

*Developing a partnership process of resolving differences of opinion, expediting reviews, and keeping the project on track all results in reduced costs and earlier savings.*

# Combined Heat & Power FACTSHEET

## Alternative Financing Tips Help Lower Costs for CHP Projects at

### Federal Facilities

The majority of Combined Heat and Power projects currently being undertaken by the Federal government are being financed by the private sector through either Energy Savings Performance Contracts (ESPC) or Utility Energy Services Contracts (UESC). Both of these alternative financing authorities allow federal facilities managers to sign long-term contracts for capital intensive energy efficiency improvement projects that are privately financed, with the payments being made from the resultant cost savings. While the terms and conditions are subtly different between the two authorities, the basic financing elements are the same with the same private financial institutions participating. By using some of the lessons learned by federal contracting officers over the last ten years, federal facility managers can save significant project and interest costs over the contract term. The following suggested techniques should be considered for every privately financed Combined Heat and Power project:

#### **Remember Time Is Money:**

Federal facility managers must remember that alternative financing is not a source of “free” money. All of the effort that the private sector puts into developing and implementing the project will be paid back over the contract period by the facility. So anything that the facility can do to reduce unnecessary effort on the part of the contractor will result in a lower cost of the project, which can in turn be turned into greater scope of the project, lower payments, or a shorter contract period. Developing a partnership process of resolving differences of opinion, expediting reviews, and keeping the project on track all results in reduced costs and earlier savings.

#### **Talk with the Financiers:**

Private sector financing is not something most federal personnel are familiar or comfortable with. The financing costs of an alternatively financed energy project may represent more than half of the total cost over the contract term. Talk with representatives of the financing companies who are participating in the energy efficiency projects and find out what their terms of art (e.g. basis points, adders, hedges) mean. As you become more familiar with the business of financing you can identify those contract terms and conditions that are significant to the financiers and that you may be able to make more amenable to them if by doing so you don't affect your particular project. The financiers are happier with an informed customer since that means a greater probability of a contract and less time to finalize the deal, and are happy to provide as much detail as you want.

**Compare Rates:**

While interest rates from various companies are usually fairly close for the same project, ask them what associated fees and costs in addition to basic interest they include in their financial package so that you can compare rates equitably. In a recent \$3 million project the spread of financing among companies varied by about 100 basis points - \$580,000 over the project's 10-year term. Although a formal competition is not necessary, the energy services company or utility company proposing the project should demonstrate in detail the process that they went through to get the best overall financing.

**Use Standard Terms and Conditions:**

The private sector financiers are as unfamiliar in dealing with federal contracts as federal personnel are in dealing with financing. And they have just as many conservative contracting officers and lawyers as the government. By using contract terms and conditions that they have used successfully before, the processing time and expense on the private sector side (which will be paid by the government) will be significantly reduced. Using the Regional ESPCs, the UESC's Model Agreements, or the General Services Administration's Area-Wide Energy Services Annex can save time and reduce the apparent risk (and resultant interest rate) from the financier's perspective.

**Negotiate Prepayment Clauses Early:**

Clear buy-down and buy-out contract terms negotiated early in the project development can reduce the perceived risk of the financier and lower financing costs. Financiers, and the investors that are the source of financing, invest in the projects with the expectation of a fixed return over the contract period. If the project is terminated early, the funds have to be reinvested in another instrument that may have a lower level of return. The perceived risk of the loss of return is reflected in an increased interest rate. A formula that assures the termination amount to be paid on the finance portion of the contract, with an additional yield-maintenance amount indexed to the difference between the interest rate of the contract and the then rate of the bond or SWAP rate, will provide the financier and their investor with the assurance of expected return on their investment and will secure a lower overall interest rate for the period of the contract.

**Use Appropriate Project Verification Methods:**

It is the responsibility of federal personnel to make sure that they get appropriate value for payment in any contract. Alternatively financed energy efficiency projects are premised on the expectation that the resultant energy cost savings will cover the cost of the actions undertaken and the finance costs of the capital investment over the term of the contract. ESPC authority requires that the contractor guarantee the savings and include a measurement and verification plan to validate that the savings of each measure is achieved annually. While not required by the authority for UESCs, it is good business sense that there is a reasonable method for the facility to verify that the project continues to perform as expected over the term of those contracts. Any additional expense for continued monitoring and verification will be included in the contract cost, decreasing project investment or lengthening term. Therefore all parties must make sure that the level of performance verification is appropriate to the value of the energy savings being measured and the relative risk of the specific energy conservation measure. The International Measurement and Verification Protocol available at <http://www.ipmvp.org/> can help federal project managers and contractors/utilities negotiate the level of performance verification appropriate to the size and complexity of each specific measure.

**Minimize Risk to the Financier:**

Another way to reduce interest costs is to include a clause in the contract that assures that the repayment of finance costs will be made to the financier regardless of the performance of the contractor/utility or the guarantee of savings. A U.S. Department of Defense facility included such a clause in a recent UESC resulting in a reduction in interest rate of 100 basis points (1%). Over the 10-year term of the \$15 million project the benefit to the government was nearly \$2 million.

**Don't Buy a Rate Lock:**

Because the financiers have to factor the risk of interest rate changes into their proposals, asking for a rate lock early in the contract development process will result in them adding a hedge amount to cover that contingency. The use of an indexed rate built around some formula based on the actual T-bill or SWAP rate on or near the day that the delivery order is signed will eliminate the hedge and result in lower interest costs over the contract period.

## **Bundle Energy Measures:**

Combining many energy conservation measures into one delivery order under an alternatively financed project allows the facility to get the most facility improvement and energy efficiency increases possible. It also decreases the cost of contract and administration burden to execute the contract. In addition it reduces the risk of the failure of any one measure significantly affecting the whole project. As a result the lowered perceived risk the financier will often give a better rate. Some financiers bundle several contracts into a portfolio of energy efficiency improvement projects to attract lower overall rates.

## **Consider Annual Payments:**

Making an advanced annual disbursement of the financed portion of the contract payment rather than monthly payments can significantly reduce the interest paid over the term of the contract. Two recent examples illustrate the point: Annual payments of a \$10 million, 10-year UESC project will save over \$600,000 over monthly payments during the contract period; annual payments of a \$20 million, 20-year ESPC project will save almost \$1.7 million in interest costs. Those cost savings can be negotiated into even greater infrastructure improvements for a greater value to the government.

## **Partnership:**

All of the suggested mechanisms must be accepted by both parties and negotiated into mutually beneficial changes in the contract. Alternatively financed energy efficiency improvement contracts are performance contracts that require the government and the private sector to work as a team to optimize the savings to the government and the legitimate return on investment of the private partner. Combined Heat and Power opportunities exist in a great number of federal facilities. The use of the private sector's expertise and resources can expedite the energy efficiency and security benefits of this technology for the federal government.

Visit the following website for more information:  
<http://www.energy.gov/> or <http://search.ornl.gov/>

Other Combined Heat and Power publications available at:  
<http://www.energy.wsu.edu/publications.html>

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