

Case Study



Western Building Services

Western Building Services Inc.
Denver, Colorado
www.westernbuildingservices.com

Building Description:

Athletic Facility
250,000 ft²
Denver, Colorado

HVAC Components Analyzed:

12 air handling units

Energy Management System:

Tridium Niagara R2



ENFORMA® Building Diagnostics is a product of Architectural Energy Corporation.

Western Building Services ensures continuous savings from HVAC control replacement and tune-ups with ENFORMA® Building Diagnostics

Western Building Services (WBS) is a premier provider of HVAC, refrigeration, facility automation systems and mechanical service in the state of Colorado. WBS is a founding member of Comfort Systems USA (NYSE Symbol FIX) a national HVAC design, construction and maintenance company.

Challenges

- Demonstrate persistence of savings from building HVAC control tune-ups and replacements in customer facilities
- Optimize performance of existing HVAC systems
- Automate the existing time-consuming manual performance analysis process

Solution

- Implemented ENFORMA Building Diagnostics to automatically and continuously determine performance of HVAC system components
- Increased maintenance staff productivity by identifying and prioritizing HVAC problems and repair needs
- System graphically illustrated improvement of HVAC system during monitoring period
- Identified \$29,000 of potential energy savings during 12 month analysis period
- Energy waste was estimated at 16% of total heating/cooling use
- Average payback of significant problems found was 1.6 years
- Majority of inefficiencies were fixed with simple programming changes
- Uncovered hidden problems (no occupant complaints) that were undetected by traditional O&M processes
- Inefficiencies causing energy waste included:
 - Improper equipment schedule programming
 - Simultaneous heating/cooling
 - Improper valve and economizer modulation
 - Leaky valves (heating coil)

Customer Feedback

“ENFORMA discovers and solves building equipment problems that we wouldn’t find otherwise, allowing us to make our customer’s buildings operate more efficiently and effectively.”

— Richard Keal, Former President of Western Building Services