

Cammeby's achieves 15.8% reduction in HVAC energy use and costs

CASE STUDY



BUILDING OVERVIEW

LOCATION

NEW YORK, UNITED STATES

BUILT IN

1983

TOTAL SQUARE FOOTAGE

386,315

TOTAL SQUARE FOOTAGE CONTROLLED

251,104

CONTROLLER TYPE

SCHNEIDER ELECTRIC

HVAC EQUIPMENT CONTROLLED

- AIR HANDLING UNITS (AHUS)
- VARIABLE AIR VALVES (VAVS)
- OUTDOOR AIR & EXHAUST AIR FANS
- HOT WATER SYSTEM
- CHILLED WATER SYSTEM

CONTEXT

A bustling New York City office building

Situated in New York City's bustling financial district, Cammeby's 32-storey office property showcases how an older building can adapt to modern challenges. Faced with rising energy costs and regulations, the real estate investment company's team sought an innovative solution to comply with regulations, optimize energy, and target savings — particularly in its chilled water loop. Cammeby's identified BrainBox AI's AI HVAC Optimization offering as the ideal solution.

PROCESS

A tailored approach to success

BrainBox AI worked closely with the building’s controls contractor and internal team to program customized graphics for the existing Building Management System (BMS). This allowed the facility team to use their existing tool set and systems to observe the AI in use throughout their building.

BrainBox AI HVAC Optimization solution was deployed through our edge device, communicating through BACnet IP. The roll-out was executed floor by floor, in close cooperation with the building’s Chief Engineer, ensuring that tenants remained comfortable and disruption-free throughout. This collaborative effort was key to the customer’s positive experience and the project’s long-term success.

Computer rooms at the building require condenser water at all times. BrainBox AI used the design criteria in the centrifugal pump schedule to develop a system curve and determined the minimum flow rate. This data was used as another input for our AI to consider, continuously optimizing valve positions while satisfying the required thermal demand of the server zones.

RESULTS

Results for all stakeholders

Over an 11-month period in 2023, Cammeby’s realized substantial electricity, emissions, and cost savings. Our AI HVAC Optimization solution drove a 15.8% reduction in HVAC-related electricity consumption, saving \$42,951, and mitigating 37.14 tCO2eq. These remarkable results were achieved seamlessly, with the facility engineers noting no disruptions to daily operations — another key objective of the project.

With a firm focus on occupant comfort and smooth building operations (two key priorities for Cammeby’s), our team and autonomous AI solution delivered outstanding results. Through collaboration and effective communication with the customer and their controls contractor, BrainBox AI consistently provided value throughout the ongoing partnership. As a result, Cammeby’s not only realized significant savings, but also met regulatory demands and enhanced operational efficiency, driving value for both the company and its occupants.

Discover more of our success stories [here](#).



-\$42,951

Total cost savings



-15.8%

Reduction in HVAC related electricity consumption



-234,821 kWh

Reduction in HVAC related electricity consumption



-37.14 tCO2eq

Reduction in HVAC related emissions



-16.1%

Reduction in HVAC related emissions