

Empire Building Challenge

Low Carbon Retrofit Project Summary



Empire Building Challenge
PARTNER
Reimagining Low-carbon Buildings

The Heritage

110th Street at Fifth and
Madison Ave, New York City

- Three buildings at 1295 and 1309 Fifth and 1660 Madison
- 600 housing units, of which 402 are affordable, with 134 set aside for the formerly homeless
- 680,000 square feet
- 34 stories
- Built in 1974
- Mixed income
- 2020 Building Energy Grade: D
- 2019 EUI: 67.9
- Façade: steel frame with concrete structure and brick veneer
- Heating: electric resistance baseboards
- Cooling: electric window sleeve AC

\$5 MILLION
NYSERDA investment

NEARLY \$14 MILLION
of private investments

FULL ELECTRIFICATION
of 1660 Madison Ave.
will demonstrate
technologies for
implementation in
neighboring towers



High-rise, low carbon residences with a Central Park address

L+M is a pioneer in mixed-income, market-rate, and mixed-use developments that revive and transform neighborhoods. The company has acquired, built, or preserved nearly 35,000 residential units and more than 1.2 million square feet of retail and community facility space, representing approximately \$10 billion in development and investment.

L+M and its partner Invesco have committed to carbon neutrality by 2030, including a 54% reduction in site energy use intensity, at The Heritage, a three-building, 680,000 square foot mixed-use development with 600 mixed-income residential units.

The retrofit project at The Heritage includes major building envelope improvements throughout the entire complex, dramatically cutting heating and cooling needs. Portions of the complex will also install packaged terminal heat pumps for heating and cooling, significantly reducing energy use and costs from the current electric resistance heating system. The project will fully electrify all loads in one building in the complex (1660 Madison Ave), adding state-of-the-art heat pump water heaters and electric laundry dryers. Pilot testing these technologies in 1660 Madison Ave. will allow evaluation for expanding throughout the rest of the complex.

“The funding from NYSERDA’s Empire Building Challenge program will help L+M pilot and scale new retrofit technologies that will drastically reduce or eliminate carbon emissions in our affordable housing portfolio. Large-scale investment in such technology is crucial to addressing the challenge of climate change.”

– Joseph Weishaar, Vice President,
L+M Fund Management



NYSERDA

PROJECT TEAM:

- L+M Fund Management
- Invesco Ltd.
- Steven Winter Associates
- Inglese Architecture + Engineering
- Cosentini Associates

SOLUTION PROVIDERS:

- Sto Corp (EIFS)
- Ice Air (PTHP)
- Dextall (Pre-Fabricated Exterior Walls)

LOW CARBON RETROFIT MEASURES INCLUDE:

- Major building envelope upgrade with Exterior Insulating Façade System (EIFS) and new windows
- Complete efficient electrification of 1660 Madison Ave, with new packaged terminal heat pumps, use of air-to-water heat pump with eco-friendly refrigerant for water heating, and new electric clothes dryers in common area laundry

The Heritage currently has little-to-no remaining insulation, costly and inefficient baseboard electric resistance heat systems, and central natural gas-fired domestic hot water plants. The proposed measures are designed to eliminate fossil fuel usage, **improve resident comfort**, and **minimize disruption in occupied multifamily properties** through the use of innovative retrofit methods, materials, and technology.

The package of measures will offer **a pathway to decarbonization for low- to moderate-income** properties across New York State.

The Empire Building Challenge

The Empire Building Challenge is a \$50 million investment by New York State to demonstrate different pathways for achieving carbon neutrality in tall buildings.

Through the establishment of a private-public partnership with leading real estate owners and their engineering experts, exciting approaches to cold-climate decarbonization are being tested in the New York market. With the potential to replicate these solutions across the 130 million square feet of real estate controlled by the first cohort of Empire Building Challenge partners and beyond, the impact of each project will accelerate New York's progress toward the Climate Leadership and Community Protection Act's (Climate Act) goal of reducing greenhouse gas emissions 85% by 2050.

Join the challenge

Visit nyserderda.ny.gov/EBC or email ebc@nyserderda.ny.gov for additional details on the Empire Building Challenge and to learn how to partner with NYSERDA, reduce carbon emissions, and get involved in the clean energy economy.

¹ Recovery through Retrofits, www.urbangreencouncil.org/content/news/recovery-through-retrofits