



INFORMATIONAL MEMORANDUM

TO: MPD Board Commissioners

FROM: *RS* Rick Still, Parks and Recreation Director
RE Robert Eaton, Project Coordinator

DATE: December 2, 2011

SUBJECT: Energy Savings Performance Contracting Overview

ISSUE

This is a very high level introduction to the Energy Savings Performance Contracting (ESPC) program that is being considered to implement the MPD CIP projects.

BACKGROUND

ESPC is a professional service by the State that utilizes energy savings to help fund capital projects. The ESPC program was established in 1986 and meets all bidding criteria for capital projects. State and local governments, public school districts, colleges and universities have all utilized this service.

Some benefits of this program are:

- Known guaranteed maximum price for the project
- Guaranteed energy savings otherwise the difference will be reimbursed to the owner
- Open Book Pricing and construction cost reconciliation assure best value for owner
- Allows selection of the most qualified general contractor not the lowest bidder
- Owner can specify equipment

There are two options for selecting an Energy Savings Contractor (ESCO) to be the general contractor for the work; either from the State managed pre-qualified list or through an RFQ selection process.

ANALYSIS

The State has prequalified a list of 14 ESCO's. As staff have been looking further into this program they have been meeting with some of the local ESCO companies. The plan is to have a company from the ESCO list make a presentation at the January 9, 2012 MPD Board Meeting to further explain this program and answer any questions the Board may have.

There are three attachments, all are from the State:

- 1) A brochure on Energy Savings Performance Contracting gives a brief overview of the program.
- 2) A list of advantages of the ESPC Program.
- 3) A comparison of ESPC with Conventional Procurement Procedures.

RECOMMENDATION

Staff is moving forward and investigating options and will bring this issue to the Board in January.

ATTACHMENTS

Energy Savings Performance Contracting (tri-fold brochure).
Energy Savings Performance Contracting Adds Value to Public Works Projects.
Comparison of Energy Performance Contracting with Conventional Procurement Procedures.

Why work with us?

With more than 25 years of experience, our engineers have the expertise to help lead you through the process. We will evaluate and explain the ESCO audit proposal, then help manage the project. You select the ESCO, contractors and equipment.

Our accomplishments:

- Completed over \$177 million in public facility efficiency projects since 1986
- Saved customers nearly \$15 million in annual energy costs
- Helped customers receive nearly \$30 million in grant funds

How do GA customers benefit?

- Guaranteed energy savings
- Guaranteed construction costs
- Guaranteed equipment performance
- Improved comfort for building occupants
- Maximized utility grant opportunities
- Energy Star rating assistance
- Energy and carbon reduction goal assistance

Other GA Energy Program services:

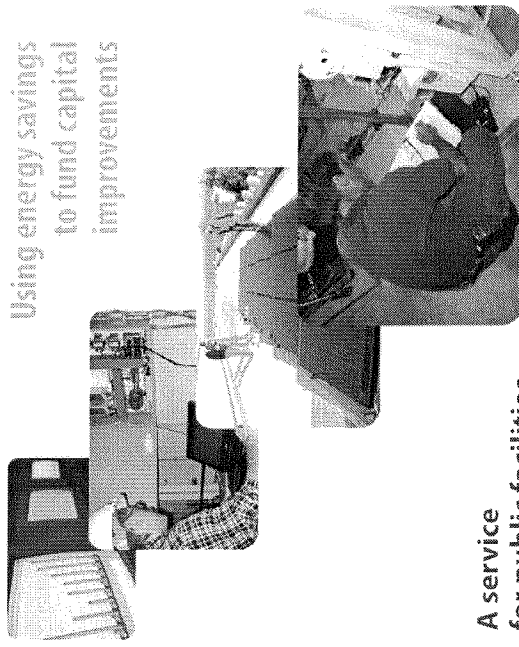
- Energy Life Cycle Cost Analysis (ELCCA)
- Sustainable design and construction
- Green building consulting
- Building commissioning

For more information:

Department of General Administration
Energy Program:

www.ga.wa.gov/energy
(360) 902-7224 or
(360) 902-7272

Energy Savings Performance Contracting



Using energy savings
to fund capital
improvements

A service
for public facilities
managed by the GA Energy Program

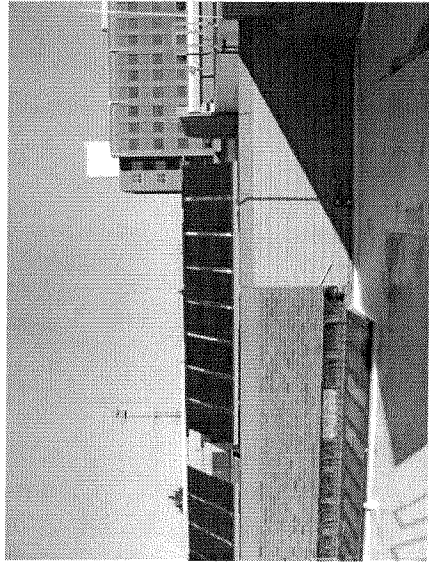
GA

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ENERGY PROGRAM

What is Energy Savings Performance Contracting?

It's a method of identifying, implementing and financing energy and utility efficiency projects. By leveraging utility savings along with grants and capital dollars, projects can typically be funded within existing budgets.



Solar roof at Clark County Jail

The GA Energy Program provides:

- Access to pre-qualified energy service companies (ESCOs)
- Experienced energy engineers to assist in identifying savings opportunities to guide you through the process
- Quality control oversight
- Standardized documents

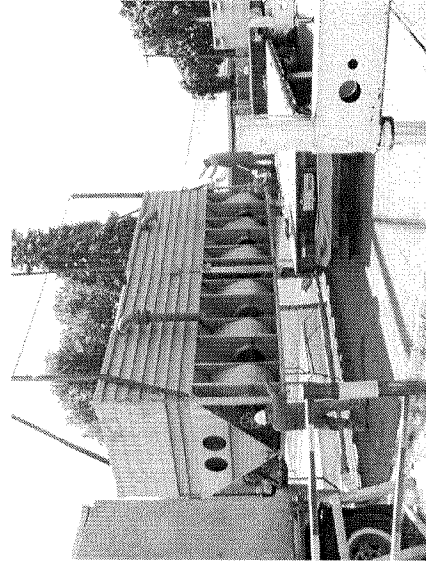
By focusing on the project's **performance**, most of the risks associated with the design, bid and build process are eliminated.

Types of projects:

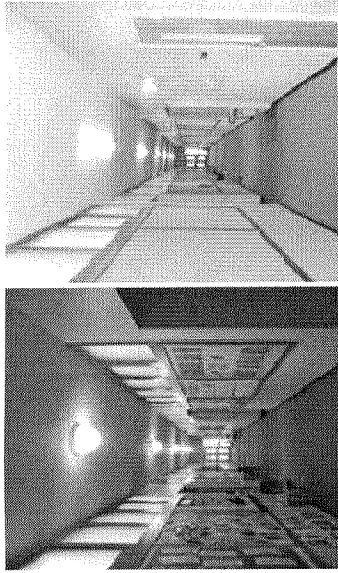
- Energy-efficient lighting (includes LED traffic signals)
- Boiler and chiller systems
- High-efficiency HVAC systems
- Motor and pumping systems
- Water conservation improvements
- Renewable energy projects (i.e., ground source heat pumps, solar PV, bio-mass, small wind, and co-generation)

Who are our clients?

- State and local governments (cities, counties, ports)
- Colleges and universities
- Public school districts
- Hospitals, health districts, libraries and more



Cooling towers



Before and after lighting at West Valley School District, Yakima

Success story: West Valley School District

The above picture shows how we can improve your building's lighting, while also reducing your energy consumption. The project provided similar lighting improvements in classrooms and gymnasiums in 12 of the district's buildings.

Annual Costs Savings: \$54,800

Success story: Washington State University

Lighting upgrades were installed campus wide, along with a new central chilled water plant and various HVAC improvements.

Annual Cost Savings: \$1,603,200

"Eight years and \$40 million in completed projects attest to the benefits that our partnership with the GA Energy Program has provided."

Terry Ryan,
Director, Energy Systems Operation, WSU

ENERGY SAVINGS PERFORMANCE CONTRACTING ADDS VALUE TO PUBLIC WORKS PROJECTS

Energy Savings Performance Contracting, or simply performance contracting (PC), shares many similarities with conventional public works design and construction practices. However, there are some distinct differences between PC and the design, bid, build (DBB) process. PC can provide many opportunities to an owner installing energy efficiency equipment, which are not otherwise available when using the DBB process.

The advantages to PC for procuring energy efficiency equipment include:

- Third party financing is available, which allows the public building owner to construct projects sooner. Some public works projects can take as long as six years to complete: identify project and request funding in the first biennium; design in the second biennium; and, construct in the third biennium. Using PC a similar project can be completed in eighteen months.
- By using third party financing for procuring energy efficiency equipment the owner reserves scarce capital dollars for more pressing building improvements. Combining third party financing with capital dollars allows the owner to leverage the capital appropriation, essentially doing “more with less.”
- PC maximizes utility financial participation in the project.
- Energy service company (ESCO) selected based on qualifications. Since the ESCO also provides general contracting services the owner is also selecting the highest qualified general contractor, rather than the low bid contractor.
- Building audit findings must meet owner’s cost effectiveness criteria or owner not responsible for ESCO audit costs.
- There is a single point of accountability from audit through design, construction and commissioning, which reduces the uncertainty of identifying a responsible party when design or construction issues arise.
- Subcontractors can be pre-qualified and only the most highly qualified and reliable subcontractors will be invited to bid the work.
- Owner/ESCO can select other than the low bid subcontractor.
- Owner can specify equipment by manufacturer.
- ESCO guarantees equipment performance and assists owner with warranty issues. DBB requires that equipment is free from defects for one year. PC guarantees the project functions as designed, maintains specific comfort conditions, saves energy and saves dollars over the life of the contract with the ESCO.
- No change orders unless the owner elects to increase project scope.
- Open book pricing and construction cost reconciliation assure fairest value for the owner.
- ESCO guarantees construction cost and assumes financial responsibility for cost overruns.
- Commissioning is an integral component of PC, not an extra cost.
- The owner has more control over contractor (ESCO) overhead and profit. O&P is negotiated and multiple markups of subcontractor costs are not allowed.
- ESCO provides a guarantee of energy savings and reimburses owner for any savings shortfalls.
- ESCO’s monitoring and verification (M&V) services provides owner with assurance equipment will perform for the life of the agreement.

Performance contracting is a “value added” process for improving building energy efficiency.

COMPARISON OF ENERGY PERFORMANCE CONTRACTING WITH CONVENTIONAL PROCUREMENT PROCEDURES

STANDARD PROCUREMENT
SPEC AND BID EVERY PHASE
OF IMPLEMENTATION

ENERGY PERFORMANCE CONTRACT
COMPETITIVE NEGOTIATIONS
FOR PROFESSIONAL SERVICES

1. Usually requires a capital budget authorization.	1. Utilizes existing appropriated utility budget line item to pay all project costs.
2. Extended completion time due to need to obtain budgetary approvals from Agency, Governor and Legislature. Time for completion can vary from 2.5 years to 6 years. Increased costs can vary from 3-15% due to inflation.	2. Third party financing is available, which allows the public building owner to construct projects sooner. Time for completion for an average project will be 18 months from project conception. No increased costs due to inflation.
3. Project is funded by State issued bonds which are repaid over a 30 year period using tax exempt financing.	3. Project is funded by State Treasurer lease-purchase financing or Municipal Lease (tax exempt or capital) financing which is repaid over a 10 year period.
4. These projects seldom qualify for utility rebates since the programs are normally over before the projects are funded.	4. EPC maximizes utility financial participation in the project. This reduces the amount to be financed or allows additional conservation projects to be implemented.
5. Long term energy savings are, rarely, if ever guaranteed. Staff turnover, lack of ongoing training, lack of energy conservation expectations, and maintenance failures often kill project performance.	5. ESCO provides guarantee of performance, monitors and verifies energy consumption, and trains staff to achieve long term project performance. Energy savings are guaranteed by the ESCO.
6. Comfort and lighting performance standards are seldom a part of any construction contract with a hardware vendor.	6. EPCs typically contain a performance definition and guarantee of lighting and comfort conditions.
7. Change Orders are common practice because of misinterpretation or funding availability and scope of project do not match.	7. No change orders unless Owner elects to increase project scope within cost effectiveness criteria.
8. Separate phases of project implementation diffuses the source of responsibility for effective performance and often results in disputes over liability for non-performance.	8. A single point of financial and technical accountability for total project performance is standard.
9. Equipment is guaranteed to be free from defects for one year from substantial completion.	9. EPC guarantees the project functions as designed, maintains specific comfort conditions, saves energy and saves dollars over the life of the Agreement with the ESCO.

April 2003

10. Incremental project implementation often leads to eliminating cost effective retrofits due to inadequate funds, limited staff time, and overly narrow or biased project specifications.	10. Performance contractors consider all cost effective retrofits and secure financing for all feasible improvements. The costs of other needed capital improvements may be underwritten from any additional utility cost savings generated by the project.
11. Most public institutions can not afford to pay for top notch technical energy staff nor can they afford to train existing staff.	11. ESCOs internalize technical expertise in order to guarantee project performance.
12. Capital energy projects must compete with other capital priorities in an environment of limited budget resources.	12. EPCs are not financed through a capital process. Funding is available from ESCOs, lenders and State Treasurer. Performance guarantees are designed to cover the costs of project financing, ongoing guarantees, and monitoring and verification of savings.
13. There is no direct reward to managers or staff for reducing energy costs.	13. Compensation to the ESCO is tied directly to project performance and provides a very tangible financial incentive for reducing energy costs.
14. New project responsibilities can bring risks of non-performance and technical errors due to lack of internal technical expertise.	14. Willingness to accept technical responsibilities and risks is tied to direct financial rewards which are based on project performance.
15. The operations and maintenance budgets of public institutions are usually under funded resulting in comfort problems, equipment breakdowns, lack of staff training, and wasted energy.	15. ESCOs cannot afford to under fund any functions critical to protecting their investment and meeting the performance guarantees contained in the contract.
16. When project construction is accepted by staff, there is no guarantee that future improvements will be made to respond to changing conditions.	16. ESCOs have a strong incentive to respond to changes in technology, utility rates, and building requirements to maintain the guarantee of project performance over the term of the contract.