



Intergate Manhattan (Sabey Data Centers)



“Sabey Data Center Properties prides itself in designing, building, and operating energy-efficient data centers. When we began our Intergate Manhattan project, we were very pleased to discover NYSERDA’s Data Center Efficiency Program. We found NYSERDA to be proactive and flexible. We had a great experience with them on our Phase 1 build out. We look forward to future opportunities to work with NYSERDA as we continue to develop our Intergate Manhattan facility at 375 Pearl Street.”

– John Sasser,
Vice President of Operations

Sabey Data Centers is one of the oldest and most well-known private multi-tenant data center owners/developers/operators in the world. With large facilities on both coasts of the United States and more than 3 million square feet of mission critical space, Sabey Data Centers is able to customize solutions and provide reliable and efficient services for clients. Sabey prides itself on the ability to support its clients in day-to-day operations, always ensuring optimal performance for all 8,760 hours of the year.

In 2011, Sabey Data Center purchased an existing 32-story building in downtown Manhattan formerly known as the Verizon Building. Sabey repurposed the building as a state-of-the-art, multi-tenant data center facility, which they have named Intergate Manhattan.

Recommendations

To maximize energy efficiency and reduce operational costs, Sabey engaged the New York State Energy Research and Development Authority (NYSERDA) to identify energy efficiency measures in their new space. Sabey started with retrofitting the 6th floor to be a multi-tenant turnkey data center space designed to support 1.8 megawatts (MW) of information technology (IT) load with the ability to expand the load to 2.7 MW. Mechanical and electrical equipment was installed on the 4th and 5th floors to support the new load.

Sabey installed a total of four water-cooled chillers at the Intergate Manhattan facility for both the data center and common areas. Coupled with these chillers, Sabey installed variable speed supply fans that allow the speed of the fans to modulate according to cooling requirements. Sabey also added variable frequency drives (VFDs) on the chilled water and condenser

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water pumps to reduce energy usage by varying chilled water flow with cooling requirements. The final energy-efficient measure implemented was free-cooling heat exchangers, which allow Sabey to bypass the chiller in winter months and use outside air to cool the data center.

In addition to energy-efficient cooling, a high efficiency humidification system and high efficiency lighting with controls were installed as part of this project. The humidification system efficiently conditions air brought into the facility and keeps the data center's environment uncontaminated and operational. The lighting controls automatically turn off lights in unoccupied areas of the data center, further reducing energy consumption.

Sabey also installed six new uninterruptible power supply (UPS) systems that operate more efficiently than other UPS systems on the market and save almost a fifth of the project's energy.

Results

To help offset the capital costs of this multi-million dollar project, Sabey is receiving support through NYSERDA's Industrial and Process Efficiency program. NYSERDA estimates that the measures will reduce Sabey's energy usage by 5,200,000 kilowatt-hours (kWh) each year with peak demand savings of 577 kilowatts (kW). In addition to saving an estimated \$679,020 per year in electricity costs, NYSERDA support reduced their project payback period from 3.1 years to 1.8 years.

Get started

To learn how you can participate in this exciting program, call the NYSERDA hotline at **1-866-NYSERDA** or email IPEOutreach@nyserderda.ny.gov.

Visit nyserderda.ny.gov/datacenters or commercial.coned.com for more information and answers to frequently asked questions.

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