans, helping to reduce loan costs for our clients.

### How is NYCEEC different from other lenders and typical multifamily financing approaches?

Typically, multifamily rentals, condominiums, and co-ops have reserves or bank lines of credit to cover emergencies. They maintain a capital needs plan of projects that usually get funded when they refinance their mortgage. The problem is that energy efficiency measures are often viewed as more discretionary and may get dropped from the list. We're able to come in and take an investment—rather than expenditure—approach. We underwrite energy savings and can finance up to 100% of project costs, so that the building's cash flow can increase from day one of the energy savings project.

### What are some of your financing options for multifamily projects?

One unique thing we do as an energy efficiency lender is underwriting projected energy savings, enabling us to better meet our borrowers' needs and provide larger loans to finance 100% of project costs. We've also financed the construction of "passive house" and high-performance buildings. Our financing covers hard and soft project costs—equipment, energy assessments, and upgrades. On average, loans are financed at a rate of 6% to 7.5% over an average term of 5 to 7 years. We can provide loans as small as \$50,000 and as much as \$6 million.

### Describe some of your successful projects.

NYCEEC works with building owners to determine what works best for them. Here are some of the typical variables and objectives they want to achieve:

- ▶ Small initial cash outlay (usually \$0)



#### Morris Avenue At-A-Glance

**Building:** 49,000 sf affordable multifamily, 54 units

**Upgrades:** Heavy heating oil-to-natural-gas conversion, separation of domestic hot water, high-efficiency boilers, controls, wireless building management system

**Loan Amount:** \$150,900 over five years

**Projected Savings:** \$32,000/year, 30% GHG reduction

- ▶ Maintain building reserves
- ▶ Avoid increased monthly charges or special assessments to residents
- ▶ Positive cashflow - utility cost savings exceeding loan payments

On Morris Avenue in the Bronx, we had a smaller building that needed better, more reliable HVAC equipment, and it really needed a tailored approach. There were a lot of legal issues to be addressed, and the legal costs alone could have overrun the project. We were able to offer a small direct loan product with minimal paperwork. This approach allowed the building owners to capitalize interest during construction, and payment didn't begin until the energy savings kicked in.

In the Kip's Bay neighborhood of Manhattan, a large co-op came to us with a challenge. They had nearly everything lined up for a large energy efficiency and cogeneration

### Kip's Bay At-A-Glance

**Building:** 20-story multifamily co-op, 388 units

**Upgrades:** 750-kW cogen, absorption chiller, submetering

**Loan Amount:** \$3 million over nine years

**Projected Savings:** \$400,000/year, 38% less source energy, 36% GHG reduction

investment, but project funding was a sticking point. The co-op wanted to maintain its reserves, preserve its credit line capacity, and avoid assessing residents. But its mortgage had restrictive covenants that precluded borrowing to fund the project. We worked to educate the co-op's lender about the value of the improvements and secured its consent to the project. We also developed standardized documents and a streamlined approval process for this high-volume New York City mortgage lender, so that the next property to face this mortgage consent barrier will now have a ready solution.

Ultimately, NYCEEC helped the building meet three key objectives:

- ▶ A small amount of money was needed upfront, which preserved reserves.
- ▶ The co-op didn't have to make payments until the project was complete (with capitalized interest).
- ▶ NYCEEC lent the money in increments—so interest didn't accrue on the whole project right away.

### What are some of the lessons you have learned about financing multifamily projects?

- ▶ **Understand your local market.** Walk the neighborhoods and get to know the origins of the buildings in them, so you can determine which buildings are more viable for energy investments.
- ▶ **Do a little detective work.** Look for clues that an owner is not serious about upgrades or not properly operating the building, like safety violations or issues with the state on financial matters.

- ▶ **Educate lenders.** Strategic modifications to mainstream lenders' "business-as-usual" lending practices are key to advancing energy efficiency investments.
- ▶ **Patience is key.** Everything takes longer than you expect, whether it's getting the building owner to say yes, getting approvals from other lenders, or any kind of paperwork.

### What trends do you see on the horizon for multifamily energy efficiency?

New York City has progressive green buildings legislation that includes required benchmarking, assessments, and retro-commissioning for buildings over 50,000 square feet. We're still waiting to see how this will catalyze the market, but more cities across the United States are adopting similar policies that hopefully will continue to advance energy efficiency.

We've used the New York City benchmarking data to create a free, data-informed energy savings calculator for large multifamily buildings in the city, called the [NYCEEC efficienSEE™ Calculator](#). This provides building owners with a quick snapshot into their building's energy savings based on cost-effective improvements. With the growing amount of data available across cities, we think building owners should be able to make better-informed decisions, driving further investment in energy efficiency.



For more information about the Residential Network and membership, visit the [Residential Network website](#) or email us at [bbresidentialnetwork@ee.doe.gov](mailto:bbresidentialnetwork@ee.doe.gov).