

Energy Commissioning and Optimization (ECO 24/7SM) Case Study

Facility: Peter Kiewit Sons, Inc. – Kiewit Plaza, Omaha, NE



- Built in 1960
- 16-story office building
- 237,000 square feet
- Eight VAV AHUs
- Two centrifugal chillers
- Five boilers
- Advanced EMS system

Energy Commissioning and Optimization Services (completed in September 2006)

- Optimized controls for AHUs, including static pressure reset, outside air control, and supply air temperature reset
- Commissioned all terminal boxes
- Implemented dynamic airflow reset in terminal boxes
- Implemented ECO 24/7SM Pump Flow Stations for chilled and condenser pumps
- Optimized primary, secondary and condenser pump control
- Implemented ECO 24/7SM Fan Airflow Stations for AHUs

Benefits

- Reduced comfort complaints and maintained building comfort 24 hours per day, seven days per week
- Improved system reliability
- Improved building pressure control and indoor air quality
- Reduced annual HVAC electricity consumption by **65.6%** and gas consumption by **50.0%**, based on three years of utility data since project completion
- Actual utility cost savings is **\$190,500** annually based on three years of utility data since project completion

