The State of Washington was one of the first states, if not the first, to develop a program to use performance contracting in the state. Now in its 26th year (since 1984), it is a well-managed, well-respected, self-funded program, with a team of 13 technical assistance consultants and 14 pre-qualified ESCOs working with state agencies, higher education institutions, public schools and local governments. With 129 projects completed totaling over \$200 million, and with over \$90 million in avoided costs to date, it has the attention of the governor who believes energy efficiency is the way to meet an aggressive carbon reduction target - 15% below 2005 levels by 2020. The program also has the attention of the legislature which tasked the program to leverage state funds to jump-start projects and create jobs to stimulate the local economy.

The program started in the Department of General Administration (GA), Division of Engineering and Architectural Services, after an energy audit of state buildings revealed substantial retrofit opportunities and proposed performance contracting as a funding solution. The program continues under GA today with a broader scope that includes not only state agencies but schools and local governments. The Department of Commerce houses the Energy Policy Office which works closely with GA especially on schools and local government initiatives, while Washington State University delves into energy-related research. All three energy divisions coordinate and provide support to each other to advance energy efficiency in the state.

House Bill 5854 said: "The legislature finds that energy efficiency is the cheapest, quickest, and cleanest way to meet rising energy needs, confront climate change, and boost our economy. More than thirty percent of Washington's greenhouse gas emissions come from energy use in buildings. Making homes, businesses, and public institutions more energy efficient will save money, create good local jobs, enhance energy security, and reduce pollution that causes global warming."

A Self-Funded Program

Challenge:

Get projects going to create jobs now.

Solution: Cash infusion from the legislature.

The program has such a good track record that the legislature recently authorized \$100 million for energy efficiency projects in public schools and higher education facilities, strongly encouraging a three to one leveraging that the program can deliver through performance contracting "The support of GA's services has been a critical part of our success in reducing energy usage."

- Tom O'Brien, Facilities Director, South Kitsap School District



South Kitsap School District has been involved in performance contracting projects since 1999, following through on seven phases of projects.

projects. The intent of the legislature was to create jobs through energy efficiency projects – "the *Energy Jobs Act* is Washington's version of the federal stimulus act," said Tony Usibelli, Assistant Director -Washington Energy Policy Office, "looking at the design, engineering and construction jobs that these projects can create."

Solution: Bring more ESCOs into the program and let them market the program.



ESCOs were already getting extra work to leverage federal stimulus funds so this new cash infusion creates a high demand for ESCO services. GA expanded the pre-qualified list of ESCOs from 9 to 14 and authorized the ESCOs to market the program and their services.

Roger Wigfield, Energy Program Manager, Department of General Administration (GA), summed up the program: "ESCOs see that GA is a motivating force to move projects along and to expand projects. ESCOs promote the program when they meet with potential customers and do the educational outreach for us, which in turn brings in more work for ESCOs." One ESCO doubled its staff while others are expanding into the state and realizing the advantages of the program.

"The growth in the program shows its value," added Wigfield," and it also shows that GA's program, the ESCO industry and the concept of performance contracting have all earned credibility in the State of Washington."



GA upgraded its own facilities, including the Washington State Legislative Building, through a series of performance contracting projects.

CHALLENGE: Increase acceptance of performance contracting.

Solution: Provide a clearly documented process and technical oversight.



GA had to overcome some mixed perceptions about performance contracting in the early years of the program, so GA developed a clear and streamlined process and provided substantial technical assistance to improve the credibility of performance contracting.

GA assigns an experienced energy engineer to help manage the process and the project. GA's process is very hands-on and easy for customers and ESCOs alike, with a contractual partnership between the client agency, GA, and the ESCO. GA holds a master agreement with each pre-qualified ESCO and with each client. An Inter-Governmental Agreement (IGA) enables GA to work with nonstate clients in the same way.



The Washington Department of Corrections (WDOC) reports: "One method WDOC uses to fund and deliver conservation projects when capital funding is unavailable is an Energy Performance Service Contract. The benefit of using this alternative funding source is that it ensures a return on taxpayer investment. This alternative funding arrangement has allowed the department to complete a number of projects that resulted in better than anticipated savings."

GA just completed a detailed document, *Energy Savings Performance Contracting: Guidelines for Public Agencies in Washington State* which lays out and discusses the 12-step process including: 1) understanding performance contracting, 2) ESCO selection, 3) cost-effectiveness criteria, 4) preliminary audit, 5) proposal for investment grade audit and energy services proposal, 6) investment grade audit, 7) energy services proposal, 8) engineering design, 9) construction, 10) commencement of energy savings, 11) project

closeout, and 12) ongoing measurement and verification.

Solution: Present the advantages of performance contracting versus other procurement methods.

GA stresses the financial and project benefits of performance contracting compared to the traditional design-bid-build process for procuring energy efficiency: 1) guaranteed maximum construction cost, 2) accelerates construction (18 months compared to as much as 6 years to obtain comparable funding), 3) preserves scarce capital dollars for more pressing needs, 4) maximizes utility incentives, 5) selects a provider based on qualifications rather than low-bid, 6) provides a single point of accountability throughout the project to address disputes, and 7) provides guaranteed savings and performance assurance through followup measurement and verification.

CHALLENGE: Low utility rates make it difficult to cash-flow projects

Solution: Capture utility rebates.



Electricity rates are very low thanks to the low-cost hydro-power in the state. Low costs means less savings to pay for a project, but this hasn't deterred projects. Local utilities offer generous incentives that often cover 15-20% of the total project cost, so projects are structured to combine cash flows with incentives and guaranteed savings.

CHALLENGE: Eliminate the barrier for

end-users to pay fees to GA.

Solution: Assess fees through performance contracting projects

GA traditionally assesses fees for its broad range of architectural/engineering services. Performance contracting's pay-through-savings approach provides a funding source to pay for the fee.

A sliding scale fee is based on the size of the project: 1% for a \$5 million project and up to 10% for a \$20,000 project (the economy of scale means big projects cost less to administer). The fee is determined at the end of the preliminary audit, added to the project scope, financed along with the retrofit measures and paid to GA by the client at the end of construction. Most end-users take advantage of GA's services rather than going it alone. GA often hears, "you took care of it for us – we didn't have to work with accounting, purchasing or other process offices."

Solution: Smart management of a self-funded program (keep the self-funding program's budget in the black)

The program is 100% self-funded – fees cover all fixed costs of technical assistance and program management, now totaling \$4.5 million annually and growing as demand increases.

GA collects the fee, often after providing 12-18 months of technical assistance. This delayed payment presents a budget management challenge that GA handles by carrying a cash reserve, with roll-over authority to retain the reserve through budget cycles.

Solution: Provide efficient technical assistance services.



GA provides extensive project management services to state agencies. Through legislation, GA was authorized and mandated to provide services to K-12 schools and other local governments. Staff engineers act as project managers - write contracts, negotiate the scope of work, review design, and follow the project through measurement and verification. It takes 15 staff to handle the current demand – a program manager, a program analyst, and 13 energy engineers to manage performance contracting projects, where each project manager juggles oversight of 12 to 20 different projects.

CHALLENGE: Meet aggressive energy

efficiency goals and the high interest in sustainability

Solution: Expand the scope of performance contracting projects.

GA looks at a broad range of potential measures from renewables to system approaches to building envelope and whole building analysis. "Our projects go beyond the usual," said Wigfield, "and include solar thermal projects, photovoltaic (PV) projects, heat recovery chillers, a ground source geoexchange system that we're doing right now, and a cogeneration system in a waste-water treatment plant, just to name a few, while commissioning is required in every project.

We're also doing whole building analysis – windows, roof insulation and roofing, downsizing the heating system, etc. - so that when we're done it's basically a remodeled building. GA wants to develop more all-encompassing projects to get more extensive energy conservation in the state."

Solution: Plan for the future.

"The way technology is changing there may be opportunity to return to projects after 10 years to include newer retrofits. "What was not costeffective before could be cost-effective then," said Wigfield.



AT A GLANCE ESC's Best Practices in Action

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

CONTACTS

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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.

Funding for ESC to develop this success story was provided by the **U.S. Department of Energy**.

Please visit: www.energyservicescoalition.org