

High Performance Retrofit Track New York University



participant profile

New York University (NYU) has been a leader in climate action for well over a decade. As a founding institution of the NYC Carbon Challenge in 2007 and having met its initial 30% carbon reduction goal in just five years, NYU is committed to helping the City reduce carbon emissions 80% by 2050. The university is also partnering with the NYC Retrofit Accelerator's High Performance Retrofit Track (HPRT) to showcase leading-edge energy efficiency solutions at two of their properties. NYU's HPRT projects demonstrate how upgrades to the building envelope (i.e. exterior walls, windows, roof), are just as crucial as those to mechanical systems and can yield significant comfort and health benefits in addition to energy and cost savings.

The first HPRT project NYU completed was the gut renovation of their 55 East 10th Street student residence in Greenwich Village. The project optimized the building envelope by air-sealing around cracks, gaps, and building penetrations, and installing high thermal performance windows and frames. This approach, which reflects Passive House design principles,

cut heating energy use by an impressive 80%, enabling NYU to reduce first costs for needed mechanical upgrades. NYU also completed a comprehensive scope of HVAC work in the building, adding air conditioning and replacing steam radiators with heat pumps. Even with the addition of air conditioning, operating costs were reduced by 45% and carbon emissions by 41%. The building is now prepared to go "all-electric" and replace the natural gas boilers with air source heat pumps powered by clean and renewable energy.

Based on the success of this renovation, NYU is using the project scope as a guide for upgrades across their 180 building NYC portfolio, including their second HPRT site, a newly acquired academic building at 708 Broadway. In addition to Passive House inspired envelope and ventilation upgrades in the near term, NYU also plans to convert domestic hot water to an air-to-water heat pump system within the next 10 to 15 years.

NYU is proud to partner with NYC to support its climate action goals and lead the way for other buildings to reduce emissions, save energy, and cut costs, while improving comfort and quality of life.

***“NYU's deep energy retrofits are achieving up to 80% heating use reduction – cost effectively. Why settle for saving less?”
– Cecil Scheib, Asst. VP for Sustainability***

fast facts

no. participating building(s)
2 buildings

building location(s)
Lower Manhattan

building type(s)
• commercial/
academic; pre-war
• institutional/
dormitory; pre-war

building size(s)
• 127,000 SF/ 10 stories
• 136,000 SF/ 16 stories

base building systems
• **heating:** central boiler
• **cooling:** room AC;
central chiller plant

planned upgrades:
short-term (1-3 years out)
• **envelope:** high performance windows and frames; comprehensive airsealing;
• **heating/cooling:** air-source heat pumps; temp sensors + controls

planned upgrades:
long-term (4+ years out)
• **domestic hot water:** air-water heat pumps

Get in touch with the NYC Retrofit Accelerator Today!

The NYC Retrofit Accelerator's team of Efficiency Advisors offers free, personalized advisory services to help streamline the process of making energy efficiency improvements to your building. The Retrofit Accelerator's High Performance Retrofit Track (HPRT) can help you design and implement a long-term capital plan to reduce your building's energy use by 40-60% within 15 years.

