



Colorado Department of Human Services (CDHS) is responsible for managing one of the largest utility budgets for a Colorado State Agency at \$7.3 Million per year. With energy costs on the rise and an increase in demand for services, CDHS realized that saving on utility costs would be an important step in stabilizing their budget as well as providing a higher level of service to their clients. As a result, in 2003 CDHS became one of the first state agencies to undertake a performance contract.

On the Fast Track to Better Buildings & Energy Savings

Starting Down the Path Towards Savings

The CDHS energy management team is constantly searching for ways to improve efficiency and client comfort. The team oversees nearly 300 buildings totaling close to 4 million square feet. These buildings are located all across the state and include specialized facilities such as youth detention centers, assisted living communities for veterans, psychiatric facilities, and homes for people with developmental disabilities. Many of these facilities provide 24-hour treatment and live-in care. With building infrastructure aging and utility costs becoming an increasing burden, Dave Piatek, CDHS Energy Manager, and Brad Membel, CDHS Facilities Management Director began looking for solutions. With the help of the Governor's Energy Office (GEO), David began to understand the potential of performance contracting. Over the course of the next 3 years GEO worked tirelessly with the CDHS team, including managers from several districts across the state, and Siemens Building Technologies, Inc., to create what has now become a model performance contract for the state of Colorado.

A New Way to Greener Government

"Our commitment to serving people comes first. Performance contracting allowed us to realize this priority through energy conservation" says David. A performance contract uses money saved on utility bills through energy and water efficiency measures to fund capital equipment purchases. An energy service company (ESCO) helps determine which measures are cost-effective,

"Performance contracting allows you to conserve energy and improve your facilities. Why would you not want to do this?"

—Dave Piatek, Energy Manager,
Colorado Department of Human Services



Colorado Department of Human Services Energy Manager David Piatek monitors and controls buildings throughout the agency's network from his desktop computer. Web-based energy management helps agencies cut energy use and identify savings opportunities. Credit: Colorado Governor's Energy Office

arranges financing through a third party lender, and installs the new equipment, all at no capital cost for the agency. CDHS chose to supplement the funding with money from other sources including utility incentives, as well as State and Federal grants to both buy down the length of the contract and to include some enhancements in the equipment. Throughout the course of the project, CDHS was able to utilize GEO's package of support services including sample contract documents, ESCO selection assistance and technical guidance.



Breaking New Ground

The performance contracting model has been around for quite a while, but CDHS was one of the first state agencies in Colorado to use it. CDHS was truly in uncharted waters. With GEO's help, CDHS was able to generate model contracts and procedures that could be used by other state agencies. "Not only has the CDHS performance contract resulted in significant cost savings and improved facilities, their hard work has paved the way for other agencies to benefit from this process and work towards the Governor's goal of greening state government," said Tom Plant, GEO's Director. As a result of his hard work David Piatek was recognized by the Governor in 2006 with the Energy Champion Award.

The Payoff: Better Buildings

CDHS achieved a great deal of savings by changing to high efficiency T8 lamps and ballasts. Additionally, they standardized a wide variety of fixtures and lamps which drastically reduced maintenance costs. They were also able to purchase new mechanical equipment including chillers, boilers and a new automation system. In addition to reducing utility costs, the performance contract has improved the quality of life for CDHS clients and employees. For example: Prior to initiating the performance contract, the lighting in the Children's Library was hardly sufficient for reading. With the new, more efficient lighting fixtures that were installed as part of the performance contract, the light in the library is now better for reading and working on computers, allowing students to be more productive. At the Homelake Veterans Facility, savings from the performance contract were used to install a fully automated irrigation system. Previously, this campus was watered entirely by hand. This improvement not only saved on water usage, it reduced maintenance costs and improved the aesthetics of the campus making it more enjoyable for the residents.

How Can You Take Advantage of Performance Contracting?

GEO is currently working with schools, cities, municipalities, and state agencies throughout Colorado to execute performance contracts. More information about performance contracting can be found on GEO's website at www.colorado.gov/energy or by calling GEO's Commercial Buildings Program at 303.866.2264

Colorado Department of Human Services Performance Contract

Highlights, Benefits & Facts

Energy & Water Efficiency Features

- Lighting retrofits
- Plumbing fixture upgrades
- Pool covers
- Building automation systems
- Programmable thermostats
- Central plant renovations
- Well and pump retrofits
- Irrigation system design and installation
- Chiller retrofit/addition
- Boiler retrofit
- Domestic hot water retrofit/addition
- Duct work retrofit
- Insulation additions
- Isolation valves
- Power generation system upgrade
- Window film/solar screens
- Computer & vending machine plug load (lowering)

Operations and Maintenance

- Ongoing building commissioning/tune-up
- Ongoing building measurement and verification
- Operational savings by reduced lighting replacement requirements

Fast Facts

- 300 buildings, 3.8 million square feet
- 1,600 acres of land
- 5,000 Employees
- 3,000 Beds
- Total project cost to date (Phases I & II) \$8,278,000 (over \$2.8 M supplemented with grants incentives and rebates)
- Guaranteed annual savings to date \$507,530

Benefits

- Improved comfort for patients, residents and staff
- More efficient operation
- Improved quality of interior lighting
- Improved quality of traffic lighting
- Better interior comfort
- Reduced maintenance needs
- Acquisition of needed infrastructure upgrades