

Energy Commissioning and Optimization (ECO 24/7)

Facility: AT&T – One AT&T Way, Bedminster, NJ



Building Information

- Former corporate headquarters till 2010
- Four building campus, 866,000 square feet
- Office and data center

System Information

- 20 Single Duct VAV AHUs, 3 single-zone CAV AHU, 1 dual-duct CAV AHU
- Total 1,444 terminal units
- 14 Liebert units for data centers
- Two central cooling plants ttl 3,430-ton capacity
- One central heating plant ttl 14,000 MBtu/hr heating capacity.
- Nexsys Johnson Control BAS

Project Date

- Implementation completed September 2010-2011

Total Performance Oriented Retrofits (TPORSM)

- Ten Energy Conservation Measures (ECMs) approved by New Jersey Clean Energy Program
- Installed VFDs on chilled water, condensing water and hot water pump motors
- Installed Digi-PFSSM on chilled water pumps and Digi-FASSM on kitchen make-up air unit
- Installed VFDs on kitchen exhaust fan motors and implement demand control
- Installed VFDs on supply fan motors chilled-water cooling Liebert units for data centers
- Convert all three-way chilled water control valves to two-way valves
- Enlarge condensing bypass pipe and replace control valve to re-utilize water-side economizer
- Full scale system re-commissioning and optimization for the whole campus HVAC system

Benefits

- Reduced comfort complaints: cold call/hot call
- Improved system reliability
- Energy savings: Electricity: 3.2 MWh/year (14%), Gas: 4,950 MMBtu (52%)
- Total energy rebate from NJCEP: **\$731,223**
- Cost savings: **\$634,060**/year utility cost reduction
- Simple payback: **2.4 yrs** w/o rebates and **1.3 yrs** with rebate

