

Ameritrade Building ECO 24/7SM Case Study



Energy, Commissioning and Optimization Services (completed in December 2004)

- » Commissioning and optimization of the HVAC system
- » Implemented terminal box minimum air flow
- » Implemented a supply air temperature reset schedule
- » Optimized economizer operation and chiller schedules
- » Reset minimum air intake during occupied hours based on current number of occupants to eliminate over-ventilation and ensure indoor air quality
- » Optimized operation of three Liebert units in data center

Benefits

- » Improved system reliability
- » Reduced comfort complaints, maintain building comfort 24/7

Annual Energy Savings

- » Reduced electricity consumption by **24.5%** (based on three years of utility data since project completion)
- » Reduced electricity demand by **19.6%**
- » Reduced natural gas consumption by **46.3%**

Ameritrade Building

4211 South 102nd St.,
Omaha, NE

- » Built in 1983 (east wing 1996)
- » 1-story office building
- » 63,650 square feet
- » 37 water-source heat pumps (center and west wing)
- » Single duct VAV AHUs (east wing)
- » One air-cooled chiller (east wing)
- » Two gas boilers
- » One cooling tower
- » Advanced EMS system

