



South Conejos School District Energy Performance Contracting: Antonito, CO

Eaton's EMC Engineers was selected to provide ESPC Services for the South Conejos School District. The project included five buildings: High School/Jr. High School, Guadalupe Elementary, Administration Building, Cafeteria, Shops and Annex, totaling over 105,589 SF.



Owner:
South Conejos School District

Schedule:
Audit: July 2006–September 2006
Design: February 2007–March 2007
Construction: June 2007–September 2007

Budget:
\$2,014,000

The following is a list of improvements that were provided:

- Demand control ventilation
- Building automation/ DDC controls
- Consolidate two HS DWH plants into one
- Variable frequency drives
- Duct and equipment repairs
- Water conservation
- Replace HVAC (elementary)
- Solar PV and thermal systems (four)
- Lighting retrofit
- Occupancy sensors
- Bus garage infrared heat system
- Gym high bay fluorescents
- Asbestos abatement
- Duct cleaning
- Convert admin from steam to HW heat
- Attic insulation
- Infrared heat in shops
- Add gym duct-sox

Units	Guaranteed annual energy savings	Actual energy savings 1 year
Elec. – KWh	135,161	182,539
Elec. – KW	320	443
Nat. Gas	3,313.0	5,118.9
\$ Energy	\$43,978	\$61,939
\$ Other	\$23,567	\$23,567
CO2 (lbs)	675,644	751,856



Powering Business Worldwide

Eaton is uniquely positioned to be your energy solutions partner. Our national footprint and holistic approach to meeting your energy and sustainability goals and objectives provides the right combination of capabilities and solutions.

Our flexible services range from exploratory energy engineering and consulting to facility optimization commissioning services and high performance building design through advanced project implementation capabilities. We are partners in your energy future and can assist you through the life cycle of your buildings.



Energy engineering and consulting

At Eaton, we fully understand that customers are looking for smart ways to reduce costs, improve employee work environments and worker productivity. This comes in addition to effectively managing and maintaining their infrastructure portfolio. Eaton energy engineering and consulting delivers a full range of professional energy consulting services. Our commitment to energy engineering is complemented by strong credentials in mechanical, electrical and control systems retrofit and modernization. These capabilities enable us to evaluate, guide and direct your decision-making process to ensure an optimum technical solution.

- Energy management and strategic planning
- Energy audits / energy analysis
- LEED consulting / LEED team management
- Sustainability consulting
- Demand response
- Energy program and infrastructure master planning
- Water resource management

High performance green building design

More organizations are considering green building systems and renovations. But to “go green” affordably, you need integrated sustainable design. Eaton understands how to integrate cutting edge mechanical, electrical and building automation system technology into real world solutions. The ultimate goal is to design buildings and systems that will have a smaller energy footprint and a much smaller impact on the environment.

- Green building systems
 - Technology specific solutions
 - Control and automation
 - Metering systems
- Renewable/alternative systems
- Co-generation
- Geo-exchange
- Utility / central plants
- Retrofit and renovation

Facility optimization

Our facility optimization services ensure that your buildings operate as efficiently as possible over their life cycle. Eaton’s commissioning, retro-commissioning, and ongoing commissioning services combined with energy modeling capabilities provide building owners with assurance that facilities are tested and functionally verified to operate at optimum performance.

- Commissioning (Cx)—new construction
- Retro-commissioning (RCx)—existing buildings
- Energy modeling
- Building system optimization
 - Building management system
 - Energy management system
 - Building envelope
 - HVAC, lighting, boilers, chillers, water
- On-going performance assurance of facility improvements
 - Re-commissioning
 - On-going commissioning/Monitoring-Based Commissioning (MBCx)
 - Measurement & Verification (M&V)
- Advanced utility metering systems
- Service and support
 - Maintenance Management
 - Operations & Maintenance (O&M) Training

Advanced project implementation

Customers are looking for intelligent and creative ways to implement facility improvements. Whether driven by energy savings, interior environment concerns or aging infrastructure, our customer’s needs are specific yet vary in available means to implement solutions.

Eaton has a complete suite of project implementation services that can be customized to meet each customer’s requirements.

- Retro-commissioning project implementation
- Project / construction management
- Turnkey services
- Renewable/alternative energy system and technology integration
- Automated controls, smart buildings, technology and system integration
- Financial solutions
 - High bonding capacity
 - ESPC / performance guarantees
 - Third party financing
 - Leveraged funds, grants and low interest bonds
 - Rotating funds for on-going improvements
 - Power Purchase Agreements (PPAs)
 - Program funding development
 - Integration of tax credits, utility programs
 - Utility rate negotiation (supply-side management)

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 Printed in USA
 Publication No. CS02722021E / 3PC
 November 2010



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