

AT&T Data Center

New York, NY

BACKGROUND

AT&T is an American multinational telecommunications corporation and the largest provider of mobile and landline telephones in the United States. Headquartered in Texas, AT&T provides services used by more than 107 million customers worldwide.

AT&T and its partner, Ahearn Holtzman, Inc., retrofitted the 33 Thomas Street data center facility with highly-efficient technologies to minimize energy use. The building is located near New York City Hall in Manhattan.

MEASURES AND RECOMMENDATIONS

To maximize energy efficiency, AT&T and the New York State Energy Research and Development Authority (NYSERDA) worked together to identify potential energy efficiency measures (EEMs).

Upgrades were implemented in two phases: Phase 1 included a 20,000-square-foot (ft²) build-out of raised floor data center space on the 13th floor and Phase 2 included a similar 20,000 ft² build-out and retrofit to the 11th floor.

As part of Phase 1, AT&T implemented an energy-efficient, in-row cooling system equipped with intelligent controls that accounted for the majority of Phase 1's energy savings. AT&T installed variable frequency drives (VFDs) on the facility's water pumps, which saved a significant amount of energy by modulating the speed of the pump motors. AT&T also installed some energy-efficient LED lighting.

Phase 2 EEMs included the installation of an in-row cooling system, VFDs on the airside and water pump motors, and additional energy-efficient LED lighting, as well. By varying the motor speed, these VFD units capture more than 50 percent of Phase 2's energy savings. An energy-efficient chiller was installed that uses free cooling to relieve the load on the unit during the winter months. AT&T also invested in a building management system (BMS) that controls the operation of the cooling equipment. The ability to adjust its equipment through the BMS is estimated to account for 5 percent of Phase 2 energy savings.

A POWERFUL PARTNERSHIP



EVERYTHING MATTERS



NYSERDA

RESULTS

To help the offset capital costs required by its new efficient systems, AT&T is receiving support through NYSERDA's Industrial and Process Efficiency (IPE) program.

The EEMs installed in Phase 1 reduced AT&T's energy usage by approximately 773,000 kilowatt-hours (kWh) each year, with an overall facility demand reduction of 87 kilowatts (kW). In addition to saving more than \$146,000 per year in electricity costs, AT&T received \$0.16 from NYSERDA for every kilowatt saved, which earned them more than \$123,000 for Phase 1.

The EEMs installed in Phase 2 will reduce usage by an estimated 6.1 MWh each year and reduce overall facility demand by approximately 581 kW. AT&T will save an estimated \$1.2 million per year in electricity costs, and is also projected to receive \$983,000 from NYSERDA based on \$0.16 per kWh incentive rate.

These two phases will result in a combined reduction of usage of 6.9 MWh, with an overall demand reduction of 668 kW. Between the two phases, AT&T will save an estimated \$1.3 million per year in electricity costs, and receive a combined amount of approximately \$1.1 million from NYSERDA.

The NYSERDA Industrial Process and Efficiency Program has proven to be the real deal. Support is paid based on performance, without much of the complexity that has been associated with some of the other utility programs.

—Will Sawicki, Ahearn Holtzman

LEARN MORE

To learn how you can participate in this exciting program, call the Data Center Efficiency Program Hotline at **212-701-7222**.

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

A POWERFUL PARTNERSHIP