

FEMP Best Practices and Lessons Learned  
for Federal Agency ESPC Projects  
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**CONTENTS**

1. Introduction .....	1
2. General Best Practices .....	2
3. Acquisition Planning .....	3
4. ESCO Selection .....	4
5. Preliminary Assessment (PA) .....	5
6. Task Order Request for Proposal (TO-RFP) .....	5
7. Investment-Grade Audit (IGA) .....	6
8. Review of the IGA/Proposal – Strategy for Success.....	6
9. Critical Outcomes of Review –Don’t Proceed to Award Without Them .....	7
10. Final Negotiations and Task Order Award .....	8
11. Implementation/Construction Period .....	8
12. Measurement & Verification (M&V) .....	16

**1. INTRODUCTION**

Energy Savings Performance Contracts (ESPCs), first authorized by EPACT 1992<sup>1</sup>, have become an effective tool for financing energy projects in federally owned facilities. FEMP has been providing project and training to agencies going back to 1996. As agencies have implemented projects, their acquisition teams and FEMP have taken note of lessons learned and best practices, which over time have been incorporated into the DOE ESPCs, FEMP ESPC training, and FEMP project assistance.

This document highlights current best practices that agencies may want to consider in their contracting process. These best practices are not all-encompassing, nor can they replace other

<sup>1</sup> Legislated ESPC Authority

The National Energy Conservation Policy Act of 1978 (NECPA), Pub. L. No. 95-619, as amended by the Consolidated Omnibus Budget Reconciliation Act of 1985, Pub. L. No. 99-272, § 7201 (1986), authorized agencies to enter into “shared energy savings contracts.” The term “energy savings performance contract” first appeared in amendments to NECPA by the Energy Policy Act of 1992, Pub. L. No. 102-486 (1992). The Energy Policy Act (EPACT) of 1992 also added requirements to the authority. The U.S. Department of Energy promulgated regulations for their use in 1996 (10 CFR 436 Subpart B). The Energy Independence and Security Act of 2007 expanded the authority and made it permanent.

FEMP services that include discussion of best practices, such as services from FEMP Federal Financing Specialists (FFSs) and Project Facilitators (PFs).

Agencies should use this document and all of FEMP's ESPC resources to help them award high-quality and high-value ESPC task orders (TOs). FEMP ESPC guidance, contract document templates and examples, and other informational resources are available at [http://www1.eere.energy.gov/femp/financing/espcs\\_resources.html](http://www1.eere.energy.gov/femp/financing/espcs_resources.html).

FEMP best practices also aim to minimize delays in the process, which erode the value of a project by postponing accrual of cost savings, or if interest rates increase. Delays commonly occur at decision points if the agency team or an individual is uncertain that a move forward is supported by agency due diligence and will result in a good deal for the government.

Many of these best practices address these challenges by pointing out:

- How teamwork within the agency and with the ESCO is vital to project success,
- How to conduct a cost-effective, compliant, ESCO selection,
- Critical outcomes of review which support award, and
- Key checks and steps in final negotiations and TO award.

## **2. GENERAL BEST PRACTICES**

### **2.1 Teamwork is critical to ESPC success.**

2.1.1 Designate a project champion who will, along with the agency Contracting Officer (CO), lead the agency team's efforts. The project champion should ensure that team members are trained and stakeholders and decision makers are educated about the project. A committed project champion is a key factor in the success of the project, paving the path forward and building agency support for the project.

2.1.2 Enlist the support of site/agency management. Keep management fully briefed, and make sure their questions and concerns are addressed throughout project development.

### **2.2 FEMP provides vital support. Use FEMP ESPC experts and training to your best advantage.**

2.2.1 Start with a FEMP Federal Financing Specialist (FFS). The FFS will guide the agency's first steps in the project, help with educating agency stakeholders, and coordinate ESPC training and other FEMP services for the agency team.

2.2.2 Consult your FEMP experts before issues become problems – the FFS and your FEMP-qualified Project Facilitator (required for projects under the DOE master ESPCs). The Contracting Officer (CO) and Contracting Officer's Representative (COR) for the DOE IDIQ ESPCs, who are based at the DOE Golden Field Office, also provide support (send questions to [femp@go.doe.gov](mailto:femp@go.doe.gov)). Experts based at

the national labs are made available through the FFS to support projects and especially implementation of advanced technologies.

- 2.2.3 Training. The agency ESPC team must be knowledgeable about the DOE IDIQ contracts and the ESPC process in order to expedite development of a high-value project. To obtain ESPC training, use FEMP's free live ESPC workshops and on-demand webinars. The FFS helps agencies arrange on-site ESPC training for agency acquisition teams, or to promptly arrange training for new project team members.
- 2.3 To prevent delays, maintain continuity and documentation.
  - 2.3.1 Prepare for personnel turnover by documenting the project process and agency decisions.
  - 2.3.2 Understand that documentation can be critical to clarifying the intent of the contract after time passes.
  - 2.3.3 Documentation of project development and communication between the agency and the ESCO should be included in contract files. Include all pre-award communications such as PA and IGA development notes, proposal questions, responses, and resolutions, and other direction and agreements gathered by the CO and COR.
- 2.4 Keep the ESCO and Agency on the same page to avoid delays, unintended outcomes, and backtracking.
  - 2.4.1 Provide the ESCO with a checklist and roadmap that describes the agency approval process. Have the ESCO, with agency input, create a milestone chart that displays the proposed contract timeline and due dates. Using a contract timeline with a proposed date for task order award enables the ESCO to plan for allocating ample resources to meet the target date. A schedule also keeps the agency team focused on meeting the goal.
  - 2.4.2 Schedule at least bi-weekly phone or in-person ESCO–agency meetings to provide status updates throughout the entire ESPC process. The goal is to establish a running dialogue between all stakeholders, regularly facilitate complete and open exchange of information, and avoid delays and unintended outcomes.

### **3. ACQUISITION PLANNING**

- 3.1 Define the roles and responsibilities of every ESPC acquisition team member and identify gaps that need to be filled. The rule of thumb is to include on the team all parties who could affect or be affected by the project, at least for periodic consultation. At a minimum, the team should include an agency CO with sufficient warrant, the COR, officials whose approval is required, a budget officer, and legal counsel.

- 3.2 To avoid miscommunication and maintain consistency, designate an individual (typically the CO and/or COR) to serve as the conduit of information between the ESCO and agency.

#### 4. ESCO SELECTION

Best practices for ESCO selection are the following.

- 4.1 FEMP recommends that agencies use the Selection by Qualifications (SBQ) method (as described in the DOE IDIQ at section H.3.1) and standardize their SBQ process. FEMP ESPC experts and agencies with ESPC experience have observed that the SBQ method can elicit as much useful information for finding the best ESCO for a specific project as other more complex, costly, labor-intensive, and time-consuming methods. Agencies have observed that when using SBQ:
- Development of the Notice of Opportunity (NOO) is quicker.
  - Project scope developed by the ESCO is comprehensive.
  - Selection of the ESCO is efficient and the project development cycle is shorter.
  - Unnecessary staff burden is avoided.
  - High-value projects tend to be the outcome.
  - Potential out-of-scope issues are avoided in fair-opportunity ESCO selection.
- 4.2 Use the FEMP NOO template and customize as applicable.
- 4.3 Keep the NOO as broad as possible to allow the ESCO to propose comprehensive and innovative solutions. FEMP discourages the use of 3<sup>rd</sup> party audits in NOOs.
- 4.4 Identify two or three site-specific needs or wish-list items (e.g., renewable energy conservation measures). This allows agencies to match ESCO capabilities with site needs.
- 4.5 Don't hesitate to conduct in-person interviews with down-selected ESCOs in the process. Face-to-face meetings can provide perspectives that may be missed otherwise.
- 4.6 Keep evaluation factors and selection criteria to the minimum necessary. Evaluation factors should be weighted to reflect the agency's priorities rather than all factors being weighted equally.
- 4.7 Require the ESCOs' responses to the NOO to include description of the following:
- a) ESCO's management approach (how they're going to get the job done)
  - b) Methods and procedures used to obtain competitive prices on energy conservation measures (ECMs) and best value for the government
  - c) A schedule for Preliminary Assessment (PA) development
  - d) The personnel responsible for the PA and their qualifications

- e) The ESCO's approach to developing energy baselines and the measurement & verification (M&V) approach for this project

## 5. PRELIMINARY ASSESSMENT (PA)

- 5.1 To get a useful PA from the ESCO, the agency should provide the ESCO with all relevant current information about the facilities, including energy consumption and previous audits.
- 5.2 The PA should be only as long as necessary to convey the viability of a project. An example/template of a PA can be found at:  
[http://www1.eere.energy.gov/femp/docs/10\\_patemplate.docx](http://www1.eere.energy.gov/femp/docs/10_patemplate.docx).
- 5.3 Set deadlines for PA submission and for agency completion of PA review and response to the ESCO.
- 5.4 Ensure that the Risk, Responsibility, and Performance Matrix (RRPM) and the proposed M&V approach are carefully reviewed and points for discussion are noted. Otherwise, the assumptions used in the PA will generally carry through to the Investment-Grade Audit (IGA).

## 6. TASK ORDER REQUEST FOR PROPOSAL (TO-RFP)

The TO incorporates the TO-RFP, the ESCO's IGA/proposal, and the IDIQ (the DOE indefinite-delivery, indefinite-quantity contract) — so the agency needs to know what all of them say. The purpose of the TO-RFP is to incorporate site-specific requirements into the TO by modifying, adding to, or deleting IDIQ contract terms, as long as these changes are within the overall scope of the IDIQ.

- 6.1 Use the FEMP TO-RFP Template, which lists all the DOE IDIQ clauses that *must* be tailored to the customer agency/site, as well as the sections that *are often altered* to meet the agency's needs.
- 6.2 Those developing the TO RFP must consult with their site support experts/organizations in order to accurately identify and address the site's requirements in the TO RFP.
- 6.3 Include in the TO-RFP project-specific requirements such as the following:
  - a) Special financing provisions
  - b) The level of detail required in pricing information, including subcontractor bids
  - c) How operations and maintenance (O&M) and equipment repair and replacement (R&R) are to be handled
  - d) Environmental, safety, and health requirements
  - e) Compatibility requirements for design drawings, among other requirements

- 6.4 Note on continuity: The experts who consult on TO-RFP development could be the same as those who will review parts of the proposal and final TO-RFP before award. Continuity will facilitate efficient and effective review.

## 7. INVESTMENT-GRADE AUDIT (IGA)

The IGA is the ESCO's detailed survey and analysis which will establish the estimated savings and savings guarantees. The IGA comprises the technical portion of the proposal, detailing ECMs, the M&V plan, and technical specifications.

- 7.1 Initiate the IGA with a kick-off meeting, which should be the first of continuing bi-weekly agency–ESCO meetings. Bi-weekly meetings can effectively keep the project on track by providing a routine venue for addressing both the agency's and ESCO's questions during the ESCO's performance of the IGA and the agency's review. These meetings can also accommodate 30/60/90-day reviews.
- 7.2 ESCO should be asked to identify all site resources required and costs to the site (for escorts in secure areas, for example) that will be incurred through ESCO performance of the IGA.
- 7.3 Agencies should be open to adjusting the contract term or project scope as required to ensure that the project best meets the agency's needs.
- 7.4 Be prepared to facilitate site access and make needed site experts available for multiple visits by the ESCO.

## 8. REVIEW OF THE IGA/PROPOSAL – STRATEGY FOR SUCCESS

Agency review of the IGA/proposal has been noted as a potential bottleneck in the ESPC process. To expedite thorough and timely agency review:

- 8.1 Hold an in-person conference with the ESCO promptly after completion of the IGA to review findings and discuss potential challenges.
- 8.2 Establish a hard deadline for agency review of the IGA and response to the ESCO.
- 8.3 Develop a review plan and *set aside focused review time*. Assign overall review of the IGA/proposal and specific sections, respectively, to designated individuals.
- 8.4 Some experienced COs have found that the best strategy is to put all the reviewers in a room and get them to agree to stay there until the review is completed.
- 8.5 Use your PF and FEMP ESPC resources. Engage technical expertise needed if not available in-house, such as for renewables or M&V.
- 8.6 Deliver on schedule.
- 8.7 After completing review, hold an in-person or telephone meeting with the ESCO to review agency comments to eliminate any ambiguity as to their intent.

- 8.8 Document all agency comments, and require the ESCO to track changes in successive revisions of the IGA/proposal. Include documentation of those comments, responses, and resolutions as an attachment to the task order. Follow up to ensure that required revisions to the proposal are made.

## **9. CRITICAL OUTCOMES OF REVIEW – DON'T PROCEED TO AWARD WITHOUT THEM.**

**The agency will need to verify all of these items (below in section 9) before proceeding to award:**

- 9.1 Proposed energy consumption baselines and fixed parameters for calculating savings are sound.
- 9.2 Guaranteed savings from ECMs are reasonable, given analysis of assumptions and savings received on similar projects.
- 9.3 The Risk, Responsibility, and Performance Matrix (RRPM ) is consistent with project scope of work and pricing in the IGA/proposal.
- 9.4 All stakeholders understand the RRPM and the details of any assignment to the agency of post-acceptance performance-period responsibilities, and those responsible are prepared to commit the resources to necessary to carry these responsibilities out.

### **The Price Proposal — *Verify Before Award:***

- 9.5 The agency has a complete understanding of the pricing proposal based on review of pricing and financing details — especially the TO financial schedules and the Standard Financing Offer received from the successful financier.
- 9.6 Agency obtained all pricing data needed to determine a fair and reasonable price to the government.
- 9.7 ECM pricing is reasonable when compared to previous awards and current pricing for similar equipment. Use FEMP Price Benchmarking data and consult FEMP's guidance on determining price reasonableness for help with this task. See resources at [http://www1.eere.energy.gov/femp/pdfs/5\\_5\\_pricereasonableness.pdf](http://www1.eere.energy.gov/femp/pdfs/5_5_pricereasonableness.pdf).
- 9.8 ESCO analysis of subcontractor pricing has been reviewed, including promotion of competition (low price or best value), and small business requirements.

### **Financing — *Verify Before Award:***

- 9.10 Agency has received guidance from the PF and/or other FEMP experts on reviewing financing.
- 9.11 Verified that ESCO received multiple bids for financing, and the project interest rate is consistent with other recent awards in accordance with FEMP guidance.
- 9.12 Checked the calculation of construction-period interest.

- 9.13 Checked for any differences between financier's offer to ESCO and ESCO's offer to government.

## **10. FINAL NEGOTIATIONS AND TO AWARD**

- 10.1 Know in advance your clear path to award. Know what management, legal, and other reviews are required prior to award. If agency-level review is required, be prepared in advance.
- 10.2 The financiers need adequate time to give you their best rate. Update the project schedule to detail the final steps required before TO award. Ensure that the ESCO has allowed adequate time in the schedule to obtain multiple financing offers (about 2 weeks).
- 10.3 Be prepared for negotiations, having a full understanding of the proposal/IGA, including TO-RFP and IDIQ.

## **11. BEST PRACTICES AND LESSONS LEARNED FOR THE IMPLEMENTATION/CONSTRUCTION PHASE IN ENERGY SAVINGS PERFORMANCE CONTRACTS (ESPCs)**

- 11.1 Make sure long before award that any preparation the site/facility/installation/customer is responsible for is done or in progress with a firm completion date to avoid delays (note these types of conditions in IGA scope discussions).
- 11.2 Account for project complexity, size, and number of ECMs in planning implementation/construction. For projects that are complex, very large, and/or have a high number of ECMs:
- Ensure that adequate support is available for these projects. Subject matter experts from the agency, along with FEMP and national lab experts, should be engaged for projects that are complex or have a high number of ECMs.
  - Ensure that the acceptance checklist includes warranties, training manuals and schedules for training agency personnel for each ECM; ensure that all are consistent with the Risk, Responsibility, and Performance Matrix.
- 11.3 Establish coordination between the ESPC Project Manager and the Construction Manager to review the TO RFP (especially important in cases of a modification of the TO).
- 11.4 Make clear to ESCOs at the start of the project that they are required to provide oversight of their subcontractors at project sites.
- 11.5 Minimize potential communication issues brought on by construction manager turnover by 1) amending the TO RFP to contain CO approval clause for any changes, 2) requiring overlap during construction management staff change, and 3) requiring ESCO design

- engineers to work more closely with the construction management staff to reduce errors in the construction phase due to faulty design proposal.
- 11.6 Clearly understand safety and security requirements and how they will affect all phases of the contract.
- 11.7 Make sure that that planned construction and planned demolition are taken into consideration during project development and execution.
- 11.8 If construction-period savings are permitted and if the government agrees with how the ESCO proposes to apply them to the project (it should be the most advantageous to the government), then they should be included in the ESCO's proposal and task order schedules.
- 11.9 Special Issues
- 11.9.1 *Transitions* - maintain continuity in key personnel on government and ESCO teams from investment-grade audit (IGA) through construction and project acceptance; add this requirement to the TO-RFP.
- 11.9.2 *Teamwork* - identify agency team roles and responsibilities and have an understanding of the project with the field office and tenants: understand the differences between ESPC and design, bid, build. Establish correspondence protocol and who must be on all correspondence from the site/facility/installation/customer, the agency, and the ESCO.
- 11.9.3 *Coordination, Meetings, and Schedules* - Align your site/facility/installation/customer's perceived schedule with the ESCO's planned schedule; discuss logistics of construction crews, subcontractor participation, laydown locations, etc.
- 11.9.4 *Changes/Contract Modifications* – Make sure the ESCO provides revised schedules for government review and acceptance.
- 11.9.5 *Design Submittals* – Make sure construction manager is on board prior to award, and that construction management design assistance teams are familiar with the buildings and can discuss on a technical level. Coordinate review of ESCO submittals, and schedule on-site design meetings with reviewers and individuals responsible for securing approval, and other acquisition team members as needed.
- 11.9.6 *Notice to Proceed (NTP)* – Make sure all requirements for issuance of the NTP have been fully vetted in the TO RFP and are adhered to prior to actual issuance. Do not allow work to begin until the complete, contractually defined design has been approved.
- 11.9.7 *Mobilization* – Make sure that the site is prepared to provide escorts as needed for the execution of the project (plan for asbestos monitoring, security escorts,

and O&M coordination, etc.) and fully understands the consequences for delays and who holds that responsibility.

11.9.8 *Contractor Clearances* – Ensure that contractor clearly understands site access requirements (the site COR can assist with clearance process). The ESCO and government must both be involved in site access, security, and clearance/badging procedures and requirements as both are responsible for tracking and making sure issues are addressed.

11.9.9 *Construction* – Before digging, address any bandwidth coordination, verify readiness of subcontractors, file certification/permits, identify equipment to be used, keep accurate records of retrofits (do room-by-room count for lighting), and identify and schedule construction based on major milestones.

11.9.10 *Commissioning, M&V, and Government Witnessing During Implementation/Construction* – Assign oversight responsibilities for government witnessing of M&V activities and commissioning, ideally during the IGA (typically this is the COR, however, ensure that the COR is qualified to oversee M&V, commissioning, and post-installation witnessing for each ECM, or is able to gain needed technical support for those responsibilities).

- Require the ESCO to provide a look-ahead schedule identifying firm dates for commissioning and M&V activities. This is to allow the agency to make government witnessing staff available and to avoid miscommunication or wasted trips.
- Ensure that the ESCO and government teams understand that the purpose of witnessing is to independently verify the ESCO's commissioning and M&V results. It should be clear to all parties that witnessing does not constitute any form of approval or acceptance.
- Clarify that commissioning is required for all ECMs and that the commissioning reports need to include point-to-point testing sheets (otherwise the post-installation report review is based only on narrative).
- If any shortfalls in performance are identified that could not be corrected during commissioning, project stakeholders should be notified. Make any adjustments to ensure that the guaranteed savings can be met during the performance period.
- During the period when commissioning is progressing, the private partner should supply any training, manuals, instructions, or job aids to the government.
- Make sure that any site changes are well recorded and accounted for in the M&V plan and the post-installation M&V reports.
- If the M&V plan specifies a visual inspection once a year, then the ESCO should actually do a visual inspection of each ECM once a year.

11.9.11 *Project Acceptance* – Project acceptance occurs once all commissioning and post-installation M&V are complete and all punch-list items are complete. Make sure that:

- The site/facility/installation/customer is aware of the inspection requirements and has the ample resources readily available to inspect the construction effort timely.
- All punch list items are completed and re-inspected prior to acceptance. Do not allow the ESCO to “cover under warranty.”
- All project deliverables are accepted in writing by the CO.

11.9.12 Conditional and Full Acceptance

- For ECMs for which construction-period savings are allowed, define in the IGA what is required for ECM acceptance. Generally the 30-day functional test and the commissioning report are required. A post-installation M&V report is required only for full acceptance.
- When there are multiple ECMs, establish acceptance procedures for each ECM, as individual systems or buildings, separate from project acceptance.
- Take into consideration the project deliverables – ECM-level versus project-level.
- Take into consideration who will perform O&M from ECM acceptance until final project acceptance.

## 12. MEASUREMENT & VERIFICATION

- 12.1 Agencies should designate a primary contact who is responsible for (1) maintaining contact with FEMP through the Life of Contract program, and (2) maintaining continuity of documentation and awareness of the ESPC throughout the performance period.
- 12.2 Agencies should designate a government witness to accompany the ESCO during annual measurement and verification activities. Ensure that the government witness has reviewed current FEMP guidance on M&V witnessing. COR delegation letters should include designation of the COR as M&V witness.
- 12.3 Agencies should put procedures in place to ensure prompt review of the ESCO's annual M&V report, in accordance with FEMP guidance. The annual M&V report must be in accordance with the M&V plan in the TO. These reports document whether all parties and the delivered energy and cost savings meet the TO requirements.
- 12.4 In the case of demolished or decommissioned buildings or removal of ECM equipment by the government, the agency CO should promptly initiate a contracting action to buy out that portion of the contract involving ECMs that are no longer in place or no longer functional.