

Colorado Success Story – A Performance Contracting Program

The State of Colorado initiated an energy performance contracting program in 1988 that evolved into what is now a major part of the governor's New Energy Economy. Managed by the Governor's Energy Office (GEO), the Commercial and Public Buildings Program on Performance Contracting has demonstrated the effectiveness of ESC's recommended Best Practices, from strong legislative and gubernatorial support, to pre-qualified ESCOs with pre-approved contracts, to a successful public-private partnership with its ESC state chapter. Energy performance contracting has become recognized in Colorado as the best way to fund energy-saving improvements in buildings, modernize facilities, reduce the use of energy resources, and reduce the demand on the state's budget to operate public facilities.

The program has provided technical assistance to projects totaling well over \$200 million in capital investment supported by over \$20 million in annual savings, creating over 2,000 annual jobs with the environmental benefit comparable to removing 60,000 cars from the road. Joel Asrael, GEO's Commercial Buildings Program Manager, said: "We have 144 projects in the program now, in stages from ESCO selection through monitoring and verification, and 13 ESCOs are pre-qualified to provide services. We're proud of the program's success as it puts us on the path to reach the state's goal to cut energy use by 20% by 2020 and to 'lead by example' through our Greening Government program."

Climb to Peak Energy Performance

CHALLENGE:

Make performance contracting a trusted and viable practice for state and local governments.

Solution: Provide free technical assistance.

A key to Colorado's success in bringing projects on-line is the professional engineering facilitation, provided free to state and local governments. Performance contracting experts meet one-on-one with the client's team and walk them through the process, providing direct support at

“Public entities are all missing funds and/or technical manpower – two things that performance contracting brings to the table.”

- Joel Asrael, Commercial Program Manager, Governor's Energy Office



Making it work in Colorado: Joel Asrael, Commercial Program Manager, Governor's Energy Office (center), with Rod Vanderwall, State Energy Engineer (left) and Lance Shepherd, Manager of Design and Construction Programs (right), both with Office of State Architect, Department of Personnel and Administration.

critical times of initial decision-making, ESCO selection, contract negotiation, audit review, project development, installation, and monitoring and verification.

“Customers recognize this makes the process more secure and reliable,” said Joel Asrael, Commercial Program Manager, Governor's Energy Office (GEO). “They're in good hands with GEO's on-site technical assistance, process documents, pre-approved ESCOs and decades of making projects work.”



Energy Services Coalition

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CHALLENGE: Influence state agencies to make energy efficiency a priority, with no funding.

Solution: Require annual project reporting.

Back in 1997 the Office of State Architect (OSA) began requiring agencies to report on their performance contracting projects (or lack of projects). Each state agency has delegated authority and responsibility to manage its own facilities.

“This reporting institutionalized the process, making it clear to agencies that performance contracting is a state-approved and recommended practice,” said Rod Vanderwall, State Energy Engineer, Office of State Architect (OSA), “but it’s up to the agency to initiate and implement projects.”



Colorado's Capitol Complex

State funding for facilities improvements goes first to urgent maintenance and other life-safety issues, so energy projects are often left unfunded. GEO and OSA have worked together for 15 years to develop a process to help agencies initiate and follow-through with successful, large-scale and comprehensive projects.

Solution: Executive orders set high goals.

State agencies are mandated to consider performance contracting in the Governor’s Executive Order on Greening Government. “Performance contracting is a great mechanism to achieve the 20% reduction in energy use by 2010 (compared to 2005-06 levels),” said Joel Asrael, GEO. Similarly, the governor’s Climate Change

Action Plan set a carbon reduction goal of 20% by 2020. “These goals are added drivers, especially to raise the priority for agencies already interested in doing projects,” said Rod Vanderwall, OSA.

CHALLENGE: Manage multi-million dollar state projects with due diligence.

Solution: Utilize LEED for Existing Buildings (LEED-EB) as a project management tool.

State project Managers of a \$24 million performance contracting project for Colorado's Capitol Complex applied LEED-EB as a pilot project and quickly learned that it's a great tool for managing a performance contracting project. Lance Shepherd, Manager of Design and Construction Programs, Office of the State Architect, said "it's a key way to sustain savings and support verification, helping facility managers better understand how to operate their facilities. Buildings have to be re-certified every five years which helps ensure avoided utility costs will be maintained.” The ESCO suggested they could have "tightened up their numbers" because of this oversight.

Solution: Ensure project oversight.

“Facility directors in state agencies have some project management experience, but demands on their time and the large scope of performance contracting projects makes project oversight a challenge,” said Vanderwall. OSA encourages monthly project management meetings during the planning and design stage going to weekly meetings during construction, to establish schedules, notify tenants and maintenance staff and track progress. “Communication is the solution,” said Vanderwall.

CHALLENGE: Get the most benefit out of utility programs.

Solution: Work jointly with the largest utility to create an incentive program designed for performance contracting projects.



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The Colorado chapter of the ESC, a state-based public/private partnership, provided an effective forum that influenced the utility to design a standard offer program tailored to whole-building retrofits including a 50% audit cost credit which helps get projects off the ground. Now performance contracting projects can capture a greater incentive while the utility captures a greater demand side benefit. “This would not have happened without the chapter,” said Asrael.

CHALLENGE: Continually improve program processes.



Joel Asrael (center) shared program strategies with representatives from Minnesota (Bruce Nelson, left) and Montana (Georgia Brensda, right).

Solution: Make audit costs realistic and take the cost of the audit out of the ESCO competition.

“The cost of the audit is a very small percentage of the overall project cost and should not weigh heavily in ESCO selection,” said Asrael. GEO broke away from the industry’s trend for low-cost audits and set a sliding-scale cost based on travel distance and building area, raising the audit cost from around 10 cents per square foot to up to 30 cents per square foot so that it’s more realistic. “It’s still a good value for customers and it balances the risk for both the customer and the ESCO.”

Solution: Require pre-qualified ESCOs to actively participate in the program.

For ESCOs to remain on the pre-qualified list, GEO requires the ESCO to have an active contract or to respond to at least 75% of the RFPs.

CHALLENGE: Educate end-users at all levels to get projects started and ensure success.

Solution: Establish peer networks in each sector.

“Patterned off of a long-successful school district energy managers group, the Colorado Energy Strategy Group brings energy managers together for peer-to-peer communications in each sector. “With so many performance contracting projects in the state, peer groups of energy managers from cities, counties, and state agencies increase customer confidence, ensure well-run projects and reduce demand on our technical consultants,” said Asrael.

Solution: Bring every person to the table who will be involved in the project.

“We make sure there’s an internal champion. We bring together all the decision-makers from legal, finance, administration and we’re making sure to include operations and maintenance staff who are critical to a project’s ongoing success,” said Asrael.

Solution: Host educational workshops.

Colorado’s ESC chapter and GEO hosted 160 decision-makers at a full-day workshop in 2008 - *Greening Facilities in the New Energy Economy*. Another is planned for fall 2010 – *Peak Energy Performance*. “The chapter carries the load to do the workshop and we hope to see new projects come on line after the event,” said Asrael.

All outreach efforts are helpful said Vanderwall. “With an average five-year turn-over in executive management of state agencies, we have to sell the concept of performance contracting again and again. Although facility managers are usually on-board, they get pulled in so many different directions.



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Networking at the "Greening Facilities in the New Energy Economy" event sponsored by the ESC-Colorado Chapter and the Governor's Energy Office.

CHALLENGE: Meet increasing demand on program resources.

Solution: Advance outreach team, focused field consultants and streamlined management staff.

GEO has regional outreach coordinators in four areas of the state who promote all GEO's programs and bring interested clients to the performance contracting program.

Two GEO contractors provide ten highly trained performance contracting consultants who work directly with state and local government clients to facilitate projects. Asrael manages the program through 60% of his time. The demand for services keeps increasing. Asrael is paving the way to fund program services through fees assessed to clients, influenced by ESC's recommended Best Practices.

The **Energy Services Coalition** is a national nonprofit organization composed of a network of experts from a wide range of organizations working together at the state and local level to increase energy efficiency and building upgrades through energy savings performance contracting.

Energy savings performance contracting enables building owners to use future energy savings to pay for up-front costs of energy-saving projects, eliminating the need to dip into capital budgets.

Please visit: www.energyservicescoalition.org

AT A GLANCE ESC's Best Practices in Action

State Leadership (point person; program)	X
Legislation and Governor's Support	X
Consensus – procurement/legal/finance	X
Pre-Qualified ESCOs	X
Pre-Approved Contracts	X
Public/Private Partnership (ESC Chapter)	X
Project Oversight; Technical assistance	X
Education & Outreach	X
Program Funding through Savings	Planned
Data Tracking	X

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