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Practical Guide to Savings and Payments in FEMP ESPC Task Orders

Rev. 3

January 2009

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Preface

This January 2009 revision of the *Practical Guide* incorporates changes in terminology introduced by the DOE ESPC IDIQs awarded in 2008.

This revision also incorporates the impacts of an amendment to the ESPC statute enacted by the Energy Independence and Security Act (EISA) 2007. The new Appendix 3 is a memo from DOE's Office of the General Counsel - Fossil Energy and Energy Efficiency that outlines an interpretation of the amendment.

The former section 6 of the *Practical Guide* is now included as Appendix 1.

This document and others pertaining to FEMP ESPCs are available on the ESPC contract tools pages of FEMP's Web site, at www1.eere.energy.gov/femp/financing/superespcs_contracttools.html.

PRACTICAL GUIDE TO SAVINGS AND PAYMENTS IN FEMP ESPC TASK ORDERS

Rev. 3, January 2009

1. Purpose and Scope of the Practical Guide

This document is intended to convey a practical understanding of how to interpret and apply the statutes and rules that define allowable energy and cost savings and payments under the U.S. Department of Energy's (DOE's) Federal Energy Management Program (FEMP) Energy Savings Performance Contracts (ESPCs).

Shaping a FEMP ESPC project that delivers optimal technical and financial performance requires full knowledge and careful analysis of all the technical and financial options. Understanding what kinds of savings may be accounted for and used to pay the contractor is critical to taking full advantage of the leveraging power of ESPCs. This guide translates into layman's terms the relevant statutes and regulations and discusses the practical implications of the rules. Examples are used to illustrate the types of savings that are commonly applied to payments to the contractor. A few accounting and financial administration aspects of FEMP ESPC projects are discussed in Appendix 1, which outlines simple examples of generic procedures that agencies can adapt to their own accounting systems.

Establishing the cost baseline against which savings will be measured is a critical task in structuring the task order, as is defining and specifying a plan for measurement and verification (M&V) of energy and water cost savings. While we recognize the central importance of M&V and cost baseline issues, they are beyond the scope of this guide and are addressed here only peripherally. More information, guidance documents, and contract tools for FEMP ESPCs are available on FEMP's Web site at www1.eere.energy.gov/femp/financing/superespcs_contracttools.html.

2. Legislation and Rules

The applicable statutes and rules include the National Energy Conservation Policy Act (NECPA 42 USC 8287) as amended by the Energy Policy Act of 1992 (Pub. L. 102-486) and implemented by regulation as the DOE Final Rule (10 CFR Part 436).

42 U.S.C. § 8287 (a)(1) provides, in part, that “The head of a Federal agency may enter into contracts under this title solely for the purpose of achieving energy savings and benefits ancillary to that purpose Such contract shall provide that the contractor shall incur costs of implementing energy savings measures . . . in exchange for a share of any energy savings directly resulting from implementation of such measures during the term of the contract.”

42 U.S.C. § 8287a requires that “Any amount paid by a Federal agency [under an ESPC contract] may be paid only from funds appropriated or otherwise made available to the agency . . . for the payment of energy, water, or wastewater treatment expenses (and related operation and maintenance expenses).”

10 CFR § 436.31 includes energy- and energy-related cost savings in the definition of “energy cost savings:” “Energy cost savings means a reduction in the cost of energy and related operation and maintenance expenses, from a base cost established through a methodology set forth in an

energy savings performance contract.” Operation and maintenance (O&M) expenses include repair and replacement (R&R) expenses.

The Ronald W. Reagan National Defense Authorization Act for FY 2005, P.L. 108-375, § 1090, Oct. 28, 2004, amended NECPA to revise the definition of energy savings to include water conservation measures. In this document, “energy and energy-related savings” will refer to energy, water, water treatment, and related savings.

42 U.S.C. § 8287(a)(2)(B) establishes that “Aggregate annual payments by an agency . . . under an energy savings performance contract may not exceed the amount that the agency would have paid for utilities without an energy savings performance contract . . . during the contract years.”

10 CFR § 436.30(d) provides that the regulatory provisions interpreting 42 U.S.C. § 8287, *et seq.*, are permissive and “shall be liberally construed to effectuate the objectives” of the ESPC statute.

The Energy Independence and Security Act of 2007 (EISA 2007) in Sec. 512 added a “Funding Options” provision to the ESPC statute. The provision states:

“In carrying out a contract under this title, a Federal agency may use any combination of (i) appropriated funds; and (ii) private financing under an energy savings performance contract.”

This amendment is interpreted by the Department of Energy (DOE) to explicitly authorize the payments from one-time avoided costs that originate from authorized sources, including appropriations specifically for energy improvements. Appendix 3 is a memo to FEMP from DOE’s Office of the General Counsel - Fossil Energy and Energy Efficiency that outlines the interpretation.

EISA also amended the definition of savings in 41 USC 8287c(2)(C) to include: “... if otherwise authorized by Federal or State law (including regulations), the sale or transfer of electrical or thermal energy generated on-site from renewable energy sources or cogeneration, but in excess of Federal needs, to utilities or non-Federal energy users....” The ability to rely on the sale of excess power to generate “energy savings” will likely be subject to a variety of site-specific factors, and FEMP has not yet issued related guidance.

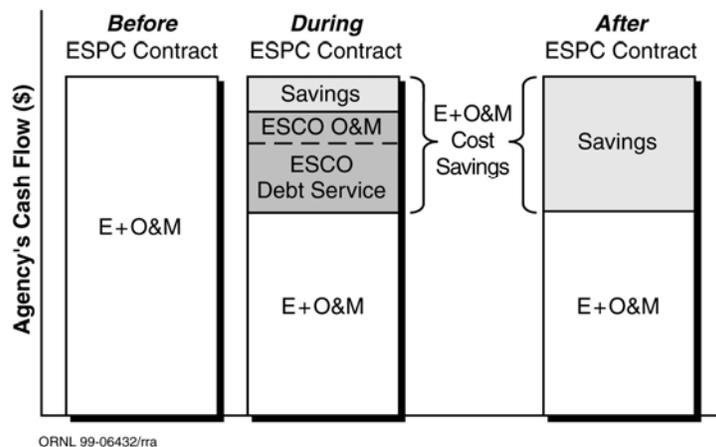
The Practical Guide also reflects the information in “DOE-FEMP Guidelines Regarding One-Time Payments and One-Time Savings in Energy Savings Performance Contracts” (Appendix 2).

3. Using Federal ESPCs

The FEMP ESPC program is designed to help federal agencies improve energy efficiency in their facilities and reduce their energy costs, as mandated by the Energy Policy Act of 1992 and a series of executive orders.

FEMP ESPCs require the energy services companies (ESCOs) to guarantee that the energy-efficiency improvements implemented through the ESPC project will result in a specified level of cost savings to the federal customer and that these savings will be sufficient to pay the ESCO for its work over the term of the contract. The ESCO and the customer agree on annual firm-fixed-price payments that are less than the guaranteed annual cost savings. Savings to the customer must exceed aggregate annual payments to the ESCO.

ESPCs Reallocate the Federal Customer's Payments for Energy and Energy-Related Operations & Maintenance Expenses (E + O&M)



The figure above portrays the dynamics of a FEMP ESPC project in terms of the agency's cash flow before, during, and after the term of the task order contract. During the term of the task order, the agency continues to budget and request appropriations as before, and savings generated by the ESPC project are applied to payments to the ESCO. At the end of the contract term, payments to the ESCO cease and the additional savings accrue to the agency.

Federal agency customers may enter into a multiyear ESPC if they have their customary appropriations for energy and related O&M and R&R. There is no requirement that the agency have appropriated funds available upon the award of a FEMP ESPC task order to pay for the total costs for the entire term of the ESPC. The FEMP ESPCs allow the federal customer to incur a long-term obligation to pay for the project from guaranteed savings. The ESCO arranges financing for the up-front costs and retires the debt over the task order term.

Project costs, magnitude of cost savings, energy efficiency and payback periods of the energy- and water-conservation measures (ECMs), and financing costs are interactive factors that must be balanced in an ESPC project. The term of the task order will be a function of these factors, but cannot exceed 25 years. To optimize savings, most ESPC projects include several ECMs with a range of payback periods. For example, bundling lighting retrofits that can pay for themselves by their cost savings in just a few years with longer-payback infrastructure improvements can give a comprehensive project an acceptable term.

4. Definitions of Allowable Savings and Sources of Payments

This section defines the types of savings that can be accounted for and used to support payments to the contractor. For these savings to be used to support payments to the contractor, they must be "real" savings, as defined below. Examples of allowable and unacceptable savings and payments follow.

4.1 Definition of Savings

Cost savings are defined as a reduction in the cost of energy, water, and wastewater treatment expenses and related expenses for O&M and R&R relative to a pre-project base cost — a baseline representing the amount the agency would pay absent implementation of the ESPC. (In this document, "energy and energy-related savings" will refer to energy, water, water treatment, and related savings.)

Energy Cost Savings — A reduction in the cost of energy, water, or wastewater treatment from the baseline cost established in the ESPC. Energy cost savings are generally “recurring” savings – savings that occur year after year.

Energy-Related Cost Savings — A reduction in expenses (other than energy cost savings) related to energy-consuming equipment, generally related to equipment operations, maintenance, renewal, replacement, or repair expenses.

One-time energy-related cost savings can result from avoided expenditures of O&M or R&R funds, or from avoided capital expenditures for projects (e.g., equipment replacement) that, because of the ESPC project, will not be necessary.

There is no basis in the ESPC statute or regulations for requiring that energy savings (as opposed to related savings) constitute 50% or any other arbitrary proportion of total cost savings.

4.2 The Cost Baseline

Savings are measured against baseline costs—the expenses that the agency would have incurred had the ESPC task order not been implemented. Baseline costs are established as part of the M&V methodology that is agreed upon by the contractor and the customer and is documented in the task order.

Based on statute, the baseline amount is equal to the sum of (1) the energy use baseline defined under the ESPC task order (adjusted if appropriate), multiplied by the unit energy cost, plus (2) pre-project related O&M and R&R costs, adjusted for increases in labor and material price indices.

4.3 Sources of Payments to the Contractor

The statutory and regulatory basis for defining how agencies may pay for energy projects performed under FEMP ESPCs is found in 42 USC 8287a. Payments to ESPC contractors must satisfy these criteria:

- The money to pay the contractor for the work must be paid from cost savings that result from the ESPC project
- Savings may include: “... if otherwise authorized by Federal or State law (including regulations), the sale or transfer of electrical or thermal energy generated on-site from renewable energy sources or cogeneration, but in excess of Federal needs, to utilities or non-Federal energy users...” The ability to rely on the sale of excess power to generate “energy savings” will likely be subject to a variety of site-specific factors, and FEMP has not yet issued related guidance.
- Payments to the contractor must come from funds appropriated or otherwise made available to the agency for energy efficiency improvements, for payment of energy, water, and wastewater treatment expenses, or for related O&M expenses.
- Guaranteed cost savings to the federal customer must exceed payments to the contractor in every year of the task order term.
- The basis and methods for determining all cost savings of any kind must be agreed upon by the federal customer and the contractor and documented in the contract.

4.4 The Color of Money

Agency personnel generally know which of their accounts are used to pay for energy commodities, and these accounts are allowable sources of payments under ESPC. On the other hand, agencies use various terms for organizing their own energy- and water-related O&M and R&R budget categories, and the meanings assigned to “capital,” “operating,” and other types of funds vary from one agency to another. However, if the money is made available for general maintenance, operation, repair, and replacement of energy-consuming systems (as opposed to being earmarked for a specific project via a capital line item), it may be used for payments to the ESCO.

4.5 Real Savings

Only “real savings” may be applied to contractor payments; that is, the savings must be reflected as reduced expenses in the agency’s accounts for energy or related O&M. Payments must come from money that the government was either already spending or planning to spend, which can now be redirected because of the energy work that is done under the ESPC. Only real savings, by definition, will make money available for contractor payments.

Tight budgets in many cases force agencies to stretch dollars by operating their facilities using substandard procedures or equipment. Using the least expensive (but less effective) air filters for a ventilation system, for example, might be necessary to keep expenses within budget. A nearly universal strategy for cutting expenses is deferring maintenance, repairs, and replacements. However, energy-related savings must be figured on the basis of actual budgeting and spending patterns rather than on the level of spending that would ideally be necessary for optimal O&M of the system.

5. Sources and Examples of Allowable Savings

5.1 Energy and Water Cost Savings

Energy and water cost savings are reductions in costs for energy or water as a commodity. Energy and water savings are generally ongoing after the ECMs are implemented, i.e., they are *recurring* in every year of the task order term. Sources of energy savings include, but are not limited to

- less energy use (electricity, natural gas, propane, oil, etc.),
- use of renewable energy,
- improved pattern of energy use, e.g., lowering peak demand,
- power factor correction,
- fuel substitution or dual fuel,
- change in utility rate structure in conjunction with ECMs, and
- less water use.

5.2 Examples of Energy and Water Cost Savings

Less Energy Use. An old, inefficient boiler originally designed for coal but fitted with a natural gas burner 20 years ago is replaced with a bank of high-efficiency, staged, modular, natural-gas-fired condensing boilers. Lower bills for natural gas represent an annually recurring energy cost savings.

Improved Pattern of Energy Use. A chiller plant is fitted with a chilled water storage facility and modified controls so that peak-period chiller operation is displaced with cool storage and

night chiller operation to recharge storage. The avoided electricity peak demand charges are an annually recurring energy cost savings.

Power Factor Correction. Capacitor banks are added to balance loads on a facility's power system. The avoided power factor penalty charges are annually recurring energy cost savings.

Substitution of One Form of Energy for Another. A natural-gas line is run to the oil-fired boilers in a central steam plant, and dual-fuel burners are installed so that the lowest-cost fuel can always be used. Oil backup allows gas to be purchased at its commodity cost without contract demand charges. The avoided fuel costs are annually recurring energy cost savings.

Water Savings from Boiler and Steam System Retrofits. Retrofits of a boiler and associated steam distribution system improve their efficiency. Replacing the condensate-return system and steam traps results in significant water and cost savings (as well as significant energy savings).

Water Savings from Air-Conditioning Systems. Conversion of chiller condenser cooling from "once-through" to recycled water usage by installing a fluid cooler or cooling tower can contribute to cost savings to support payments to the ESCO.

Water Savings from Decreasing Hot Water Demand. Measures that decrease hot water demand and energy use for water heating such as low-flow shower heads and flow restrictors or aerators on water faucets are well-known sources of energy and water savings.

Renewable Energy Generated On Site. EISA amended the definition of savings in 41 USC 8287c(2)(C) to include: "... if otherwise authorized by Federal or State law (including regulations), the sale or transfer of electrical or thermal energy generated on-site from renewable energy sources or cogeneration, but in excess of Federal needs, to utilities or non-Federal energy users...." The ability to rely on the sale of excess power to generate "energy savings" will likely be subject to a variety of site-specific factors, and FEMP has not yet issued related guidance.

5.3 Energy-Related Cost Savings

Energy- (and water-) related cost savings are reductions in expenses *related* to energy- or water-consuming equipment. Energy- and water-related savings may be recurring or may be one-time savings. (One-time savings are discussed in more detail below.) Sources of energy-related savings include

- avoided current or planned spending,
- transfer of responsibility for O&M and R&R to the ESCO, and
- avoided renovation, renewal, or repair costs.

5.4 Documentation of Energy-Related Savings

DOE-FEMP guidance stresses that agencies should "exercise due diligence" to document all energy-related cost savings in the task order.

For recurring energy-related savings the estimated avoided operation, maintenance, renewal, repair, or other costs should be documented. Any ESPC savings claimed from reduced labor must be verifiable (e.g., elimination of an existing subcontract or a reduction in FTEs).

For one-time energy-related cost savings, the estimated cost of the avoided government expenditures should be documented.

5.5 Examples of Recurring Energy-Related Cost Savings — O&M

Many ESPC task order projects reduce the agency’s costs of maintaining and operating energy-consuming systems. Recurring O&M cost savings can be significant. Again, any ESPC savings claimed from reduced labor must be verifiable (e.g., elimination of an existing subcontract or a reduction in FTEs).

Operation Costs. The contractor upgrades space- and water-heating equipment in a complex of buildings so that steam lines and a central steam plant are no longer needed, and the retiring boiler operator does not need to be replaced. The avoided costs of employing a boiler operator (salary, benefits, worker’s compensation, overhead) are annually recurring energy-related cost savings.

Maintenance Costs. The contractor upgrades HVAC systems in a complex of buildings and assumes maintenance, repair, and replacement responsibility, replacing the current HVAC service subcontractor. The avoided subcontract cost is an annually recurring energy- and water-related cost savings.

Renewal Costs. The contractor replaces an aging mixed-vintage population of small packaged HVAC units with new equipment. The old units were approaching, at, or exceeding their expected service lives, and the agency had been planning to replace them with similar units as they failed as part of ongoing HVAC maintenance efforts. The planned expenditures for “like-to-like” replacements are annually recurring energy- and water-related cost savings.

Repair and Replacement Costs. The contractor replaces a population of small packaged unitary HVAC equipment having significant remaining service life with substantially more efficient equipment, and assumes responsibility for maintenance, repair, and replacement. This allows the overburdened government maintenance staff to focus on non-HVAC maintenance needs or other buildings. The planned expenditures for repair parts and materials are annually recurring energy-related cost savings that can support contractor payments, but there are no personnel cost savings because the agency site’s staffing level remains the same.

5.6 One-Time Savings and Payments¹

5.6.1 Sources of One-Time Payments

An agency planning a comprehensive energy-efficiency retrofit may find that the ESPC project will make planned repair or renewal projects unnecessary because they will be included in the ESPC project. The savings from the expenditures avoided because of the project may qualify as a one-time energy-related cost savings that may be applied as a one-time payment to the ESCO.

One-time payments can be used to leverage the project investment by enabling the project to include a more comprehensive set of ECMs than would be possible otherwise, or by lowering the financed amount and shortening the term, thereby reducing interest costs.

The “Funding Options” provision in 42 USC 8287(s)(E) “...is interpreted to expressly authorize the payments from one-time avoided costs that originate from authorized sources, including appropriations specifically for energy efficiency improvements.” (See Appendix 3.)

¹“One-time payments” have in the past been referred to as “pre-performance-period payments (P4s)” or informally as “buydowns,” sometimes depending on when the payment was made (either prior to project acceptance or during the contract performance period, respectively). We use the term “one-time payments” because it is accurate, encompasses both pre- and post-acceptance payments, and refers only to payments based on savings.

One-time savings and payments may also derive from:

- energy savings from early completion of ECMs, or
- rebates and incentives.

5.6.2 Guidelines for One-Time Payments

Regardless of their source or basis, one-time savings and payments are subject to the same standards as all other savings and payments under federal ESPCs, as discussed in Section 4.

One-time payments must be made in the same contract year in which the underlying energy or energy-related savings occurred, and the savings and associated payment must appear in the same year on the task order financial schedules.

The amount that may be claimed as one-time energy-related savings from avoided expenditures in the pre-acceptance performance period may not exceed the available amount in agency accounts that are usable for energy-efficiency improvements and/or energy-related O&M.

5.6.3 Examples of Acceptable One-Time Savings and Payments

Avoided Renewal or Repair Expenses

One-time savings and payments usually derive from avoided expenditure of programmed funds for improvements that become unnecessary because of implementation of the ESPC project. Avoided renewal or repair expenses for large equipment (such as a boiler) would generally be treated as one-time savings. (Avoided costs for ongoing repair, maintenance, or replacement-on-failure of many small separate units, however, are generally *recurring* cost savings.)

- **Renovation.** The contractor upgrades space- and water-heating equipment in a complex of buildings such that steam lines in the area are no longer needed. The government had planned to renovate one of the buildings using funds currently in an O&M and R&R account. As part of the planned renovation project, a new steam line was to be run around one wing of the building so that a steam line under that wing could be abandoned. The expense of building a new steam line is avoided because the upgraded heating equipment makes it unnecessary, and this avoided expense qualifies as a one-time energy-related cost savings.
- **Renewal.** As part of a comprehensive energy retrofit project, the contractor replaces an aging chiller. The agency's planned "like-to-like" replacement with a new chiller using budgeted funds that are currently available in an O&M and R&R account is no longer necessary. The planned expenditure for the "like-to-like" chiller replacement is a one-time energy-related cost savings.
- **Avoided repair and replacement.** The contractor upgrades space- and water-heating equipment in a complex of buildings such that steam lines and the central steam plant are no longer needed. The agency was planning to tear down and rebuild the boilers in the central steam plant using appropriations currently in an O&M account. The avoided boiler refurbishment expenditures are a one-time energy-related cost savings that can support a contractor payment.
- **Avoided expansion of capacity.** A water treatment plant is below the capacity needed to handle the increasing population of a federal facility. An ESPC is proposed to install water-efficient fixtures such as showers and toilets, and use grey water effluent to water the golf course, thereby reducing the load on the water treatment plant. The agency avoids the cost of expanding the water treatment plant. The funding in the agency's

O&M and R&R accounts intended to be used to expand the water treatment plant can be applied as a one-time payment to the contractor.

- **Avoided costs for maintenance of old equipment due to installation of new equipment.** An agency plans to replace an old boiler and steam system with a more efficient system using an ESPC. If the cost for the maintenance of the old boiler plant and steam system is included in the agency's budget during the pre-acceptance period of the ESPC, then those costs, avoided because of the ESPC implementation, may be applied as a payment during the pre-acceptance period. However, only minimal maintenance would generally be budgeted for the construction period, and the majority of any avoided maintenance costs would be reflected in the scheduled payments for the performance period.

Energy Savings Due to Early ECM Completion

Energy savings realized when some ECMs are completed early in the construction phase may appropriately support a one-time payment. For example, lighting upgrades may begin generating savings as soon as they are installed. If the lighting retrofit is completed several months before other measures (for example, a chiller project that takes much longer to complete), then lighting savings are accruing while the other ECM is being built. Funds that the agency allocates for the year in which these construction-period cost savings occur may be applied as a pre-acceptance, one-time payment based on the actual energy cost savings before project acceptance.

Where an ECM is not fully functioning and generating energy savings, no one-time savings would be generated for a pre-acceptance one-time payment. A measure such as a photovoltaic system, a new boiler, or a new power generation system might be 99% complete but does not generate savings until it actually goes into operation.

Rebates and Incentives

Rebates or incentives offered through a federal, state, utility, or other entity for installing energy-efficient equipment are acceptable for one-time payments under an ESPC. These payments are usually scheduled for the performance period.

An agency's actual receipt of rebate or incentive funds is seldom a given, because to qualify for such funds, the ESPC project may be subject to final inspection or other conditional criteria. Similarly, qualification requirements for rebate or incentive payments may change over the course of an ESPC project and ultimately not be available. The ESCO is responsible for researching and facilitating acquisition of all applicable financial and tax credits, emission reduction credits, and White Tags.

5.7 Examples of Unacceptable One-time Payments

- An agency has appropriated capital improvement funding to replace an aging HVAC system with a more efficient one in a specific building. Instead of using the funding for this project, however, the agency wants to pay it to the ESCO as an avoided cost during the pre-acceptance period of an unrelated ESPC. This is not an acceptable one-time payment.
- An agency decides to use an ESPC to install energy-efficient lighting and efficient cooling and ventilation equipment in a building where equipment is disassembled, refurbished, and reassembled. They plan to upgrade some process equipment in the building at the same time which would reduce personnel needs, but not save energy. The agency wants to fold the process equipment upgrade into the ESPC and pay the ESCO the cost savings from reducing staff as a one-time pre-acceptance payment. This is not an acceptable one-time payment for the ESPC, because the new process equipment does not

save energy, and the cost savings are not related to the energy-saving lighting or cooling and ventilation systems.

- Funds *not* appropriated or otherwise made available for energy-efficiency improvements or related expenses may not be used as a one-time payment for an ESPC. For example, funds appropriated for a demonstration project cannot be applied to an ESPC.

5.8 Terminations and Cancellations

Under limited circumstances, such as by federal agency mandate or as a result of Congressional action, a one-time payment may be required for purposes of partially or fully terminating or canceling an ESPC task order or ECMs. (Examples: Base Realignment and Closure, facility use changes, or privatization). In such an instance, the type of funds allowed for use in terminating the ESPC is not limited to energy cost savings, energy-related cost savings, or avoided-cost funds.

Payments for terminations or cancellations other than as described above must come from energy cost savings or energy-related cost savings. If a partial termination, the remaining ECMs must represent a viable ESPC project, with savings exceeding payments in the remaining years of the term. This type of termination or cancellation may require higher agency approval.

Terminations for convenience or default must be considered in accordance with Federal Acquisition Regulations.

Appendix 1: Financial Administration and Accounting for DOE ESPC Projects

The goals of this appendix are

- to clarify questions about regulatory requirements imposed on agencies' internal accounting and financial administration of FEMP ESPC projects;
- to give some examples of generic standard accounting procedures that could be adapted to agencies' own systems of accounting for FEMP ESPC projects; and
- to give interested acquisition team members having no professional financial background an overview of the issues that may be of concern to their finance and accounting departments.

This information, based on consultations with agency accounting, finance, and contracts professionals, is intended as advisory and educational material — not as dictum or prescription. Every agency will have its own requirements to consider, but one of the main points here is that the regulations regarding FEMP ESPC projects require no new overlay of procedures on an agency's internal accounting routines.

1. No Extraordinary Measures Required

Financial administration and accounting procedures are no more complex for FEMP ESPC projects than for any other contract. Neither the FEMP ESPC program and contract nor related statutes or regulations impose any requirements for special internal accounting procedures on agencies implementing projects. Agencies' accounting professionals will find that a FEMP ESPC project requires no extraordinary measures and no procedures beyond standard accounting practice. Agencies may, however, want to ensure for their own purposes that payments to the ESCO and cost savings in the applicable accounts will be trackable and auditable.

In compliance with DOE FEMP guidance — and consistent with the intent of FEMP ESPC legislation to finance energy projects without resorting to capital line-item appropriations earmarked for a specific project — all of the savings from and payments for FEMP ESPC task orders will be reflected in the agency's accounts for energy and energy- and water-related O&M and R&R. Annual appropriations for energy and energy- and water-related O&M and R&R will continue to be distributed to these accounts, and payments to the ESCO taken out of them. Paying for energy costs and related O&M and R&R expenses in addition to paying the ESCO from these accounts is possible because the ESCO has guaranteed that the cost savings resulting from the work done under the task order will exceed the agency's payments for the project.

2. Proving Savings — NOT an Accounting Function

There is no requirement that the agency's internal accounting prove that the guaranteed savings are delivered. The legal and contractual responsibility to show that the guarantee has been met is the ESCO's, through proving the performance of the implemented project. M&V procedures, not accounting methods, are the appropriate tools for this task. (M&V responsibilities are negotiated between the ESCO and the agency and are specified in the task order. In some cases the agency or a third party may take some responsibility for M&V, although the government prefers that these tasks and costs be included in the ESCO's scope of work under the task order. The agency is always responsible for reviewing and accepting or contesting the conclusions of the annual M&V report.)

Accounting for a FEMP ESPC project requires the standard procedures of tracking income and expenditures, but not directly tracing guaranteed savings to specific accounts. Moreover, the ESCO's guarantee of cost savings is a wholesale guarantee that applies to the aggregate of

implemented ECMs and by implication to the overall bottom line on the affected energy and energy- and water-related O&M and R&R accounts — but not to any one account or ECM in particular.

3. Budgeting and Accounting for FEMP ESPC Projects

Every agency has its own internal procedures and requirements, so the following discussion is intended as an overview of budgeting and accounting issues for a generalized case. Rather than presuming to instruct accounting and finance professionals in their own areas of expertise, this information is intended to (1) review typical procedures for the uninitiated and (2) highlight exceptions to general rules and address particular accounting issues related to FEMP ESPCs.

3.1 Building the Budget

Budgeting forward for the performance period is based on known quantities rather than guesswork. Payments to the ESCO are fixed for the term of the contract at the outset and are not subject to change (unless the ESCO must compensate for shortfalls in meeting the savings guarantee or changes in the baseline are needed). Adjustments to allocations in the affected accounts may be necessary if the FEMP ESPC project results in decreases or increases in expenses in a given category. The task order, which details the types and amounts of cost savings that are projected, guides the allocation of funds to energy and energy- and water-related O&M and R&R accounts during the budget-building process.

When entering into an ESPC task order, the agency must have sufficient funds to make all the first fiscal year (FY) payments. In other words, the agency must have its normal appropriations for energy and related O&M and R&R. Since projects are structured such that savings are guaranteed to exceed payments each year, this is a natural outcome. Agencies do not need to certify that funds are available for subsequent years. Savings to the normal annually appropriated accounts will be the source of future year payments.

The annual payment to the contractor, shown in the task order award, is divided by 12 to calculate the monthly payment amount. (Payments can also be made annually or at other intervals.) Generally the amount of the payment to the contractor changes annually, as shown on the task order payment schedule. If an automatic payment schedule is set up, an adjustment to the payment amount will need to be made every 12 months.

There are three components to each payment: principle repayment, interest expense, and performance-period-services cost.

3.2 Invoices and Payments

The agency contracting officer formally accepts the operating project. Thirty days later the ESCO can submit its first monthly invoice. In large projects, with long construction periods, the agency may agree to pay all or part of the construction-period cost savings to the ESCO in the form of a pre-acceptance payments.

The ESCO sends invoices to the agency, starting with the first day of the month after acceptance. At this point, the agency will have completed the procedures to prepare for the initiation of invoicing and payments. Typically these procedures will

- establish the identity of the contract in the system;
- specify terms of payment and any special requirements for invoicing;
- designate accounts from which payments will be made; and
- authorize payment of the ESCO's invoices for the task order (or specify authorization procedures).

Payments can be made in the same way an agency normally pays its bills. Typically,

- the invoice is received;
- the invoice is approved for payment;
- the invoice is sent to the accounts payable department; and
- accounts payable transfers payment to the ESCO, using funds from the account or accounts designated for payment on this contract.

Prompt payment procedures apply.

Invoice Approval for M&O Contractors. Some federal sites, including DOE national laboratories, NASA space centers, and others, are administered by management and operating (M&O) contractors. In these cases, the agency signs the FEMP ESPC task order and in most cases approves invoices, but may delegate responsibility for paying the invoices to the M&O contractor. This is appropriate where the energy and related O&M and R&R funds in question are applied to the M&O contract on an ongoing basis. Since the task order results in savings to M&O accounts, the M&O makes the payments to the ESCO. Nevertheless, the FEMP ESPC task order is an agreement between the ESCO and the agency, as opposed to being between the ESCO and the M&O. Therefore, the ESCO will send invoices to the agency rather than the M&O (unless otherwise instructed), and the agency will approve them for payment (or delegate the responsibility to the site M&O).

3.3 One Rule Fits All

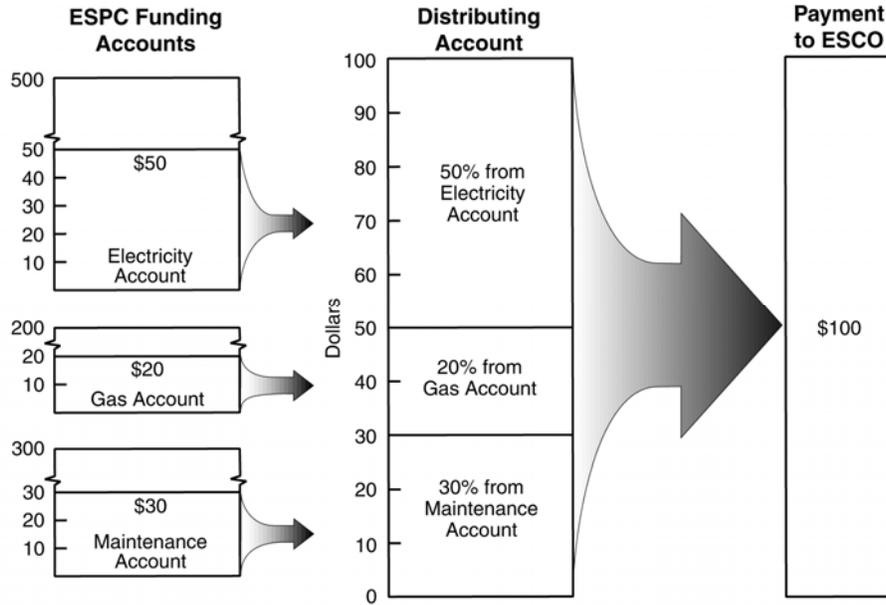
Although each facility's accounting system is unique, and projects come in various shapes and sizes, one dominant rule applies to them all and makes the accounting decisions simple:

Payments to the contractor come from the energy and energy- and water-related O&M and R&R accounts that accrue savings as the result of the work done under the FEMP ESPC task order.

Most projects are based on savings of more than one type, in more than one account. For example, a comprehensive energy retrofit may save energy costs in electricity and natural gas accounts, and also save maintenance costs (recurring energy- and water-related O&M and R&R). One-time energy- and water-related O&M and R&R cost savings may be a factor as well. Payments to the ESCO should correspond to the accounts to which savings accrue.

3.4 Using a Distributing Account to Streamline ESCO Payments

A "distributing account" (called a "cost center" in some systems) is a standard device to simplify payments that will draw funds from several accounts. The payments to the ESCO can be drawn from the distributing account, and the cost of the payment "distributed" to the designated energy and related O&M and R&R accounts — that is, funds are transferred from the designated accounts into the distributing account. The cost can be distributed on the basis of percentage shares or by another appropriate method. Many computerized accounting systems can handle and track these transactions automatically. The function of a distributing account is portrayed schematically in the figure below.



A distributing account is an accounting technique for simplifying payments that draw funds from several different sources.

3.5 Overhead Distribution

In agencies where utility and maintenance costs are recovered through overhead charges, FEMP ESPC projects in themselves present no reason for altering this arrangement. Utility and other infrastructure expenses continue to be distributed to overhead in the customary way (usually based on square footage of assigned building space). Many FEMP ESPC projects are treated as infrastructure improvements, leaving the status quo intact. Overhead charges are not affected, and the ESPC project is virtually invisible to the agency's organizations in their cost reports.

Trickle-down financial effects from energy projects implemented through FEMP ESPC task orders are few. Adjustments may be necessary for large users of utilities or special-purpose facilities that are charged based on usage or factors other than occupied space, if the energy project directly and significantly affects their costs — although costs are more likely to fall than to rise. Where customers are charged according to metered usage, there is ordinarily no reason to change costing mechanisms.

4. Auditable Systems for Tracking FEMP ESPC Savings and Payments — Examples of Accounting for Typical Projects

To show one method of tracking the savings and payments associated with a FEMP ESPC project, we use five examples of typical FEMP ESPC projects, beginning with the simplest and proceeding to the more complex. The examples represent the range of allowable savings types that projects can include, illustrating the accounts (described in generic terms) that will show savings and be tapped for payments in each case. The following hypothetical projects are used as examples:

- Project 1 — Energy-efficient lighting retrofit
- Project 2 — Replacement of a coal-fired boiler with modular natural-gas-fired systems
- Project 3 — Comprehensive energy-efficiency retrofit
- Project 4 — Comprehensive GHP-centered retrofit, with ESCO assuming maintenance tasks
- Project 5 — Upgrade of water- and space-heating equipment

The information that agencies would typically track in accounting for their projects is shown in two tables in each example. The first table shows funding sources — the accounts where savings from the project will accrue, which might first be designated for the purpose of documenting for a contracting or finance officer how the FEMP ESPC project will be paid for. These “funding source accounts” are so designated to indicate that they reflect the source of ESCO payments — appropriations for energy and related O&M and R&R expenses, which will continue to be allocated at the pre-project baseline level (the amount the agency would routinely budget and allocate for energy costs and energy- and water-related O&M and R&R if the task order were not implemented).

The allocations to the “funding source accounts” may have been adjusted in the budget-building process before the performance period began, using the task order’s projection of guaranteed cost savings to guide the attribution of cost savings to particular accounts.

The second table in each case shows expenditures from the funding source accounts. This table tracks payments to the energy supplier (utility company) and payments to the ESCO from utility savings and from accounts for energy- and water-related O&M and R&R expenses where applicable.

Abbreviations and Assumptions Used in the Examples

The examples on the following pages are simplified sketches that are intended only to communicate the basics of auditable accounting for FEMP ESPC projects rather than to represent realistic economics of task orders. The numbers in the tables can be used to compare tables, but may not be realistic in terms of financial feasibility, and very few contract terms will be only 5 years long.

For the sake of minimizing verbiage, the following conventions are used in the examples.

- “Energy and water cost savings” or “energy cost savings” are assumed to be *recurring* savings (ongoing throughout the contract term).
- “O&M and R&R savings” are assumed to be *energy- and water-related* O&M and R&R cost savings.

Project 1. Energy-Efficiency Lighting Retrofit
Savings: Energy Cost Savings Only — Electricity

A straightforward lighting retrofit, where new energy-efficient lighting equipment reduces electricity use, is perhaps the simplest type of energy project. Recurring energy cost savings only, which will show in an account for paying for electricity, are used to pay the contractor.

Budget for FEMP ESPC Project 1 (\$K)

Funding Source	Acct. No.	Term of task order				
		Year 1	Year 2	Year 3	Year 4	Year 5
Electricity	800-1	\$100	\$100	\$100	\$100	\$100
Total funding sources		\$100	\$100	\$100	\$100	\$100

Payments from Project 1 accounts (\$K)

Payments	Acct. No.	Payee	Term of task order				
			Year 1	Year 2	Year 3	Year 4	Year 5
Electricity	800-1	ESCO	\$8	\$8	\$8	\$8	\$8
		Utility Co.	\$90	\$90	\$90	\$90	\$90
Total payments			\$98	\$98	\$98	\$98	\$98

Project 2. Replacement of a Coal-Fired Boiler with Efficient Gas-Fired System
Savings: Net Energy Cost Savings

In some cases, energy use decreases in one category but increases in another as the result of energy-efficiency improvements. For example, many facilities realize large recurring energy cost savings from replacing obsolete and inefficient coal-fired boilers with highly efficient modular gas-fired systems. In this case, coal use will decrease, but natural gas use will increase.

When budgeting forward for the first year of the project’s performance period, the utility accounts are adjusted, with the allocation for coal decreasing and the allocation for natural gas increasing according to the projections of energy usage in the task order.

The first table shows pre-acceptance (year 0) allocations for coal and natural gas and the adjusted allocations for the performance period (Year 1 through Year 5). The second table shows the breakdown of payments from each account. The ESCO is paid nothing from the coal account because the allocation to that account was reduced to cover only the coal cost. Regulations related to FEMP ESPC impose no requirements for the agency’s internal accounts to individually represent actual savings.

Budget for FEMP ESPC Project 2 (\$K)

Funding Source	Acct. No.	Term of task order					
		Year 0*	Year 1	Year 2	Year 3	Year 4	Year 5
Coal	300-1	\$32	\$19	\$19	\$19	\$19	\$29
Gas	303-1	\$43	\$56	\$56	\$56	\$56	\$56
Total funding sources		\$75	\$75	\$75	\$75	\$75	\$75

*Year prior to performance period of project

Payments from Project 2 accounts (\$K)

Payments	Acct. No.	Payee	Term of task order				
			Year 1	Year 2	Year 3	Year 4	Year 5
Coal	300-1	ESCO	\$0	\$0	\$0	\$0	\$0
		Supplier	\$19	\$19	\$19	\$19	\$19
Gas	303-1	ESCO	\$6	\$6	\$6	\$6	\$6
		Utility Co.	\$48	\$48	\$48	\$48	\$48
Total payments			\$73	\$73	\$73	\$73	\$73

**Project 3. Comprehensive Energy-Efficiency Retrofit
Including Chiller Replacement**

- Savings**
- **Energy Cost Savings**
 - **One-Time O&M and R&R — Avoided Planned Chiller Replacement Project**

Agencies may include one-time savings from avoided expenditures for energy projects that are made unnecessary by the FEMP ESPC task order project. For example, an agency site working towards compliance with environmental regulations may budget funds for phased replacement of CFC chillers. If a task order includes replacement of a CFC chiller, making the budgeted expenditure for chiller replacement unnecessary, the budgeted amount is a one-time savings for energy- and water-related O&M and R&R.

One-time O&M and R&R savings are often applied as one large pre-acceptance payment in year 0, which can significantly reduce the amount that must be financed, thereby shortening the term of the contract and reducing interest costs to the agency.

Budget for FEMP ESPC Project 3 (\$K)

Funding Source	Acct. No.	Term of task order					
		Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
Electricity	800-1		\$104	\$104	\$104	\$104	\$104
CFC Chillers	785-1	\$322	--	--	--	--	--
Total funding sources		\$322	\$104	\$104	\$104	\$104	\$104

Payments from Project 3 accounts (\$K)

Payments	Acct. No.	Payee	Term of task order					
			Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
CFC Chillers	785-1	ESCO	\$320	--	--	--	--	--
Electricity	800-1	Utility Co.		\$90	\$90	\$90	\$90	\$90
		ESCO		\$11	\$11	\$11	\$11	\$11
Total payments			\$320	\$101	\$101	\$101	\$101	\$101

**Project 4. Comprehensive GHP-Centered Energy Retrofit
with ESCO Assuming Maintenance Responsibility for New Systems**

- Savings**
- **Energy Savings**
 - **Recurring O&M and R&R Savings — Maintenance Subcontract**

In some cases where the ESCO assumes responsibility for maintenance of the newly installed energy-efficient equipment during the term of the contract, significant recurring energy- and water-related O&M and R&R savings can result, as in the following example. The ESCO implements a comprehensive energy-efficiency retrofit centered on GHPs in 4,000 institutional housing units. The ESCO agrees to maintain the new equipment, replacing maintenance services that were previously subcontracted, for a price that is lower than the maintenance cost baseline (the amount the agency would have paid for maintenance had the energy project not been implemented).

Budget for FEMP ESPC Project 4 (\$K)

Funding Source	Acct. No.	Term of task order				
		Year 1	Year 2	Year 3	Year 4	Year 5
Electricity	800-1	\$4800	\$4800	\$4800	\$4800	\$4800
Gas	695-2	\$100	\$100	\$100	\$100	\$100
Maintenance	750-1	\$1272	\$1272	\$1272	\$1272	\$1272
Total funding sources		\$6172	\$6172	\$6172	\$6172	\$6172

Payments from Project 4 accounts (\$K)

Payments	Acct. No.	Payee	Term of task order				
			Year 1	Year 2	Year 3	Year 4	Year 5
Electricity	800-1	ESCO	\$1500	\$1500	\$1500	\$1500	\$1500
		Utility Co.	\$3200	\$3200	\$3200	\$3200	\$3200
Gas	695-2	ESCO	\$100	\$100	\$100	\$100	\$100
		Utility Co.	--	--	--	--	--
Maintenance	750-1	ESCO	\$1094	\$1094	\$1094	\$1094	\$1094
Total payments			\$5894	\$5894	\$5894	\$5894	\$5894

Project 5. Upgrade of Water- and Space-Heating Equipment Savings

- **Energy Cost Savings**
- **Recurring O&M and R&R Savings — Avoided Ongoing Equipment Renewal**
- **One-Time O&M and R&R Savings — Avoided Boiler Repair Cost**

A FEMP ESPC project may result in one-time and recurring energy- and water-related O&M and R&R savings as well as energy cost savings, as in the following example. A task order includes work to upgrade water- and space-heating equipment in a complex of buildings, so that the central steam plant and steam lines in the area are no longer needed. The agency had been planning to tear down and rebuild the boilers in the central steam plant using funds allocated to an O&M and R&R account. Savings that are used to support payments to the contractor include

- the avoided cost of refurbishing the steam plant boilers (one-time O&M and R&R savings),
- savings from the avoided costs of ongoing renewal of the aging water- and space-heating equipment because it was upgraded (recurring O&M and R&R savings), and
- energy cost savings.

Budget for FEMP ESPC Project 5 (\$K)

Funding Source	Acct. No.	Term of task order				
		Year 1	Year 2	Year 3	Year 4	Year 5
Electricity	800-1	\$300	\$300	\$300	\$300	\$300
Gas	695-2	\$135	\$135	\$135	\$135	\$135
HVAC Maintenance	750-1	\$90	\$90	\$90	\$90	\$90
Steam Plant Repair	760-1	\$280	--	--	--	--
Total funding sources		\$805	\$525	\$525	\$525	\$525

Payments from Project 5 accounts (\$K)

Payments	Acct. No.	Payee	Term of task order					
			Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
Electricity	800-1	ESCO		\$80	\$80	\$80	\$80	\$80
		Utility Co.		\$210	\$210	\$210	\$210	\$210
Gas	695-2	ESCO		\$35	\$35	\$35	\$35	\$35
		Utility Co.		\$95	\$95	\$95	\$95	\$95
HVAC Maintenance	750-1	ESCO		\$10	\$10	\$10	\$10	\$10
		Fac. Maint		\$78	\$78	\$78	\$78	\$78
Steam Plant Repair	760-1	ESCO	\$278	--	--	--	--	--
Total payments			\$278	\$508	\$508	\$508	\$508	\$508

5. Conclusions

The foregoing discussion is intended to be useful as an introduction to the issues that may be of concern to agency finance and accounting departments in planning for a FEMP ESPC project. Fortunately, this information should reassure agencies that there are very few new concepts to learn in this realm, if any, and no complex rules or systems to implement.

Perhaps the most apt way to describe the regulations governing agencies' accounting for their FEMP ESPC projects is in terms of what is *not* required:

- There are no explicit or implicit requirements imposed on agencies by the FEMP ESPC program, the contract, or DOE FEMP Task Order Guidelines regarding the agency's internal accounting for FEMP ESPC projects.
- The agency is not required to demonstrate that the guaranteed savings are being delivered through accounting procedures — M&V is the tool for this task, and the responsibility is the ESCO's.
- Accounting for FEMP ESPC projects requires no procedures beyond standard accounting practice.

One simple rule applies to all FEMP ESPC projects and expresses the sum effect of FEMP ESPC regulations on the agency's internal accounting:

- Payments to the contractor come from the energy and energy- and water-related O&M and R&R accounts that accrue savings as the result of the work done under the FEMP ESPC task order.

Appendix 2: Doe-FEMP Guidelines Regarding One-Time Payments and One-Time Savings in Energy Savings Performance Contracts

Accepted by the Federal ESPC Steering Committee, 12/05/07

I. Overview

This document provides guidance regarding one-time payments from agencies to contractors in federal energy savings performance contracts (ESPCs). “One-time payments” usually derive from either avoided costs of programmed expenditures that become unnecessary due to implementation of an ESPC project, or from savings that exceed contractually guaranteed savings. One-time payments may be made, and one-time savings may accrue, either prior to project acceptance or during the contract performance period.²

As a general principle, one-time payments may constitute acceptable methods for complying with the payment-from-savings nature of ESPCs. In conformance with ESPC statutory requirements and interpretation, however, and in an effort to avoid improper payment application, the following guidance will govern an agency’s one-time payments under an ESPC.

II. Pertinent Legislation and Rules

42 U.S.C. § 8287 (a)(1) provides, in part, that “The head of a Federal agency may enter into contracts under this title solely for the purpose of achieving energy savings and benefits ancillary to that purpose

. . . . Such contract shall provide that the contractor shall incur costs of implementing energy savings measures . . . in exchange for a share of any energy savings directly resulting from implementation of such measures during the term of the contract.”

42 U.S.C. § 8287a requires that “Any amount paid by a Federal agency [under an ESPC contract] may be paid only from funds appropriated or otherwise made available to the agency . . . for the payment of energy, water, or wastewater treatment expenses (and related operation and maintenance expenses).”

10 CFR § 436.31 includes energy-related cost savings in the definition of “energy cost savings”: “Energy cost savings means a reduction in the cost of energy and related operation and maintenance expenses, from a base cost established through a methodology set forth in an energy savings performance contract.” Operation and maintenance (O&M) expenses include repair and replacement (R&R) expenses.

42 U.S.C. § 8287(a)(2)(B) establishes that “Aggregate annual payments by an agency . . . under an energy savings performance contract, may not exceed the amount that the agency would have paid for utilities without an energy savings performance contract . . . during the contract years.” Energy cost savings must exceed payments under an ESPC in each contract year.

10 CFR § 436.30(d) provides that the regulatory provisions interpreting 42 U.S.C. § 8287, *et seq.*, are permissive and “shall be liberally construed to effectuate the objectives” of the ESPC statute.

² These guidelines address payments formerly referred to as pre-performance-period payments (P4s) or buydowns, depending on when the payment was made (either prior to project acceptance or during the contract performance period, respectively). The guidelines refer to such payments as “one-time payments,” in accordance with the definition of that term in the *Practical Guide to Savings and Payments in DOE ESPC Task Orders*.

III. Guidance Principles and ESPC Requirements

One-time payments are generally acceptable methods for shortening the term of an agency's ESPC contract and/or reducing associated financing charges. However, the following ESPC requirements must be adhered to in determining the appropriate nature of a one-time payment:

(A) Guaranteed cost savings to the federal agency must exceed payments to the contractor in every year of the ESPC contract term. One-time payments must be made in the same contract year in which the underlying energy or energy-related savings occurred. That is, the savings and associated payment must appear in the same year on the task order financial schedules.

(B) Only "real savings" may be applied to as payments to the contractor. That is, the one-time savings used to make a one-time payment must be reflected as reduced expenses in the agency's accounts for energy, energy-related O&M or R&R, or capital accounts intended for these purposes.

(C) The basis for all one-time savings that underlie any one-time payment, whether energy cost savings or avoided costs, must be fully documented in the contract file.

(D) All ESPC payments must be based on cost savings directly resulting from the ESPC project. One-time savings and payments should be reflected in the financial schedules of the contract.

Agencies take a risk when including one-time savings from avoided expenditures for government energy projects for which funds are budgeted, but not yet appropriated. When an ESPC task order is awarded that includes such savings and associated contractor payments, the agency is obligating itself to making the payments in full, even if the requested appropriation does not materialize in full. Because of the risk entailed in committing funds before they are received, most ESPC payments from one-time savings have been made before or during the first year of the performance period.

IV. Definitions

(A) Definitions of Energy and Energy-Related Cost Savings

Energy Cost Savings — A reduction in the cost of energy, water, or wastewater treatment from the baseline cost established in the ESPC. Energy cost savings are generally "recurring" savings – savings that occur year after year; however, one-time energy cost savings may come from energy savings in excess of guaranteed savings either during the performance period or during the construction period, before acceptance.

Energy-Related Cost Savings — A reduction in expenses (other than energy cost savings) related to energy and water consuming equipment, generally affecting operations, maintenance, renewal, replacement, or repair expenses of equipment. One-time energy-related cost savings can result from avoided expenditures of O&M, R&R, or capital expenditures funds for projects (e.g., equipment replacement) that, because of the ESPC project, will not be necessary.

(B) Timing of One-time Payments

Although the timing of a one-time payment does not determine its acceptability under these guidelines, a brief description of the distinction between pre-acceptance and performance-period one-time payments is instructive.

One-time pre-acceptance payments - are applied during the implementation or construction period of the contract, before the agency's acceptance of the project. Such payments are made up front, prior to the commencement of Year One of the performance period, and are in addition to payments made from energy cost savings during the performance period as established in the ESPC contract.

One-time performance-period payments - are applied following the ECM implementation or construction period and after project acceptance. One-time payments based on one-time savings from expenditures that are avoided because of the ESPC project [see IV(C)] may be scheduled for the performance period.

(C) Avoided Costs

Avoided costs constitute a significant source of potential savings from which one-time payments may be made. Avoided expenditures of funds programmed for energy or water-related projects that become unnecessary due to implementation of an ESPC project may be applied as payments to the contractor.

Avoided repair or renewal expenses for large equipment (such as a boiler) are generally treated as one-time savings.

The cost of an avoided project may be applied as a one-time payment only when such amounts would have been (and will be) paid from funds appropriated or otherwise made available to the agency for the payment of energy expenses and related operation and maintenance expenses which would have been incurred without an energy savings performance contract.

V. Examples of Acceptable One-time Payments

One-time payments to the contractor must come from funds that are appropriated for energy expenses and related O&M and R&R expenses. As long as the funds were appropriated for these purposes, they are allowable sources for payments, regardless of the agency's terminology for their budget categories — O&M, R&R, capital expenditure, or other. The payments must be from savings that result from the ESPC project. Payments from savings from expenditures avoided because of the ESPC project must not exceed the amount budgeted or planned for the avoided expenditure.

(A) Savings from Planned Expenditures Made Unnecessary by the ESPC

(1) Renovation. The contractor upgrades space- and water-heating equipment in a complex of buildings such that steam lines in the area are no longer needed. The government had planned to renovate one of the buildings using appropriations in an O&M and R&R account. As part of the planned renovation project, a new steam line was to be run around one wing of the building so that a steam line under that wing could be abandoned. The expense of building a new steam line is avoided because the upgraded heating equipment makes it unnecessary, and this avoided expense qualifies as a one-time energy-related cost savings.

(2) Renewal. As part of a comprehensive energy retrofit project, the contractor replaces an aging chiller. The agency's planned "like-to-like" replacement with a new chiller using budgeted funds in an O&M and R&R account is no longer necessary. The planned expenditure for the "like-to-like" chiller replacement is a one-time energy-related cost savings.

(3) Avoided repair and replacement. The contractor upgrades space- and water-heating equipment in a complex of buildings such that steam lines and the central steam plant are no longer needed. The agency was planning to tear down and rebuild the boilers in the central steam plant using appropriations in an O&M and R&R account. The avoided boiler refurbishment expenditures are a one-time energy-related cost savings that can support a contractor payment.

(4) Avoided expansion of capacity. A water treatment plant is below the capacity needed to handle the increasing population of a federal facility. An ESPC is proposed to install water-efficient fixtures such as showers and toilets, and use grey water effluent to water the golf course, thereby reducing the load on the water treatment plant. The agency avoids the cost of expanding the water treatment plant. The funding in the agency's O&M and R&R accounts intended to be used to expand the water treatment plant can be applied as a one-time payment to the contractor.

(5) Avoided costs for maintenance of old equipment due to installation of new equipment. An agency plans to replace an old boiler and steam system with a more efficient system using an ESPC. If the cost for the maintenance of the old boiler plant and steam system is included in the agency's budget during the pre-acceptance period of the ESPC, then those costs, avoided because of the ESPC implementation, may be applied as a payment during the pre-acceptance period. However, only minimal maintenance would generally be budgeted for the construction period, and the majority of any avoided maintenance costs would be reflected in the scheduled payments for the performance period.

(B) Energy Savings Due to Early ECM Completion

Energy savings realized when some ECMs or parts of ECMs are completed early in the construction phase may appropriately support a one-time payment. For example, lighting ECMs may begin generating savings as soon as the retrofit is completed. If the lighting retrofit is completed several months before other measures (for example, a chiller project that takes much longer to complete), then lighting savings are accruing while the other ECM is being built. Funds that the agency allocates for the year in which these construction-period cost savings occur may be applied as a pre-acceptance, one-time payment based on the actual energy cost savings before the performance period.

Where an ECM is not fully functioning and generating energy savings, no one-time savings would be generated for a pre-acceptance one-time payment. A measure such as a photovoltaic system, a new boiler, or a new power generation system might be 99% complete but does not generate savings until it actually goes into operation. Such measures would not produce savings that would be allowed to be applied as a pre-acceptance, one-time payment.

(C) Rebates and Incentives

Rebates or incentives offered by governmental entities or utilities provide potential sources for one-time payments in some cases. Such sources typically take the form of funds paid to the agency or ESCO for saved energy or for the installation of energy efficient equipment. Rebates or incentives offered through a federal, state, utility, or other entity (outside the agency) are acceptable for one-time payments under an ESPC.

In addition, an agency's actual receipt of rebate or incentive funds is seldom a given, because to qualify for such funds, the ESPC project may be subject to final inspection or

other conditional criteria. Similarly, qualification requirements for rebate or incentive payments may change over the course of an ESPC project and ultimately not be available. The risks and liabilities for a project's receipt of rebate or incentive payments should therefore be addressed in the Risk and Responsibility Matrix for the project and may require the preparation of alternative payment schedules.

(D) Excess Savings During the Performance Period

When installed equipment is more efficient than anticipated and generates verified energy cost savings in excess of guaranteed energy cost savings, the excess savings may be applied as a one-time payment to the contractor.

VI. Examples of Unacceptable One-time Payments

(A) An agency has appropriated capital improvement funding to replace an aging HVAC system with a more efficient one in a specific building. Instead of using the funding for this project, however, the agency wants to pay it to the ESCO as an avoided cost during the pre-acceptance period of an unrelated ESPC. This is not an acceptable one-time payment.

(B) An agency decides to use an ESPC to install energy-efficient lighting and efficient cooling and ventilation equipment in a building where equipment is disassembled, refurbished, and reassembled. They plan to upgrade some process equipment in the building at the same time which would reduce personnel needs, but does not save energy. The agency wants to fold the process equipment upgrade into the ESPC and pay the ESCO the cost of reducing staff as a one-time pre-acceptance payment. This is not an acceptable one-time payment for the ESPC, because the new process equipment does not save energy, and the cost savings are not related to the energy-saving lighting or cooling and ventilation systems.

(C) Rebates or incentives consisting of funds centrally managed by the agency or military service that do not result from savings due to an ESPC project. Because these types of incentives do not generally reflect avoided costs and are not savings that are a result of the ESPC project, but are rather in the nature of supplemental funding sources, they are not acceptable for one-time payments to the contractor under an ESPC.

VII. Terminations and Cancellations

(A) Under limited circumstances, such as by federal agency mandate or as a result of Congressional action, a one-time payment may be required for purposes of partially or fully terminating or canceling an ESPC task order or ECMs. (Examples: BRAC, facility use changes, or privatization). In such an instance, the type of funds allowed for use in terminating the ESPC is not limited to energy cost savings, energy-related cost savings, or avoided-cost funds.

(B) Terminations or cancellations other than as described in (A) above must meet previously stated payment and funding criteria. Payments for these other terminations or cancellations must come from energy cost savings or energy-related cost savings. If a partial termination, the remaining ECMs must represent a viable ESPC project; savings must exceed payments in each of the remaining years of the term. This type of termination or cancellation may require higher agency approval.

(C) Terminations for convenience or default must be considered in accordance with the FAR provisions.

Appendix 3: Memo To FEMP From DOE's Office of the General Counsel – Fossil Energy and Energy Efficiency

To: FEMP
From: Chris Calamita
Through: Larry Oliver
Re: Interpretation of recent amendment to ESPC statute

The question has been presented as to the meaning of the new FUNDING OPTIONS provision added to the energy savings performance contract (ESPC) statute by the Energy Independence and Security Act of 2007 (Pub. L. No. 110-140; EISA 2007). DOE interprets the new FUNDING OPTIONS provision as expressly authorizing the payments from one-time avoided costs that originate from authorized sources, including appropriations specifically for energy efficiency improvements.

BACKGROUND

The National Energy Conservation Policy Act (NECPA) established the authority for Federal agencies to enter into multi-year contracts with energy service providers for the implementation of energy savings measures in exchange for a share of the energy savings directly resulting from the implementation of such measures (42 U.S.C. 8287(a)(1)). Section 801(a)(1) of NECPA states, in part, that “a Federal agency may enter into [an ESPC] **solely** for the purpose of achieving energy savings and benefits ancillary to that purpose.” (42 U.S.C. § 8287(a)(1); emphasis added)

There are three primary statutory limits on how an ESPC can be funded. First, the contractor must incur the total costs of implementing the energy conservation measures (ECMs). (42 U.S.C. 8287(a)(1)) Second, payments to a contractor can not exceed the amount that DOE would have paid for utilities and related expenses absent an ESPC. (42 USC 8287(a)(1)(2)(B)) Third, any amount paid by DOE under an ESPC can be paid only from funds appropriated or otherwise made available for the payment of energy, water, or wastewater treatment expenses (collectively referred to as utility costs), and related operation and maintenance expenses. (42 USC 8287a)

Generally, the Department of Energy (DOE) has interpreted the ESPC statute to require that (1) each measure implemented under an ESPC must result in energy savings, (2) payments to a contractor can not exceed the value of realized savings, and (3) payments to a contractor can only be made from funds made available to the agency for energy utility expenses and related operation and maintenance expenses.

The Department has also interpreted the ESPC statute to permit one-time payments from savings that result from certain avoided costs. (*See e.g.*, DOE-FEMP Guidelines Regarding One-Time Payments and One-Time Savings in Energy Savings Performance Contracts, December 5, 2006, attached.) While the ESPC authority has not expressly address one-time payments, DOE has interpreted NECPA to permit payment under and ESPC from a one-time avoided cost that would have been paid for from an appropriate funding source absent an ESPC, i.e., costs for which funds have been appropriated or otherwise made available for a related operation and maintenance

(O&M) project or related repair and replacement (R&R) project that is no longer necessary due to the ESPC.³

EISA 2007

EISA 2007 included several amendments to the ESPC authority. Included in the amendments to the ESPC authority is a provision entitled FUNDING OPTIONS, which states that:

In carrying out a contract under this title, a Federal agency may use any combination of –
(i) appropriated funds; and
(ii) private financing under an energy savings performance contract.

(42 U.S.C. 8287(a)(2)(E)) The ESPC authority, as amended, still limits aggregate annual payments under an ESPC to no more than the amount that the agency would have paid for utilities without an ESPC. The ESPC authority also retains the limit on the source of payments under an ESPC from funds appropriated or otherwise made available to the agency for the payment of utility expenses (and related operation and maintenance expenses). (42 U.S.C. § 8287a)

My office has interpreted the funding amendment to expressly authorize payments to ESPC contractors from one-time payments from savings that result from avoided costs that are related to utility costs; related O&M costs; and related R&R costs. My office has also interpreted the new funding language to authorize payments from savings that result from avoided costs that would have been paid for from funding authorized or otherwise made available for energy efficiency improvements.

Analysis of the Funding Options Provision

The meaning of the FUNDING OPTIONS provision is not clear on its face. The language appears redundant to existing ESPC provisions. Payments made under an ESPC previously were from appropriated funds, i.e., funds appropriated for utility expenses. (42 U.S.C. 8287a) Additionally, under an ESPC, the contractor must incur the costs of implementing energy savings measures, i.e., energy savings measures are initially funded through private financing. (42 U.S.C. 8287(a)(1)) Moreover, the aim of the ESPC statutes is to authorize the use of private financing to implement energy savings measures.

In an instance such as this in which the statute is ambiguous with respect to a specific issue, then the agency is to be given deference for an interpretation that is based on a permissible construction of the statute.⁴ In making a threshold determination as to whether the statute is ambiguous, the meaning, or ambiguity, of certain words or phrases may become evident only when placed in context.⁵ Given that under separate ESPC provisions an ESPC must initially be funded through private financing and then paid for through specified appropriated funds, the provision authorizing use of a combination of funding sources is unclear.

In the face of this ambiguity, my office interprets the FUNDING OPTIONS provision as an express authorization of payments under an ESPC from one-time avoided costs that originate

³ For example, if funding had been made available to repair a boiler that is being replaced under an ESPC, the funds for repair would no longer be needed and could therefore be applied to the ESPC.

⁴ *Chevron U.S.A. Inc. v. Natural Resources Defense Council, Inc.*, 467 U.S. 837, 842-3 (1984).

⁵ *National Home Builders Association v. Defenders of Wildlife*, 127 S.Ct. 2518, 2523 (2007).

from authorized sources, including sources specifically appropriated or otherwise made available for energy efficiency improvements.

Because the purpose of the ESPC authority is to permit the use of private financing in specific and limited instances, my office has focused on the “appropriated funds” language in order to give meaning to the FUNDING OPTIONS provision. My office interprets the inclusion of “appropriated funds” in the FUNDING OPTIONS provision as expressly authorizing reliance on appropriate one-time avoided costs, as has been the practice for ESPCs.

Moreover, my office interprets the “appropriated funds” language as expressly authorizing payments under an ESPC from funds appropriated for the purpose of energy efficiency improvements. In some instances, Congress appropriates funds to an agency for the general purpose of utility (i.e., energy, water, or wastewater) efficiency improvements, or an agency may otherwise make funds available for such purposes.⁶ Under the new FUNDING OPTIONS provision, funds appropriated generally for efficiency improvements would be appropriate sources of funding for an ESPC.

This interpretation of the FUNDING OPTIONS provision is consistent with the purpose of the ESPC program and is consistent with the existing statutory limitations in NECPA. The ESPC program authorizes Federal agencies to enter into contracts under which the contractor is paid from money saved as a result of energy efficiency improvements implemented in Federal buildings.⁷

Funding appropriated or otherwise made available to an agency specifically for energy efficiency improvements could be used to install or replace existing energy related systems, such as air handlers, to improve energy efficiency. If an ESPC were to include an energy conservation measure that replaced a utility related system, eliminated the need for a system, or installed new equipment for the purpose of improved efficiency, the ESPC would result in avoiding the expenditure of funds appropriated or otherwise made available for utility efficiency improvements. As such, funds appropriated or otherwise made available specifically for utility efficiency improvements could be appropriately applied to an ESPC under the one-time avoided cost practice.

The “appropriated funds” language in the FUNDING OPTIONS provision does not permit use of funding appropriated or otherwise made available for purposes other than utility costs; related O&M costs; related R&R costs; or for the specific purpose of utility efficiency improvements to a Federal facility. NECPA, as amended, retains the limitation that payments to a contractor cannot exceed the amount an agency would pay for utilities (or utility related costs) in the absence of an ESPC. This limitation means that appropriated funds that would not be applied to utility costs utility related costs in the absence of an ESPC, cannot be applied to an ESPC; e.g., program funds appropriated or otherwise made available for a demonstration project can not be applied to an ESPC.

⁶ An example is the DOE Energy Management Program, which had previously provided funding to DOE sites for energy efficiency improvements.

⁷ SENATE REPORT NO. 99-146 S. REP. 99-146, *246-247, 1986 U.S.C.C.A.N. 42,**214 - 215 (1985).