

Massachusetts Success Story – A Performance Contracting Program

The Commonwealth of Massachusetts committed to performance contracting in a big way in 1986 when the legislature authorized three different agencies to develop guidelines for their particular sectors of state government facilities, public housing and local governments.

- 1) The state’s energy office, the Department of Energy Resources (DOER) has a broad role across all sectors, following its motto of “creating a greener energy future for the commonwealth.” Under the Green Communities Program, DOER helps local governments implement performance contracting projects.
- 2) The Division of Capital Asset Management (DCAM) manages and oversees most state agency and higher education projects. The *E-Team* (Energy Efficiency and Sustainable Buildings Group) helps facilities achieve optimum levels of energy and water use and implement renewable energy projects.
- 3) The Department of Housing and Community Development oversees capital energy projects in public housing.

“Performance contracting is a very mature industry in Massachusetts and there is a lot of activity in all three sectors,” said Eileen McHugh, Municipal Energy Programs Coordinator, DOER. Between the three oversight agencies, 65 performance contracting projects totaling \$458 million have been completed with many more getting underway. “The Commonwealth is always striving to be a leader in energy efficiency and renewable energy, continually looking for innovative ways to approach energy efficiency projects and financing and to apply innovative technologies to provide deeper savings,” said Jenna Ide, Deputy Director of DCAM’s E-Team.

Three-Pronged Program

CHALLENGE:

Guide local governments (cities, towns, schools)

Solution: Streamline the process.

DOER focuses on the process and provides guidelines, best practices and model documents for municipalities to follow, including specifics on monitoring and verification and a standardized savings guarantee. “Even though we have many years of experience with performance contracting in the commonwealth, the practice is ever-changing and we’re

“Our program gets the Commonwealth most of way there,” to meet an executive order to cut energy use 20% by 2012.

- Hope Davis, Director – Office of Facilities Maintenance & Management, Division of Capital Asset Management (DCAM)



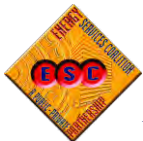
A combined heat and power system, substantial water saving improvements and even security windows were funded through a \$16.8 million performance contracting project at Bridgewater State Correctional Complex.

continually updating our processes,” said McHugh.

Legislation in 2006 greatly simplified the public procurement process, allowing local governments to use a streamlined request for qualifications. The Green Communities Act of 2008 also brought changes.

Solution: Provide technical assistance to local governments.

“We’ve been aggressive in providing municipalities all the information they need to decide if performance



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contracting is right for them and to guide them down the right path for successful projects,” said McHugh. DOER reviews all procurement and contract documents for completeness and adherence to DOER standards, provides in-house technical assistance and offers Owners Agents to provide technical assistance to grantees.

Solution: Work with regional groupings of local governments.

Because many municipalities (cities, towns, school districts) are small, they could never attract an ESCO to do a project. To get small projects going, DOER reached out to regional councils and commissions of governments suggesting they group small governments together to do larger-scale regional projects to attract ESCOs. Franklin Regional Council of Governments became a champion and is near contract stage. Another regional group is close behind, both with technical assistance from DOER.



Utilizing a performance contract, the town of Medway (population approximately 13,000) implemented two projects – one innovative solution for solar panels on two schools and one traditional performance contract solution.

Solution: Establish an ESC state chapter to mobilize an educational effort.

With ESC’s help, DOER invited ESCOs and others to formalize a public-private partnership through an ESC state chapter. Working together they easily put on several successful regional workshops to introduce performance contracting to municipalities. “With 351 cities and towns in the Commonwealth, these workshops helped us reach out,” said McHugh.

Solution: Analyze utility data.

DOER set-up *MassEnergyInsight*, a web-based program “making sense of energy data” that automatically collects utility data from major utilities so that cities and towns can easily analyze their data - benchmark buildings, identify those with the greatest potential, track savings to support project monitoring and verification, and report performance contracting project results.

Solution: Include renewable energy projects.

Performance contracting is now being used for both solar and wind installations, made possible by the Green Communities Act that enables performance contracting projects to include onsite electricity generation in addition to energy and water saving projects.

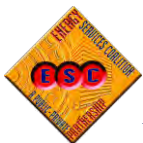
CHALLENGE: Increase the number of projects in state government and meet an aggressive executive order.

Solution: Streamline the process.

The Division of Capital Asset Management (DCAM) manages projects for most all state agencies as well as higher education institutions, working within a three-party agreement with the ESCO and the client, with its permanent staff of about 10 full-time people devoted to performance contracting, along with a number of contract consultants.

DCAM took a second look at the well-developed process and set-out to streamline it with three goals in mind: speed up the process, increase the number of projects, and achieve more energy efficiency for the Commonwealth. At the same time, DCAM wanted to keep the high level of rigor for ESCO competition while minimizing DCAM’s review time and ESCO preparation time.

To revamp its process, DCAM held a forum with ESCOs, enlisted ESC’s input and researched



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processes that worked for other states. The new process is working well so far. DCAM minimized its front-end internal audits to focus its effort on reviewing ESCO audits; reduced the level of detail required from ESCOs competing for any project and established a process to group like projects (e.g., an RFP for a project in 17 courts requires a detailed assessment of only one measure in one court); and instituted a phased audit-implementation approach so that lighting projects could quickly proceed from audit to installation to payment, while planning and design is still being completed for more complex measures such as controls. “It’s still a tough, rigorous program but it’s good for us,” said Hope Davis, Director – Office of Facilities Maintenance & Management, DCAM.



Jenna Ide, DCAM, leads an interactive session with ESCOs to discuss process improvements.

In 2007 an Executive Order, *Clean Energy and Efficient Buildings – Leading by Example*, set a high bar to reduce greenhouse gas by 25% by 2012, reduce energy consumption by 20% by 2012, increase renewable capacity by 15%, and reduce water use by 10%, with escalated goals for 2020. It requires energy performance contracting for all state facilities over 100,000 square feet. “Our program gets the Commonwealth most of the way there,” said Davis.

Solution: Help ESCOs having difficulty accessing capital in this tight economy.

State administration put up \$237 million in general obligation bond funds to pay for projects. “The state is taking financial risk, but it also allows us to get projects going,” said Davis. “The challenge

is how to balance the sharing of risk with payment terms.” DCAM re-tooled its payment structure to help ESCOs cash-flow, paying for projects in phases and making progress payments as in a standard construction project.

Solution: Increase technical assistance.

With the help of federal stimulus funds, DCAM hired additional technical staff and cut its 5-year project roll-out schedule in half. “This is huge leveraging – more than if we had applied the funds to projects,” added Davis.

Solution: Apply commissioning and monitoring and verification (m&v) practices.

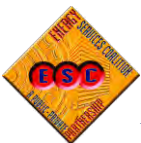
DCAM applies commissioning for every construction project and has high standards for commissioning in performance contracting. “Commissioning makes monitoring and verification simpler, as well as setting up m&v plans in advance” said Jenna Ide.

Solution: Incorporate renewables projects.



Performance contracting is the financial vehicle that’s delivering renewable energy. “We quadrupled renewable energy projects from 2MW to 8MW by signing these contracts for wind turbines and photovoltaics,” said Davis.

CHALLENGE: Develop projects in low-income housing.



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Solution: Start with Public Housing Authorities (PHAs) in the largest cities where the potential for bigger projects fits the ESCo model for both state-funded and federally-funded public housing.

“Now, we’re done with the biggest cities and are looking at clustering smaller cities needing energy upgrades,” said Debra Hall, Sustainability Programs Director, Department of Housing and Community Development (DHCD), who focuses on the agency’s 48,000 state-funded public housing facilities – mostly low-rise and mid-rise buildings. DHCD’s construction team of architects and engineers oversees performance contracts in their role to provide construction services to PHAs, coordinating the process, negotiating contracts and reviewing all phases of the work. Six large PHA projects have proven results, including Worcester which is just now wrapping up construction. “Our ESCO projects are achieving savings of 25-30 percent from the baseline year,” said Hall. “I like to show off these projects to the community – when people start seeing energy efficiency and renewables projects installed in low-income housing, they start seeing that these projects are very viable and cost-effective for their own homes.”

Solution: Capture water savings.

“Water savings often out-pace energy savings and can carry a project, particularly in developments that house families,” said Hall, “and performance contracts include water-saving measures such as low-flow toilets and showerheads.”

Solution: Balance budgeting priorities.

Whether a performance contract is the best fit for a state-funded PHA financially depends on how the legislature funds operating budgets versus capital budgets. In this tough economy, operating budgets have been cut making it more difficult to do ESCO work, while supplemental funds are increasing capital budgets. “It’s a trade-off – operationalizing a capital cost works best when operating budgets are more robust,” said Hall.

AT A GLANCE ESC’s Best Practices in Action

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

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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.

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Please visit: www.energyservicescoalition.org

