Over the past 20 years, Energy Savings Performance Contracts (ESPCs) have played a key role in the ability of federal and state agencies to complete critical upgrades to aging building systems and reduce energy costs without large capital improvement budgets.

Though not specifically referenced for this particular effort by President Obama, his administration has supported the roles of ESPCs at the federal level by committing $2 billion to the Department of Energy’s ESPC programs through 2016.

Additionally, he has encouraged the use of ESPCs at the state and local levels through the Better Buildings Challenge initiative. Through the program, 60 CEOs, mayors, university presidents, and labor leaders have committed to invest nearly $2 billion of private capital into energy efficiency projects.

They have also committed to upgrade energy performance by a minimum of 20% by 2020 in 1.6 billion square feet of office, industrial, municipal, hospital, university, community college, and school buildings. These are an important mechanism to funding energy improvements.

What Are ESPCs?

ESPCs are one of the earliest forms of Public-Private Partnerships (P3s). Long before the term “P3” became popular, the federal government and even some states used nontraditional financing arrangements and procurement methods to fund capital projects designed to reduce energy costs.

Earlier this year, President Obama issued an executive order that requires the improvement of energy efficiency in federal government buildings and an increase in power from renewable sources. The move means significant upgrades and retrofitting to buildings across the country. While a major project, improving government buildings (including schools, government health care facilities, offices, and other federal entities) isn’t a new idea.
ESPCs are turnkey projects provided to public-sector owners by Energy Service Companies (ESCOs), a role that is more akin to a design-builder or developer than a traditional prime contractor. The ESCO designs and constructs a project that meets the owner’s needs and also arranges for financing to pay for it.

Federal law first allowed the use of ESPCs in 1986. Since then, most states have passed similar legislation allowing state and local government agencies to enter into these types of contracts. ESPCs are particularly appealing to cash-strapped governments because they can procure energy-saving retrofits and improvements without using capital budget funds.

ESPC projects include many different types of energy and operational improvements. The most common types of energy savings measures implemented in an ESPC contract are: lighting retrofits, controls retrofits, HVAC upgrades, variable frequency drive (VFD) and motor replacements, and water conservation projects. These projects typically have positive “payback,” because the savings generated from the new system is substantial in relation to the cost to implement the change.

Projects can range in scope and size from simple light fixture replacements to newly constructed cogeneration plants. Many projects add renewable energy measures as part of the energy savings measures, including rooftop solar installations, geothermal heat pumps, and natural-gas powered or hybrid fleet vehicles.

ESPCs are usually procured through Requests for Qualifications (RFQs) or Requests for Proposals (RFPs). The turnkey nature of these projects makes the use of hard bid solicitations impractical. Thus, the ESPC selection process is driven much more by bidder qualifications and innovative value proposals than by price.

**Who Are the ESCOs?**

Procurement statutes allowing agencies to enter into ESPC agreements usually limit those opportunities to ESCOs, the companies whose primary business offerings are ESPCs. The main difference between an ESCO and a traditional prime contractor or design-builder is a guarantee of energy savings specified as part of the ESPC agreement.

Many large ESCOs operate in the federal market as well as in state markets across the country, and are owned by electric or gas utility companies or building equipment or controls manufacturers. Smaller, independent ESCOs focus on regional or industry-specific markets.

Regardless of size, financial stability and prior ESPC experience are usually the top two categories for prequalification of ESCOs.

**What’s Different About ESPC Projects?**

The major differences between an ESPC project and a traditional design-build project are the private, third-party financing of the project and the project savings guarantee (i.e., performance guarantee) provided by the ESCO.

ESCOs can either finance the costs of construction or arrange for long-term financing by a private, third-party lender. Financing structures vary; operating or municipal leases were once the primary financing arrangement, but as the market has developed, financing options have grown. For example, more traditional loans and financing agreements, as well as such tools as revolving loan funds and general obligation bonds, are now commonly used to finance ESPC projects.

In some instances, more than one financing tool may be used to fund different portions of the ESPC project (e.g., a combination of funding sources such as leases, bond funds, and rebate or incentive programs). For example, when solar or other sustainable energy measures are included, a power purchase agreement may be used as a financing mechanism for a portion of the project.

The length of the financing agreement is usually capped by legislation. Most states do not allow projects to be financed more than 15 or 20 years, and federal projects may be financed for longer periods. In all cases, when the financing repayment obligation ends, any continued cost savings from the project accrue to the owner.

The project savings guarantee is unique to ESPC contracts, and the guarantee is the reason that private lenders are willing to finance these projects. As part of the ESPC, the ESCO provides a guarantee that the project’s operational and energy savings will be sufficient (or greater than) the financing repayment costs for the life of the loan.

In other words, if the owner does not achieve the estimated operational and energy savings, then the ESCO pays the owner for the deficiencies in performance. In many instances, the guarantee period is the same as the financing repayment period.
ESCOs design the projects based on detailed cash flow statements that show anticipated savings from the new energy conservation measures installed, which will be redirected to pay the project’s financing.

Guarantee Period/Measurement & Verification
After the improvements are completed, the ESCO continues to have an ongoing obligation to the owner to guarantee that the savings are achieved.

THE MAJOR DIFFERENCES BETWEEN AN ESPC PROJECT AND A TRADITIONAL DESIGN-BUILD PROJECT are the private, third-party financing of the project and the project savings guarantee (i.e., performance guarantee) provided by the ESCO.

What Are the Phases of ESPC Projects?

Energy Audit/Design of Project
The first phase of the ESPC project is the energy audit and design phase. Here the ESCO performs a comprehensive energy audit of a particular facility, campus, or other defined group of buildings or operations to identify energy and/or water-saving improvements that can be made to reduce the agency’s operation costs. The ESCO then designs a project to meet the agency’s needs.

A critical element of the design is that payment for the project’s cost must only come from the savings generated by the project. Consequently, the more energy that is saved, the larger the project can be.

Also during this phase, the owner secures financing for the project, and enters into a separate agreement with the financing company that is based upon the project’s cost. The repayment schedule is based upon the projected savings.

Construction/Implementation of Energy Improvements
Once the scope and cost have been agreed upon, the ESCO completes the installation or construction of the energy improvements.

This phase is most like a traditional construction project, and is often subcontracted to contractors to perform the actual construction and construction management. Comprehensive commissioning is usually performed by the ESCO or an independent commissioning agent hired by the owner to ensure that the equipment is performing to designed capacity.

 Guarantee periods are usually 5-10 years and often coincide with the financing repayment term. “Savings” are tracked by various contractually agreed upon measurements and verification protocols that measure the equipment performance levels rather than the actual cost savings of the agency. (The actual cost savings are not measured because the ESCOs do not guarantee against rate increases or increases in the owner’s energy use.) If the measured savings do not meet the amount set out in the performance guarantee specified in the contract, then the ESCO pays the agency the difference between the amount guaranteed and the actual savings.

Also in this post-construction phase, the ESCOs usually enter into service agreements with the owner to perform operations and maintenance on the new equipment. By maintaining and operating the equipment, ESCOs are better able to control the performance of the equipment and fix any problems that might cause the ESCO to fail to meet its performance guarantee.

What Are the Opportunities for Contractors?
Many ESCOs self-perform the energy audits, engineering design of the projects, and sometimes the post-construction service and maintenance on the new equipment. However, very few (if any) ESCOs actually perform the installation of the energy conservation measures. The work is typically subcontracted to local contractors with experience in handling projects of similar scope and size, including the construction management role for larger or more complex projects. ESCOs may also use outside contractors to perform commissioning, measurement and verification services, and repairs and/or maintenance to the systems during the guarantee period.
The agreements between ESCOs and contractors are akin to standard construction contracts or subcontracts. The risks that are passed down to the contractors by the ESCOs are those that are commonly associated with traditional construction projects – completing the work per plans and specifications on time and within budget. The post-construction performance guarantee obligations are not part of the ESCO-contractor agreements.

Risks associated with payment are similar to traditional third-party financed projects. With ESPCs, the private financing company – not the government entity – pays for the construction costs. Draws are made against the loan as construction progresses for the monthly pay applications submitted by the ESCO.

**Conclusion**

In short, there is no real difference for contractors between an ESPC project and a traditional construction or retrofit project. With energy efficiency and operational savings being top priorities for agencies and governments at every level, ESPCs will continue to be a popular delivery method for public entities to use for infrastructure improvements.

**Endnotes**


GINA M. VITIELLO is a Partner in the Construction and Commercial Litigation practices with Chamberlain Hrdlicka in Atlanta, GA. She represents clients in contract negotiation matters, dispute avoidance/resolution, and litigation.

She was one of the first attorneys in the state of Georgia to obtain LEED Accreditation from the U.S. Green Building Council and has significant experience with energy savings performance contracts.

Phone: 404-588-3426
E-Mail: gina.vitiello@chamberlainlaw.com
Website: www.chamberlainlaw.com