Energy Savings Performance Contracts: Frequently Asked Questions

An ESPC is a working relationship between a Federal agency and an energy service company (ESCO). The ESCO conducts a comprehensive energy audit for the Federal facility and identifies improvements to save energy. The following sections present a number of frequently asked questions from ESPC end-users and stakeholders.

ESPC Award Process

What changes to the award process have been made to encourage projects to be awarded in the new 12-month timeline?

The National Defense Authorization Act (NDAA) of 2011 eased the contractor selection process by allowing agencies to make selections based on qualifications (SBQ). Using SBQ, agencies can down-select to one ESCO prior to the preliminary assessment (PA). Selecting only one ESCO to perform the PA reduces the cost and time associated with producing and reviewing the PA for both parties.

FEMP has also put together new best-practices for the notice of opportunity (NOO), PA, and the investment grade audit (IGA) that will result in reduced cycle time and duplication of efforts. For example, distinguishing between the elements that should be contained in the PA and those that are more appropriate for the IGA reduces unnecessary redundancy. FEMPs Federal Financing Specialists (FFSs) and Project Facilitators (PFs) can provide more information on ESPC process best practices.

Molecular Foundry, Lawrence Berkeley National Laboratory, Berkeley, CA. *Photo from Lawrence Berkeley National Laboratory*

The new 12-month suggested milestone timeline is the result of a streamlined approach and best-practices principles for each phase of the ESPC award process. Agencies can use the 12-month timeline tool as a template for planning, scheduling and tracking their activities during the award process. Finally, FEMP is continually reviewing the IDIQ contract, the FEMP-provided contract documents and templates, and ESPC training materials to make changes that will allow projects to be awarded as efficiently as possible.

How should agencies select an ESCO for an ESPC project?

The agency procurement official needs to review H.3 of the IDIQ contract titled Procedure for Awarding Task Orders. This document will help determine the proper approach to selecting an ESCO, however, FEMP encourages agencies to use the SBQ method. The SBQ requires agencies to issue a notice of opportunity (NOO), field responses from interested ESCOs, down-select to one or more ESCOs, and then request more information from the remaining ESCOs and make a decision. This method saves a considerable amount of time compared to having multiple ESCOs submit PAs.

Remember, all 16 ESCOs are pre-qualified under the DOE ESPC IDIQ. They are each capable of managing projects and implementing ECMs. Selecting an ESCO is about forming a working relationship that will carry on through the life of the contract, which can be up to 25 years.

What is the PA? What does the PA contain? What should an agency want to see in a PA?

The goal of the PA is simply to assess whether or not there is a viable ESPC project, in order to make a "Go" or "No Go" decision. Agencies should not expect the PA to be an IGA or a full mock-up with drawings. Spending more time and resources than necessary on the PA may not dramatically impact the outcome in the IGA.

Presidential Memorandum

How has the December 2, 2011 Presidential Memorandum directing federal agencies to enter into $2 billion of performance contracts for energy efficiency affected the ESPC program?

The Presidential Memorandum has increased the awareness and visibility of the ESPC program within government agencies. The memorandum brings additional attention to the ESPC program, and it shows how valuable a tool ESPCs can be to help federal agencies achieve their energy efficiency, renewable energy, and water-related goals. As budgets are shrinking across the federal government, ESPCs allow agencies to use private-sector financing to fund energy and water projects that pay for themselves.

The memorandum and its goal of $2 billion of investment by December 31, 2013, have gotten agencies moving on hundreds of ESPC, Utility Energy Service Contract (UESC), ESPC ENABLE, and other performance-contracting based project for energy efficiency. The milestone tracking systems put in place have allowed agencies to actively track their successes and manage their projects.

Geographic Scope

Are ESPC projects at sites outside of the United States and its territories allowed?

Yes. Any of the new IDIQ contracts may be used by Federal agencies for all **federally owned buildings and facilities** worldwide. This includes, but is not limited to military bases and State Department embassies or facilities owned by the U.S. Government.

Task Order (TO) Period of Performance

What is the maximum length of an ESPC?

TOs issued by agencies under DOE's new IDIQ contracts may be for a term up of 25 years, including the construction period.

Mixed Funding

Are agencies allowed to use appropriated funds and one-time payments as part of an ESPC?

The Energy Independence and Security Act of 2007 included an amendment to the ESPC authority related to funding that allows an agency to use a combination of appropriated funds and private financing for an ESPC. DOE encourages agencies to use appropriated funds to buy-down the financed capital cost of ESPCs to incorporate, more ECMs, deeper retrofits or renewables. Buying down the upfront costs reduces the payback period and makes larger projects more attractive. DOE explicitly recommends that agencies not use appropriated funds to pay for "low-hanging fruit" ECM's like lighting upgrades. Removing low-hanging fruit affects an ESCOs ability to bundle ECMs into a successful ESPC project.

DOE interprets the funding amendment to expressly authorize payments to ESPC contractors from savings that result from avoided costs related to utilities, operations and maintenance (O&M) costs, or repair and replacement (R&R) costs. DOE 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 specifically for energy efficiency improvements. For more information visit the FEMP ESPC website.

Renewable Energy

Are renewables considered Energy Conservation Measures (ECMs)? Can agencies incorporate renewables into ESPC projects? What kind of services related to renewable energy can agencies expect from the ESCO? From DOE?

The new IDIQ contract places particular emphasis on assessing renewable energy opportunities along with other ECMs. It is the agency's responsibility to communicate to the ESCO its federal renewable energy goals and other agency renewable energy purchase goals.

The term ECM includes renewable energy systems and other measures that result in energy, water, or related cost savings, including measures that improve the efficiency of energy production systems that generate electrical and/or thermal energy. For purposes of this definition, "improves energy efficiency" is not limited to more efficient conversion of energy; rather, when renewable energy is substituted for conventional energy fuels, reducing the government's usage of conventional energy sources, such a substitution constitutes "improved energy efficiency."

DOE is available to provide technical support to agencies through the FEMP Federal Financing Specialists and PFs on advanced efficiency and renewable energy projects in the ESPC development phase and throughout the life of the project as necessary. DOE's National Laboratories have developed screening and analysis tools for renew-able and emerging technologies.

The ESCO is responsible for the following:

- Considering the agency benefits of the sale of renewable energy credits (RECs) for projects on federal property
- Identifying available compulsory or voluntary markets and describing the renewable energy production and valuation alternatives for REC sales.
- Assessing whether the value of RECs exceeds the administrative costs to the contractor or the agency in acquiring, selling, or otherwise administering the RECs.
- Assessing other administrative provisions such as double-counting for renewable energy produced and used, interest in and ownership of all the RECs, and coordination and preparation of all pertinent documentation.
- Considering the agency benefits of applying for White Tags™ (also known as Energy Saving Certificates), as available, for TO ECMs on Federal property.
- Identifying applicable ECMs and White Tags™ certification requirements and addressing whether their value exceeds the administrative costs to the ESCO or the agency in applying for, selling, or otherwise administering them.
- Coordinating administrative aspects of preparing all documentation required to acquire revenues from White Tag™ certificates with the agency.
- Addressing the alternatives for using the financial benefits of White Tag™ sales revenue for the project.

Deep Retro-fits and New Trends in Building Engineering

How do ESPCs assist agencies in implementing deep retrofits to their facilities to meet their energy and water management goals? How can ESPCs help facilities upgrade their aging buildings and systems to more modern ones?

ESPCs offer a great deal of flexibility allowing agencies to perform significant energy and water management upgrades to their facilities. ESPCs cover a wide range of energy conservation measures (ECMs) that include building envelope measures, buildings automation systems and energy management control systems (EMCS), energy and utility distribution systems, advanced metering, and many more that can help update older buildings with modern technology.

One example of modern design replacing prior conventional wisdom has occurred with steam plant and boiler decentralization. Many older facilities were built with a central boiler plant that distributed steam throughout a large facility or campus. Engineers have found that maintaining such large central plants with complex distribution systems is actually an expensive and inefficient process. The modern approach is to have individual heating units at the buildings and decommission failing centralized distribution systems. These types of changes are part of new trends in systems engineering that seek to improve a facilities efficient operation by evaluating the interactions between its energy using systems.

ESPCs allow facilities to finance these types of major renovations without appropriations or up-front capital costs. Deep retrofits can be economically achieved in ESPC projects by bundling long and short payback period ECMs, combining funding sources and one-time payments, and utilizing the full contract term in ESCOs ESPC proposals.

Incentives and Credits

Who is responsible for assisting agencies with potential energy efficiency and renewable energy and water financial incentives? Project emission reduction credits? Project tax incentives?

The ESCO's responsibilities in regard to incentives and credits are to:

- Determine all incentives and credits offered by the local utility serving the facility, or federal, state, or local government or air quality organizations including:
  - energy efficiency, renewable energy, and water efficiency financial incentives
  - tax incentives for energy efficiency and renewable energy projects
  - emission reduction credit programs
- Coordinate preparation of all of the documentation required to apply for credits and incentives with the agency contracting officer, and apply for them effectively;
- Assess whether the value of the credits or incentives exceeds the administrative costs to the ESCO or the agency for acquiring them;
- Address IRS regulations regarding owner/agency transactions to fully support successful leveraging of credits and incentives.

The agency should be aware that nongovernmental ownership of energy efficiency, renewable energy, and water assets may be required to capture the benefits of Investment and Production Tax Credits and Modified Accelerated Cost Recovery System (MACRS) accelerated depreciation.

FEMP Awards, Recognition, and Other Benefits

What type of recognition do agencies receive for completing ESPC financed projects? Does FEMP give awards out to agencies that enter into the best ESPCs? How does FEMP share the successes of its program and its customers?

There are numerous ways in which agencies and their staff can receive recognition for successful efforts to save energy, water, and dollars at their facilities. One such way is the Federal Energy and Water Management Awards, sponsored by the Energy Department and the Federal Interagency Energy Policy Committee (656 Committee). Over the past two years, 14 out of 50 (28%) of awards have gone to agencies or individuals who pursued ESPCs. If you include UESCs and other FEMP financing programs like power-purchase agreements, the percentage is even higher.

In addition to awards, FEMP recognizes successful projects in case studies and presentations. Project awards and construction completion are documented in FEMP Progress Alerts or FEMP Focus, the quarterly newsletter. Additionally, ESPCs are great ways to showcase your commitment during Energy Action Month.

Measurement & Verification (M&V)

What are the M&V requirements in an ESPC?

The M&V requirements in ESPCs are there primarily to incorporate best practices that are intended to eliminate performance-period misunderstandings and assure persistent savings.

The M&V plan is the primary vehicle for first documenting and then periodically evaluating the performance expectations of the project. The DOE ESPC IDIQ requires additional details in the M&V plan to ensure that the ESCO and agency will thoroughly understand what the TO covers. Specifically, the M&V Plan must state, in a clearly understandable format:

- Where and how all cost savings are going to occur and how they are to be calculated and verified;
- All systems or portions of buildings that are—and are NOT—included in the scope of the project;
- The ECMs that generate savings and the building systems that they affect;
- In the affected buildings, any significant energy- or water-using building systems or uses that will not be affected by the TO, to clarify the extent to which total energy, water, and related costs at the site will be affected.

(FEMP ESPC resources are at *www.femp.energy.gov/financing/espcs_resources.html*)

Who needs to be cognizant of the M&V, and how does one become trained in understanding the M&V requirements?

It is the agency's responsibility to be knowledgeable of M&V options, methods, and requirements. In addition, the agency is responsible for approving the ESCO's M&V plan according to FEMP's guidance. The agency must witness M&V activities and review calculations, utility bill records, and other elements of the baseline to confirm that the approved M&V plan is followed, as described in FEMP's Guide to Government Witnessing and Review of Post-Installation and Annual M&V Activities. The primary responsibility for witnessing M&V will

fall on the Contracting Officer (CO), CO Representative (COR), or CO Technical Representative (COTR) depending on how it is outlined in the M&V plan.

(FEMP ESPC resources are at *www.femp.energy.gov/financing/espcs_resources.html*)

Is stipulation of the energy savings allowable under the new IDIQ?

Agencies may continue to stipulate values to be used in determining savings, but must follow the FEMP guidance in Detailed Guidelines to FEMP M&V Option A, which provides the information needed to ensure that stipulations are used appropriately. The guidance is at *www.femp.energy.gov/financing/espcs_resources.html*

What should the agency do if the M&V report submitted by the ESCO has discrepancies?

The DOE ESPC IDIQ requires active agency input regarding the pre-installation baseline, which is now defined to include factors beyond the ESCO's control that influence post-installation energy use (e.g., building occupancy, weather, plug load creep, etc.). The ESCO is required to verify operation of the installed equipment/systems, calculate the previous year's energy and water savings, and compare verified and guaranteed savings.

Operations & Maintenance Requirements

How is O&M handled for ESPC projects?

The DOE ESPC IDIQ allows either the ESCO or the agency to perform the O&M on ECMs that are part of an ESPC. Regardless of who performs O&M activities, the ESCO is responsible for assuring ECM performance. If the agency chooses to perform the O&M themselves, it is the ESCO's responsibility to provide annual training for agency personnel and/or agency contractors to operate, maintain, and repair ECM equipment. O&M responsibilities should be clearly documented in the Risk, Responsibility, and Performance Matrix. If possible, allowing the ESCO to perform the O&M and budgeting for that service in the TO Award may actually create additional savings and value for the agency over the life of the contract.

Project Acceptance by the Government

What are the steps that occur prior to the government accepting a project? When does government acceptance occur in the process under the new IDIQ? Does the government's approval of the contractor's commissioning report constitute acceptance of contractor's achievement of facility performance requirements? Can the government do a partial project acceptance?

The new requirements for project acceptance incorporate best practices for ensuring that the ESCO and agency agree on performance expectations and standards and for assuring the integrity of the technical work.

As a first step leading to the government accepting an ESPC project, each TO will include specific inspection criteria for the ESPC project. The following general inspection requirements will apply to each TO, unless otherwise indicated in the TO:

- The agency and ESCO are to jointly inspect ECMs. Inspections will be conducted simultaneously, when possible, by both the agency and ESCO representatives to facilitate mutual agreement on satisfactory ECM performance.
- The ESCO is to notify the agency contracting officer (CO) in 15 working days in advance of the completion of ECM installation (or other period specified in the TO) by submitting a written request for inspection.
- The agency should provide written notification to the ESCO of scheduled date and time for agency inspection within 10 working days after receipt of inspection notification and request (or other period specified in the TO).
- Each TO may include additional agency-specific or site-specific inspection requirements. The contractor shall review the TO to determine the inspection requirements.

Partial Project Acceptance - The agency may agree in writing to accept ECMs that are installed and operational prior to completion of the Implementation Period.

Full Project Acceptance - After installation of all ECMs the agency will notify the ESCO in writing of full project acceptance, which will constitute the start of the post-acceptance performance period and commencement of ESCO payments.

Final Proposal

What are the new elements required for the Final Proposal (FP)?

The ESCO is responsible for submitting an FP consisting of technical and price components, as well as an individual small business subcontracting plan for each task order, in electronic format, or as required in the TO.

As with the PA, particular emphasis should be placed on assessment of renewable energy opportunities. The FP is also required to provide:

- An overview of the project including the site description and utility summary;
- The energy baseline, and
- ECM descriptions including projected energy use and cost.

The commissioning plan must be prepared and followed in accordance with the Commissioning Guidance for DOE Super ESPCs, at *www.femp.energy.gov/financing/espcs_resources.html*

The management approach for O&M and R&R must include, at a minimum, ECM-specific preventive maintenance requirements and their frequency of performance.

U.S. DEPARTMENT OF ENERGY
Energy Efficiency & Renewable Energy

For more information and resources, visit the FEMP website at **www.femp.energy.gov**.

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DOE/EE-0771
November 2012