Federal Energy Savings Performance Contracts


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Contacts

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The U.S. Department of Energy (DOE) Federal Energy Management Program (FEMP) is authorized to establish appropriate procedures and methods for use by federal agencies with regard to the administration and award of energy savings performance contracts (ESPCs). FEMP is issuing this document to provide clarifications and guidance on issues commonly raised regarding the scope of 42 U.S.C. § 8287 et seq. This document is intended to supplement FEMP's extensive collection of materials that are available to assist federal agencies execute successful ESPC projects.

1. What is an ESPC?

An ESPC is a firm fixed-price multiyear contract with a term not to exceed 25 years for the provision of supplies or the performance of services for the design, acquisition, installation, testing, measurement and verification, and, where appropriate, operation, maintenance, repair, and replacement, of an identified energy conservation measure (see question 14), water conservation measure (see question 15), or series of energy conservation measures or water conservation measures at one or more locations. Additional requirements for, and characteristics of, an ESPC are addressed in this document.

2. What is the process for ESPC implementation?

The ESPC process involves collaboration between a federal agency (see question 3) and a qualified private sector energy services company (ESCO) (see question 4) to identify potential improvements to facilities that would result in energy savings (see question 9). The ESCO designs, constructs, and installs a project that meets the federal agency’s needs and provides the necessary financing, with no required initial cost to the agency. The ESCO must provide a guarantee to the federal agency that the improvements will generate annual energy savings sufficient to pay for the project over the term of the contract, guarantee the performance of installed equipment, and have the responsibility for maintenance and repair services during the life of the contract (see question 31).

In exchange for assuming the risk of upfront project financing and the performance guarantee, the ESCO is paid over the term of the contract from contractually guaranteed energy savings. Importantly, annual (or more often, as necessary) measurement and verification must be performed to ensure that the guaranteed energy savings have been met and to ensure that payments to the ESCO do not exceed energy savings (see questions 10 and 11). When the contract term is complete, the recurring energy and cost savings from these improvements accrue to the federal agency.

3. Which federal agencies are authorized to implement an ESPC?

Any federal agency is authorized to implement an ESPC. The term “federal agency” includes each authority of the Government of the United States, whether or not it is within or subject to review by another authority of the Government of the United States.
4. Which ESCOs are qualified to implement an ESPC?

In order to be eligible for award of an ESPC, an ESCO must be included on the DOE list of qualified contractors (or another federal agency’s list of qualified contractors provided that the federal agency has developed its own list of qualified contractors and procedural requirements using similar oversight procedures and methods as established by FEMP).

5. What is the process for selecting an ESCO for ESPC award?

A federal agency may consider several avenues of ESCO selection, including procedures for competitive selection of ESCOs based on both solicited and unsolicited proposals and the use of a multiple-award contract. FEMP and the U.S. Army Corps of Engineers have developed separate multiple-award contracts (the DOE ESPC Indefinite-Delivery Indefinite Quantity (IDIQ) contracts and the Army Multiple Award Task Order Contracts (see Question 6)), both of which allow federal agencies to negotiate individual task orders from an approved pool of ESCOs under an expedited procurement process.

6. What is the process for selecting an ESCO for ESPC award under the DOE ESPC IDIQ?

When issuing a task order under the DOE ESPC IDIQ, a federal agency is authorized to use simplified contractor selection procedures. The DOE ESPC IDIQ contracts allow a federal agency to negotiate and award individual task orders from an approved, pre-competed pool of ESCOs under an expedited and streamlined procurement process using either selection procedures based on an ESCO’s qualifications or an ESCO’s preliminary assessment.

Selection by qualifications allows agencies to evaluate ESCOs based on their past experience, performance, and other criteria that the federal agency deems relevant. Selection by preliminary assessment allows agencies to evaluate ESCOs based on submission of preliminary assessments for an ESPC project. FEMP ESPC experts and agencies with ESPC experience have observed that selection by qualifications 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. Accordingly, FEMP’s website includes a document outlining best practices for ESCO selection. To help agencies select an ESCO please see the Appendix reference for more information on FEMP’s ESCO Selector Tool.

7. Are there other simplified ESCO selection procedures that are authorized under the ESPC authority that can benefit smaller ESPC projects?

Yes. The ESPC ENABLE program provides a standardized and streamlined procurement process for federal projects involving targeted energy conservation measures to administer projects through the General Services Administration (GSA) Federal Supply Schedule 84, SIN 246-53. While ideal for small projects, ENABLE also is applicable to larger projects that contemplate the implementation of targeted energy conservation measures on an expedited basis.
8. What activities are authorized under an ESPC?

An ESPC must be solely for the purpose of achieving energy savings (see question 9) and benefits ancillary to that purpose and must be for the implementation of an energy conservation measure (see question 14), water conservation measure (see question 15), or series of energy conservation measures or water conservation measures at one or more locations. An ESPC must include activities that result in energy savings, which include savings that arise directly from reductions in the cost of energy, water, and wastewater treatment and from reductions in the cost of related operation and maintenance (see questions 10, 11, and 21). Each ESPC must result in energy savings; however, there is no requirement that the level of savings associated with reductions in the cost of energy, water, and wastewater treatment must exceed the level of savings associated with related operation and maintenance.

9. What categories of activities qualify as “energy savings”?

- Reductions in the cost of energy, water, and wastewater treatment in an existing federally-owned facility or facilities, including a reduction in the cost of related operation and maintenance, achieved under an ESPC as compared to the cost of energy, water, and wastewater treatment in the existing federally-owned facility or facilities in the absence of an ESPC, and as a result of:
  - The lease or purchase of operating equipment, improvements, altered operation and maintenance, or technical services; or
  - The increased efficient use of existing energy sources by cogeneration or heat recovery realized in connection with a federally-owned facility or facilities; or
  - The increased efficient use of existing water sources in either interior or exterior applications; or
  - Other federal, state, or local government, non-government, or international financial incentives, including, but not limited to, utility rebates or proceeds from the sale of a renewable energy certificate, financial instrument, or other environmental attribute realized in connection with an energy conservation measure or water conservation measure under an ESPC; or
- The increased efficient use of an existing energy source by cogeneration or heat recovery; or
- If otherwise authorized by federal or state law, the sale or transfer of electrical or thermal energy generated onsite from renewable energy sources or cogeneration under an ESPC, that is in excess of federal needs, to utilities or non-federal energy users.
- The increased efficient use of existing water sources in interior or exterior applications under an ESPC.

10. What is the appropriate source of federal agency funds for ESPC payments?

As discussed above and as outlined in FEMP guidance, the ESCO is paid over the term of the ESPC from any resulting energy savings achieved during the performance service period. Once a federal agency determines whether the funds that it anticipates using for ESPC payments result from energy savings (see question 9), it then must ensure that any payment is made only from funds appropriated to, or otherwise made available by, the federal agency for the payment of energy, water, or wastewater treatment expenses, and related operation and maintenance expenses. Funds that are “otherwise made available to the agency” for these expenses refers to internally-allocated federal agency funds that have been or may be designated...
by the agency for energy- and water-related expenses (including related operation and maintenance expenses).

A central tenet of the ESPC program is that aggregate annual ESPC payments in each year of an ESPC may not exceed energy savings. Under limited circumstances, however, ESCO payments for ESPC cancellations and terminations need not be limited to funds appropriated to, or otherwise made available by, the federal agency for the payment of energy, water, or wastewater treatment expenses (and related operation and maintenance expenses). A federal agency that is seeking to terminate or cancel an ESPC should consult with FEMP to ensure compliance with the ESPC authorities.

11. Can a federal agency make ESPC payments from energy savings other than the annual recurring energy savings achieved under an ESPC?

Yes. As outlined in FEMP guidance, ESPC payments may be made from recurring and nonrecurring energy savings. Recurring energy savings include savings to a federal agency’s annual utility bills or annual operation or maintenance cost savings that result from ESPC implementation. Non-recurring energy savings include avoided costs associated with funds that have been appropriated to, or otherwise made available and may be used for, energy, water, or wastewater treatment project expenses (and related operation or maintenance expenses, including costs related to equipment repair, equipment replacement, equipment renewal, and other capital expenditures). For example, funding appropriated or otherwise made available to an agency for energy efficiency improvements could be used to install or replace existing energy related systems 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, the funds generally made available for utility efficiency improvements could be appropriately applied to an ESPC as a payment from non-recurring energy savings. The following example illustrates these different sources of contractor payments under an ESPC:

- A federal agency awards an ESPC for $1,000,000 to replace all of the windows in a federal building. It is estimated that the new windows will result in $50,000 annual savings to the federal building’s electricity bill. The federal agency currently spends $25,000 on re-caulking annually to maintain the existing windows. The federal agency also has $200,000 generally available for energy- or water-related expenses. In this example, allowable sources of funding to make contractor payments under the ESPC include:
  - Annual recurring energy savings of $50,000 that arise from the reduction in the cost of electricity for the building.
  - Annual recurring energy savings of $25,000 that arise from related operations and maintenance expense savings because the ESPC eliminates the need to re-caulk the existing windows.
  - Non-recurring energy savings of up to $200,000 from the funds generally available for energy- or water-related expenses because the ESPC avoids an expenditure that otherwise could have been paid for from these funds.

Other examples can be found in the FEMP guidance, “How to Determine and Verify Operating and Maintenance Savings in Energy Savings Performance Contracts.”
12. Can a federal agency rely on estimated energy and water tariffs in determining projected energy savings?

Yes. To the extent that future energy or water rates are known at the time of contract formation, the calculation of ESPC payments should rely on known values. If future energy or water rates over the term of an ESPC are unknown at the time of contract formation, federal agencies are authorized to rely on estimated values in determining the energy or water tariffs. For more information, see FEMP guidance and FEMP’s Energy Escalation Rate Calculator (EERC) tool on the use of certain procedures to determine escalation rates that are in the best interest of the government.

13. Can a federal agency rely on normalized weather values in determining projected energy savings?

Yes. Federal agencies are authorized to rely on normalized weather data when determining energy or water tariffs. For more information, see FEMP guidance on using normalized weather values to obtain best value for the government.

14. What is an energy conservation measure?

As discussed in FEMP guidance, a measure must satisfy four criteria in order to qualify as an “energy conservation measure (ECM).” It must (1) be applied to a federal building (see question 16); (2) improve energy efficiency (see question 19); (3) be lifecycle cost-effective (see question 20); and (4) involve energy conservation, cogeneration facilities, renewable energy sources, improvements in operation and maintenance efficiencies, or retrofit activities.

There are many ECMs that can meet the four criteria including operation and maintenance upgrades and renewable energy (See Question 21 and 22, respectively). In addition, measures that do not save energy or water, but that reduce cost and are related to an ECM may be included under certain circumstances (See question 26).


15. What is a water conservation measure?

A measure must satisfy three criteria in order to qualify as a “water conservation measure.” It must: (1) improve the efficiency of water use; (2) be lifecycle cost-effective (see question 20); and (3) involve water conservation, water recycling or reuse, more efficient treatment of wastewater or stormwater, improvements in operation or maintenance efficiencies, retrofit activities, or other related activities. Water conservation measures are not authorized to be implemented at a Federal hydroelectric facility.

There are many water conservation measures that can meet the three criteria including operation and maintenance upgrades (See Question 21). In addition, measures that do not conserve water or wastewater, but that reduce cost and are related to a water conservation measure may be included under certain circumstances (See question 26).

16. What does it mean for an energy conservation measure to “be applied to a federal building”?

A measure satisfies the “applied to a federal building” criterion of the “energy conservation measure (ECM)” definition (see question 14) if it is applied to, serves, or impacts an existing federal facility or facilities. There are a number of ways an ECM can qualify as being applied to a federal building. The measure may be located onsite but not necessarily on or in an actual structure. For example, a ground-mounted solar array need not be physically attached to a building or a measure could be applied to a building but be movable (e.g. computer equipment, spot cooling, vending machines, plug-in loads) or improve operations and maintenance (see question 21), or fixed (e.g. chillers, insulation, windows, motors).

A single energy conservation measure that is applied across multiple facilities (including geographically-dispersed facilities) also is considered to be “applied to a federal building.” A facility includes any building, installation, structure, or other property, or part thereof, including any applicable fixtures and associated energy- or water-consuming support systems that consumes energy. The term also means a collection of such buildings, installations, structures, or other property, and the applicable fixtures and associated energy- or water-consuming support systems for such collection. A federal building need not be located in the United States to be considered for an ESPC. There is no requirement for a water conservation measure to “be applied to a federal building.”

17. Is an energy conservation measure or water conservation measure required to be applied to a federally-owned building?

Generally, yes. The vast majority of ESPCs involve energy conservation measures and water conservation measures that must be applied to a federally-owned building. In very limited circumstances, however, an energy conservation measure or water conservation measure may be applied to a building that is not federally-owned, such as a privately-owned building that is leased to a federal agency. In these rare instances, the measure must achieve one of the categories of energy savings listed in question 9.b, 9.c, or 9.d, and must meet all other ESPC requirements, including the energy conservation measure or water conservation measure criteria set forth in questions 14 and 15. Because these types of energy conservation measures and water conservation measures are extremely uncommon, federal agencies with additional questions should consult with FEMP to ensure compliance with the ESPC authorities.

18. Can an energy conservation measure or water conservation measure be applied to a new building?

As discussed in FEMP guidance, under certain limited circumstances an energy conservation measure or water conservation measure that achieves one of the categories of energy savings listed in question 9.a may be considered to be applied to, serve, or impact an existing federally-owned facility when the ESPC contemplates the construction of a “new” facility. First, an ESPC could provide incremental energy or water efficiency improvements to a design for construction of a planned facility. In this regard, the design for construction would serve as the “existing” facility and would be required to reflect the energy efficiency design requirements set forth in all relevant regulations, including 10 C.F.R. parts 433 and 435, as applicable. Secondly, construction of a “new” facility would be authorized where the construction is
necessary for implementation, operation, and maintenance of an energy conservation measure or a water conservation measure. For example, construction of a facility to house a cogeneration facility would be authorized so long as the facility also met all of the criteria set forth under the definition of “energy conservation measure” (see question 14).

19. What does it mean for an energy conservation measure to “improve energy efficiency”?

A measure satisfies the “improve[s] energy efficiency” criterion of the “energy conservation measure” definition (see question 14) by means including, but not limited to, reducing energy consumption, reducing site or source energy use, reducing the use of fossil-based energy by substituting renewable energy, or reducing greenhouse gas emissions or other pollutants by substituting fuels.

20. What does it mean for an energy conservation measure or water conservation measure to be “life-cycle cost-effective”?

A measure satisfies the lifecycle cost-effectiveness criterion of both the “energy conservation measure” and “water conservation measure” definitions (see questions 14 and 15) by determining lifecycle cost-effectiveness either in the context of the individual measure or in the context of the combined effect of all energy conservation measures and water conservation measures included under the same energy savings performance contract, as calculated in accordance with 10 C.F.R. § 436.10 et seq. That is, multiple energy conservation measures and water conservation measures under the same ESPC may be “bundled” in evaluating lifecycle cost-effectiveness. Additional DOE guidance on determining lifecycle cost-effectiveness for ESPCs with multiple or single energy conservation measures or water conservation measures is available on the FEMP website.

21. Can operation and maintenance upgrades qualify as an energy conservation measure or a water conservation measure?

Yes. The ESPC authorities provide that measures that involve improvements in operation and maintenance efficiencies may qualify as an energy conservation measure or a water conservation measure.

22. Can renewable energy sources qualify as an energy conservation measure?

Yes. The ESPC authorities provide that measures that involve renewable energy sources may qualify as an energy conservation measure.

23. Can a third-party-owned and -operated onsite energy source qualify as an energy conservation measure?

Yes, however, the Office of Management and Budget (OMB) has determined that for an ESPC to be scored (and obligated) on an annual basis during the term of the contract, an onsite energy source must comply with the “Conditions for Annual Scoring of ESPCs” as set forth in OMB Memorandum M-12-21.
24. How can a federal agency implement an ESPC with a third-party-owned and -operated onsite energy source?

Federal agencies that are considering whether to implement an onsite energy source under an ESPC should contact FEMP for information on the ESPC Energy Sales Agreement (ESPC ESA) contracting model, which federal agencies may use to implement onsite energy sources under an ESPC in compliance with the OMB conditions for annual scoring (see question 23).

25. Can an ESCO utilize a reserve account to hold energy savings for a specified future use under an ESPC ESA?

Yes. Federal agencies generally are prohibited under 31 U.S.C. § 3324 from making advance payments from appropriations and, as such, may not establish an escrow account with a third party. This prohibition does not extend to an ESCO that establishes its own independent reserve account in connection with an ESPC ESA, which would not be considered to be an “escrow” account and should not be characterized as such. A federal agency that is considering the use of a reserve account should consult with its counsel as well as FEMP to ensure compliance with ESPC authorities and other applicable laws.

26. Can an arrangement that does not improve energy efficiency or conserve water be included in an ESPC?

An ESPC must be for the implementation of an identified energy conservation measure (see question 14), water conservation measure (see question 15), or series of energy conservation measures or water conservation measures. An activity that results in cost savings with no associated improvement in energy or water efficiency must be combined with a separate activity that demonstrates an improvement in energy or water efficiency (so long as the separate activities are reasonably related to each other) in order for the activities as combined to qualify as an energy conservation measure or water conservation measure.

27. Can infrastructure improvements be included in an ESPC?

An ESPC may include an infrastructure improvement so long as (1) the contract is solely for the purpose of achieving energy savings (see question 9) and benefits ancillary to that purpose and (2) the infrastructure improvement is reasonably related to an energy conservation measure (see question 14), water conservation measure (see question 15), or series of energy conservation measures or water conservation measures.

28. Can an energy conservation measure, water conservation measure, or other arrangement with a payback period in excess of twenty-five years be included in an ESPC?

ESPCs are limited to a twenty-five-year maximum contract period (see question 1). An energy conservation measure or water conservation measure that, on its own, would not have a payback period within twenty-five years is permissible only if the ESPC as a whole has a payback period within the twenty-five-year contract period.
29. Is there a requirement for Congressional notification in advance of ESPC award?

Although the Energy Independence and Security Act of 2007 repealed the express Congressional notification requirement in the ESPC statute, ESPCs currently remain subject to the requirements of part 17.1 of the Federal Acquisition Regulation (FAR), which requires agencies to notify Congress at least 30 days prior to the award of certain proposed multiyear contracts. Specifically, for agencies other than the Department of Defense (DOD), the National Aeronautics and Space Administration (NASA), and the U.S. Coast Guard, FAR part 17.1 establishes a requirement for Congressional notification of at least 30 days prior to award of a multiyear contract that includes a cancellation ceiling in excess of $12.5 million See 48 C.F.R. § 17.108(a). For DOD, NASA, and the U.S. Coast Guard, FAR part 17.1 establishes a similar Congressional notification requirement for multiyear contracts that include a cancellation ceiling in excess of $125 million. See id. § 17.108(b). Each federal agency should consult with its regional Federal Project Executive on possible changes to these cancellation ceiling thresholds.

DOE has implemented a process to provide Congressional notification for pending task orders under the DOE IDIQ contracts, including for pending task orders at non-DOE sites. Federal agencies should consult FEMP guidance for more information on this process. Each agency also should discuss with its counsel to determine whether other reporting requirements may be triggered by the award or implementation of an ESPC.

30. Are ESCOs required to submit certified cost or pricing data as a requirement of ESPC award?

A federal agency need not require an ESCO to submit certified cost or pricing data; rather, offerors should submit information, including pricing information, required by the federal agency to ensure an impartial and comprehensive evaluation of fair and reasonable prices.

31. Which party is responsible for maintenance and repair of an energy conservation measure or water conservation measure under an ESPC?

Performance of maintenance and repair services is negotiable; however, the ESCO bears the ultimate responsibility of ensuring the performance of maintenance and repair services even if routine maintenance is assigned to the federal agency. FEMP recommends that federal agencies follow the guidelines and methods for measuring and verifying energy savings under ESPCs as provided in FEMP guidance. A project-specific risk, responsibility, and performance matrix is required for ESPC projects awarded under the DOE ESPC IDIQ and is a useful tool for considering the risks in an ESPC project.

32. Does the authority to award an ESPC have an expiration date?

No. The Energy Independence and Security Act of 2007 removed the sunset date from 42 U.S.C. 8287(c), making the ESPC authority permanent.
Appendix

In the event that a federal agency believes that any provision of the ESPC authorities is ambiguous or requires clarification, the federal agency should contact FEMP for guidance.

FEMP can provide expert assistance, guidance, and training to assist federal agencies in implementing ESPCs that are technically excellent, legally sound, and a good deal for the government. Several resources and tools are available on the FEMP website and federal agencies can also contact FEMP directly.

- For general ESPC information and FEMP contact information, see http://energy.gov/eere/femp/energy-savings-performance-contracts-federal-agencies.
- For FEMP ESPC guidance documents, see http://www.energy.gov/eere/femp/resources-implementing-federal-energy-savings-performance-contracts.
- FEMP’s ESCO Selector Tool helps create a notice of opportunity (NOO) that complies with federal requirements and meets agency needs. For more information, see http://hyperion.ornl.gov/noo/.
- eProject Builder, a secure web-based data energy and tracking system for ESPC projects, is another tool that is available to agencies to increase efficiencies. eProject Builder allows agencies to upload, track, and access project-level information for the life of the ESPC, automatically generate task order schedules, quickly generate data for project and portfolio reports, develop project scenarios using amortization calculations, and benchmark new ESPC projects against historical project data. Contracting Officers may request that ESCO’s utility eProject Builder for their ESPCs. For more information, see https://eprojectbuilder.lbl.gov/home/#/login.
- FEMP’s Energy Escalation Rate Calculator (EERC) computes an average annual escalation rate for a specified time period, which can be used as an escalation rate for contract payments in energy savings performance contracts and utility energy services contracts. For more information, see http://energy.gov/eere/femp/energy-escalation-rate-calculator-download.