



NYSERDA Empire Building Challenge

Lincoln Square Condominium

April 2024



◀ FirstService RESIDENTIAL

- Founded in 1983
- Leading residential management company in North America
 - 9K properties | 1.8M+ units under management
- Largest third-party manager in New York
 - 800+ properties | 100K+ units | 1.67B SF
 - Portfolio includes condominiums, cooperatives, and multifamily rental properties
- Our mission is to enhance the value of every property and the life of every resident



2023 Recognition

- SiteCompli Organization of the Year
- Accredited Management Organization of the Year by the Greater New York Chapter of IREM®
- Designated Certified™ Great Place to Work®



FirstService Residential's Energy Management Advisory

- Established in 2008
 - Mission: Enhance our property management business by leading our clients to reduce energy and water consumption, costs, and emissions
 - Trusted, in-house energy advisor for our managed properties
 - Data analysis and reporting – combining onsite mechanical system diagnostics, historical energy usage analysis, weather normalization, building typology analysis, and rates modeling – allows us to identify efficiency opportunities
- | | |
|---------------------------------|-------------------------------|
| – Personalized energy advisory | – Data analysis and reporting |
| – Regulatory compliance support | – Incentive capitalization |
| – Commodity energy purchasing | – Education and training |

Management Portfolio Sampling



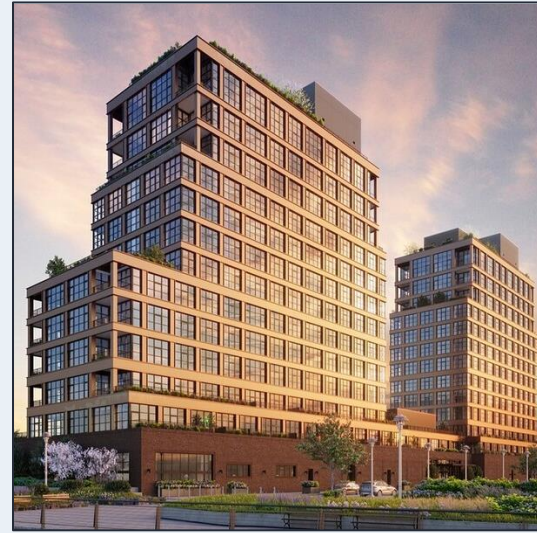
One Wall Street
Manhattan, 566 Units



Claremont Hall
Manhattan, 165 Units



393 West End Ave.
Manhattan, 75 Units



The Huron
Brooklyn, 171 Units



555 Waverly Ave.
Brooklyn, 190 Units



Woodside Central
Queens, 295 Units



2 Tudor City Place
Manhattan, 334 Units



The Plaza Residences
Manhattan, 181 Units



The Chrystie
Manhattan, 361 Units



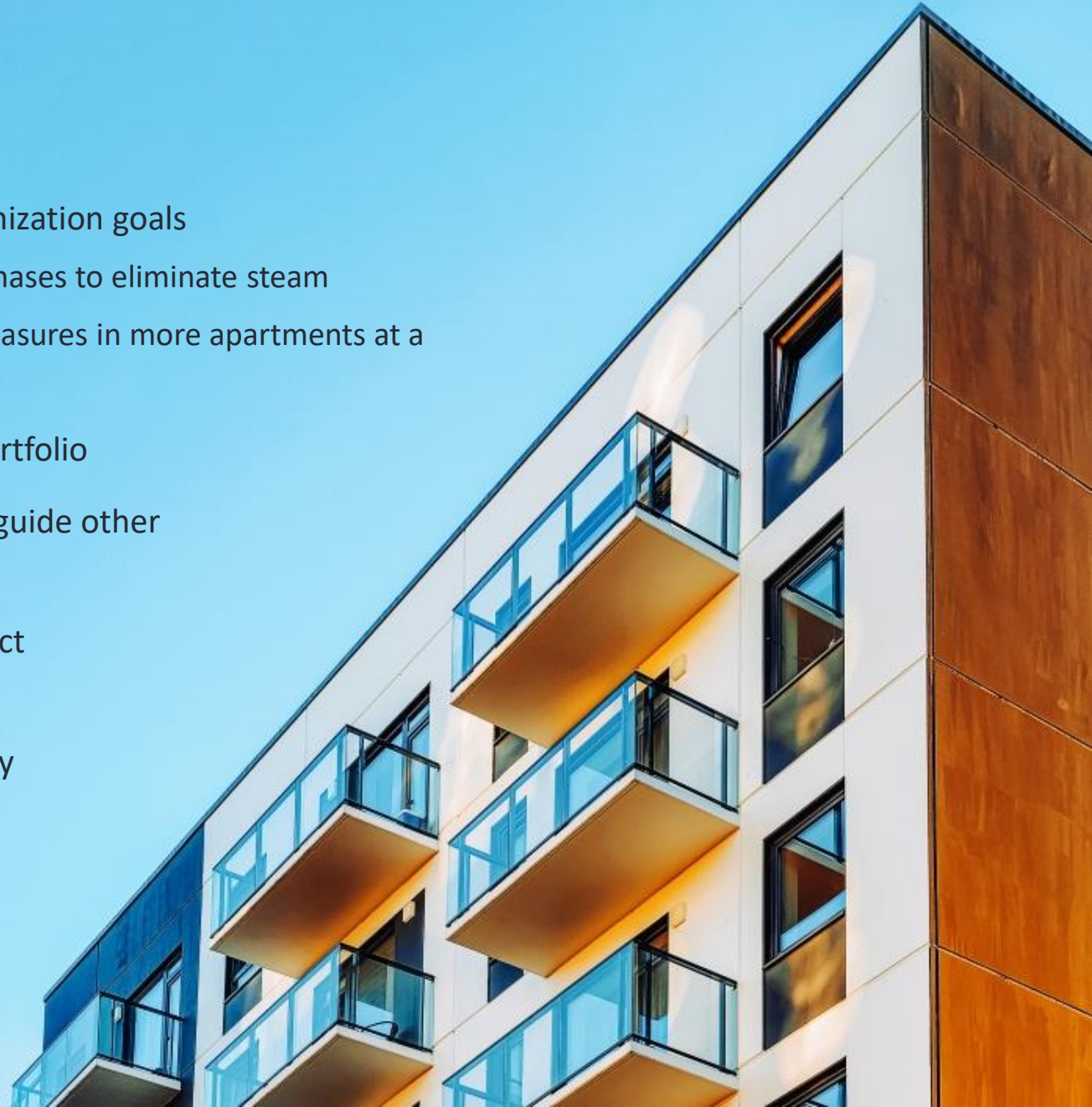
Our Commitment to Carbon Neutrality

- We have publicly committed to supporting our managed properties comply with LL97 targets, which require carbon neutrality by 2050
- Recognizing the importance of transparency, we will share insights from the EBC experience with the broader real estate community
- We actively collaborate with leading industry organizations and will leverage these partnerships to share lessons learned:
 - Urban Green Council
 - Building Energy Exchange
 - U.S. Green Building Council
 - Real Estate Board of New York
 - New York City Bar Association
 - Northeast Sustainable Energy Association
 - Council of New York Cooperatives & Condominiums
 - The Building Owners and Managers Association



Our Goals

- Accelerate Lincoln Square Condominium’s building decarbonization goals
 - Electrify the heating and domestic hot water systems in phases to eliminate steam
 - Accelerate the pace of electrification by implementing measures in more apartments at a faster rate
- Identify feasible, replicable strategies to share across our portfolio
- Develop phased roadmaps that provide the groundwork to guide other buildings
- Accelerate decarbonization study concepts to physical project implementation
- Demonstrate that decarbonization projects can be financially viable and beneficial to occupants
- Support buildings with aging or end-of-life equipment where decarbonization can make the most impact



Our Process

- Leveraging years of experience supporting boards and owners with renovation projects, our team will successfully guide the decision-making process based on occupant and capital planning considerations
- As part of our typical project development process, we will receive multiple bids and retain a cost estimator to understand the dynamic capital expenditures for recommended decarbonization projects assessed within the building's capital plans





- FirstService’s 575 Fifth Ave. headquarters is a LEED Platinum building
- Our office space is pursuant of WELL Certification

Track record of sustainability

- First management company to form an energy affiliate dedicated to helping clients reduce energy and water consumption, costs, and emissions
- Have worked with boards and owners for more than a decade to plan and develop cost-effective strategies, uniquely tailored to the property’s needs and energy goals
- Secured tens of millions of dollars in incentives to support efficiency projects
- Issued Annual Energy Report Cards for past 12 years that include:
 - Detailed analysis of a building’s energy performance
 - CO₂ emissions benchmarked against buildings of similar size and function
 - Strategies to improve efficiency and reduce costs and emissions



Energy Industry Leadership



- Oversees a team of experts across the US and Canada dedicated to helping multifamily building owners and condo/co-op boards reduce energy consumption, costs, and emissions
- Member, NYSERDA Electrification Advisory Board
- Working Group Member, Local Law 97 Communications Working Group
- Strategic Advisory Board Member, NYS Public Service Commission, Energy Efficiency and Building Electrification Performance Management and Improvement
- Expert Panelist: Building Energy Exchange Climate Mobilization Act Series, Urban Green Council, NYSERDA, NYC DOB & Mayor’s Office, NYS Public Service Commission
- 2020 GlobeSt. Woman of Influence

- Dougherty’s passion for bridging the gap between capital planning strategies with decarbonization has energized our teams throughout the organization
- Active industry involvement enables Kelly to keep our property managers, clients, and building staff informed on the latest technologies, regulatory requirements, and incentive programs that help maximize overall efficiency



Kelly Dougherty
President
FirstService Energy



Track record of sustainability

Continuous Education for Clients, Managers, Operators

FirstService Energy
ENERGY

FirstService Energy webinar
Save money in 2024 while tracking building emissions

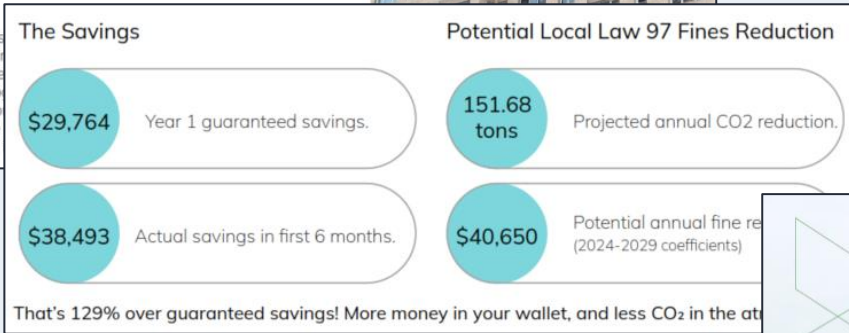
FirstService Energy

Building Energy Efficiency Ratings
A Guide for Unit Owners, Shareholders and Board Members of Condos and Co-ops

Energy Savings Case Study
201 East 79th St.

parity

The Situation
201 East 79th Street is on the East Side of Manhattan. As part of this project, the lighting and facade were upgraded with energy efficiency applications, as well as HVAC systems, as the systems which results



Resident's Guide to Energy Efficiency
2022 Edition

ASK OUR EXPERTS
NYC Local Law 97
Getting the Work Done

ASK OUR EXPERTS
NYC Local Law 97
Getting the Work Financed

FirstService Energy program
EV charging, made simple.

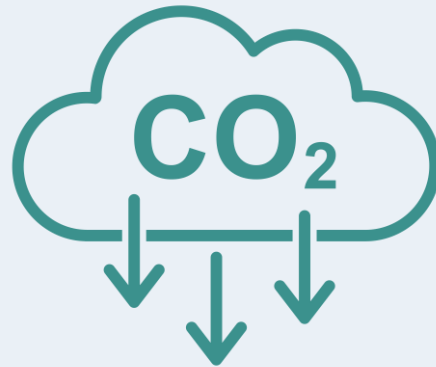


FirstService Residential National Stats | 2012 - 2022

Over **\$100M** of incentives won



2.26M tons of emissions reduced



Equivalent to **457,212** gas powered cars





Lincoln Square Condominium 111 West 67th Street, New York

1994 | Year completed

47 | Stories

286 | Market-rate apartments

751K SF | Total size

Commercial space is largest use type by area:

133K SF | Commercial gym

130K SF | Multiplex cinema

70K SF | Commercial retail

41K SF | Mailing center



Lincoln Square Condominium Systems



Heating plant

Two-pipe steam primarily served by an onsite natural-gas-fired boiler plant consisting of three 250-hp steam boilers. The commercial fitness center owns and operates a separate, independent steam boiler plant.



Cooling plant

2,180-ton cooling tower provides cooling for a central condenser water loop that serves the residential and commercial air-handling units.

Facade

Double pane, glazed windows and masonry walls typical of vintage buildings in NYC.



Distribution system

Residential units are served by two-pipe steam PTAC units.

Domestic hot water systems

Aerco steam-to-hot water heat exchangers serve residential units and most commercial spaces. The commercial fitness center owns and operates a separate, independent hot water heat exchanger.

Ventilation systems

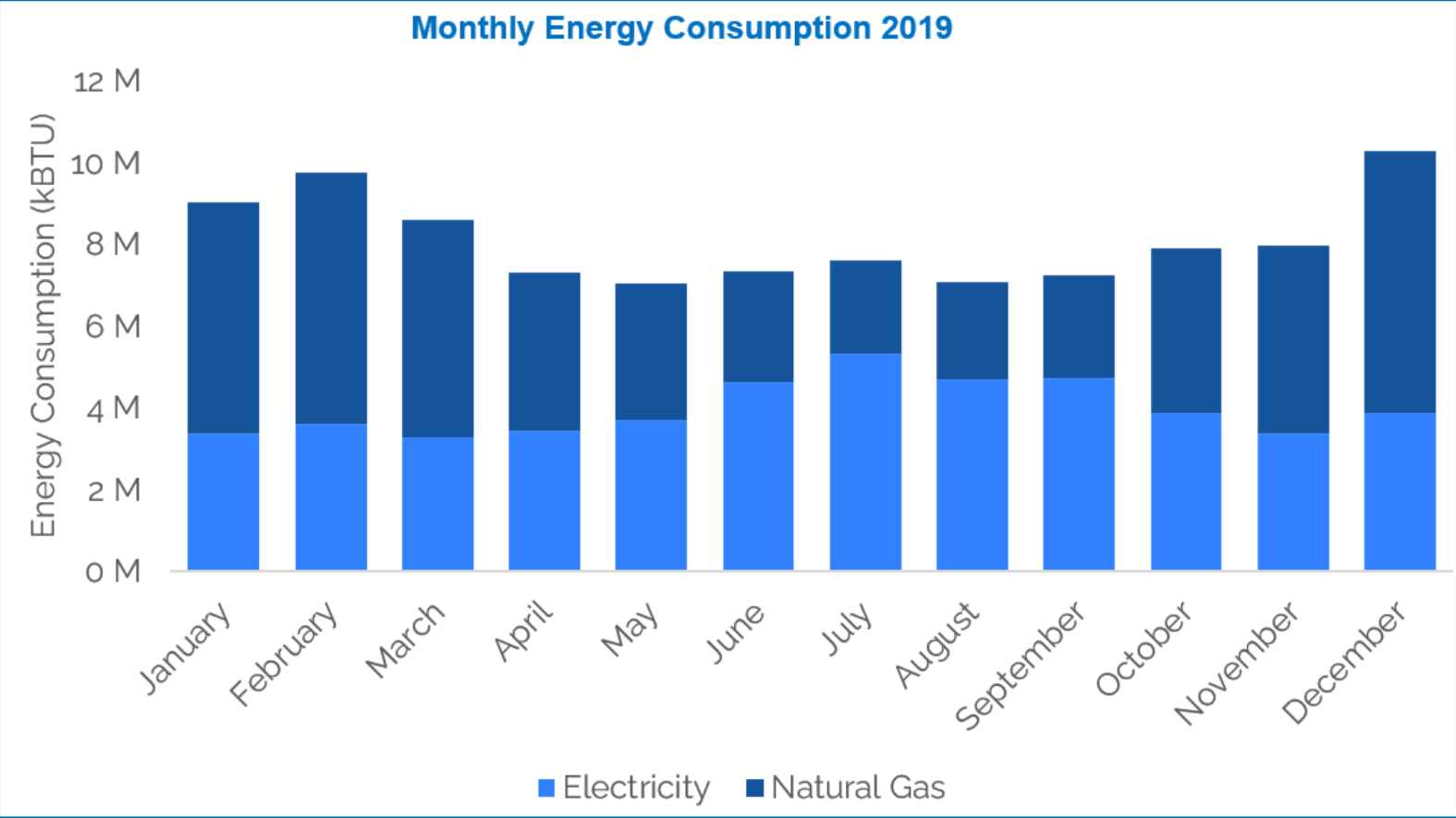
The hallways and commercial spaces are served by 100% outdoor air and mixed-air units with steam coils for heating and direct expansion coils for cooling. Exhaust fans remove general, toilet, and kitchen exhaust air.



Lincoln Square Condominium: EUI

129.5 kBTU/sf/year site energy use intensity (EUI) includes:

- **63.9 kBTU/sf/year** electricity
- **65.6 kBTU/sf/year** natural gas

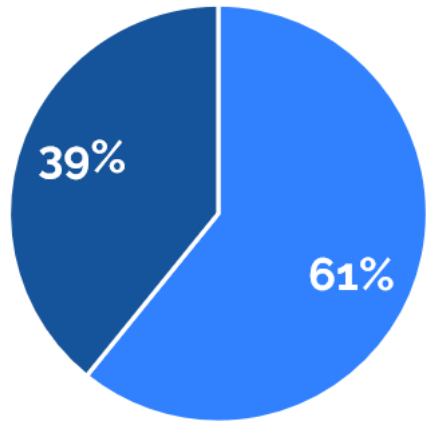


* 2019 used as a baseline; whole-building data unavailable before 2018



Lincoln Square Condominium: Building Emissions

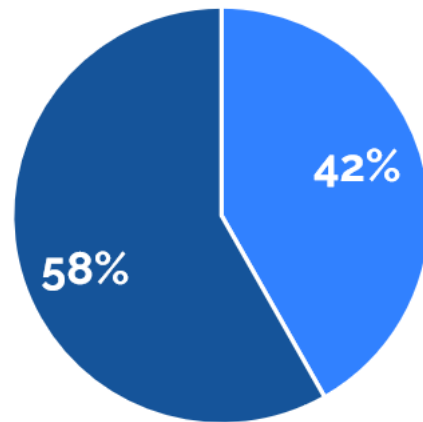
2019 Emissions by Fuel Type
Per 2024-2029 LL97 Coefficients



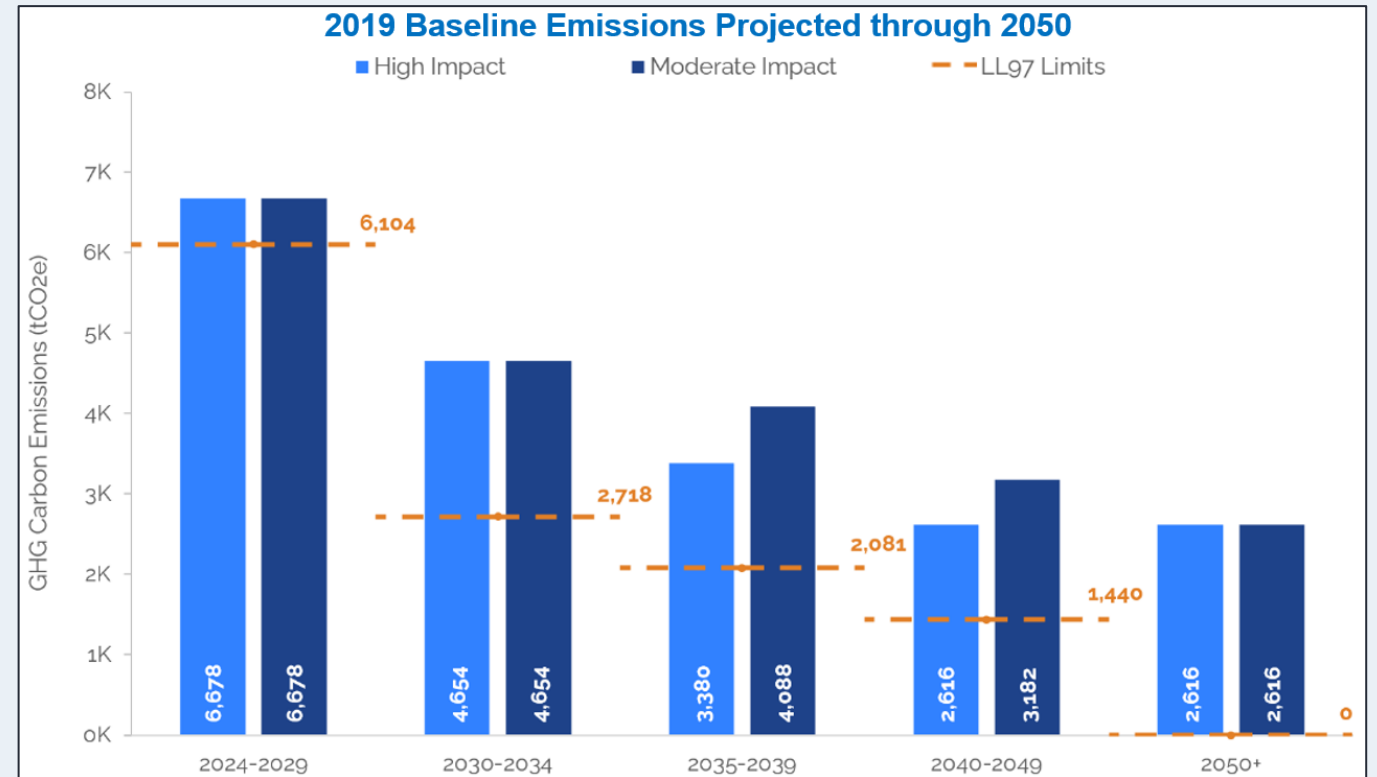
■ Electricity ■ Natural Gas

- The building's annual emissions profile is currently driven by electricity consumption
- As the electric grid decarbonizes, emissions will remain high due to substantial natural gas consumption

2019 Emissions by Fuel Type
Per 2030-2034 LL97 Coefficients



■ Electricity ■ Natural Gas





Lincoln Square Condominium Residential Board

- Committed to carbon neutrality by 2035
 - Will engage and compel commercial board to join their commitment
 - Each board will benefit from the ability to develop a thermal network and share efficiencies between previously separated building operations
- Proactively addressed Local Law 97 and decarbonization by conducting initial evaluations of emissions reductions pathways
- Completed projects to maximize efficiency and reduce emissions:
 - VFDs on various pumps and fans
 - LEDs throughout building
- Participates in NYS Community Distributed Generation Program and Con Edison Demand Response Program which reduces emissions and supports grid-level emissions and resilience
- Implementing submeters for the various building entities to gain further insight and prioritize efficiency and decarbonization efforts
- Started budgeting efforts for major decarbonization projects, including electrifying the heating systems
- Current Local Law 11 façade inspection may enable additional opportunities
- Primed to demonstrate success in pursuing decarbonization in an economically feasible manner when the timing is correct for other owners

Partnered with Logical Buildings

- SmartKit AI integrates with building's smart electric meter to deliver real-time consumption data
- Non-critical building mechanicals shut down/reduced during peak grid events
- ~\$16K in Con Edison utility credits in one year



Lincoln Square Condominium Commitment to Carbon Neutrality

- Reduce 2019 site EUI by **25% by 2035**
- Decrease from **129.5 kBTU/sf/year** to **97.6 kBTU/sf/year**
- Reduction estimated to include:
 - **71.1 kBTU/sf/year** for electricity
 - **26.5 kBTU/sf/year** for natural gas



Equates to annual reduction of:

- 1,505 CO₂e based on LL97's published carbon emissions coefficients for the 2030-2034 compliance period
- Combination of energy reductions, decarbonization strategies, electrification, electric grid decarbonization, and, if necessary, purchasing renewable energy credits (RECs) and/or carbon offsets



“Early on, we recognized our unique position of influence as New York’s largest residential management company. We use our influence to drive the reduction of greenhouse gas emissions and the adoption of renewable energy products across our client portfolio. Our partnership with NYSERDA has helped us significantly reduce our portfolio emissions, bringing the goal of a net-zero New York City one step closer to fruition.”

