High Performance Retrofit Track Memorial Sloan Kettering

participant profile

Memorial Sloan Kettering Cancer Center (MSK) is the world's largest private cancer treatment center, with 17 locations across New York City. Also a leader in climate action, MSK has pledged to reduce its emissions 50% by 2025 under the NYC Carbon Challenge. Working with the NYC Retrofit Accelerator's High Performance Retrofit Track (HPRT), MSK is piloting the use of innovative energy technologies at two facilities. These measures will reduce energy use up to 60% over the next 15 years, drive down emissions and operating costs, and enhance resiliency and quality of care.

MSK selected two pilot sites, the Kimmel Center and Rockefeller Outpatient Pavilion on Manhattan's Upper East Side, after energy audits identified signifcant savings potential. The mechanical equipment is approaching end of useful life, providing an opportunity to invest in higher performance replacements. Additionally, MSK has tested new technology at these sites before, verifying energy, financial savings, and benefits to staff and patient comfort before deploying solutions across their portfolio. For example, a 2012 upgrade to demand controlled ventilation cut Rockefeller's energy use by 20%, while 2013 upgrades to lights, sensors, and controls saved the Kimmel Center 37%. These improvements are now considered best practice for all major construction projects. Similarly, the institution will use data from their HPRT pilots to determine which efficiency measures to scale up in the future.

MSK's team is excited to test high performance alternatives to existing campus steam and chiller-based heating and cooling systems. Within the next three years at their pilot sites, with help from HPRT Efficiency Advisors, MSK will upgrade or replace these systems. Within the next 15 years, MSK will continue upgrading heating and controls. As aging air handling units reach end of useful life, MSK will also pursue new energy efficiency technologies.

MSK looks forward to applying HPRT insights to enhance efficiency and quality of care at their facilities, and to share lessons learned with peer institutions to create a cleaner, healthier environment for all. fast facts

no. participating building(s) 2 buildings

building location(s) Upper East Side, Manhattan

building type(s) institutional, outpatient, post-1980

building size(s)

150,000 sf /12 stories;
62,200 sf / 6 stories

base building systems
heating: district steam
cooling: central chiller plant

potential upgrades: short-term (1-3 years out) • *lighting:* LEDs and control upgrades • *heating/cooling:* heat pump technology

potential upgrades:

long-term (4+ years out)
ventilation: dedicated outdoor air system w/ energy recovery ventilation
envelope: roof insulation updrades and new windows
dhw: air-to-water heat pump
other: on-site solar PV; BMS upgrades

"Energy efficiency benefits our bottom line while improving MSK's sustainability, resilience, and quality of care." –Bob Berninger, Dir. Plant Operations, Energy & Engineering

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.





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