

Cost Containment and Infrastructure Improvements Using Performance Contracting

Introduction

The concept of using energy savings to fund facility improvements has been implemented across the United States for decades. Energy Performance Contracting (EPC) represents a method to remedy deferred maintenance using energy efficiency as the primary source of funding. The improvements are funded entirely through energy and operational cost avoidance savings, which creates a budget-neutral situation in which no capital funding is needed from the owner.

Converting energy savings into revenue through a qualified Energy Service Company (ESCO) provides assurance that indemnifies public entities through an annual energy savings guarantee. Simply put, you do not pay for an agreed upon result that was not achieved.

The Role of Energy Services Companies

Companies commonly referred to as ESCOs serve a similar function as an Architectural/Engineering Company and General Contractor combined. The fees are similar to standard contracting with one added key component; an ESCO provides a guarantee of the annual energy savings for each and every year, throughout the financing term. In essence, an owner contracts for design outcomes, in contrast to design intent.

Arkansas Legislation

In almost every state, Energy Performance Contracting is approved and encouraged for public entities. It represents a proven, budget-neutral method for making improvements and encouraging economic development that otherwise would have to be funded from traditional appropriations. Arkansas is included among these states, having passed the following enabling legislation and launched the Arkansas Energy Performance Contracting Program in recent years:

- [Act 554 of 2013, Guaranteed Energy Cost Savings Act](#)
- [Act 1252 of 2013, State Entity Energy Efficiency Project Bond Act](#)
- [Act 1275 of 2015, Local Government Energy Efficiency Project Bond Act](#)

Project Funding

The owner has the ability to procure financing or to utilize a financing package provided by the ESCO. Please note that in Arkansas, state agencies pursuing EPC projects must finance through the Arkansas Development Finance Authority (ADFA). ADFA may also be an attractive partner for other public entities pursuing small to medium size EPC projects. There are also many 3rd party financial institutions both in Arkansas and nationally with specific experience in underwriting and financing guaranteed energy savings projects. The owner's energy and operational savings support the repayment of the debt service which is in turn guaranteed by the ESCO for the length of the contract.

Arkansas Energy Performance Contracting

Engineering Disciplines in Energy Savings Applications

An EPC project requires three types of engineering. Energy engineering is the first step used to define the estimated cost and savings for energy savings retrofit projects. This step involves the completion of an investment grade audit (IGA) which allows the owner to pick and choose the individual energy conservation measures that they believe are in their best interest.

The next step is the engineering required to design and bid the installation of the improvements. Upon approval of a building plan, construction of energy conservation measures will commence.

The last step is the engineering required to measure and verify the validity of the guaranteed savings occurring each and every month. The AEPC offers four options for measurement and verification based off internationally-recognized standards.

Responsibility

The AEPC Program presents an excellent option for risk-averse public entities, as the responsibility for the accuracy of the project cost and the accuracy of the project savings belongs to the ESCO.

Energy and Operational Savings

Energy Service Companies qualified by the Arkansas Energy Office recognize that all energy and operational savings belong to the public client. The typical cash flow analysis for EPC projects is conservative with regard to cost and savings. As a result, the cost is never greater than the agreed upon contract amount. Savings meet or exceed the agreed upon contract amount or the ESCO makes up the difference, making long term budgets more flexible and easier to plan. That's the value of the AEPC guarantee.

In an EPC contract, once the guaranteed savings retire the debt service, they will of course continue beyond the financing term in perpetuity throughout the lifecycle of the equipment.