

Building Bridges to Net Zero



# Stimulating Investment in Energy Efficiency and Clean Energy

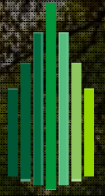
Chris Diamond



Stimulating Investment in Energy  
Efficiency and Clean Energy

October 28, 2015

## ABOUT NYCEEC



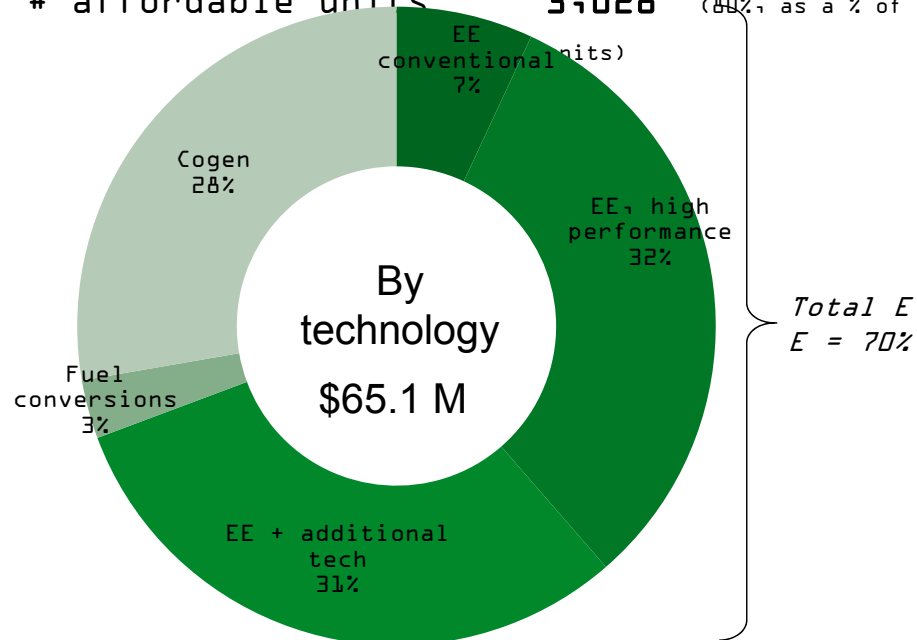
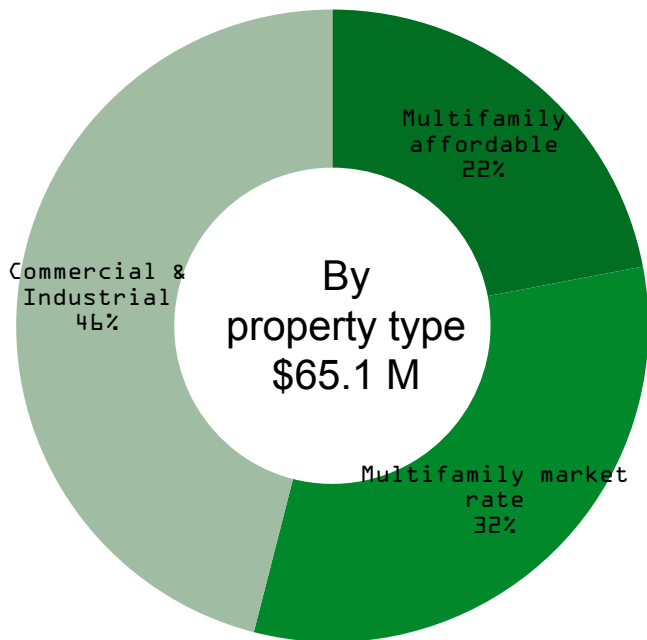
- Established in 2011, NYCEEC is a non-profit specialty finance company that develops financing solutions for projects that save energy or reduce greenhouse gases
- NYCEEC provides loans and technical expertise to make NYC buildings cleaner, greener and more affordable
- NYCEEC was initially funded and supported by the US Department of Energy, City of New York and private philanthropic foundations
- NYCEEC is partnered with the City to provide financing across many of its initiatives, including the Retrofit Accelerator for buildings greater than 50KSF and the NYC HPD Green Housing Preservation Program (GHPP) for buildings with 5-50 units.

# NYCEEC PORTFOLIO: SOCIAL & ENVIRONMENTAL METRICS

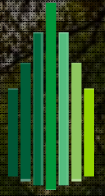


Total project cost financed	\$65 million	CO <sub>2</sub> e eliminated (tons)	525,907
Square footage	4.2 million	Energy saved (mmBTUs)	17.2 million
# of MF units	3,785	PM 2.5 (lbs)	8,327
# of buildings	51	# of jobs	708

# affordable units **3,028** (80% as a % of MF units)

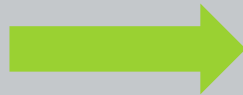


# LOANS FOR CLEAN ENERGY PROJECTS



NYCEEC provides financing for a broad range of projects, including:

## Energy Efficiency



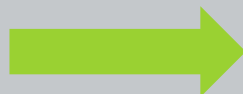
- HVAC equipment upgrades
- Lighting upgrades
- Building management systems
- Controls

## Clean Fuel Conversion



- Converting from dirty oil to cleaner alternatives

## Renewables



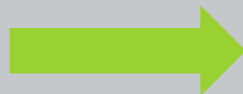
- Solar PV
- Solar thermal

## Cogeneration



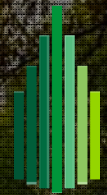
- Combined heat power (CHP)
- Fuel cells

## Demand Response



- Demand response enablement
- Battery storage

# NYCEEC LOAN BENEFITS



## Up to \$6 million for clean energy projects

- Up to 100% upfront equipment costs
- Finance costs not covered by incentives
- Construction costs
- Soft costs (energy surveys)

## Technical guidance

- Clean energy project analysis
- Engineering quality assurance
- Performance evaluation

## Flexible loan structure

- Interest-only loans
- Multiple draws
- Capitalized interest
- Partners with all incentive providers
- Generally no additional requirements above the incentive programs

# DIRECT LENDING: POTENTIAL PROJECTS

Borrowers can be building owners, vendors and project developers

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Property types including:



**Commercial buildings**  
(office, retail, hospitality, etc.)



**Healthcare & educational Facilities**  
(universities, K-12, non-profit and religious facilities)

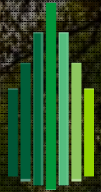


**Multifamily**  
(co-op, condo, rentals, over 5 units)



**Ineligible:**  
municipal buildings and single family

# INDICATIVE PROGRAM TERMS



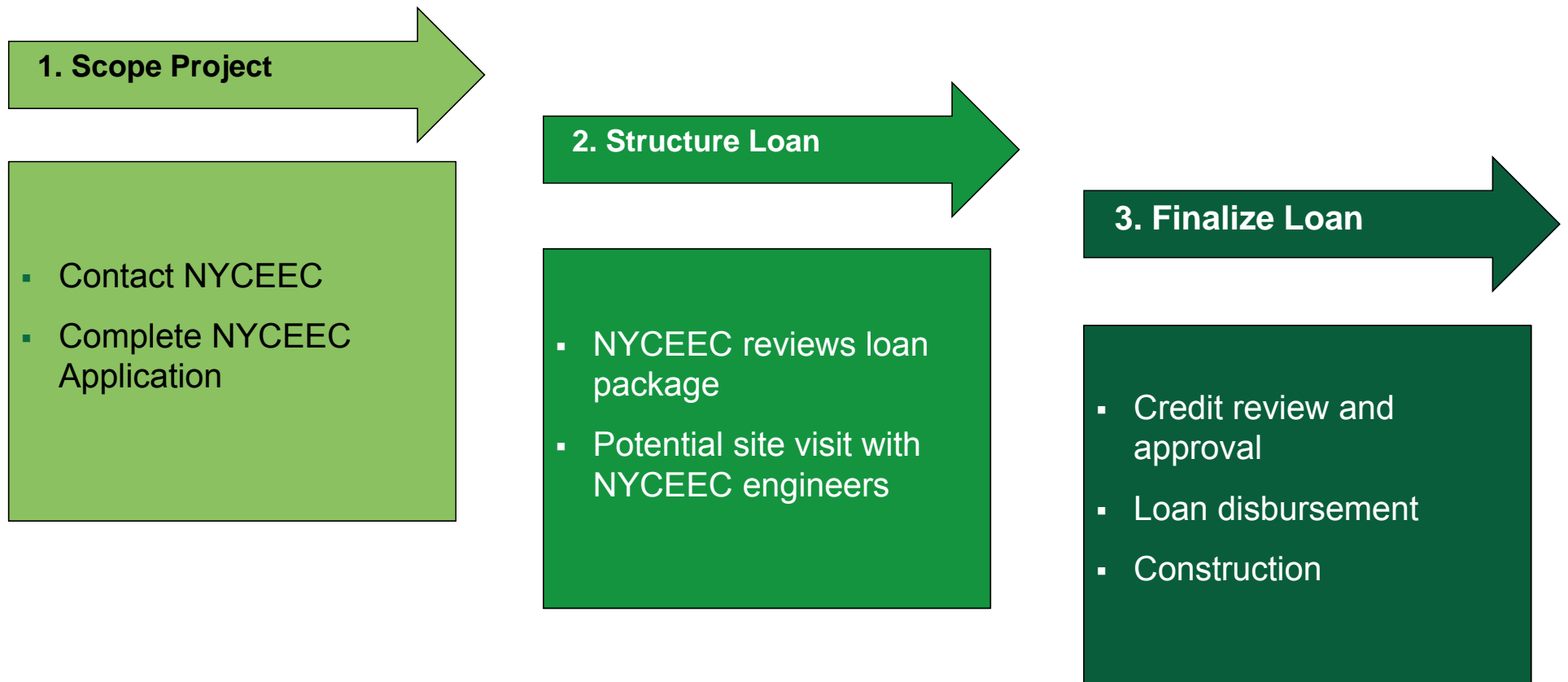
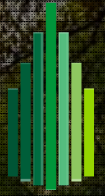
- Flexible financing solutions to meet borrowers' needs

<b>Loan to cost</b>	Up to 100% of project costs
<b>Loan size</b>	Minimum \$30,000; maximum \$6,000,000
<b>Term</b>	3 to 10 years (Average: 5-7 years)
<b>Average Interest Rate</b>	6-7.5%
<b>Amortization</b>	Fully amortizing loans over term of the loan

- Deals can be closed within 3-6 weeks
- Financing is subject to final credit approval

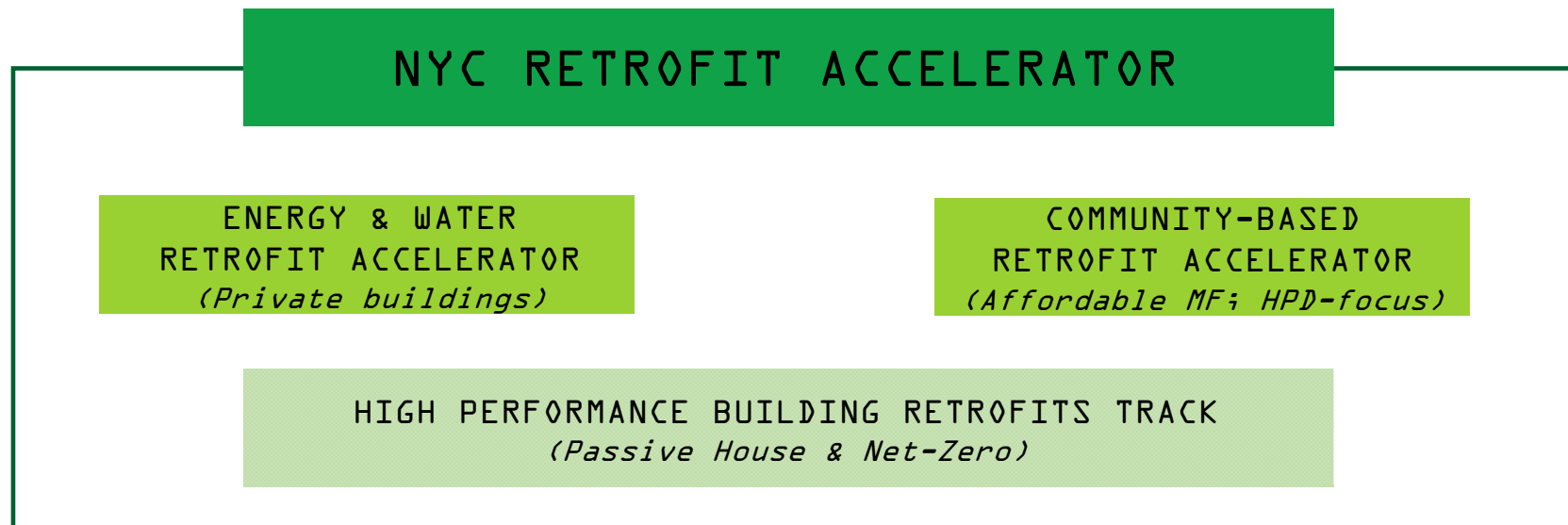


# LOAN PROCESS



# NYC RETROFIT ACCELERATOR

- City has launched the Retrofit Accelerator (“Accelerator”): innovative program that combines market integration, outreach and technical assistance to accelerate energy efficiency, water conservation and clean energy retrofits
  - Key component of *One City Built to Last*, Mayor de Blasio’s comprehensive green buildings plan to reduce NYC’s greenhouse emissions by 80% by 2050
  - Based on highly successful NYC Clean Heat platform
  - Aligns City and State resources and climate goals



# GREEN HOUSING PRESERVATION PROGRAM

NYC Department of Housing Preservation and Development (HPD) launched a green loan program for small to mid sized building owners (5-50 units)

- GHPP provides forgivable and no-interest loans for energy and water efficiency improvements.
- Low-interest loans for moderate rehabilitations.
- Eligibility based on building entering into affordable housing regulatory agreement with the City

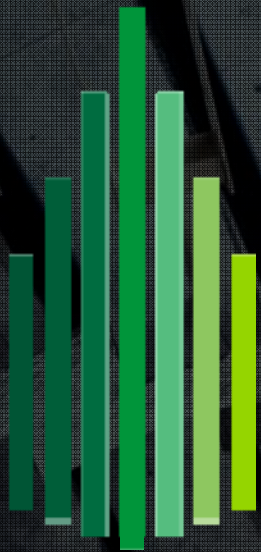
## NYCEEC Pre-Development Loan

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In partnership with HPD, NYCEEC funds expenses associated with GHPP

- Green physical needs assessment
- Property appraisals and surveys
- Lead and asbestos testing
- Engineering studies

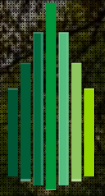
NYCEEC can finance up to \$40,000 in predevelopment expenses for up to 12 months



DEAL SPOTLIGHTS



# ROOSEVELT LANDINGS



## BY THE NUMBERS

**\$7.4 million**

EE + COGEN PROJECT

**\$5 million**

NYCEEC LOAN

**\$818,000**

PROJECTED ANNUAL  
COST SAVINGS

**18%**

PROJECTED ENERGY  
SAVINGS

## THE CLIENT CHALLENGE

Roosevelt Landings wanted to upgrade outdated systems and improve the complex's resiliency.

The project's technical complexity and long payback meant that traditional loans were not available.

## OVERVIEW & THE NYCEEC SOLUTION

Roosevelt Landings is a mixed-income multifamily complex, consisting of 9 buildings and over 1,000 multifamily dwellings.

NYCEEC's expertise was key to structuring a financing strategy that made sense for Roosevelt Landings and unlocked significant energy efficiency investment potential.

NYCEEC provided a \$5 million loan under a combined energy services agreement and power purchase agreement structure to fund energy efficiency measures and cogeneration.

## THE RESULTS

- Construction began with no upfront costs
- Energy cost savings used to repay loan
- Pioneering use of ESA to finance EE in multifamily sector
- Largest multifamily air sealing project project to date
- Improvements: Cogeneration, whole-building air sealing, floor slab insulation, networked programmable thermostats and high-efficiency boilers



# PASSIVE HOUSE: NEW CONSTRUCTION



## BY THE NUMBERS

**\$5.9 million**

EE PROJECT

**\$2.9 million**

NYCEEC LOAN

**62%**

PROJECTED  
ENERGY SAVINGS

## THE CLIENT CHALLENGE

The real estate developer sought flexible mortgage financing that could accommodate the construction schedule and needs of a highly energy efficient buildout.

## OVERVIEW & THE NYCEEC SOLUTION

NYCEEC partnered with BuildForward Capital and real estate developer Urban Artisan to finance the first Passive House condominium in Manhattan. The project is a 6-unit condominium in Harlem.

NYCEEC is the lead lender, providing a \$2.9 million mortgage to cover construction costs.

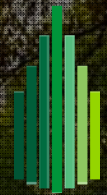
NYCEEC's loan enabled the construction of a new building efficiency standard. Passive House is a voluntary international building standard that results in approximately 90% reduction in heating and cooling energy use and up to a 75% reduction in total energy use compared to current code-compliant building practices.

## THE RESULTS

- First Passive House project in Manhattan
- Significant energy cost savings
- Cost-efficient funding for highly energy efficient and innovative new construction project
- Improvements: New construction, ultra-low energy building built to Passive House standards



# RIVER ARTS



## BY THE NUMBERS

**\$350,000**

EE + FUEL CONVERSION PROJECT

**\$350,000**

NYCEEC LOAN

**46%**

PROJECTED GHG REDUCTION

**\$80,000**

PROJECTED ANNUAL COST SAVINGS

## THE CLIENT CHALLENGE

River Arts wanted to convert to natural gas to save money and comply with Local Law 43.

The co-op needed rapid access to financing to join the 158th street natural gas cluster in order to take advantage of the no cost gas connection from ConEd.

## OVERVIEW & THE NYCEEC SOLUTION

River Arts is a 244 unit co-op overlooking the Hudson River on Riverside Drive in Lower Washington Heights.

NYCEEC is financing 100% of the project costs by providing a \$350,000 loan. NYCEEC quickly turned around a loan for the co-op, enabling it to join the natural gas cluster and receive a no cost gas connection from ConEd.

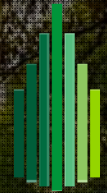
In addition, NYCEEC is financing the co-op's Local Law 87 audit and retrocommissioning report and new building management system.

## THE RESULTS

- New in-unit sensors will improve tenant comfort
- Comply with Local Law 43: Clean Heat
- Comply with Local Law 87: Audits and Retro-commissioning
- Energy cost savings used to repay loan
- Significant greenhouse gas reduction
- Improvements: Heavy #6 oil to natural gas conversion, in-unit sensors



# FRANKLIN PLAZA



## BY THE NUMBERS

**\$3.8 million**

EE + FUEL CONVERSION  
PROJECT

**\$285,000**

NYCEEC  
CREDIT ENHANCEMENT

**\$2.2 million**

PROJECTED ANNUAL  
COST SAVINGS

**37%**

PROJECTED  
GHG REDUCTION

## THE CLIENT CHALLENGE

Franklin Plaza was enthusiastic about the significant opportunity to save money through energy efficiency upgrades, but lacked the technical expertise and financial resources to make it happen.

Franklin Plaza was in the process of refinancing its mortgage with the NYC HDC.

## OVERVIEW & THE NYCEEC SOLUTION

Built in 1960, Franklin Plaza is an affordable multifamily co-op in East Harlem with 14 20-story buildings and 1,632 units.

Franklin Plaza sought a green mortgage from HDC's and NYCEEC's Program for Energy Retrofit Loans (PERL). Through PERL, Franklin Plaza received an additional \$2 million specifically for energy upgrades, as part of a larger \$36.7 million renovation and refinancing.

NYCEEC provided the co-op with technical assistance, helping them prioritize the energy efficiency upgrades that would modernize the facility and help keep apartments affordable.

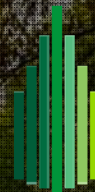
## THE RESULTS

- Co-op included energy upgrades as part of larger capital project
- Preserved affordability and improved building comfort
- Substantially modernized facility and upgraded building systems
- Unlocked additional \$1.8 million loan from NYC HPD
- Improvements: #6 oil to natural gas conversion, separation of heat and hot water systems, elimination of wasteful steam pipe, steam distribution improvement





# CUBIT POWER SYSTEMS



## BY THE NUMBERS

**\$14.4 million**

COGENERATION  
PROJECT

**\$6.3 million**

NYCEEC LOAN

**12%**

PROJECTED  
GHG REDUCTION

**34%**

PROJECTED  
ENERGY SAVINGS

## THE CLIENT CHALLENGE

Cubit Power Systems sought flexible, cost-effective financing that could match the cogeneration project's construction schedule and bridge the timing of incentive payments.

## OVERVIEW & THE NYCEEC SOLUTION

Cubit Power Systems sought financing to build and operate a cogeneration plant at a new manufacturing plant in Staten Island.

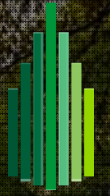
The cogeneration plant will maximize the production of electricity to sell to the grid and, secondly, maximize the use of waste heat for on-site manufacturing purposes.

NYCEEC provided a \$6.3 million loan to fund the construction and operation of the cogeneration project. Income from energy produced will repay the loan.

## THE RESULTS

- Highly energy- and cost-efficient manufacturing plant
- Projected 34% energy use reduction
- Significant GHG reduction compared to traditional manufacturing processes
- Income from energy produced will repay the loan
- Improvements: Cogeneration plant

# SUMMARY



*NYCEEC provides innovative **financing solutions** and **technical expertise** to help NYC building owners save money and transform their properties into **cleaner, greener and more affordable buildings.***

- **Flexible** → Offer a variety of custom financing solutions
- **Nimble** → Can close deals within 3 to 6 weeks
- **Innovative** → Engineers on staff provide technical support

CONTACT US.



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