

GEATAIN ENGINEERING

CASE STUDY- 130 East 59th Street



BACKGROUND

130 East 59th Street is a 229,547-square-foot office building located in Midtown, New York City. Built in 1954, the 17-story building was renovated in 2005. Heating is mainly provided by district steam to two shell and tube heat exchangers that provide hot water for heating and DHW. Cooling is largely accomplished by Mammoth AHUs on each floor and two Evapco Cooling Towers located on the roof. Ventilation is also provided by 8 Greenheck exhaust fans on the roof.

HOW GEATAIN ENGINEERING HELPED

- Surveyed property to decrease plug loads through smart strips and equipment sleep modes, resulting in multiplicative plug load savings.
- Granular electrification analysis leads to new insights regarding capital cost savings and shorter construction schedule.
- Uncovered hidden opportunities by exhaustively interviewing all members of the operations staff.

BENEFITS

- Adjusting ventilation schedules helps prolong equipment life and magnifies savings.
- Advised ownership of opportunities to delay large outlay of capital while complying with Local Laws.



CHALLENGES

- Building ranks in the bottom 20.4% for electrical efficiency among NYC buildings.
- Outdated HVAC Equipment.
- Traditional light switches that present an opportunity for energy waste.

SOLUTIONS

- Operations Improvements.
- Natural Ventilation.
- RTEM.
- Interior Lighting Controls.
- Plug Loads.
- Envelope.
- HVAC Improvements.
- Reactive Power Reduction.

FIVE YEAR SAVINGS

\$385,305

For more information,
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