

# Municipal Advocate

The Massachusetts Municipal Association



**ENERGY**

COST MANAGEMENT  
INNOVATIVE PROGRAMS  
SOCIAL RESPONSIBILITY  
RESOURCES AND ASSISTANCE  
PERFORMANCE CONTRACTING  
ENERGY CHALLENGE



# Performance Contracting:

## A TOOL FOR CAPITAL IMPROVEMENTS WITHOUT UP-FRONT COSTS

BY LEO MCNEIL

**Local officials in Massachusetts have a tool available that makes it easier to upgrade facilities and buildings, modernize infrastructure, save energy and water, and reduce operating costs—all without up-front capital costs. The tool is called performance contracting.**

Performance contracting combines the typically fragmented components of finance, design, installation, service and maintenance into one comprehensive agreement. The process was greatly simplified with legislation (M.G.L. Ch. 25A, Sect. 11I) enacted in February 2006. Now local officials can take advantage of a streamlined request for qualifications process to contract with an energy services company (also known as an ESCO), which will help to customize a program of local improvements that can be implemented outside of the conventional capital appropriations process and then paid for over time, either entirely or in part with guaranteed savings. The energy services company is responsible for financial and operational outcomes; it must measure, verify

and guarantee results and savings over the length of the contract term.

Energy is the largest operating expense for many municipal buildings, and energy costs continue to soar. As government officials throughout the country implement strategies to save energy, it's becoming clearer that the right approach not only saves energy, but achieves superior building performance and financial outcomes as well. The U.S. Department of Energy estimates that a thirty percent reduction in energy use can yield a five percent increase in net operating income and overall asset value.

To achieve these outcomes, officials need to take a comprehensive approach that involves planning and analysis, strategic energy procurement, and intelligent

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energy conservation—all parts of the performance contracting process.

Performance contracting is a method of funding and implementing comprehensive infrastructure and facility improvement projects without burdening the capital budget. Projects can be paid for over time either entirely, or in part, through avoided energy, operating and capital costs (savings) created by the projects. The performance contractor provides a firm guarantee of resulting savings, or they will write a check for the difference.

Performance contractors provide single-source accountability for all elements of a comprehensive program, from design through installation. Ongoing service and maintenance programs are also offered to ensure that assets continue to provide the best possible results at the lowest possible cost. All components of the program, including scope of services and range of

infrastructure items to be addressed, are customized to meet the unique needs of the community.

Performance contracts are comprehensive not only in the expansive range of services provided, but also in the broad scope of systems, technologies and infrastructure items that can be addressed. Officials can take advantage of the opportunity to leverage the performance contractor's experience in a variety of areas to meet the needs of their community and maximize the benefits of the program.

Performance contracting has been used by government agencies and private owners for more than twenty-five years and more than \$20 billion in completed projects, according to the National Association of Energy Services Companies. A growing industry has emerged to meet the increasing demand, with twenty-two percent annual growth in performance contracting revenue since 2004.

## Performance Contracting vs. Conventional Methods

	Conventional Methods	Performance Contracting
Up-front engineering and development costs	\$100,000 +/-	\$0/NA
Number of contracts to execute	Multiple	One
Funded outside of capital budget	No	Yes
Project costs determined before project begins	No	Yes
Collaborative process	No	Yes
Operational outcomes guaranteed	No	Yes
Financial outcomes guaranteed	No	Yes
Long-term accountability	No	Yes
Lowest life-cycle cost	No	Yes
Reduces budgetary and operational risk	No	Yes

## Which is the best system?

System	Installed Cost	Operating Cost/year	TCO over 30 years
Packaged Electric Roof Top Units	\$10M	\$2M	\$70M
Central Plant	\$12M	\$1.5M	\$57M
Geothermal Solar hybrid	\$15M	\$1M	\$45M

Option 3 has the highest initial cost, but the lowest Total Cost of Operation (TCO) over 30 years.

## Comparison to Conventional Process

The conventional “low-bid” approach to constructing or renovating facilities emphasizes completing the project at the lowest possible initial cost. Performance contracting, however, goes beyond the initial cost to also address what is usually a much larger number: the cost of owning, operating and maintaining the assets.

Considering both initial cost and operating cost during the design development process provides owners with a total cost of ownership (TCO) for the various components being considered. The introduction of this critical information early in the design development process empowers owners to reach informed decisions on the assets that will produce the best results at the lowest possible total cost, as opposed to those that are merely the least costly to install.

There is a very real, but often overlooked, relationship between initial cost and long-term operating costs (see chart, right). When considering, for example, three types of HVAC systems for a new building, the option with the lowest first cost is not the most cost-effective solution for the long term. This type of beneficial information, coupled with greater access to capital through alternative financing, drives better decisions and produces better results.

Performance contracts are collaborative long-term relationships. Comprehensive infrastructure renewal projects can be designed and implemented with no payments required until after installation is completed. The financial program can even be customized to postpone the first payment until, for example, a year after installation. This allows the owner to reap the benefit of a year of energy savings and then use those funds to pay for all or a part of the project payment.

This outcomes-based process stands in dramatic contrast to the conventional process—known by some as “design-bid-build-litigate.” The traditional

process not only requires capital upfront, but there is no guarantee what will happen after the ribbon-cutting ceremony, when it's time for the assets to perform. (See chart previous page, bottom.)

## The PC Process

As the popularity of performance contracting has grown, so too has the realization that streamlining the process used by local officials to implement such projects is an important step in achieving the intended results. Chapter 25A, Section 11I provides a streamlined process for cities and towns to contract for comprehensive energy services programs. With a simple request for qualifications process, local officials can obtain and review qualifications, select a firm, negotiate an agreement and implement a customized program to meet local infrastructure and budgetary needs. Compared to the request for proposals process, this new approach saves time and money for all concerned, with numerous additional benefits.

The request for qualifications-based procurement process is efficient and easy to administer. Request for qualifications templates are available from a variety of sources (including Trane at [www.trane.com/boston](http://www.trane.com/boston)), so there's no need to re-create the wheel.

The first step is to align the internal resources needed to successfully administer the process. This begins by appointing or becoming the individual who will navigate the internal political and procedural hurdles needed to see the process through to completion. (Note: Clear communication of executive-level

commitment to the process is necessary to keep things moving forward.)

Additional stakeholders typically include legal and finance representatives and may also include purchasing, operations or others, depending upon the organizational make-up. Ideally, there is a committed process leader and at least two other individuals. All three will evaluate and rank responses.

The next step is to create the RFQ using the guidance provided in the statute ([www.mass.gov/legis/laws/mgl/25a-11i.htm](http://www.mass.gov/legis/laws/mgl/25a-11i.htm)).

The law requires that, at a minimum, the RFQ shall include the following:

- Name and address of the public agency
- Name, address, title, and phone number of a contact person
- Date, time and place where qualifications must be received
- Description of the services to be procured, including a facility profile with a detailed description of each building involved and accurate energy consumption data for the most recent two-year period, stated objectives for the program, a list of building improvements to be considered or required, and a statement as to whether the proposed improvements will generate sufficient energy savings to fund the full cost of the program
- Evaluation criteria for assessing the qualifications
- A statement that the public agency may cancel the request for qualifications, or may reject in whole or

## Quincy Is First To Use New Process

In May the city of Quincy executed a \$32.8 million, twenty-year contract to reduce energy costs, improve buildings, and cut greenhouse gas emissions, becoming the first Massachusetts community to take advantage of the state's new streamlined procurement process for such improvements. The energy savings and a new revenue stream are expected to pay for the entire project.

The project will reduce the city's electricity use by an estimated twenty-five percent and fuel use (natural gas and heating oil) by twenty-seven percent, eliminating an estimated 5.2 million pounds of carbon dioxide emissions each year—the equivalent of removing more than 500 cars from the road,

according to the U.S. Environmental Protection Agency.

Quincy expects to cut operating costs by \$1 million per year as a result of the energy-efficiency improvements. The city also expects a revenue increase due to improved water system metering by replacing more than 430 water meters at commercial sites. The meters will be networked through an automated meter reading system that will greatly improve reporting accuracy.

Improvements include the following:

- Upgrade heating, ventilation and air conditioning (HVAC) in forty city buildings and schools
- Replace boilers in nine buildings

- Replace roofs in six buildings
- Replace, insulate, caulk and weather-strip windows and doors in more than thirty buildings
- Update 18,000 lamps and ballasts in city buildings with new energy-efficient fixtures
- Install a solar panel at an elementary school building that will heat the school's pool as well

The city expects to complete the facility improvements and water meter installation by next August. Its energy services company will provide ongoing service, performance measurement and verification, and training as part of the contract.

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in part any and all energy savings measures, when the public agency determines that cancellation or rejection serves the best interests of the public

- Any other stipulations and clarifications the public agency may require, which shall be clearly identified in the request for qualifications

The public agency will evaluate the qualified providers to determine which best meets the needs of the public agency by reviewing the following:

- References of other energy savings contracts performed by the qualified providers
- Certificate of eligibility and update statement provided by the qualified providers
- Quality of the products proposed
- Methodology of determining energy savings
- General reputation and performance capabilities of the qualified providers
- Substantial conformity with the specifications and other conditions set forth in the request for qualifications
- Time specified in the qualifications for the performance of the contract
- Any other factors the public agency considers reasonable and appropriate, which factors shall be made a matter of record

## Further Steps

Once the RFQ is completed, the city or town must notify the Division of Energy Resources at least one week before issue. Public notice of the request for qualifications shall conform to the procedures set forth in state law (M.G.L. Ch. 149, Sect. 44J (1)).

Here are the remaining steps in the procurement and development process:

- Municipality ranks responses and selects an energy services company. Each response can be scored using a simple form (see example, below). Once all responses have been scored and ranked, the owner is ready to notify its selected energy services provider and develop a contract to proceed.
- The parties negotiate a project development and implementation agreement. Once the list of facilities and general goals and objectives to be addressed within the program are confirmed, the energy services provider can establish the cost to complete the detailed study. At this point, the parties typically execute an agreement to provide services in two phases: the detailed study phase and the implementation phase. Upon completion of the detailed study phase, the owner has the option to proceed to implementation, or pay the identified sum. If the owner elects to implement the program, the costs for the detailed audit are carried forward and included in the financed project agreement, thus avoiding capital outlay for the development work needed to define the program. Funding options for implementation are also addressed at this early stage (e.g., bond, lease or other).
- The energy services company develops a detailed scope of improvements. The development team evaluates the selected buildings and systems. Baselines of current utility consumption are established, interviews are conducted, equipment counts are taken, and nameplate information is gathered. Measurements are taken on equipment consumption, and utility bills are obtained. This data is then analyzed using industry-accepted engineering equations, computer modeling, and meter and billing analysis. A detailed list of owner priorities is identified, developed and prepared for presentation and approval.
- The energy services company delivers a firm contract proposal, with scope and guarantee. The second part of a two-step contract is in the form of completed exhibits defining project details such as scope of work, payment schedule, installation schedule, guarantee, service and maintenance, and any other items as agreed by the parties.
- Contract documents are executed and the energy services provider installs the facilities and infrastructure improvements. Contract approval at this stage is prompt because terms and conditions and overall contract form have already been developed and approved.

## Performance Contracting Formal Evaluation Form

< Name of Respondent >

Criteria	Point Value	Actual Grade
<b>Contractor Qualifications Data</b>	<b>100 Total Points</b>	
2.1 General Reputation and Performance Capabilities	20	
2.2 References	10	
2.3 Quality of Products Proposed	20	
2.4 Methodology of Determining Energy Savings	10	
2.5 Time Specified for Performance of the Contract	10	
2.6 Owner Training	10	
2.7 Service and Maintenance	20	
<b>RFQ Total Possible Grade</b>	<b>100 Points</b>	

- The energy services provider and owner work together to upgrade facilities and modernize infrastructure. Systems are commissioned and transitioned into service, maintenance, and guaranteed savings phase. Systems operating performance and energy consumption are monitored and reported throughout the contract term.

With a committed municipal team, the initial steps of issuing the RFQ and selecting the energy services provider can be completed in eight weeks. The time needed to complete the remaining steps to develop and implement the program can be customized and expedited where needed to meet local priorities. ❁

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## Frequently Asked Questions

The following are some common questions about a performance contracting program:

**Q:** Why borrow money from an energy services company when a community can get great rates on its own?

**A:** Financing is typically provided directly to the owner by independent third-party firms. Many energy services providers facilitate, rather than provide, financing and treat it as a pass-through, direct to the owner with no mark-up. This ensures the most competitive funding for the owner.

**Q:** How can a community implement a performance contract without adding to its debt?

**A:** Non-appropriation language in the standard municipal lease agreement allows for payments to be considered as a series of annually renewable short-term obligations that are funded from the operating budget. As such, leases are frequently used to fund performance contracting projects without affecting debt. Note: A community must confirm all debt and accounting considerations locally.

**Q:** Why can't a community fund the program with a bond?

**A:** Bond funding is fine if it is readily available. Leasing can be an attractive alternative based on ease and speed of process (no voter referendum required), no bond counsel fees, and debt limit protection. Parties should work together to compare all funding options and reach an informed decision that best meets local cash flow and budget considerations.

**Q:** Are energy savings guarantees too complicated and difficult to administer?

**A:** Energy savings guarantees are standard guarantee methodologies that are used throughout the industry. An energy services company will work closely with communities to customize a guarantee to suit the mix of improvements being implemented. Massachusetts law (M.G.L. Ch. 25A, Sect. 11I) now includes the following protection for owners: "The guaranteed energy savings contract shall include a written guarantee of the

qualified provider that either the amount of energy savings guaranteed will be achieved or the qualified provider shall reimburse the public agency for the shortfall amount. Methods for measurement and verification of guaranteed savings shall conform to the most recent standards established by the Federal Energy Management Program of the United States Department of Energy."

**Q:** How can the community avoid problems with "fine print"?

**A:** Request a list of any litigation or guarantee disputes on previous performance contracting agreements to get a sense of a firm's track record. Place this in the request for qualifications to provide a clear picture of the previous performance of the potential long-term partner.

**Q:** We already work with our utility and have done our lighting. Why would we need a performance contract?

**A:** Performance contracts complement utility programs; it's not an either/or situation. Performance contractors will help owners to secure any rebates and subsidies available from utilities and other sources where applicable. The best programs combine the expertise of the energy services company with any and all available subsidies and rebates, creating a comprehensive solution for the owner.

**Q:** Does the community have to sign up for a twenty-year service and maintenance agreement?

**A:** No. While service and maintenance are obvious prerequisites to achieving optimal systems performance and energy savings, owners can cancel ongoing services at any time. Owners should simply structure the service and maintenance agreement as annually renewable, with provisions for cancellation. Certain guarantee provisions, however, are necessarily tied to ongoing involvement by the energy services company.

– LEO MCNEIL