Report No. DODIG-2016-087

INSPECTOR GENERAL

U.S. Department of Defense

MAY 4, 2016

Air Force Civil Engineer Center Management of Energy Savings Performance Contracts Needs Improvement

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Results in Brief

Air Force Civil Engineer Center Management of Energy Savings Performance Contracts Needs Improvement

May 4, 2016

Objective

Our objective was to determine whether the Air Force is effectively managing energy savings performance contracts (ESPCs). This report is the second in a series of audits on ESPCs.

Finding

The Air Force Civil Engineer Center (AFCEC) did not centrally manage 52 existing ESPCs, collectively valued at $849 million, effectively. Specifically, AFCEC did not perform post-award project management, track project status, verify statutorily required energy savings, track required ESPC training, or maintain ESPC lessons learned. This occurred because AFCEC officials:

- considered program management of existing ESPC task orders to be an installation responsibility and training to be a Department of Energy (DOE) responsibility,
- did not believe AFCEC could centrally manage ESPC projects with existing resources, and
- focused on meeting Air Force goals to develop additional ESPC projects rather than managing existing projects.

As a result, Air Force officials do not know whether the 52 existing ESPC projects achieved contractor-guaranteed energy savings, which were to be the basis of payments to the project contractors.

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Recommendations

We made nine recommendations to the Commander, AFCEC, to improve ESPC controls and to validate energy savings for existing projects. These recommendations included: revising existing procedures to establish and maintain a mechanism to track energy savings and ESPC project status for planned, in-process, completed, and terminated Air Force projects; developing and maintaining a process to coordinate with DOE for post-award ESPC technical review services; accessing DOE ESPC training data of Air Force personnel; and coordinating ESPC training for Air Force stakeholders. In addition, we recommended the Commander develop and maintain an ESPC lessons learned mechanism for Air Force use, a management plan for AFCEC and Base Civil Engineer oversight of existing Air Force ESPC projects, and a plan to provide post-award ESPC technical support using available Air Force or DOE engineers.

Management Comments and Our Response

Comments from the Director, AFCEC, addressed all the specifics of the recommendations and no further comments are required. Please see the Recommendations Table on the next page.

Recommendations Table

Management	Recommendations Requiring Comment	No Additional Comments Required
Director, Air Force Civil Engineer Center		1.a, 1.b, 1.c., 1.d, 1.e, 1.f, 1.g, 1.h, and 1.i

INSPECTOR GENERAL
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May 4, 2016

MEMORANDUM FOR ASSISTANT SECRETARY OF THE AIR FORCE
(FINANCIAL MANAGEMENT AND COMPTROLLER)

SUBJECT: Air Force Civil Engineer Center Management of Energy Savings Performance Contracts Needs Improvement (Report No. DODIG-2016-087)

We are providing this final report for information and use. The Air Force Civil Engineer Center did not centrally manage 52 existing Energy Savings Performance Contracts, valued at $849 million, effectively. We conducted this audit in accordance with generally accepted government auditing standards.

We considered management comments on a draft of this report when preparing the final report. DoD Instruction 7650.03 requires that recommendations be resolved promptly. Comments from the Director, Air Force Civil Engineer Center, addressed all specifics of the recommendations and no further comments are required.

We appreciate the courtesies extended to the staff. Please direct questions to me at (703) 604-9187 (DSN 664-9187).

Michael J. Roark
Assistant Inspector General for
Contract Management and Payments

Contents

Introduction

Objective

Our objective was to determine whether the Air Force is effectively managing energy savings performance contracts (ESPCs). This report is the second in a series of audits on Air Force ESPCs.

Background

ESPCs provide a way for the private sector to finance Federal Government energy savings projects. ESPC is a contract type through which an energy services company (ESCO) designs, finances, acquires, installs, and maintains energy-saving equipment and systems for an agency. ESPCs allow Federal agencies to procure energy savings and facility improvements with no upfront capital costs or special appropriations from Congress. The agency is responsible for contract administration for the entire term of the contract. As of the beginning of FY 2015, an Air Force-provided inventory showed 52[1] awarded and active ESPC projects, collectively valued at $848.95 million.

Statutory ESPC Requirement

Section 8287, title 42, United States Code (U.S.C.), includes specific mandates for Federal Agencies entering into ESPCs. Section 8287 allows Federal Agencies to take on debt to acquire energy conservation measures under the condition that the overall utility costs to the base do not increase as a result of the contract and that any Government-incurred debt is secured by a guarantee of energy savings from the ESCO. Section 8287 requires that aggregate annual agency payments to the ESCO over the term of the ESPC[2] not exceed the amount that the agency would have paid for utilities without the ESPC in place. Section 8287 also mandates that the ESPC include an annual energy audit of ESCO energy savings using measurement and verification (M&V) techniques based on sound engineering and financial practices. See Appendix B for further discussion of Statutory, Executive Order, Federal Acquisition Regulation, and DoD ESPC requirements.

[1] The 52 ESPC projects on the Air Force-provided inventory were awarded between 1996 and 2013. For the purposes of this report, we refer to the 52 ESPC projects as the existing projects.

[2] According to 42 U.S.C. 8287(a)(2)(D), ESPC terms may not exceed 25 years.

Air Force ESPC Management Structure

The Air Force Energy Office, a component of the Assistant Secretary of the Air Force for Installations, Environment and Logistics, is responsible for Air Force energy management. The Air Force Civil Engineer Center (AFCEC) Energy Directorate, located at Tyndall Air Force Base, Florida, acts as the Air Force ESPC program manager.[3]

ESPC Contracting Support

Contracting support for the Air Force ESPCs is provided by the Department of Energy (DOE), the Air Force Installation Contracting Agency, the U.S. Army Corps of Engineers, and the Defense Logistics Agency Energy office. The DOE established indefinite-delivery indefinite-quantity contracts, called Super ESPCs, for use by Federal agencies. Federal agencies can use DOE's Federal Energy Management Program (FEMP) to assist them in implementing Super ESPC projects. Prior to 2010, the Air Force used base-level contracting offices to issue ESPCs. The base contracting offices used a mix of contracting vehicles, including direct Air Force contracts, and Air Force task orders made to the DOE Super ESPC. Since 2010 the Air Force ESPC program has exclusively relied upon Air Force-, Army-, or DLA-issued task orders made upon the DOE Super ESPC.[4]

Air Force and AFCEC ESPC Policy

An October 2010 Air Force Civil Engineer policy memo centralized ESPC program management at the AFCEC Energy Directorate. The policy memo defined AFCEC ESPC program management as encompassing all stages of ESPC project development, project evaluation, contract award, and contract administration. The 2010 policy memo stated:

> AFCESA [Air Force Civil Engineer Support Agency, the predecessor to AFCEC] will centrally manage all ESPCs and UESCs [Utility Energy Services Contracts] and will be involved in all stages of project development, evaluation and contract award and administration. . . . AFCESA will approve each stage of the project development and evaluation process and will assist bases/MAJCOMs [major commands] in awarding and administering ESPC/UESC contracts.

[3] For the purposes of this report, all personnel in the AFCEC Energy Directorate are referred to as "AFCEC officials."

[4] Since implementation of the 2010 Air Force Civil Engineer policy, Air Force documentation noted Air Force contracting offices awarded two task orders, collectively valued at $176.8 million, to the DOE Super ESPC. At the time of our review, Air Force documentation also noted AFCEC was in the process of procuring 16 additional ESPC projects through Air Force-, Army-, or DLA-issued task orders to the DOE Super ESPC. AFCEC did not have a total estimated value for the 16 projects.

The first Air Force ESPC was awarded in 1998. Prior to FY 2010, ESPC program execution was decentralized and inconsistently applied across the Air Force. Typical problems included ESPC projects being awarded without detailed M&V plans and lacking reporting data to validate that energy savings were being achieved in accordance with requirements of 42 U.S.C. 8287. As a result, the Air Force assumed the majority of the ESPC performance risk from the ESCO.

Additional Air Force and AFCEC guidance includes:

- Air Force Civil Engineer "Policy of Energy Savings Performance and Utility Energy Service Contracts," October 23, 2012;
- Air Force Civil Engineer "Policy on Energy Savings Performance and Utility Energy Service Contracts," October 4, 2010;
- Engineering Technical Letter (ETL) 11-24: "Energy Savings Performance Contracts," July 18, 2011; and
- ETL 13-13: "Energy Savings Performance Contracts," August 15, 2013.

Review of Internal Controls

DoD Instruction[5] requires DoD organizations to implement a comprehensive system of internal controls that provides reasonable assurance that programs are operating as intended and to evaluate the effectiveness of the controls. We identified internal control weaknesses concerning AFCEC's ability to centrally manage existing ESPCs. These weaknesses included lack of controls to provide post-award ESPC program management, track ESPC project status and energy savings, maintain an Air Force ESPC lessons learned program, and effectively administer ESPC training. We will provide a copy of the final report to the senior official responsible for internal controls in the Air Force.

[5] DoD Instruction 5010.40, "Managers' Internal Control Program Procedures," May 30, 2013.

Finding

AFCEC Controls Over Management of Air Force ESPCs Were Not Effective

AFCEC did not centrally manage 52 existing ESPCs, collectively valued at $849 million, effectively. Specifically, AFCEC did not:

- perform post-award project management,
- track project status,
- verify energy savings resulting from the projects as mandated by statute,
- track required ESPC training, and
- maintain an Air Force ESPC lessons learned program.

This occurred because AFCEC officials:

- considered program management of existing ESPC task orders to be an installation responsibility and training to be a DOE responsibility,
- did not believe AFCEC could centrally manage ESPC projects with existing technical support resources, and
- focused on meeting Air Force goals to develop additional ESPC projects rather than managing existing projects.

As a result, Air Force officials do not know whether the 52 existing ESPC projects achieved contractor-guaranteed energy savings, which were to be the basis of payments to the project contractors and the basis of compliance with 42 U.S.C. 8287.

AFCEC Did Not Centrally Manage Existing ESPCs

AFCEC did not centrally manage 52 existing ESPCs, collectively valued at $849 million, effectively. Specifically, AFCEC did not perform post-award project management, track project status, verify statutorily required project energy savings, track required ESPC training, and maintain a ESPC lessons learned program.

AFCEC Did Not Perform Post-Award Project Management

Air Force policy memos and ETL guidance require that AFCEC officials centrally manage all ESPCs and be involved in all stages of project development, evaluation, and contract award and administration. Centralized management of ESPC project development includes pre-award processes such as providing ESPC training,

defining project requirements, solicitation preparation, proposal evaluation, and contract negotiation as well as post-award oversight and technical support.[6] With the exception of training management, AFCEC did perform centralized management of most pre-award processes for 2010 and later ESPC projects. AFCEC did not perform post-award project management for any of the 52 existing ESPC projects, regardless of award date. Post-award project management includes contract administration actions to ensure that ESCOs followed elements of M&V plans agreed to during negotiation. Post-award contract administration assures that ESCO post-installation and annual M&V reports are accurate.[7] In many cases, such post-award analyses of ESCO reports require specialized technical evaluation by qualified engineers.

AFCEC Did Not Track Project Status

AFCEC officials did not track project status for existing ESPC projects. AFCEC officials stated that they used data calls to installation contracting offices and base civil engineering (BCE) offices to obtain project status data. However, the data calls were sporadic and did not result in consistent and current project data.

Specifically, AFCEC did not maintain contract and task order numbers used for 12 of the 52 projects, collectively valued at $180.7 million. For example, AFCEC officials could not provide contract or task order numbers for a 22-year ESPC at MacDill AFB, Florida, with a total payment value of $24.5 million. AFCEC officials stated that they used a project number code rather than contract or task order numbers to identify ESPC projects. However the AFCEC officials stated that they did not track existing ESPCs except through the use of occasional data calls.

In addition, AFCEC could not determine whether 12 of the 52 projects, collectively valued at $58.6 million, which had contract terms that appeared to have ended in FY 2014 or earlier, were in fact completed or terminated through a buyout. AFCEC officials generally did not contact the installations whose listed contract term appeared to have ended in FY 2014 or earlier, to determine whether the ESPCs had been completed. AFCEC should revise existing ESPC ETL guidance to establish and maintain a mechanism to track energy savings and project status for planned, in-process, completed, and terminated Air Force ESPC projects to ensure compliance with 42 U.S.C. 8287 requirements. The mechanism should include (but not be limited to), appropriate contract references, validated baselined energy

[6] Centralized management is discussed in ETL 11-24, section 10.1.4 and ETL 13-13, section 11.1.4. Sections 10.1.4 and 11.1.4 state that AFCEC is responsible for centrally managing all ESPCs. The sections also state that AFCEC is responsible for assisting bases and major commands with developing the ESPC project through award and completion of task order terms.

[7] ETL 13-13, at sections 11.3.4 and 11.3.5 also require individual Base Civil Engineers ensure that ESCOs comply with M&V requirements and annually verify the ESCO is meeting guaranteed savings requirements.

savings achieved, payments made, and related primary energy savings performance contract documents such as preliminary assessments, Investment Grade Audits[8], M&V plans, post-installation reports, annual M&V reports, and Government technical analyses and validation documentation of such reports.

As a best practice, AFCEC could use an automated energy-management system to improve tracking of energy savings and ESPC project status. Such electronic data management systems are used to create, store, retrieve, and update energy project records. Available energy electronic management systems include the Air Force's Automated Civil Engineer System-Project Manager and DOE's "eProjectBuilder" system. AFCEC should conduct a review of existing electronic data management systems to determine if there is a system capable of tracking energy savings and project status.

AFCEC Did Not Track Whether Energy Savings Were Achieved

AFCEC officials did not track actual energy savings achieved for any of the 52 projects, as required by statute.

AFCEC officials did not track actual energy savings achieved for any of the 52 projects, as required by statute. For example, AFCEC officials did not track actual energy savings for a 21-year ESPC at Joint Base Charleston, South Carolina, with a total payment value of $49 million. A July 2010 DOE-FEMP performance review of the Joint Base Charleston ESPC concluded that $445,788 of $1,627,338 of ESCO-guaranteed Performance Year 1 (December 2007 through November 2008) energy savings may not have been realized. AFCEC did not validate actual energy savings realized for the subsequent seven annual performance years. An AFCEC official stated that the Air Force cannot recover contract payments made to the ESCO because the Air Force stipulated the guaranteed savings amount in the contractual M&V plan, which conflicted with 42 U.S.C. 8287 requirements that the ESCO guarantee the savings to the agency and that annual agency ESPC payments be less than the agency would have paid without an ESPC. AFCEC should validate Joint Base Charleston ESPC energy savings achieved for performance years 2 through 8 and recommend that the contracting officer take appropriate contractual action, such as the recovery of unrealized guaranteed energy savings and buy out the remaining portion of the ESPC.

[8] An Investment Grade Audit is an ESCO-generated pre-award document consisting of the technical and price proposal including the energy savings guarantee.

AFCEC Did Not Provide or Track ESPC Training

AFCEC did not provide or track required ESPC training. AFCEC ESPC training management was sporadic and usually done on a reactive basis through installation training requests. ETLs 11-24 and 13-13 require AFCEC officials to develop ESPC procedures and guidance, including providing ESPC training. Specifically, the ESPC training should be provided to the contracting officer, base energy manager, the BCE financial manager, base financial manager, major command representative, and base legal office representative. ETL 13-13 further requires that training be provided before implementing an ESPC program and that newly assigned personnel associated with the ESPC program receive training for the term of the ESPC.

AFCEC officials stated they make contracting and technical personnel at Air Force installations with pending ESPC projects aware of DOE-FEMP training through e-mailed training links. If requested by an Air Force installation, AFCEC may directly coordinate with DOE for FEMP ESPC training to that installation. However, AFCEC officials did not have a process to notify installations with existing ESPCs about DOE-FEMP training opportunities. AFCEC should develop and maintain a process to distribute and coordinate FEMP ESPC training for Air Force stakeholders.

Since 2008, AFCEC officials did not track Air Force personnel who completed ESPC training. From 1998 to 2008, the Air Force had a web-based ESPC training program that generated a database of trained Air Force personnel. Air Force Energy Office officials stated that they did not reach out to DOE-FEMP to track Air Force personnel who have taken DOE ESPC training.

DOE FEMP officials stated the availability of ESPC training records were dependent upon the individual FEMP ESPC courses offered. FEMP officials stated that records for online courses and on-site courses were limited. In addition, FEMP officials noted they were evaluating existing ESPC training to determine whether updates were needed on Government witnessing of M&V activities and Government review and certification of M&V reports in response to recommendations in a 2015 Government Accountability Office (GAO) report[9] on ESPCs.

[9] GAO Report No. 15-432, "Energy Savings Performance Contracts: Additional Actions Needed to Improve Federal Oversight," June 2015.

Public Law[10] requires the DOE FEMP to institute a training program to educate Federal contract negotiation and contract management personnel entering to ESPCs. Section 517 requires FEMP to train DoD contract management personnel.[11] AFCEC should coordinate with DOE-FEMP to access and record Air Force ESPC.[12]

AFCEC Did Not Maintain ESPC Lessons Learned

AFCEC officials did not maintain Air Force ESPC lessons learned, as required by ETLs 11-24 and 13-13. ETL 13-13, section 11.1.7, states that it is AFCEC's responsibility to act as a clearinghouse for ESPC lessons learned. Part of the ESPC contract award and oversight process is to provide contracting, engineering, and other technical personnel the means to access ESPC lessons learned prior to initiating new ESPC awards or conducting oversight and administration of existing awards. AFCEC officials should maintain lessons learned for ESPCs for the Air Force.

AFCEC Faced Challenges With Responsibilities, Resources, and Priorities for Managing ESPCs

AFCEC did not centrally manage, track project status, or provide Air Force personnel ESPC training.

AFCEC did not centrally manage, track project status, or provide Air Force personnel ESPC training because AFCEC officials considered program management of existing ESPC task orders to be an installation responsibility and training to be a DOE responsibility. AFCEC also did not believe it could centrally manage ESPC projects with existing resources. Finally, AFCEC officials focused on meeting Air Force goals to develop additional ESPC projects rather than managing existing projects.

AFCEC Considered Program Management an Installation Responsibility

AFCEC officials considered program management of existing ESPC projects to be an installation responsibility. Program management of existing ESPC projects included technical support of ESPC construction and performance phases and oversight of government validation of baselined contractual energy savings. AFCEC officials believed that Air Force policy memos and ETL 13-13 terminology for centralized management did not include AFCEC oversight of the performance phase and that it was not their intent to manage ESPC projects after contract or task order award. We concluded that the AFCEC-stated intent was not consistent with the Air Force

[10] Public Law 110-140, "Energy Independence and Security Act of 2007," section 517.

[11] FEMP ESPC training may be conducted by attorneys or contracting officers with ESPC experience from any agency or by private experts not simultaneously employed by a company under contract to provide energy efficiency services to the Government.

[12] We coordinated a discussion draft of this report with DOE Office of Inspector General and FEMP officials.

policy memo definition of AFCEC ESPC program management encompassing all stages of ESPC project development, project evaluation, contract award, and contract administration. AFCEC should develop and implement a management plan for AFCEC and BCE oversight of existing Air Force ESPC projects.

AFCEC Had Limited Resources for ESPC Program Management

AFCEC officials stated they could not centrally manage ESPC projects with existing resources. Post-award analyses of ESCO M&V post-installation and annual reports require specialized technical evaluation by qualified engineers. AFCEC lacked personnel to perform post-award program management and technical support. AFCEC ESPC officials stated that with nine assigned government and contract engineers, they could not provide post-award ESPC program and technical support to all existing Air Force ESPC locations. While the Air Force expanded oversight with the 2010 policy memo, AFCEC did not obtain sufficient resources for the increased responsibilities.

AFCEC officials stated that contracted Resource Efficiency Managers (REMs) could perform contract administration technical support tasks such as technically evaluating annual ESCO M&V reports of actual energy savings as an additional duty. REM positions were located both at AFCEC and at Air Force bases. However, FY 2014 energy initiative funding cuts reduced total Air Force-wide assigned REMs from 81 to 41. AFCEC should develop a plan to provide post-award ESPC technical support using available engineers and REMs.

In addition, DOE-FEMP will provide contract administration technical support for Air Force ESPCs for a fee. The fee structure is outlined in the AFCEC ETL. AFCEC officials stated that if notified by a base of the need for technical support during the contract performance phase, they would seek DOE-FEMP technical support if they did not have AFCEC staff to provide the support. ETL-13-13 recommends the use of DOE-FEMP resources when needed. AFCEC should revise ETLs to specifically require AFCEC coordination with DOE-FEMP regarding FEMP post-award technical review services if Air Force resources are not available.

AFCEC Focused on Initiating New ESPC Projects

AFCEC officials focused on meeting an Air Force goal to enter into an additional $419 million of ESPC commitments by the end of 2016 rather than managing existing ESPC projects. The new ESPC goal was made in response to the President's Performance Contracting Challenge of May 9, 2014, to advance solar deployment and energy efficiency. At the end of FY 2015, AFCEC program managers were developing an additional 16 ESPC projects to meet the Air Force ESPC commitment.

The Air Force Did Not Know Whether Existing ESPCs Have Achieved Actual Energy Savings

Air Force officials do not know whether the 52 existing ESPC projects achieved contractor-guaranteed energy savings.

Air Force officials do not know whether the 52 existing ESPC projects achieved contractor-guaranteed energy savings, which were to be the basis of payments to the project contractors, and the basis of compliance with 42 U.S.C. 8287 requirements. AFCEC data calls were sporadic and did not result in consistent and current project data. As a result, AFCEC did not maintain actual energy savings achieved for the 52 ESPC projects. AFCEC also could not identify the Air Force portion of baselined energy savings (baselined energy savings less payments) for 6 of the 52 projects, valued at $55.9 million. The Air Force needs to improve project management controls over existing ESPC projects to verify, as required by statute, that energy-savings baselines were achieved.

If savings baselines were not achieved, the Air Force should take appropriate action, such as recovery of unrealized guaranteed energy savings and potentially buying out the remaining portion of such ESPCs. From FY 2009 through FY 2011, the Air Force bought out 53 ESPCs with a total buyout cost of $230 million in response to findings and recommendations of an FY 2008 Air Force Audit Agency Report[13]. The Air Force Audit Agency report found that the Air Force could not properly validate more than $1.1 billion in contractor-reported energy savings and that Air Force engineers did not annually validate savings or maintain valid baselines to measure savings. The Air Force Audit Agency report also recommended that the Air Force issue guidance to standardize processes to assist engineers in performing and documenting energy-savings validations.

[13] Air Force Audit Agency Report Number F2008-0002-FD1000, "Follow-up Audit, Energy Management Program," December 26, 2007.

Recommendations, Management Comments, and Our Response

Recommendation 1

We recommend that the Director, Air Force Civil Engineer Center:

a. Revise existing engineering technical letters to establish and maintain an energy-savings performance-contract mechanism to track energy savings and project status for planned, in-process, completed, and terminated Air Force energy-savings performance-contract projects. The database should include, but not be limited to, appropriate contract references, validated baselined energy savings achieved, payments made, and related primary energy-savings performance-contract documents such as preliminary assessments, investment-grade audits, measurement and verification plans, post-installation reports, annual measurement and verification reports, and Government technical analyses and validation documentation of such reports.

Director, Air Force Civil Engineer Center Comments

The Director, AFCEC, agreed with the intent of the recommendation and stated that AFCEC will incorporate into future development of an ESPC Playbook (which is expected to replace ETLs) a database to maintain status and contract performance data for all contracts awarded after the establishment of AFCEC central ESPC management in 2010. The Director also noted that as part of the database mechanism, AFCEC will implement a system of internal controls to ensure effective tracking of ESPC performance. The Director estimated a March 31, 2018, completion date to define, implement, and incorporate the database.

In addition, the Director stated that AFCEC will review contract performance of the 52 existing ESPCs (awarded prior to establishment of AFCEC centralized ESPC management) by obtaining and reviewing a statistically appropriate sample of the contracts. The Director estimated a June 30, 2017, completion date to retrieve and review performance validation documentation for a statistically appropriate sample of the existing ESPCs. In addition, the Director noted that if review of the statistical sample indicated systemic contractual non-performance or inadequate performance oversight, AFCEC will then formulate a plan to review the remainder of the 52 ESPCs. Finally, the Director stated that AFCEC will make appropriate

recommendations to contracting officers as indicated by its review of contract performance validation documentation and that upon implementation of the database mechanism, AFCEC will maintain performance validation documents for existing ESPCs for each year of performance going forward.

Our Response

Comments from the Director, AFCEC, addressed all the specifics of the recommendation and no further comments are required.

b. Conduct a review of existing electronic data management systems to determine if there is a system capable of tracking energy savings and project status.

Director, Air Force Civil Engineer Center Comments

The Director, AFCEC, agreed, stating as part of AFCEC's implementation of Recommendation 1.a, AFCEC will establish and maintain a mechanism to track energy savings and project status. AFCEC will also review the availability of existing data management system to track energy savings and ESPC project status. The Director noted that the estimated completion date is November 30, 2016.

Our Response

Comments from the Director, AFCEC, addressed all the specifics of the recommendation and no further comments are required.

c. Validate Joint Base Charleston energy savings performance contract savings achieved for performance years 2 through 8 as statutorily mandated and recommend the contracting officer take appropriate contractual action, such as recovering unrealized guaranteed energy savings or buying out the remaining portion of the contract.

Director, Air Force Civil Engineer Center Comments

The Director, AFCEC, agreed with the recommendation and will prioritize and complete a review of the Joint Base Charleston ESPC contract performance by November 30, 2016.

Our Response

Comments from the Director, AFCEC, addressed all the specifics of the recommendation and no further comments are required.

d. Develop and maintain a process to distribute and coordinate Department of Energy–Federal Energy Management Program Energy Savings Performance Contract training for Air Force stakeholders.

Director, Air Force Civil Engineer Center Comments

The Director, AFCEC, agreed to develop and maintain a process to annually notify installations with ESPCs regarding availability and sources of DoE FEMP ESPC training opportunities. The Director estimated completion of initial notification by November 30, 2016.

Our Response

Comments from the Director, AFCEC, addressed all the specifics of the recommendation and no further comments are required.

e. Coordinate with the Department of Energy-Federal Energy Management Program to obtain Air Force Energy Savings Performance Contract training data.

Director, Air Force Civil Engineer Center Comments

The Director, AFCEC, agreed to coordinate with DoE FEMP on an annual basis to request records of ESPC training completed by Air Force personnel, and maintain records as part of the database mechanism under Recommendation 1.a. The Director estimated a November 30, 2016, completion date for initial DoE FEMP coordination.

Our Response

Comments from the Director, AFCEC, addressed all the specifics of the recommendation and no further comments are required.

f. Maintain "lessons learned for energy savings performance contracts for the Air Force.

Director, Air Force Civil Engineer Center Comments

The Director, AFCEC, agreed to implement a repository for specific lessons learned from individual ESPC development and performance. The Director noted a March 31, 2018, estimated completion date to define and implement the repository.

Our Response

Comments from the Director, AFCEC, addressed all the specifics of the recommendation and no further comments are required.

g. Develop and implement a management plan for Air Force Civil Engineer Center and Base Civil Engineer oversight of existing Air Force energy savings performance contract projects.

Director, Air Force Civil Engineer Center Comments

The Director, AFCEC, agreed with the intent of the recommendation, stating that performance oversight for ESPCs awarded prior to July 2011 is the responsibility of the local installation contracting officers and their designated technical representatives. The Director also stated that AFCEC will evaluate the effectiveness of AFCEC ESPC oversight processes over existing ESPCs using the methodology made in response to Recommendation 1a.

Our Response

We agree that for legacy ESPC's awarded prior to centralized management, the base-level contracting officer has the ultimate oversight responsibility for individual existing ESPCs. However, the AFCEC ESPC program manager must also maintain overall responsibility over the ESPC program. The planned AFCEC ESPC Playbook and the legacy ESPC review methodology describe an acceptable alternative to meet the intent of the recommended management plan. Therefore, comments from the Director, AFCEC, addressed all the specifics of the recommendation and no further comments are required.

h. Develop a plan to provide post-award energy savings performance contract technical support using available engineers and resource-efficiency managers.

Director, Air Force Civil Engineer Center Comments

The Director, AFCEC, agreed with the recommendation and will incorporate provisions for AFCEC technical support, to the extent allowed by availability of engineers and resource efficiency managers, in a future ESPC Playbook scheduled to replace existing ETLs by March 31, 2018.

Our Response

Comments from the Director, AFCEC, addressed all the specifics of the recommendation and no further comments are required.

i. Revise Engineering Technical Letters to require the Air Force Civil Engineer Center to coordinate with the Department of Energy–Federal Energy Management Program regarding Federal Energy Management Program post-award technical review support services if Air Force resources are not available.

Director, Air Force Civil Engineer Center Comments

The Director, AFCEC, agreed with the recommendation and will incorporate DOE FEMP coordination provisions in a future ESPC Playbook that is anticipated to replace ETLs by March 31, 2018.

Our Response

Comments from the Director, AFCEC, addressed all the specifics of the recommendation and no further comments are required.

Appendix A

Scope and Methodology

We conducted this performance audit from June 2015 through February 2016 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

To determine whether the Air Force was effectively managing ESPCs, we reviewed Federal, DoD, DOE, and Air Force guidance to identify Air Force ESPC program management requirements. We interviewed Air Force headquarters and AFCEC energy officials to understand how AFCEC managed the Air Force ESPC program, and administered active ESPC projects and ESPC projects in the acquisition pipeline. We interviewed AFCEC officials and obtained documentation to determine whether AFCEC was administering or tracking ESPC training of Air Force personnel and whether AFCEC maintained lessons learned to aid Air Force contracting and technical personnel involved in ESPC planning, procurement, and administration. We interviewed and obtained documentation from DOE FEMP officials regarding ESPC training given by DOE-FEMP to Air Force personnel. We also provided our report to DOE for review.

To determine whether the AFCEC officials tracked ESPC project status, contract and task order identification information, project completions, buyouts, and validations of project energy savings, we analyzed AFCEC-provided ESPC project data for 52 Air Force ESPC projects, valued at $848.95 million, that Air Force and AFCEC officials stated were active as of the beginning of FY 2015. Using the AFCEC-provided project data, we identified that all 52 projects omitted one or more project attributes. Through discussion with AFCEC officials, we obtained additional data on 7 of the 52 ESPC projects, valued at $159.4 million, to support one or more of the omitted project attributes. AFCEC officials could not determine whether 12 of the 52 projects, valued at $58.6 million, which had contract terms that appeared to have ended in FY 2014 or earlier, were in fact completed or terminated through a buyout. AFCEC stated that 1 of the 12 projects, valued at $448,000, was in fact completed.[14]

[14] AFCEC-provided an e-mail and contractual documents that showed that 4 of the 52 overall projects, collectively valued at $80.7 million, were in fact completed or bought out.

We also interviewed and obtained documentation from AFCEC energy officials, and Army, Air Force, and Defense Logistics Agency contracting officials regarding procurement of 16 planned Air Force ESPC projects in the acquisition pipeline at the time of our audit.

Use of Computer-Processed Data

We did not rely on computer-processed data to perform this audit that supported our findings, conclusions, and recommendations.

Prior Coverage

During the prior 5 years, the Government Accountability Office, the Office of Inspector General, DoD, and the Air Force Audit Agency have each issued one report involving Air Force ESPCs or AFCEC energy management. Unrestricted Government Accountability Office reports can be accessed over the Internet at http://www.gao.gov. Unrestricted Air Force Audit Agency reports can be accessed from https://www.efoia.af.mil/palMain.aspx by selecting the Freedom of Information Act Reading Room and then selecting audit reports.

GAO

Report No. GAO-15-432, "Energy Savings Performance Contracts: Additional Actions Needed to Improve Federal Oversight," June 2015

DoD IG

Report No. DODIG-2015-138, "The Air Force Did Not Monitor the Energy Savings Performance Contract at Joint Base McGuire," June 2015

Air Force

Report No. F2012-0002-FB1000, "Air Force Smart Operations for the 21st Century Savings Validation," February 2012

Appendix B

Statutory Requirements for ESPCs

U.S. Code Title 42,[15] provides authority for a Federal agency to enter into ESPCs for the purpose of achieving energy savings and ancillary benefits. The Federal agency may issue a task or delivery order under an ESPC for a period not to exceed 25 years. 42 U.S.C. 8287 also allows the ESCO to incur costs of implementing energy savings measures, including at least the costs of performing energy audits, acquiring and installing equipment, and training personnel, in exchange for a share of any energy savings directly resulting from implementation of such measures during the term of the ESPC. ESPC obligation amounts are unlimited. However, 42 U.S.C. 8287 limits aggregate annual agency ESPC payments for utilities and energy savings to an amount (as estimated) that the agency would have paid without an ESPC. 42 U.S.C. 8287 requires the ESCO to provide a guarantee of savings to the agency and establish payment schedules reflecting such guarantee, taking into account any capital costs under the contract.

Public Law 110-140,[16] requires the DOE FEMP to institute a training program to educate Federal contract negotiation and contract management personnel entering to ESPCs. 42 U.S.C. 517 specifically requires FEMP to train DoD contract management personnel in ESPC negotiation and administration.

Executive Order and Presidential Memorandum Regarding ESPCs

The White House Instruction for Implementing Executive Order 13423,[17] directs agencies to use funding tools such as ESPC to leverage government funding and optimize project scope and reductions in energy use and cost of facility operations.[18]

A December 2, 2011, memorandum[19] states it is Federal agency responsibility to reduce energy use and operate buildings efficiently.[20] The memorandum notes that executive departments and agencies are responsible to evaluate their

[15] U.S. Code Title 42, Section 8287, "Energy Savings Performance Contracts."

[16] Public Law 110-140, "Energy Independence and Security Act of 2007," section 517.

[17] Executive Order 13423, "Strengthening Federal Environmental, Energy and Transportation Management," January 24, 2007. The White House Implementing Instruction was issued on March 29, 2007.

[18] Executive Order 13693, "Planning for Federal Sustainability in the Next Decade," March 19, 2015, replaced Executive Order 13423.

[19] "Presidential Memorandum for the Implementation of Energy Savings Projects and Performance-Based Contracting for Energy Savings."

[20] Executive Order 13693 revoked the subject Presidential Memorandum.

facilities, identify potential savings, and appropriately leverage both private- and public-sector funding to invest in comprehensive energy conservation projects that cut energy costs.

The "President's Performance Contracting Challenge," May 9, 2014, announced a $2 billion contracting goal for Federal energy efficiency upgrades to Federal buildings over the next 3 years. The 2014 goal followed an initial $2 billion commitment in 2011 for a total goal of $4 billion in ESPCs in the Federal sector through 2016. The Presidential memorandum stated that the ESPC investments would save Americans billions in energy costs, promote energy independence, and create tens of thousands of construction sector jobs.

Federal Acquisition Regulation ESPC Requirements

Federal Acquisition Regulation[21] states that agencies should make maximum use of the authority provided in the National Energy Conservation Policy Act (including 42 U.S.C. 8287) to use an ESPC when life-cycle cost-effective, and to reduce energy use and cost in an agency's facilities and operations. Subpart 23.205 notes that Federal agencies may use a "Qualified List" of ESCOs established by the DoE and other agencies.

DoD ESPC Policy and Guidance

While DoD maintains a general energy policy, it does not maintain a specific Defense-wide policy covering ESPCs. ESPC-specific policies are left to individual Military Departments. General DoD energy guidance is provided through DoD Directive,[22] which assigns responsibilities for energy planning, use, and management for the DoD. The Directive notes that DoD policy is to enhance military capability, improve energy security, and mitigate costs in its use and management of energy. The Directive also requires that cost-effective investments are made in facility infrastructure to reduce energy demand, increase renewable energy, and enhance the power resiliency of installations. Additional energy guidance provided through DoD Instruction[23] requires that any funds paid by a DoD Component pursuant to a private-sector-financed energy project be from funds made available through the same project's recurring and nonrecurring energy- or water-related cost savings.

[21] Federal Acquisition Regulation Subpart 23.205, "Energy Savings Performance Contracts."

[22] DoD Directive 4180.01, "DoD Energy Policy," April 16, 2014.

[23] DoD Instruction 4170.11, "Installation Energy Management," December 11, 2009.

Management Comments

Director, Air Force Civil Engineer Center

DEPARTMENT OF THE AIR FORCE
AIR FORCE CIVIL ENGINEER CENTER
JOINT BASE SAN ANTONIO LACKLAND TEXAS

8 APR 2016

MEMORANDUM FOR OFFICE OF THE INSPECTOR GENERAL

FROM: AFCEC/CL
2261 Hughes Ave, Ste 155
JBSA Lackland TX 78236-9853

SUBJECT: DoD IG Proposed Report, Project No. D2015-D000CI-0200.000, Air Force Civil Engineer Center Management of Energy Savings Performance Contracts Needs Improvement

The Air Force Civil Engineer Center has reviewed the subject audit report and submits the attached responses addressing the report's recommendations. Please feel free to contact me if you have additional questions.

RANDY E. BROWN, SES
Director

Attachment:
Management Comments

Director, Air Force Civil Engineer Center (cont'd)

AFCEC Comments
DoD IG Proposed Report, Project No. D2015-D000CI-0200.000

Recommendation 1: The Commander, Air Force Civil Engineer Center should:

Recommendation 1a: Revise existing engineering technical letters to establish and maintain an energy-savings performance-contract mechanism to track energy savings and project status for planned, in-process, completed, and terminated Air Force energy-savings performance-contract projects. The database should include, but not be limited to, appropriate contract references, validated baselined energy savings achieved, payments made, and related primary energy-savings performance-contract documents such as preliminary assessments, investment-grade audits, measurement and verification plans, post-installation reports, annual measurement and verification reports, and Government technical analyses and validation documentation of such reports.

AFCEC Comments:

Concur with intent. AFCEC will incorporate into future development of an ESPC Playbook (anticipated to replace Engineering Technical Letters) a database mechanism to maintain status and salient contract performance data for all contracts awarded after establishment of AFCEC central ESPC management in October 2010. As part of the database mechanism, AFCEC will implement a system of internal controls to assure effective tracking of ESPC performance. The estimated completion date to define, implement, and incorporate the database mechanism into ESPC Playbooks is 31 March 2018.

AFCEC will determine contract performance of ESPCs awarded prior to 2010 establishment of AFCEC central ESPC management (legacy ESPCs) by obtaining and reviewing performance validation documents for a statistically appropriate sample of the known 52 contracts in performance Air Force wide. If review of the statistical sample indicates systemic contractual non-performance or inadequate performance oversight, AFCEC will then formulate a plan to review the remainder of the known 52 ESPCs. AFCEC will make appropriate recommendations to administrative contracting officers as indicated by its review of contract performance validation documentation. Upon implementation of the database mechanism, AFCEC will maintain performance validation documents for 52 existing ESPCs for each year of performance going forward. The estimated completion date to retrieve and review performance validation documentation for a statistically appropriate sample of legacy ESPCs is 30 June 2017.

Recommendation 1b: Conduct a review of existing electronic data management systems to determine if there is a system capable of tracking energy savings and project status.

AFCEC Comments:

Concur. As part of AFCEC implementation of Recommendation 1a, to establish and maintain an energy-savings performance-contract mechanism to track energy savings and project status, AFCEC will review availability of existing data management systems suitable for the intended

Director, Air Force Civil Engineer Center (cont'd)

purpose. The estimated completion date to review existing data management systems is 30 November 2016.

Recommendation 1c. Validate Joint Base Charleston energy savings performance contract savings achieved for performance years 2 through 8 as statutorily mandated and recommend the contracting officer take appropriate contractual action, such as recovering unrealized guaranteed energy savings or buying out the remaining portion of the contract.

AFCEC Comments:

Concur. As part of AFCEC review of contract performance of legacy ESPCs under Recommendation 1a, AFCEC will prioritize review of the Charleston ESPC. The estimated completion date for AFCEC to review contract performance of the JB Charleston legacy ESPC is 30 November 2016.

Recommendation 1d: Develop and maintain a process to distribute and coordinate Department of Energy-Federal Energy Management Program Energy Savings Performance Contract training for Air Force stakeholders.

AFCEC Comments:

Concur. AFCEC will develop and maintain a process to notify installations with ESPCs in performance on an annual basis regarding availability and sources of DoE FEMP ESPC training opportunities. The estimated completion date for initial notification is 30 November 2016.

Recommendation 1e: Coordinate with the Department of Energy-Federal Energy Management Program to obtain Air Force Energy Savings Performance Contract training data.

AFCEC Comments:

Concur. AFCEC will coordinate with DoE FEMP on an annual basis to request records of ESPC training completed by Air Force personnel, and maintain records as part of the database mechanism under Recommendation 1a. The estimated completion date for initial DoE FEMP coordination is 30 Nov 2016.

Recommendation 1f: Maintain lessons learned for energy savings performance contracts for the Air Force.

AFCEC Comments:

Concur. AFCEC will implement a repository for specific lessons learned from development and performance of individual ESPCs as part of the database mechanism under Recommendation 1a. Estimated implementation date for the lessons learned repository is 31 March 2018, coinciding with the estimated completion date to define and implement the database mechanism under Recommendation 1a.

Director, Air Force Civil Engineer Center (cont'd)

Recommendation 1g: Develop and implement a management plan for Air Force Civil Engineer Center and Base Civil Engineer oversight of existing Air Force Energy Savings Performance Contract projects.

AFCEC Comments:

Concur with intent. Since publication of ETL 11-24 in July 2011, AFCEC has maintained a process for AFCEC and Base Civil Engineer oversight of ESPCs defined by specific responsibilities assigned each stakeholder by ETL 11-24 (and subsequently by ETL 13-13) during contract development, implementation, and performance. For contracts awarded prior to July 2011, performance oversight with regard to requirements of 42 USC 8287 and FAR Part 23 is a responsibility of local installation Contracting Officers and their designated technical representatives. AFCEC will evaluate the effectiveness of its defined process with regard to performance of existing (legacy) ESPCs by methodology and in the timeframe described by AFCEC response to Recommendation 1a.

Recommendation 1h: Develop a plan to provide post-award energy savings performance contract technical support using available engineers and resource-efficiency managers.

AFCEC Comments:

Concur. AFCEC will incorporate provisions for AFCEC technical support during ESPC performance, to the extent allowed by availability of engineers and resource efficiency managers, as part of future development of an ESPC Playbook (anticipated to replace Engineering Technical Letters) as described by AFCEC comments under Recommendation 1a. The estimated completion date is 31 March 2018, coinciding with estimated completion of the ESPC Playbook under Recommendation 1a.

Recommendation 1i: Revise Engineering Technical Letters to require the Air Force Civil Engineer center to coordinate with the Department of Energy-Federal Energy Management Program regarding Federal Energy Management program post-award technical review support services if Air Force resources are not available.

AFCEC Comments:

Concur. AFCEC will incorporate provisions as part of future ESPC Playbook development (anticipated to replace ETLs) to coordinate DoE FEMP performance period technical support, as needed. Estimated completion date is 31 March 2018, coinciding with estimated completion of the ESPC Playbook under Recommendation 1a.

Acronyms and Abbreviations

AFCEC	Air Force Civil Engineer Center
BCE	Base Civil Engineer
DOE	Department of Energy
ESCO	Energy Services Company
ESPC	Energy Savings Performance Contract
ETL	Engineering Technical Letter
FEMP	Federal Energy Management Program
M&V	Measurement and Verification
REM	Resource Efficiency Manager
U.S.C.	United States Code

Whistleblower Protection
U.S. Department of Defense

The Whistleblower Protection Enhancement Act of 2012 requires the Inspector General to designate a Whistleblower Protection Ombudsman to educate agency employees about prohibitions on retaliation, and rights and remedies against retaliation for protected disclosures. The designated ombudsman is the DoD Hotline Director. For more information on your rights and remedies against retaliation, visit www.dodig.mil/programs/whistleblower.

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