# **Case Study: Boiler Replacement**

Customer 250 West 103rd St.

Contractor **Dual Fuel** 

Location

Manhattan, NY

#### **Overview**

When property managers at 250 West 103rd Street in Manhattan needed to address complaints about uneven heating from their 20-year-old boiler, they turned to Dual Fuel, an integrated service provider and leader in energy-efficient solutions.

Incentives from Con Edison reduced the cost of the new boiler by 25%. The incentive was critical in helping Dual Fuel win the project bid and also make other updates like new piping and a burner replacement, while passing significant savings along to the building owners.

These upgrades have helped make the building more comfortable and energy efficient for tenants.

#### **Highlights**

Total project cost: \$100,000	Efficiency: Et or AFUE 82%	Con Edison incentive payment: \$25,104
Building lot size:	Building square footage:	Building details:  • 14 floors
7,266 sq. ft.	77,465 sq. ft.	<ul><li>80 units</li><li>Built in 1920</li></ul>

#### **Testimonials**

"Partnering with Con Edison to offset some upfront costs with rebates was extremely helpful in installing the projects and improving hundreds of buildings' heating systems."

-Steven Schwarzbaum, President, Dual Fuel Corp

"Dual Fuel was genuinely interested in fuel efficiency and employed the latest technology. And thanks to the Con Edison incentive, they were able to install an efficient steam boiler that improved the heating system's efficiency."

-Andrew Clateman, Property Manager, 250 West 103rd St.

# **Case Study: Boiler Replacement**

Customer 250 West 103rd St.

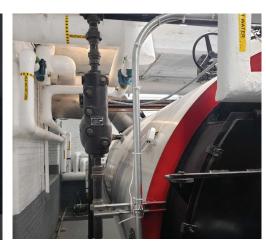
Contractor **Dual Fuel** 

Location

Manhattan, NY







#### Find out how much you can save on a boiler upgrade:

	Boiler MBH	Average Incentive*	Average Total Project Cost
	1-2,000	\$17,400	\$51,800
Condensing Hot Water Boilers	2,001-3,000	\$72,000	\$306,700
	3,001-4,000	\$56,000	\$133,300
High-Efficiency Hot Water Boilers	1-1,000	\$6,400	\$188,000
	1,001-2,000	\$23,800	\$342,200
	2,001-3,000	\$36,000	\$1,673,800
	1-5,000	\$16,800	\$93,800
Steam Boilers	5,001-10,000	\$53,900	\$156,600
	10,001-17,000	\$152,300	\$567,300

<sup>\*</sup>Contact us for current incentives

#### Lower costs and make your building more efficient with incentives available for:

- Heating & Cooling
- Wi-Fi Thermostats
- Air-Source Heat Pumps
- Air Sealing Measures
- Energy Management Systems
- Storage Tank Water Heaters
- High-Efficiency Hot Water Boilers
- Steam Radiators
- Lighting Controls
- LED Lighting

- Faucet Aerators
- Showerheads
- Pipe Insulation
- Master Air Vents

# Case Study: Elevator Modernization

Customer

Lincoln Towers at 170 West End Avenue

Contractor

NY Building Systems

Location

Manhattan, NY

#### **Overview**

Lincoln Towers is a 30-story complex with more than 480 apartments in Manhattan's Lincoln Square neighborhood.

During an energy audit to comply with **Local Law 87**, property managers learned that switching the elevators from direct current (DC) to alternating current (AC) would help cut down on noise and maintenance, and make the building more energy efficient.

NY Building Systems, a comprehensive engineering and energy consulting firm, replaced four motor-generators with AC motors featuring variable speed drives and regeneration. This one upgrade resulted in 63.5 kW of demand savings and 482,267 kWh of electricity savings.

The project also reduced carbon emissions to help Lincoln Towers comply with **Local Law 97**.

Incentives from Con Edison cut the project costs in half.

### Highlights

Total Project Cost:

\$347,200

Total Incentive Savings:\*

\$173,600

Total Incentive Savings:

\$173,600

Total Incentive Savings:

\$173,600

Electric Savings:

482,300 kWh

Market rate = \$0.25 per kwh

Affordable housing = \$0.35 per kwh

\*The incentive rate for this project was calculated using 2019 rates

#### **Testimonials**

"The project was done professionally and fast, thanks to Con Edison's rebates and NY Building Systems' work."

-Boris Elyukin, Resident Manager, 170 West End Ave.

"The huge Con Edison incentives that covered 50% of the cost helped us complete the project to reduce the building's CO<sub>2</sub>, in compliance with Local Law 97."

Md Aminul Islam, PE, CEM, EBCP,
 President/CEO, NY Building Systems Consultant Inc.

## **Case Study: Elevator Modernization**

Customer
Lincoln Towers at 170 West End Avenue

Contractor
NY Building Systems

Location

Manhattan, NY







**Old Elevator** 

**New Elevator** 

#### Ways You Can Save:

This elevator modernization project is just one example of Con Edison's energy efficiency incentives that make it possible for multifamily buildings to make critical, money-saving improvements. Using Con Edison's easy online guide, owners and property managers can identify areas in their buildings where it may be possible to make upgrades.

#### **Additional Upgrades:**

Incentives from Con Edison made it possible for Lincoln Towers to complete other upgrades for even more savings.

Project	Contractor	Energy Savings	Incentive	Total Project Cost
In-Unit Lighting Upgrades	Association for Energy Affordability	2.47 kW and 33,215.27 kWh	100% of costs covered	\$0
Variable Frequency Drive	Rains Energy	0.98 kW and 36,680 kWh	\$7,349	\$23,000
Common Area Lighting	Argon Electric	13.94 kW and 74,517.36 kWh	\$31,978	\$67,617

#### **Incentives Available For:**

- Heating & Cooling
- Air-Source Heat Pumps
- Air Sealing Measures
- Energy Management Systems
- Storage Tank Water Heaters
- High-Efficiency Hot Water Boilers
- Heating Distribution
- Lighting Controls
- LED Lighting
- Faucet Aerators

- Showerheads
- Pipe Insulation
- Master Air Vents

# Case Study: Exhaust Fans Retrofit

Customer **LeFrak City** 

Contractor **DVM Industries** 

Location

Queens, NY

#### **Overview**

When property managers at LeFrak City, a 20-building development with 4,605 apartments in Queens, NY, wanted to lower energy costs and update their exhaust fans, they turned to Con Edison's Energy Efficiency Program.

Incentives from Con Edison helped **lower the cost** of the project by \$510,000 and allowed them to retrofit 400 rooftop exhaust fans with upgraded electronically commutated motors across all 20 buildings. This was critical in decreasing the payback and increasing the return on investment to offset additional budget costs.

DVM Industries upgraded roof exhaust fans with new motors to remove heat, odors, and contaminants, improve air quality, and make tenants more comfortable. Since roof exhaust fans run continuously, upgrading them with electronically commutated motors reduced energy use and costs.

After the upgrades were installed, TBL Building Sciences performed an energy savings test on one unit. The test showed a remarkable **68% reduction of input amperage**, dropping from a previous average of 3.57 amps down to 1.14 amps.

### **Highlights**

Total motors: 400	Buildings: 20	Total Annual KWh Savings: 850,000 kWh	Annual Energy Savings: \$153,000
HVAC-Specific Incentives: \$0.60 per kWh*		Total Incentive Savings: \$510,000	Net Project Cost: \$300,000

<sup>\*</sup>Affordable Housing incentive of \$0.75 per kWh also available

#### **Testimonials**

"This project was a major undertaking with significant benefits to our community and our bottom line. We're extremely grateful to have Con Edison's partnership and incentives to help guide the project to the finish line."

-James Justice, Vice President, DVM Industries

"We're happy we partnered with Con Edison to upgrade 400 ventilation systems with smart technology to boost indoor air quality and energy efficiency. This will benefit close to 4,600 apartments and help us continue creating sustainable and healthy communities."

-Mario Gaztambide, Senior Managing Director, LeFrak City

# Case Study: Exhaust Fans Retrofit

Customer **LeFrak City** 

Contractor **DVM Industries** 

Location

Queens, NY







#### **Ways You Can Save:**

This electronically commutated motor rooftop fan retrofit is just one example of Con Edison's energy efficiency incentives that make it possible for multifamily buildings to make critical, money-saving improvements. Using Con Edison's easy online guide, owners and property managers can identify areas in their buildings where it may be possible to make upgrades.

#### **Incentives Available For:**

- Heating & Cooling
- Air-Source Heat Pumps
- Air Sealing Measures
- Energy Management Systems
- Storage Tank Water Heaters
- High-Efficiency Hot Water Boilers
- Heating Distribution
- Lighting Controls
- LED Lighting
- Faucet Aerators

- Showerheads
- Pipe Insulation
- Master Air Vents

# Case Study: Pipe Insulation

Customer

The Parkchester South Condominium

Contractor **Thermaxx** 

Location
The Bronx, NY

#### **Overview**

The Parkchester South Condominium was in a situation familiar to many multi-family buildings: its property managers were looking for new ways to save money by reducing the building's energy costs. Among all the options they considered, one company and one solution stood out–insulation jackets from Thermaxx for all of their pipes and valves. Not only was the Thermaxx team able to show the savings potential by implementing their technology, they were also able to utilize Con Edison program incentives and pass the savings back to the property owners.

In fact, the combined incentives added up to a \$14 rebate for each linear foot of pipe covered in a Thermaxx insulation jacket. Since the project involved wrapping more than 3,500 linear feet of pipe with 700 Thermaxx jackets, those numbers added up quickly. Thermaxx was also able to factor the incentives into their project estimate, so the Parkchester South building owners knew how much they stood to save before work even started.

In all, Con Edison's incentives covered 70% of the total project cost. After work was completed, The Parkchester South instantly started seeing reduced energy costs and significant savings, as well as a measurable reduction in CO<sub>2</sub> greenhouse gas emissions. They estimate their investment will pay for itself within three months.

#### **Savings**

Total project cost:	Con Edison incentive payment:	Custom Thermaxx jackets:
\$864,000	\$604,800*	700
Payback period:	CO <sub>2</sub> greenhouse emissions reduction (metric tons per year):	Incentives: \$14/linear ft. of piping**
3 Months 1,591		\$4/therm for tank jackets

<sup>\*</sup>Incentives capped at 70% of project cost

#### **Testimonials**

# "Con Edison's incentives gave us major savings."

-Joseph Tortorelli Jr., Chief Engineer, Parkchester South Condominium

"This was a huge undertaking, with over 20 buildings full of pipes, valves, and tanks needing insulation. Our assessment showed how our custom insulation jackets could improve Parkchester South's energy efficiency, as well as how Con Edison's incentives could save them money."

-Suzanne Rowe Barrett, VP of Sales, Thermaxx, LLC

<sup>\*\*</sup>Affordable housing eligible for enhanced incentives of \$15 per linear ft.



# Case Study: Pipe Insulation

Customer

The Parkchester South Condominium

Contractor **Thermaxx** 

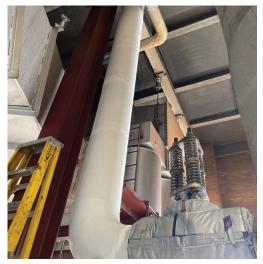
Location
The Bronx, NY

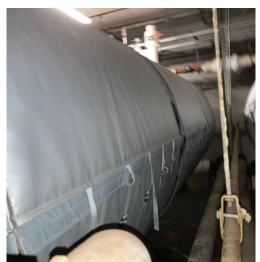












#### Make your building smarter and lower costs with incentives for:

- Heating & Cooling
- Wi-Fi Thermostats
- Air-Source Heat Pumps
- Air Sealing Measures
- Energy Management Systems
- Storage Tank Water Heaters
- High-Efficiency Hot Water Boilers
- Steam Radiators
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