

GAO Report 15-432

ESPCs—Additional Actions Needed to Improve Federal Oversight

June 2015

FPC Statement

Contracts are meeting and mostly exceeding the guaranteed energy and cost savings. GAO asserts that more agency witnessing of ECMs and more attention paid to factors OUTSIDE THE CONTRACT will help agencies save even more energy and money. They admit that some of the recommendations for doing so need to be balanced with costs of implementation. There is not a single comment in the report that reflects negatively on ESCOs, but rather focuses on how agencies might do more to further maximize savings. The biggest negative in the report is that agencies in 14 out of 20 cases, didn't, for every M&V report, get the savings they might have, had agencies not taken actions that were outside the scope of the contract and outside the contractors' control. These include weather changes, rate changes, damage or changes to equipment by agency personnel or customers, etc. GAO further says that, conversely, we are not capturing some of the additional savings due to agency action. ESCOs are not required to change their assumptions because of these changes outside the scope. Several agencies commented that "yes, there are some savings we aren't capturing because of agency action" but that these "savings not achieved" are not even identifiable in projects done with appropriated dollar.

SUMMARY OF THE GAO REPORT including conclusions, recommendations and agency comments

GAO reviewed 20 projects of 530 projects awarded during 1995-2014, which represents a 3.7 % sampling. GAO stated that the findings are non-generalizable data. DOE in its response to GAO, reported that "the benefits to the federal government have been significant" and that "considering only the DOE IDIQ ESPC contract, investment in energy efficiency projects has exceeded \$3.4 billion with cumulative savings of more than \$8.5 billion."

CONCLUSIONS:

- 1) All of the 7 agencies in the scope of the report said that they would continue to use EPSCs.
- 2) 19 of the 20 projects reviewed (initiated 2001-2012) met or exceeded savings. The one that did not was due to weather. The contractor identified the problem in M&V report and proposed adjustments to the equipment to accommodate.
- 3) Agencies are hesitant to use ESPCs for data center because OMB has not clarified its position on the scoring of these projects.
- 4) Oak Ridge M&V reports from 2007-2013 show 102-106% of expected savings were achieved.
- 5) 6% of projects showed a shortfall (below guarantee amount) in expected savings but all were still within the guarantee
- 6) GAO said that some contracts reported cost and energy savings that were not achieved due to agency action (in 14 of 20 reviewed). Conversely, GAO acknowledged that if savings increase because of changes in factors beyond contractors' control, contractors generally do not increase the amount of savings they report, and agencies generally retain any surplus savings and do not increase payments to the contractor.
- 7) Measurement and verification reports for 14 projects in our sample

- 8) GAO did not find information that suggests there were reported savings that were not achieved for these projects
- 9) Agencies have taken some actions like consolidating in central offices
- 10) Agencies didn't always implement fully the DOE M&V witnessing guidelines and these observations are not included in the relatively new DOE Life of Contract management activities
- 11) Looking agency-wide at ESPC actions and implementation is not being systematically done.

GAO RECOMMENDED ACTIONS AND AGENCY COMMENTS

DATA CENTERS: the Director of OMB document, for the purposes of scoring ESPCs, (1) what qualifies as energy-related savings Energy Savings and (2) the allowable proportion of energy and energy-related cost savings. *OMB did not comment on this and DOE asserted that they have the authority so GAO changed it to being related to scoring of Data Center ESPCs.*

To help ensure that agencies have sufficient information on ESPC performance to oversee whether future and current contracts are achieving their expected savings:

- Require ESCOs to include in the M&V reports, estimates of cost and energy savings that were not achieved because of agency actions. *DOE pointed out the difficulties with this very clearly in their comments and partially concurred saying they are revising the version 4.0 M&V reporting template. DOE says utility pricing is already included. DOD concurred with GAO that the new master contracts should include.*
- DOE should periodically analyze data on other factors that may affect savings, such as utility prices, to provide information on how savings achieved by ESPCs awarded through its contract vehicle have been affected by changing utility prices since its prior study in 2007.
- Agencies work with contracts to determine the best way to obtain estimates of cost and energy savings that are not achieved because of agency actions where economically feasible. *DOD points out the costs involved. They and DOE partially concurred and VA did not concur.*

To help agencies more consistently perform their oversight responsibilities and oversee contractors' measurement and verification activities:

- FEMP evaluate existing training and determine whether additional training is needed on observing contractors' measurement and verification activities and reviewing and certifying measurement and verification reports. *DOD concurred and DOE partially concurred and has already (Sept 2014) started these types of trainings.*
- FEMP monitor agencies' oversight of ESPC projects including whether agencies witnessed the contractors' M&V and reviewed and certified acceptance of the M&V report. *DOE concurred and will work into its life of contract oversight*

To help ensure that agencies have sufficient information on the effects of changing circumstances on the performance of their ESPC portfolios, we recommend:

- Agencies establish a process to systematically evaluate their ESPC projects—including baseline assumptions about facilities' energy use, utility prices, and interest rates—to determine how their ESPC portfolios are performing and the extent to which they are achieving expected savings. *VA said that agencies would be limited in how they could use the information in these reports. DOD said it could be helpful.*

Supplementary Information – REPORT SUMMARY

House Science Committee requested a review of ESPCs from 2005-2014 since the last GAO report was in 2005. GAO instead evaluated 20 individual projects from 7 different agencies from 1995-2014. Several selected projects were installed prior to 2005. All of the 7 agencies said that they would continue to use EPSCs.

All 20 projects met or exceeded savings but some of the savings “may have been overstated”. The savings that GAO found that didn’t materialize were those outside of the scope of the ESPC or due to factors beyond the control of the ESCO. To understand what GAO is driving at, we first have to look at the different types of savings:

Types of ESPC Savings

Expected savings. Energy savings performance contracts (ESPC) projects generally include the following:

- Proposed cost and energy savings are the savings contractors estimate will result from the energy conservation measures that were installed.
- Guaranteed cost savings are the savings that must be achieved for the contractor to be fully paid. Generally, contractors guarantee about 95 percent of a project’s proposed cost savings, which allows for some proposed savings to not be achieved without causing a reduction in their payments.

Reported savings are the savings contractors measure and verify—and report to agencies— in accordance with the plan the agency agreed to when developing and awarding the contract.

- Oak Ridge M&V reports from 2007-2013 show 102-106% of expected savings were achieved.
- 6% of projects showed a shortfall in expected savings but all were still within the guarantee. All the reasons for shortfalls were due to weather, agency use of buildings, agency or, in the case of the bureau of prisons, prisoners modifying ECMs. This shortfall due to agency action is being reported by CBO as “overstated savings”. DOE Dashboard started in 2007 identifies shortfalls and actions to take.

Achieved savings are the savings that result from the energy conservation measures that were installed, which may differ from reported savings. In general, determining achieved savings can be difficult and costly. DOE has issue with calling this “achieved energy savings” and thinks it is better called “the cost and energy savings that contractors measure and verify in accordance with the plan the agency agreed to when developing and awarding the contract”

- GAO recommends that the contracting vehicle include reporting on savings not achieved because that would help identify when equipment is being modified, buildings are being used differently and so forth. Agency comments, particularly those from DOE say that this is very difficult and way outside the scope of ESPCs. Even GAO says this is a very hard thing and costly thing to track and keep your arms around.

Information about M&V Reports in the GAO Report:

- Mentioned positive changes in 2008 contract (M&V) and project facilitator
- Acknowledged there are four M&V docs for every projects

- Most M&V Reports overstated some energy and cost savings because:
 - Agencies did not operate and maintain the equipment adequately (8 reports)
 - Agencies removed or closed equipment or facilities (6 reports)
- M&V reports do not quantify or estimate effects but some noted savings were affected in some way
- Some ECMS outperformed and some underperformed so they didn't determine a net
- DID NOT FIND INFORMATION THAT SUGGESTS THERE WERE REPORTED SAVINGS THAT WERE NOT ACHIEVED FOR THESE PROJECTS
- Agency oversight is limited: Agencies observed all ECM M&V for 9 of 20 projects, some ECM M&V for 4 of 20 and did not witness for 7 of 20.
 - DOE started the life of contract program during the GAO report development to address

Other Salient Points from the Report:

- Agency Reviewers from several agencies noted that like ESPC projects, the expected savings for projects funded with up-front appropriations may not be achieved. However, savings that are not achieved are more likely to be identified for ESPC projects because savings must be measured and verified.
- Utility price increases are generally understated. After adjusting for actual utility prices, savings for 16 of the 22 ESPC projects Oak Ridge examined were greater than the savings contractors reported, while savings for the remaining 6 ESPC projects were lower than reported
- Without a periodic analysis of utility prices over several years and across projects, agencies may not have the information they need to know whether examples like the three in our sample are typical and indicative of problems with the assumptions or anomalies.
- Agencies are not looking enterprise wide at the effects of changing circumstances outside of the guarantee that affect savings and DOE says that they should do this periodically. Sites are aware but agency wide are not.

Data Centers:

- All 7 Agencies reviewed said they will keep using ESPC but are hesitant to use for data centers because of OMB staff concerns.
- There is a page or two on data center and CBO seems positive on them calling it a missed opportunity and citing Army and DOE interest in particular. OMB, when asked, said they couldn't comment on specific contracts so the GAO stuck with scoring of ESPCs in its data center recommendation