

CSU San Bernardino Wins Best Practices Award for Reducing Energy Usage at the Chemical Sciences Building by 32%



BUILDING/PROJECT SUMMARY

57,600 square feet

Annual Energy Savings:

Electricity: 112,000 kWh

Chilled water:

104,000 ton-hrs

Hot water: 19,000 therms

Project Economics:

\$50,196 annual energy cost savings

\$152,500 project cost

3.0 year simple payback period

Greenhouse Gas Reductions:

368,658 lbs CO₂ removed

MEASURES IMPLEMENTED INCLUDED:

- Programmed after-hours fan turndown
- Performed airflow balancing of fume hoods
- Commissioned fume hood zone presence sensors
- Installed advanced discharge air temperature setpoint reset strategy
- Programmed night setback for cooling coil control
- Improved occupant comfort
- Ensured compliance with laboratory ventilation standards
- Provided operator training to ensure persistence of energy savings
- Installed building level energy monitoring to track building performance

Cogent Energy provided retro-commissioning services for the Monitoring-Based Commissioning (MBCx) project at the Chemical Sciences building at CSU San Bernardino. The Chemical Sciences building, constructed in 2005, consists of laboratories, classrooms and faculty offices and had the highest energy usage index of any building on campus. Cogent Energy partnered with the campus to test the HVAC equipment and the control sequences of operation. We identified several low-cost energy efficiency measures that resulted in improved occupant comfort and significant energy savings. The UC/CSU/IOU partnership recognized the efforts of the project team and awarded the "Best Practice Award for MBCx" at the UC/CSU/CCC Sustainability Conference in 2009.

Cogent Energy
Powerful Solutions

N. CA 2300 Clayton Rd., Ste. 480
Concord, CA 94520
925-521-9600

S. CA 17671 Cowan, Ste. 110
Irvine, CA 92614
949-851-2100

info@coenergy.com
www.coenergy.com

