



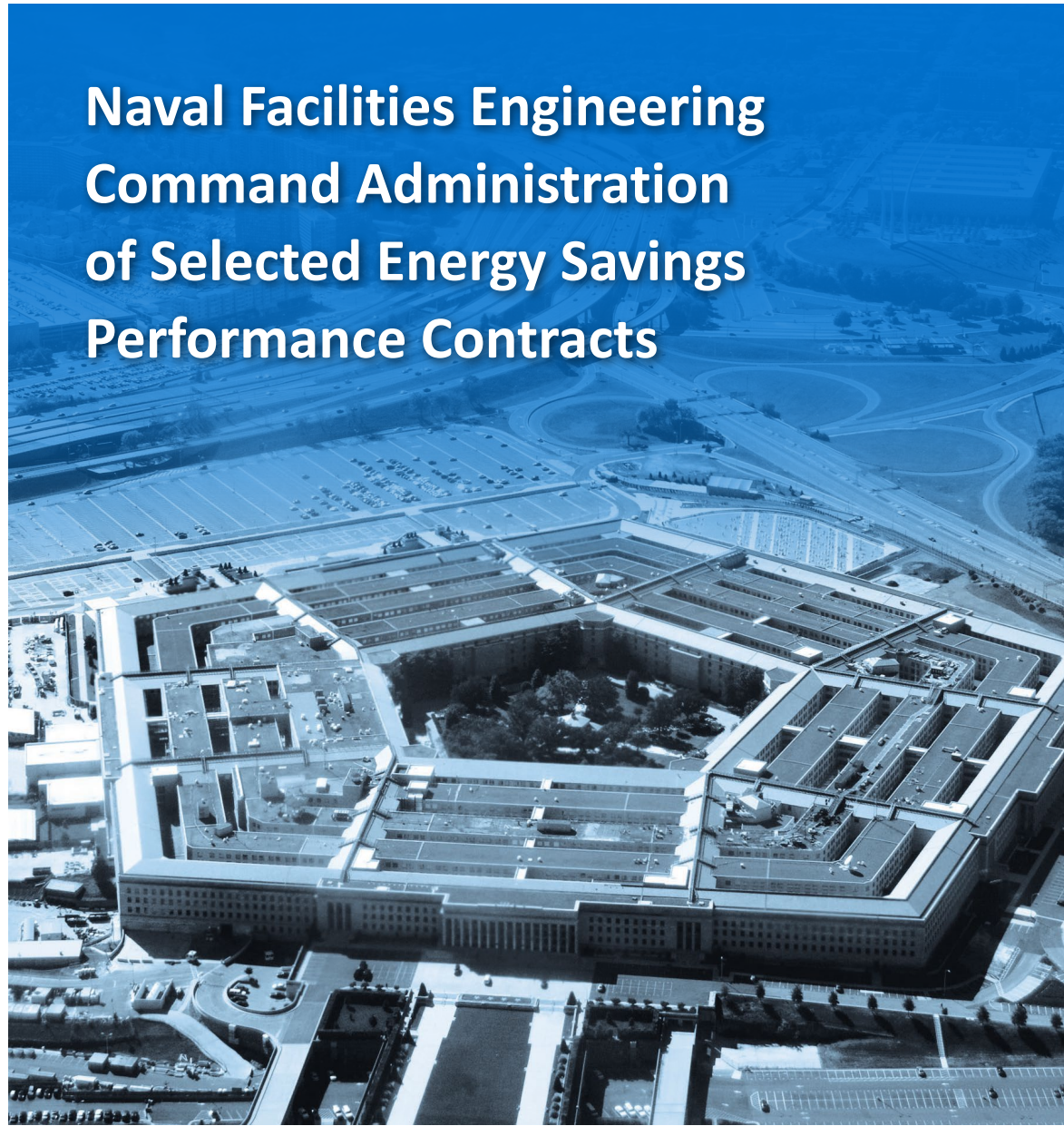
# INSPECTOR GENERAL

*U.S. Department of Defense*

DECEMBER 19, 2017



## Naval Facilities Engineering Command Administration of Selected Energy Savings Performance Contracts



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# Results in Brief

## *Naval Facilities Engineering Command Administration of Selected Energy Savings Performance Contracts*

December 19, 2017

### Objective

We determined whether the Department of the Navy properly administered selected energy savings performance contracts (ESPCs) in accordance with Federal and DoD policies and procedures. This report is the fourth in a series on ESPCs in the DoD. Prior reports outlined that Navy (DODIG-2017-044) and Air Force (DODIG-2016-087 and DODIG-2015-138) contract personnel were not properly administering ESPCs. In addition, the Air Force did not have sufficient program management over its ESPC program.

### Background

ESPCs provide a way for the private sector to finance Federal Government energy-saving projects. The ESPC is a contract type through which an energy services contractor designs, finances, acquires, installs, and maintains energy-saving equipment and systems for a Federal agency. ESPCs allow Federal agencies to procure energy savings and facility improvements with no upfront capital costs or special appropriations from Congress.

An ESPC consists of two phases—the construction phase and the performance phase. During the construction phase, the energy savings contractor constructs the energy conservation measures. At the conclusion of the construction phase, the contractor submits a post-installation report to summarize construction phase issues and outcomes, and identify any energy savings achieved during the phase. The performance phase begins once the energy

### Background (cont'd)

conservation measures are installed and accepted by the Government. During the performance phase, the contractor will operate and maintain energy improvements, measure the energy savings, and submit measurement and verification reports in accordance with the ESPC. The reports outline the calculation of energy savings and any other evaluation of costs and savings needed to determine the guarantee of savings. The agency is responsible for ESPC administration for the entire term of the ESPC.

The Naval Facilities Engineering Command-Expeditionary Warfare Center (NAVFAC-EXWC), Port Hueneme, California, manages the Navy ESPC program and performs the contract management functions. The base-level Public Works Office officials manage installation facilities. As it relates to ESPCs, the base-level public works office performs oversight of the contractor during both the construction and performance phases of the ESPC. Actions performed at the Navy installation public works or contracting office are referred to as “base level” in this report.

We nonstatistically selected seven ongoing ESPCs valued at \$822.7 million from a universe of 50 ongoing ESPCs valued at \$2.6 billion. The seven ESPCs were located at Naval Air Station Oceana, Virginia, (Main Base and Dam Neck Annex); Marine Corps Logistics Base, Georgia; and Commander Fleet Activities Yokosuka, Japan, to determine whether NAVFAC performed on-site oversight of the ESPCs and tailored quality assurance surveillance plans to the needs of the individual ESPCs.

We nonstatistically selected three of the seven ESPC projects to review at Naval Air Station Oceana, Virginia, (Main Base and Dam Neck Annex) and Marine Corps Logistics Base Albany, Georgia. We determined whether NAVFAC officials verified the energy savings reported in the contractor’s post-installation and measurement and verification reports were accurate, and that Government payments to the contractor did not exceed the verified savings. The post-installation report is a contractor-submitted report summarizing the project’s construction phase results and identifying any energy savings achieved.



# Results in Brief

## *Naval Facilities Engineering Command Administration of Selected Energy Savings Performance Contracts*

### **Background (cont'd)**

For the ESPC detailed review at Commander Fleet Activities Yokosuka, Japan, we determined whether NAVFAC officials justified and validated contractor-proposed foreign currency adjustments and whether NAVFAC properly tracked and recorded the adjustments in NAVFAC ESPC value and funding systems.

### **Findings**

NAVFAC officials did not properly administer seven ESPCs, valued at \$822.7 million. Specifically, for two ongoing performance-phase ESPC projects, NAVFAC officials did not validate the contractor-claimed energy savings in a contractor post-installation report and 13 of 21 contractor measurement and verification reports, and they did not perform higher-level reviews for 4 of 8 base-level validation reports. This occurred because NAVFAC officials and base-level public works office officials did not prioritize validating the contractor's post-installation and measurement and verification reports. As a result, the two ESPC projects include \$22 million in questionable ESPC payments and did not fully comply with section 8287, title 42, United States Code.

NAVFAC contracting officials did not tailor quality assurance surveillance plans to the specifics of each implemented energy conservation measure, describe how to validate contractor-submitted energy-savings reports, and oversee contractor maintenance, repair, and replacement of energy conservation measures. This occurred because NAVFAC officials and base-level public works office officials did not emphasize the need to tailor quality assurance surveillance plans. By not tailoring quality assurance surveillance plans, contracting officials may cause inconsistent validation of contractor-claimed energy savings reporting and inadequate oversight of ESPC contractor performance.

Contracting and base public works office officials did not properly validate 9 of 11 contractor-proposed currency escalation modifications for the ESPC at Commander Fleet Activities Yokosuka. Specifically, NAVFAC officials did not justify or validate nine contractor proposals for annual yen currency adjustment valued at \$6.7 million. This occurred because contracting officials did not apply the contractual escalation clauses, which consider and account for changes to the contract price resulting from annual changes to the yen and U.S. dollar exchange rates.

In addition, contracting officials did not properly track and record the resulting adjustments to the ESPC resulting from yen currency changes. This occurred because contracting officials did not make required manual adjustments in the electronic accounting system to explain the currency rate adjustments on future payments. As a result, NAVFAC overpaid the contractor \$250,000 in annual currency adjustment payments. Additionally, NAVFAC contracting officials issued contract modifications that overstated the ESPC value by \$760,000.

In addition to this report's findings on the lack of oversight of the NAVFAC ESPC, we previously reported similar weaknesses related to Navy and Air Force oversight of ESPC contracting and project management in three prior reports. Specifically, the Navy and Air Force officials did not validate the contractor-claimed energy savings in a contractor post-installation report and contractor measurement and verification reports. Furthermore, Navy and Air Force contracting officials did not develop a quality assurance surveillance plan that provided specifics on how to oversee each implemented energy conservation measure or determine how to validate the contractor post-installation reports and contractor measurement and verification reports. As a result, neither the Navy nor Air Force contracting officials knew whether multiple ESPC projects achieved the contractor-claimed energy savings.



# Results in Brief

## *Naval Facilities Engineering Command Administration of Selected Energy Savings Performance Contracts*

### Recommendations

We recommend that the Assistant Secretary of Defense (Energy, Installations, and Environment) develop and implement DoD-wide guidance to monitor energy savings performance contracts. We also recommend that the Assistant Secretary coordinate with the Director, Defense Procurement and Acquisition Policy to require oversight of ESPCs through development of quality assurance surveillance plans and monitor ESPC programs to ensure consistent award and administration throughout the Department.

Furthermore, we recommend that the Commander, NAVFAC, direct program and contracting officials to validate and perform required higher-level reviews of \$22 million in contractor-guaranteed energy-savings payments over 14 performance periods for two ESPCs. In addition, the Commander should direct NAVFAC officials to:

- take action to recover payments for unrealized energy savings;
- develop tailored quality assurance surveillance plans, for seven ESPCs reviewed;
- validate contractor-proposed currency adjustments for nine Commander Fleet Activities Yokosuka ESPC performance years;
- follow the contractually required process to calculate and approve currency adjustments for future years or modify contract to establish a revised process;
- recover the unsupported currency fluctuation payments calculated by the audit at \$250,000 modify the ESPC to reduce contract price by \$760,000; and

- train contracting officials to make manual adjustments to NAVFAC electronic accounting systems to record and account for future year payment revisions.

### Management Actions Taken

On March 14, 2017, we notified the NAVFAC-EXWC officials of the Commander Fleet Activities Yokosuka ESPC value and funding tracking errors. On March 21, 2017, the NAVFAC-EXWC contracting officer issued a contract modification to decrease the Commander Fleet Activities Yokosuka ESPC value and funding by \$760,000 to \$363.3 million. By issuing the contract modification, the NAVFAC-EXWC contracting officer eliminated the value and funding tracking error. Therefore, the recommendation to reduce the contract price by \$760,000 is closed.

### Management Comments and Our Response

The Assistant Secretary of Defense (Energy, Installations, and Environment) agreed with our recommendations to develop and implement DoD-wide guidance to monitor ESPCs and anticipated implementing the guidance by November 27, 2018. In addition, the Assistant Secretary agreed to coordinate with the Director, Defense Procurement and Acquisition Policy, to ensure appropriate guidance or policy is in place to require measurement and verification plans and quality assurance surveillance plans for ESPCs. Therefore, the recommendations are resolved but will remain open. We will close the recommendations once we verify Assistant Secretary develop and implement DoD-wide guidance to monitor ESPCs.



# Results in Brief

## *Naval Facilities Engineering Command Administration of Selected Energy Savings Performance Contracts*

The Assistant Secretary of the Navy (Energy, Installations, and Environment), responding for the Commander, NAVFAC, agreed with our recommendations to:

- validate and perform required higher-level reviews of contractor-guaranteed energy-savings payments;
- recover payments for unrealized energy savings;
- develop tailored quality assurance surveillance plans;
- validate contractor-proposed currency adjustments;
- follow a contractually required process to calculate and approve future year currency adjustments;
- develop written guidance to manually adjust the electronic accounting system record and account for future contract revisions; and
- train contracting officials to adjust electronic accounting systems for the currency adjustments.

The Navy will implement these recommendations between February 28, 2018, and May 31, 2018. Therefore, these recommendations are resolved but will remain open. We will close these recommendations once we verify the Navy has completed the above stated actions.

Please see the Recommendations Table on the next page.

## Recommendations Table

| Management  | Recommendations Unresolved | Recommendations Resolved   | Recommendations Closed |
|---|----------------------------|--|------------------------|
| Assistant Secretary of Defense (Energy, Installations, and Environment) | None                       | A.1.a, A.1.b.1, and A.1.b.2  | None                   |
| Commander, Naval Facilities Engineering Command                         | None                       | A.2.a, A.2.b, A.2.c, A.2.d.1, A.2.d.2, B.1.a, B.1.b.1, B.1.b.2, B.1.c, and B.1.d | B.1.b.3                |

Note: The following categories are used to describe agency management's comments to individual recommendations.

- **Unresolved** – Management has not agreed to implement the recommendation or has not proposed actions that will address the recommendation.
- **Resolved** – Management agreed to implement the recommendation or has proposed actions that will address the underlying finding that generated the recommendation.
- **Closed** – OIG verified that the agreed upon corrective actions were implemented.



**INSPECTOR GENERAL  
DEPARTMENT OF DEFENSE  
4800 MARK CENTER DRIVE  
ALEXANDRIA, VIRGINIA 22350-1500**

December 19, 2017

**MEMORANDUM FOR UNDER SECRETARY OF DEFENSE FOR ACQUISITION,  
TECHNOLOGY, AND LOGISTICS  
NAVAL INSPECTOR GENERAL**

**SUBJECT: Naval Facilities Engineering Command Administration of Selected Energy Savings  
Performance Contracts (Report No. DODIG-2018-050)**

We are providing this draft report for your information and use. Naval Facilities Engineering Command officials did not properly administer seven energy savings performance contracts valued at \$822.7 million. In addition, officials from Naval Facilities Engineering Command Expeditionary-Warfare Center contracting and Commander Fleet Activities Yokosuka public works office did not properly validate 9 of 11 contractor-proposed currency escalation modifications valued at \$6.7 million for the Commander Fleet Activities Yokosuka ESPC. We conducted this audit in accordance with generally accepted government auditing standards.

We considered comments on the draft of this report when preparing the final report. Comments from the Assistant Secretary of Defense (Energy, Installations, and Environment) and the Assistant Secretary of the Navy (Energy, Installations, and Environment) conformed with the requirements of DoD Instruction 7650.03; therefore, we do not require additional comments.

We appreciate the courtesies extended to the staff. Please direct questions to me at (703) 604-9312 (DSN 664-9312). If you desire, we will provide a formal briefing on the results.

  
Theresa S. Hull  
Deputy Assistant Inspector General  
Contract Management and Payments

cc:  
Commander, Naval Facilities Engineering Command



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# Introduction

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## Objective

We determined whether the Department of the Navy properly administered selected energy savings performance contracts (ESPCs) in accordance with Federal and DoD policies and procedures. We issued prior reports on DoD ESPCs to include the Navy and Air Force ESPC program and contract management.<sup>1</sup> See Appendix A for the scope and methodology and prior audit coverage.

## Background

ESPCs provide a way for the private sector to finance Government energy-saving projects. The ESPC is a contract type through which an energy services contractor designs, finances, acquires, installs, and maintains energy-saving equipment and systems for a Federal agency. ESPCs allow Federal agencies to procure energy savings and facility improvements with no upfront capital costs or special appropriations from Congress.

An ESPC consists of two phases—the construction phase and the performance phase. During the construction phase, the energy savings contractor constructs the energy conservation measures (ECMs). At the conclusion of the construction phase, the contractor submits a post-installation (PI) report to summarize construction phase issues and outcomes and identify any energy savings achieved during the phase. The performance phase begins once the ECMs are installed and accepted by the Government. During the performance phase, the contractor will operate and maintain energy improvements, measure the energy savings, and submit measurement and verification (M&V) reports in accordance with the ESPC.<sup>2</sup> The government agency entering into an ESPC is responsible for administration of the contract for its entire term. Each ESPC we reviewed had a cancellation ceiling schedule option that the agency can exercise at the end of any performance year. ESPC delivery order schedules included a negotiated termination amount for each year.

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<sup>1</sup> Report DODIG-2017-044, Naval Facilities Engineering Command Management of Energy Savings Performance Contracts Needs Improvement, January 26, 2017; Report DODIG-2016-087, Air Force Civil Engineer Center Management of Energy Savings Performance Contracts Needs Improvement, May 4, 2016; and Report DODIG-2015-138, The Air Force Did Not Monitor the Energy Savings Performance Contract at Joint Base McGuire, June 29, 2015.

<sup>2</sup> The M&V report outlines the calculation of energy savings and any other evaluation of costs and savings needed to determine the guarantee of savings.

## ***Legal Requirements for ESPCs***

The United States Code includes several specific mandates for Federal agencies entering into ESPCs.<sup>3</sup> The law allows Federal agencies to take on multi-year contract liability and potential termination liability to acquire ECMs provided that the overall utility cost to the agency do not increase because of the contract, and if any Government liability is secured by a guarantee of energy savings from the contractor. The law requires that aggregate annual agency payments to the contractor over the ESPC term do not exceed the amount the agency would have paid for utilities without the ESPC. In addition, the law also requires the ESPC contractor guarantee ECMs will generate sufficient cost savings to pay for the project. The law further mandates the ESPC include an annual energy audit of contractor energy savings.

## ***NAVFAC Management Structure for Energy Savings Performance Contracts***

Naval Facilities Engineering Command (NAVFAC) manages the Navy ESPC program, and the Navy ESPC Program Manager is located at NAVFAC Headquarters, Navy Yard, Washington, D.C. However, ESPC program and contract management functions are performed at the Naval Facilities Engineering-Expeditionary Warfare Center (NAVFAC-EXWC), Port Hueneme, California.<sup>4</sup> Within NAVFAC, the base-level Public Works Office (PWO) officials manage installation facilities.<sup>5</sup> As it relates to ESPCs, the base-level PWO performs oversight of the contractor during both the construction and performance phases of the ESPC.

## ***Navy and NAVFAC Policy and Guidance on Energy Savings Performance Contracts***

Department of the Navy guidance on the ESPC is contained in Commander, Navy Installations Command Instructions 4101.1 and 4101.2.<sup>6</sup> These Instructions provide guidelines, responsibilities, and procedures for requirements, contracting, funding, return on investment, and management of ESPCs.

NAVFAC guidance on the ESPC includes the “NAVFAC Navy Energy Project Management Guide,” November 2012, which contained procedures, recommendations, and guidelines to standardize developing and implementing energy projects. The Guide identifies the participants and requirements for

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<sup>3</sup> Section 8287, title 42, United States Code (42 U.S.C. § 8287 [2011]).

<sup>4</sup> For the purposes of this report, all personnel from NAVFAC-ESPC Program Management and NAVFAC-EXWC are referred to as NAVFAC officials.

<sup>5</sup> “Base-level” is used in this report to describe actions occurring at a Navy installation public works or contracting office.

<sup>6</sup> Navy Installations Command Instruction 4101.1, “Standardization for Management of Utility Energy Service Contracts and Energy Savings Performance Contracts,” February 8, 2013, and Instruction 4101.2, “Evaluation of Energy Project Investment Performance,” March 16, 2015.



NAVFAC validation of the PI and M&V reports that include an initial validation analysis followed by two higher-level reviews. The NAVFAC Business Management System provides additional guidance on the requirements for energy savings, funding, verification, tracking, and reporting.<sup>7</sup>

### ***Energy Savings Performance Contracts Reviewed***

According to Naval Facilities Engineering and Expeditionary Warfare Center (NAVFAC-EXWC) officials, as of February 2017, NAVFAC had an inventory of 50 ongoing ESPC projects, valued at \$2.6 billion, awarded between FYs 1999 and 2017. We nonstatistically selected 7 of the 50 ongoing ESPCs valued at \$822.7 million, one in the construction phase and six in the performance phase. The seven ESPC projects were located at:

- Naval Air Station (NAS) Oceana, Virginia, at the Main Base and Dam Neck Annex;
- Commander Fleet Activity (CFA), Yokosuka, Japan; and
- Marine Corps Logistics Base (MCLB), Albany, Georgia.

We reviewed on-site ESPC monitoring activities by NAVFAC officials to determine whether they properly administered ESPCs. Specifically, we determined whether NAVFAC officials:

- used tailored quality assurance surveillance plans (QASPs) to aid in validating contractor-claimed energy savings,
- conducted oversight of maintenance and repair at the base level for the ESPCs, and
- validated energy savings payments on the ESPCs.

In addition, for two of the six ongoing performance-phase ESPCs, we performed a more detailed review to determine whether NAVFAC officials verified that the energy savings reported in the contractor's PI and M&V reports were actually achieved.<sup>8</sup> Furthermore, for the ESPC executing ECMs on an installation outside of the continental United States, we reviewed the implementation of the contractual escalation clause to determine whether the clause was being properly implemented. The ESPC contained a contractual escalation clause to consider and account for changes to the ESPC price resulting from annual changes to the yen and U.S. dollar exchange rates. Table 1 provides summaries of the seven ongoing ESPC projects we reviewed.

<sup>7</sup> The NAVFAC Business Management System includes Process B-5.1.2, "Energy-Funded Projects," February 10, 2014, and Process B-5.1.5, "Measurement and Verification on Energy Projects," April 27, 2015.

<sup>8</sup> We performed a detailed review of the other four performance-phased ESPCs (NAS Oceana Main Base-0104, NAS Oceana Dam Neck Annex-4005, CFA Yokosuka-8117, and MCLB Albany-0311) reported in DoD OIG Report No. DODIG 2017-044.

Table 1. Seven Ongoing ESPC Projects Reviewed

| ESPC Project                                       | Contract Award Amount (in Millions) | Description of Energy Conversation Measures   |
|--|-------------------------------------|---|
| <b>Commander Fleet Activities, Yokosuka, Japan</b> |                                     |   |
| DO #2  | \$342.9                             | Construction and operation of a cogeneration system to provide the base heat and electric power   |
| <b>NAS Oceana, Virginia</b>                        |                                     |   |
| Main Base DO #1                                    | 16.2                                | Building heating, ventilating, and air conditioning upgrades and controls; ground source heat pumps; high-efficiency lighting retrofits; central utilities decentralization; and installation of water conservation measure   |
| Main Base DO #2                                    | 124.3                               | Building heating, ventilating, and air conditioning upgrades and controls; ground source heat pumps; high-efficiency lighting retrofits; central utilities decentralization; and installation of water conservation measure   |
| Dam Neck Annex DO #2                               | 68.3                                | Energy management control system upgrade; building heat, ventilation, and air conditioning upgrades; chilled water, hot water, and steam distribution systems; and installation of water and sewer conservation measure   |
| <b>MCLB Albany, Georgia</b>                        |                                     |   |
| DO #1  | 37.0                                | Steam distribution and maintenance, compressed air and heat recovery, lighting upgrades, geothermal heat pumps, infrared heat, web-based DDCs heating, ventilating, and air conditioning equipment replacement, and building 3500 heating, ventilating, and air conditioning renovation |
| DO #2  | 63.9                                | Landfill gas utilization system, lighting upgrades for 82 buildings, and an energy management control system upgrade  |
| *DO # 3  | 170.1                               | Steam turbine generator, landfill gas generator, controls, industrial air compressors, high efficiency dry type transformers, boiler mud drum steam coils, and interior lighting upgrades   |
| <b>Total</b>                                       | <b>\$822.7</b>                      |   |

Source: DoD OIG

\* Indicates the ESPC in construction phase.

**Legend**

DO      Delivery Order  
DDC     Direct Digital Control  
ESPC    Energy Saving Performance Contracts  
MCLB    Marine Corps Logistics Base  
NAS     Naval Air Station

## Review of Internal Controls

DoD Instruction 5010.40 requires DoD organizations to implement a comprehensive system of internal controls that provides reasonable assurance programs are operating as intended and to evaluate the effectiveness of the controls.<sup>9</sup> We identified internal control weaknesses concerning NAVFAC officials' ability to effectively:

- validate contractor-claimed energy savings presented in PI and M&V reports,
- manage the ESPC oversight process through the development of QASPs not tailored to the specifics of the projects or PI and M&V report validation methodologies,
- justify contractor-proposed currency escalation modifications, and
- record and adjust ESPC value and funding resulting from foreign currency price adjustments.

We will provide a copy of the final report to the senior official responsible for internal controls in the Navy.

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<sup>9</sup> DoD Instruction 5010.40, "Managers' Internal Control Program Procedures," May 30, 2013.

## Finding A

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### NAVFAC Administration of Selected Energy Savings Performance Contracts

NAVFAC officials did not properly administer seven ESPCs, valued at \$822.7 million. Specifically, for two ongoing performance-phase ESPC projects, NAVFAC officials did not:

- validate the contractor-claimed energy savings in the Delivery Order (DO) #1 PI report for Naval Air Station (NAS) Oceana that supported \$1.4 million in ESPC payments,
- validate the contractor-claimed energy savings in 13 of 21 M&V reports that supported \$15.2 million in ESPC payments, and
- perform higher-level reviews for four of eight base-level validation reports that supported \$5.4 million in contract payments.

In addition, NAVFAC contracting officials did not tailor QASPs to outline the specifics for overseeing each implemented ECM or describe how to validate the contractor PI and M&V reports. Also, the QASPs did not outline how to oversee the contractor's performance related to maintenance, repair, and replacement of ECMs as required for each of the seven ESPCs.

This occurred because NAVFAC-EXWC program and contracting officials and base-level PWO officials did not prioritize validating the contractor's PI and M&V reports, and did not emphasize the need to tailor QASPs to directly monitor the contractor's performance on the ongoing performance-phase ESPCs.

As a result, the two ongoing performance-phased ESPC projects reviewed include \$22 million in questionable contract payments that do not fully comply with the United States Code requirements to verify the contractor-claimed saving.<sup>10</sup> Additionally, by not tailoring QASPs to the specific ECMs, NAVFAC contracting officials improperly validated the contractor-claimed energy savings in PI and M&V reports and oversight of ESPC contractor performance.

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<sup>10</sup> 42 U.S.C. § 8287 (2011).



## NAVFAC Validation of Contractor-Claimed Energy Savings

NAVFAC officials did not properly administer seven ESPCs, valued at \$822.7 million. NAVFAC officials did not perform the required validation of the contractor-claimed energy savings for the two ongoing, performance-phase ESPCs we reviewed.

NAVFAC officials did not:

- validate the contractor-claimed energy savings for the NAS Oceana DO #1 PI report that supported \$1.4 million in contract payments,
- validate the contractor-claimed energy savings in 13 of 21 M&V reports that supported a total of \$15.2 million in contract payments for two ongoing performance-phase ESPC projects, and
- perform higher-level reviews for four of eight base-level validation reports that supported a total of \$5.4 million in contract payments.

### ***Criteria for Validating Contractor-Claimed Energy Savings in Post-Installation and Annual M&V Reports***

The NAVFAC Energy Project Management Guide, November 2012, for Navy ESPCs associated with a Department of Energy Super ESPC referenced the Department of Energy-Federal Energy Management Program guidance to validate PI and annual M&V reports.<sup>11</sup> Department of Energy-Federal Energy Management Program ESPC Guidance requires agencies to validate contractor-provided PI and annual M&V reports at regular intervals to ensure installed energy-savings equipment is operational and is delivering the savings that the contractor proposed. The Department of Energy-Federal Energy Management Program guidance states that contractor-provided PI and annual M&V reports are required for all Federal ESPC projects.<sup>12</sup> Validation of the PI and annual M&V reports provides Federal agencies with assurance that contractor-claimed savings will generate sufficient cost savings to pay for the project.

The NAVFAC Guide required NAVFAC base-level PWO officials complete the S8-1 “Standard M&V Review Report” to validate the PI and annual M&V reports. In performing the S8-1 review, NAVFAC base-level PWO officials should verify the contractor-claimed savings are accurate and the Government payments to the contractor do not exceed the verified savings. Once the S8-1 review is completed, NAVFAC guidance requires a two part higher-level review of the S8-1 review.

<sup>11</sup> The Department of Energy awards indefinite-delivery indefinite-quantity ESPCs, called Super ESPCs, for use by Federal agencies.

<sup>12</sup> Department of Energy-Federal Energy Management Program –M&V Guidelines: Measurement and Verification for Performance-Based Contracts Version 4.0, November 2015.

A base-level PWO official in conjunction with a NAVFAC-EXWC subject matter expert perform the S8-2 “M&V Summary Report,” higher-level review to confirm the analysis performed during the S8-1 review. Once the S8-2 review is completed, the NAVFAC contracting officer performs the S8-3 “Notification of M&V Acceptance” higher-level review to accept the PI or M&V reports and make payment to the contractor. See Appendix B for a flowchart on the NAVFAC ESPC validation process.

### ***NAVFAC Validation of Contractor-Claimed Energy Savings on Post-Installation and Annual M&V Reports***

NAVFAC-EXWC and base-level PWO officials did not validate \$1.4 million in contractor-claimed energy savings for Performance Year 0. The contractor included the claimed savings in its NAS Oceana DO #1 PI report. Specifically, neither the NAVFAC base-level PWO officials nor the NAVFAC-EXWC contracting office officials performed a S8-1 Review to validate the contractor-claimed savings for the period of performance for December 24, 2002 through December 31, 2004 of the NAS Oceana DO #1 ESPC.<sup>13</sup> NAVFAC officials made the \$1.4 million payment to the contractor without validating the accuracy of claimed energy savings by the contractor.

NAVFAC-EXWC and PWO officials did not validate 13 of 21 annual M&V reports with claimed energy savings of \$15.2 million.<sup>14</sup> Specifically, neither the base-level PWO officials nor the NAVFAC-EXWC contracting office officials performed S8-1 Reviews to validate the contractor-submitted annual M&V reports for the:

NAVFAC-EXWC and PWO officials did not validate 13 of 21 annual M&V reports with claimed energy savings of \$15.2 million.

- first 6 performance years of the NAS Oceana DO #1 ESPC and paid the contractor \$6.1 million in ESPC payments,<sup>15</sup>
- performance year 11 of the NAS Oceana DO #1 ESPC and paid the contractor \$1.3 million in ESPC payments,<sup>16</sup> and
- first 6 performance years of the MCLB Albany DO #1 ESPC and paid the contractor \$7.8 million in EPSC payments.<sup>17</sup>

See Appendix C for a summary of contractor-submitted PI reports, annual M&V reports, NAVFAC official’s report validation, and higher-level review records for the NAS Oceana DO #1 ESPC and the MCLB Albany DO #1 ESPC.

<sup>13</sup> The December 24, 2002, through December 31, 2004 period of performance was the construction phase.

<sup>14</sup> Base-level NAVFAC officials reviewed 8 of 21 M&V reports valued at \$10.6 million.

<sup>15</sup> The 6-year performance period was from January 1, 2005, through December 31, 2010.

<sup>16</sup> The performance year 11 period was from January 1, 2015, through December 31, 2015.

<sup>17</sup> The 6-year performance period was from December 1, 2004, through November 30, 2010.

At a minimum, NAVFAC officials should have validated the contractor PI and 13 annual M&V reports to comply with the legal requirements to assure that contractor-guaranteed energy savings will generate sufficient cost savings to pay for the project.<sup>18</sup>

### ***NAVFAC-EXWC Higher-Level Review of Validated Contractor-Claimed Energy Savings***

For two ongoing performance-phase ESPCs reviewed, NAVFAC-EXWC officials did not perform the required higher-level (S8-2 and S8-3) reviews of four of eight annual M&V reports to validate the contractor-claimed energy savings. Specifically, NAVFAC-EXWC officials did not perform the S8-2 or S8-3 Reviews for two annual M&V reports for the NAS Oceana DO #1 and two annual M&V reports for the MCLB Albany DO #1, which supported \$5.4 million in contractor payments. Appendix B summarizes the NAVFAC-EXWC officials' higher-level reviews of the two ongoing performance-phase ESPCs that we reviewed.

For the NAS Oceana DO #1 ESPC, NAVFAC-EXWC officials completed the S8-1 and S8-2 Reviews for the annual M&V reports for performance years 9 and 10; however, the NAVFAC-EXWC contracting officer did not perform the S8-3 Reviews to formally approve the validated contractor-claimed energy savings. Therefore, NAVFAC officials did not validate \$2.5 million in payments made to the contractor.

In addition, for MCLB Albany DO #1 ESPC, NAVFAC PWO and NAVFAC-EXWC officials did not perform the S8-2 and S8-3 higher-level reviews for performance years 8 and 9. NAVFAC officials paid the contractor \$2.9 million for unvalidated claimed energy savings for the two performance years. NAVFAC-EXWC ESPC program and contracting officials stated that they did not know the higher-level reviews were not performed but were now processing them.

### ***Prioritizing Higher-Level Review of Contractor-Claimed Energy Savings***

NAVFAC-EXWC officials and base-level PWO officials did not prioritize validating the contractor's PI and annual M&V reports and performing higher-level review of those validations. According to NAVFAC headquarters leadership, the officials did not prioritize completing the validation and higher-level reviews of contractor PI and annual M&V reports because they "had high confidence in PI and M&V reports prepared by the contractor." According to NAVFAC headquarters leadership, the officials decided to take measured risk by delaying the PI and M&V validations and higher-level reviews. Despite NAVFAC leadership's confidence in

<sup>18</sup> 42 U.S.C. § 8287(2011)(a)(2)(G), requires the measurement and verification for the calculation of energy savings, and any other evaluation of costs and savings needed to implement the guarantee of savings.

the accuracy of the contractor prepared PI and annual M&V reports, the United States Code, Department of Energy-Federal Energy Management Program, and the NAVFAC Energy Project Management Guide require the validation of each PI and annual M&V report.<sup>19</sup>

During January 2017, NAVFAC officials updated the NAVFAC Energy Project Management Guide to provide Navy installations with more detailed guidance on ECM acceptance and energy savings validations for energy contract vehicles. For example, the revised Energy Project Management Guide requires additional NAVFAC technical and contract personnel appointments and signatures on the validation review documents that support the acceptance of ECMs and contractor-claimed energy savings in the PI report and annual M&V reports. NAVFAC revised the S8-1 report templates to include a final construction acceptance checklist. In addition, NAVFAC added a procedure for resolution of technical reviewer disagreements between NAVFAC-EXWC and base level PWO officials.<sup>20</sup> The revised NAVFAC guide stated that Department of Energy guidance should be consulted in validating the content of PI and annual M&V reports. Therefore, we are not making any additional recommendations related to performing PI and M&V report validations and higher-level reviews.

## **Tailoring QASPs for Energy Savings Performance Contracts**

For each of the seven ESPCs reviewed, NAVFAC-EXWC contracting officials did not tailor QASPs to provide the specifics of each implemented ECM or determine how to validate the contractor PI and M&V reports. In addition, the QASP did not provide specifics on overseeing the contractor's performance related to maintenance, repair, and replacement of ECMs.<sup>21</sup> The Federal Acquisition Regulation (FAR) and DoD guidance requires a QASP that is tailored to the specifics of the contract. The QASP should specify all contractor work requiring surveillance and the method the Department will use for surveillance.<sup>22</sup>

NAVFAC-EXWC contracting officials used identical language in all seven QASPs that was generic or inaccurate. For example, each of the seven QASPs stated, "All deliverables shall be reviewed upon receipt for compliance with the requirements of the task order," with no specifics on what the deliverables were or how to

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<sup>19</sup> 42 U.S.C. § 8287 (2011).

<sup>20</sup> NAVFAC Energy Project Management Guide, January 2017, "S8-5 ESPC Standard M&V Review Report Dispute Resolution Form."

<sup>21</sup> NAS Oceana and MCLB Albany PWO office officials used maintenance schedules and weekly meetings with the contractor to perform oversight of maintenance, repair, and replacement.

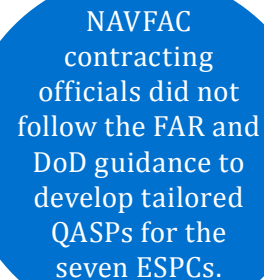
<sup>22</sup> FAR Part 46, "Quality Assurance," Subpart 46.4, "Government Contract Quality Assurance" and "DoD Contracting Officer's Representative Handbook," March 22, 2012.



determine the contractor's compliance. In addition, six of the seven QASPs included multiple contract clause references that did not exist at the stated locations in the ESPCs.<sup>23</sup>

None of the seven QASPs contained methods or instructions on how the PI and M&V reports should be reviewed and validated. FAR subpart 46 requires that QASPs should specify all work requiring surveillance and the method of the surveillance. A written method in the QASPs for reviewing and validating the PI and M&V reports would provide the CORs and PWO officials a consistent method to apply across NAVFAC. Clearly defined methods in the QASPs would help NAVFAC officials comply with the FAR and DoD Contracting Officer's Representative Handbook. In addition, according to Department of Energy Federal Management Program M&V guidelines oversight of contractor's ECM maintenance, repair, and replacement activities reduces the Government's risk and the uncertainty that the expected energy savings would not be realized.<sup>24</sup> Tailoring the QASPs to the specific ECMs would also aid in the continuity of duties for NAVFAC base-level personnel performing the oversight duties.

NAVFAC contracting officials did not follow the FAR and DoD guidance to develop tailored QASPs for the seven ESPCs because NAVFAC-EXWC contracting officials only emphasized the need to have a QASP on each ESPC without considering the specifics of each ESPC.<sup>25</sup> Between March and August 2016, NAVFAC-EXWC contracting officials developed QASPs for each of the seven ESPCs. NAVFAC-EXWC and base-level PWO officials did not know why the QASPs were not tailored to include specifics on how to monitor the specifics of the individual ESPCs. In addition, NAVFAC-EXWC and base-level PWO officials did not include methodologies for how CORs should evaluate or validate the annual PI and M&V reports. By not developing tailored QASPs to the specific ECMs, NAVFAC contracting officials improperly validated contractor-claimed energy savings in PI and M&V reports and oversight of ESPC contractor performance.



NAVFAC contracting officials did not follow the FAR and DoD guidance to develop tailored QASPs for the seven ESPCs.

<sup>23</sup> Contract clause references that did not exist where cited in the ESPCs were clause "C.17 Performance of M&V Requirements" and clause "C.19 Performance of O&M/R&R [Operation and Maintenance/Repair and Replacement] Requirements."

<sup>24</sup> The base-level PWO officials at NAS Oceana and MCLB Albany effectively oversaw the ECM maintenance, repair, and replacement activities using scheduled monthly meetings with the contractor or following a contractor and PWO maintenance manual.

<sup>25</sup> FAR Part 46, "Quality Assurance," Subpart 46.4, "Government Contract Quality Assurance" and "DoD Contracting Officer's Representative Handbook," March 22, 2012.

## Uncertain Whether ESPCs Achieved Contractor-Claimed Energy Savings

Because NAVFAC officials did not effectively administer seven ESPCs, valued at \$822.7 million, they do not know whether the ESPCs fully comply with statutory requirements.<sup>26</sup> As of February 2017, NAVFAC officials had not verified contractor-claimed energy savings, performed higher-level reviews, or tailored QASPs for the seven ESPCs. Accordingly, NAVFAC officials cannot ensure the seven ESPCs, valued at \$822.7 million, were administered effectively and approximately \$22 million in ESPC energy-savings payments remain questionable.

## Additional DoD-Level Oversight of ESPCs Needed

Our findings on the lack of oversight of the NAVFAC ESPC is consistent with findings outlined in our three prior reports on Navy and Air Force ESPC contracting and project management. Specifically, the following three reports outlined weaknesses in Navy and Air Force ESPC contracting and project management.

- DODIG-2015-138, reported that the Air Force contracting officer and Air Force Civil Engineer officials directed payments to contractors, totaling \$19 million, even though the Air Force contracting officer had not validated the PI and subsequent annual contractor M&V reports.
- DODIG-2016-087, reported that Air Force Civil Engineer Center officials did not track actual energy savings achieved for any of their 52 ESPC projects, as required by statute.
- DODIG-2017-044, reported that NAVFAC officials did not validate the contractor-claimed energy savings in 7 of 25 M&V reports that supported a total of \$39.4 million in contract payments.

Lack of oversight of the NAVFAC ESPC is consistent with findings outlined in our three prior reports on Navy and Air Force ESPC contracting and project management.

Additionally, in DODIG-2017-044, and DODIG-2015-138, we reported that the Navy and Air Force contracting officials did not develop QASPs that provided specifics on how to oversee the implemented ECMs or how to validate the contractor PI and M&V Reports. As a result, neither NAVFAC nor Air Force Civil Engineer contracting officials knew whether multiple ESPC projects achieved the contractor-claimed energy savings, as required by the United States Code.<sup>27</sup>

<sup>26</sup> 42 U.S.C. § 8287 (2011).

<sup>27</sup> 42 U.S.C. § 8287 (2011).

The Deputy Defense Secretary and the Undersecretary of Defense (Acquisition, Technology and Logistics) issued the general energy and installation energy management policies to establish guidance and assign responsibilities for energy planning, use, and management for the DoD.<sup>28</sup> The policy pertains to installation energy management administration, planning, programming, budgeting, material acquisition and other activities that affect supply, reliability, and consumption of facility energy. However, neither policy includes Defense-wide guidance that specifically governs the award and administration of ESPCs allowing the Military Departments and Defense agencies to develop their own ESPC-specific policies.

Because the Military Departments and Defense Agencies have developed their own ESPC-specific policies, the administration of ESPCs within the Navy and Air Force has been inconsistent and may not fully comply with 42 U.S.C. § 8287 governing ESPCs. Furthermore, Navy and Air Force contracting officials did not know whether multiple ESPC projects achieved contractor-claimed energy savings.

## Recommendations, Management Comments, and Our Response

### ***Recommendation A.1***

**We recommend the Assistant Secretary of Defense (Energy, Installations, and Environment):**

- a. Develop and implement DoD-wide guidance to monitor energy savings performance contracts to include validating contractor-claimed energy savings included in post-installation and annual measurement and verification reports;**
- b. Coordinate with the Director, Defense Procurement and Acquisition Policy to:**
  - 1. Require oversight of the energy savings performance contracts by the development of quality assurance surveillance plans tailored to the specific energy conservation measures in the energy savings performance contracts; and**
  - 2. Monitor energy savings performance contract programs to ensure consistent award and administration throughout the Department.**

<sup>28</sup> DoD Directive 4180.01, "DoD Energy Policy," April 16, 2014; and DoD Instruction 4170.11, "Installation Energy Management," December 11, 2009.

### *Assistant Secretary of Defense (Energy, Installations, and Environment) Comments*

The Assistant Secretary of Defense (Energy, Installations, and Environment) agreed with the recommendation, stating that the Office of the Assistant Secretary will develop and implement guidance to validate contractor-claimed energy savings by November 27, 2018. In addition, the Assistant Secretary of Defense (Energy, Installations, and Environment) stated that although he does not have oversight responsibility of contract requirements, his office will work with Defense Procurement and Acquisition Policy, and the Military Departments to ensure appropriate guidance or policy is in place to require M&V plans and QASPs for ESPCs. The Assistant Secretary also requested that we delete the phrase “following minimum requirements” from Recommendation A.1.a as presented in the draft report.

### *Our Response*

Comments from the Assistant Secretary addressed all specifics of the recommendation; therefore, the recommendation is resolved but will remain open. We will close the recommendation once we have verified that guidance was developed and implemented to validate contractor-claimed energy savings. We deleted the phrase “following minimum requirements” from Recommendation A.1.a as presented in the final report.

## **Recommendation A.2**

**We recommend the Commander, Naval Facilities Engineering Command:**

- a. **Direct Naval Facilities Engineering Command–Expeditionary Warfare Center and base Public Works officials to validate energy savings performance contracts contractor-claimed energy savings achieved for:**
  - **Naval Air Station Oceana (Main Base Delivery Order #1) for performance years 0, 1, 2, 3, 4, 5, 6, 9, 10, and 11; and**
  - **Marine Corps Logistic Base Albany (Delivery Order #1) performance years 1, 2, 3, 4, 5, 6, 8 and 9.**

### *Assistant Secretary of the Navy (Energy, Installations, and Environment) Comments*

The Assistant Secretary of the Navy (Energy, Installations, and Environment), responding for the Commander, NAVFAC, agreed with the recommendation, stating that NAVFAC officials will review and validate the ESPC contractor-claimed energy savings achieved for the 18 performance years listed by February 28, 2018.



### *Our Response*

Comments from the Assistant Secretary addressed all specifics of the recommendation; therefore, the recommendation is resolved but will remain open. We will close the recommendation once we have verified that NAVFAC officials have reviewed and validated the ESPC contractor-claimed energy savings achieved for the noted 18 performance years.

- b. Direct Naval Facilities Engineering Command–Expeditionary Warfare Center contracting officers, based on the result of the validation, as mandated by law, to take appropriate contractual action (if necessary), such as recovering unrealized guaranteed energy savings.**

### *Assistant Secretary of the Navy (Energy, Installations, and Environment) Comments*

The Assistant Secretary of the Navy (Energy, Installations, and Environment) agreed with the recommendation, stating that NAVFAC will take contractual action (if necessary) to recover any unrealized guaranteed energy savings by May 31, 2018.

### *Our Response*

Comments from the Assistant Secretary addressed all specifics of the recommendation; therefore, the recommendation is resolved but will remain open. We will close the recommendation once we have verified that NAVFAC officials have taken contractual action, if needed.

- c. Direct the Naval Facilities Engineering Command–Expeditionary Warfare Center program and contracting officials to perform higher-level review of energy savings performance contracts contractor-guaranteed energy savings achieved for:**
  - **Naval Air Station Oceana (Delivery Order #1) performance period years 9 and 10; and**
  - **Marine Corps Logistics Base Albany (Delivery Order #1) performance years 8 and 9.**

### *Assistant Secretary of the Navy (Energy, Installations, and Environment) Comments*

The Assistant Secretary of the Navy (Energy, Installations, and Environment) agreed with the recommendation, stating that the NAVFAC-EXWC program and contracting officials will perform the higher-level reviews of the ESPC contractor-guaranteed energy savings achieved for:

- NAS Oceana (Delivery Order #1) performance period years 9 and 10; and
- MCLB Albany (Delivery Order #1) performance period years 8 and 9.

The Assistant Secretary of the Navy (Energy, Installations, and Environment) anticipates having the higher-level reviews completed by February 28, 2018.

### *Our Response*

Comments from the Assistant Secretary addressed all specifics of the recommendation; therefore, the recommendation is resolved but will remain open. We will close the recommendation once we have verified that NAVFAC officials have performed the stated higher-level reviews.

**d. Direct the Naval Facilities Engineering Command-Expeditionary Warfare Center contracting officer to develop tailored quality assurance surveillance plans for energy savings performance contracts at Commander Fleet Activities Yokosuka, Naval Air Station Oceana, and Marine Corps Logistics Base Albany to:**

- 1. Include methods for energy savings performance contracts on how to validate periodic contractor-claimed energy savings in post-installation and annual measurement and validation reports.**
- 2. Include methods on how to monitor the specifics of the individual energy conservation measures listed in the energy savings performance contract to aid in properly monitoring the onsite performance of energy savings performance contracts.**

### *Assistant Secretary of the Navy (Energy, Installations, and Environment) Comments*

The Assistant Secretary of the Navy (Energy, Installations, and Environment) agreed with the recommendation, stating that NAVFAC officials, by February 28, 2018, will develop tailored QASPs that contain methodologies on how to validate contractor-claimed savings in PI and annual M&V reports. The Assistant Secretary further stated that the QASPs would include references to the contract specific measurement and verification methods and on-site ECM monitoring by Government officials. The Assistant Secretary stated that although the QASPs will assist NAVFAC officials in reviewing the PI and annual M&V reports, the M&V plans as currently developed are specific to each ESPC, and government reviewers have the ability to use those plans to review the contractor's performance.

### *Our Response*

Comments from the Assistant Secretary addressed all specifics of the recommendation; therefore, the recommendation is resolved but will remain open. We will close the recommendation once we have verified that NAVFAC officials have taken action to develop the tailored QASPs for ESPCs at Commander Fleet Activities Yokosuka, Naval Air Station Oceana, and Marine Corps Logistics Base Albany.

## Finding B

### NAVFAC Lacked Proper Controls for Review of Contractor Currency Adjustment Proposals

For the Commander Fleet Activities (CFA) Yokosuka ESPC, NAVFAC-EXWC contracting and CFA Yokosuka PWO officials did not properly validate 9 of 11 contractor-proposed currency escalation modifications. Specifically, NAVFAC officials did not validate nine contractor-proposed yen currency adjustments with a total net payment value of \$6.7 million.

This occurred because NAVFAC-EXWC contracting officials did not apply the contractual escalation clauses, which consider and account for changes to the contract price resulting from annual changes to the yen and U.S. dollar exchange rates.

In addition, the NAVFAC-EXWC contracting officials did not properly track and record the adjustments to the CFA Yokosuka ESPC value and funding levels resulting from the multiple changes to the yen exchange rate. This occurred because NAVFAC-EXWC officials did not make the required manual adjustments in the electronic accounting systems to account for future-year payment revisions created by the multiple adjustments to changes in the yen exchange rate.

As a result, NAVFAC officials overpaid the contractor \$250,000 in annual currency adjustment payments; and overstated the contract value by \$760,000.<sup>29</sup>

### CFA Yokosuka ESPC Requirements for Yen Currency Exchange

The FAR allows for upward and downward revision of the stated contract price through an economic price adjustment clause.<sup>30</sup> Additionally, the Defense Federal Acquisition Regulation Supplement allows for price adjustment through a contract clause if the contract is performed partially or fully in a foreign country or if a foreign government controls the material pricing and changes the pricing during the performance phase.<sup>31</sup> The DoD Financial Management Regulation states that

<sup>29</sup> Payment amounts are as of February 28, 2017.

<sup>30</sup> Federal Acquisition Regulation Part 16.2, "Fixed Price Contracts," Subpart 16.203, "Fixed-Price Contracts with Economic Price Adjustment." An economic price adjustment provides for upward and downward revision to the stated contract price upon the occurrence of specified contingencies.

<sup>31</sup> Defense Federal Acquisition Regulation Supplement, Part 216, "Fixed Price Contracts," Subpart 216.203-4-70, "Additional Clauses," 252.216-7003.

changes in obligations and contractual liabilities caused by foreign currency exchange fluctuations are determined and recorded when payment is made.<sup>32</sup> The CFA Yokosuka ESPC currency adjustments, along with other contract adjustments, are incorporated through contract modifications.

The June 29, 2006, CFA Yokosuka ESPC included a clause to consider and account for changes because of annual changes to the exchange rate between the yen and the U.S. dollar. The inclusion of contract Clause H-27 allowed the contractor to purchase a portion of annual contractual expenses in yen and would require adjustments to the contract price because of the variation in exchange rates. Specifically, Clause H-27 established the contract baseline-dollar exchange rate.<sup>33</sup> In addition, Clause H-27 established the annual currency adjustment to account for differences in the actual exchange rate and the baseline exchange rate. If the actual exchange rate was different than the baseline yen per U.S. dollar on the date the contractor was paid the annual performance year payment, the contractor would receive an annual currency adjustment payment. Depending on what the actual exchange rate was on the date the contractor was paid the annual performance year payment, the annual currency adjustment payment could be more or less than the baseline established in the contract. If the yen per U.S. dollar rate decreased, then the NAVFAC currency adjustment payment to the contractor would increase. Conversely, if the yen per U.S. dollar rate increased, then the payment amount would decrease.

## **NAVFAC Currency Escalation Adjustments and Payments on CFA Yokosuka ESPC Were Not Administered Properly**

NAVFAC officials reviewed nine contractor proposals for yen currency adjustment with a total net payment value of \$6.7 million. However, the NAVFAC officials did not approve contractor proposals for the yen currency adjustments in accordance with the contract escalation clause. We calculated that NAVFAC-EXWC made unsupported currency fluctuation payments, of \$250,000, by not following the contractual escalation clauses that required use of the exchange rate published in the Wall Street Journal on the day NAVFAC officials provided the contractor with its annual performance year payment.

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<sup>32</sup> DoD Financial Management Regulation Volume 3, chapter 8, "Foreign Currency Exchange Fluctuations."

<sup>33</sup> Clause H-27, "Currency True-Up Economic Price Adjustment – Currency Fluctuation." Though Clause H-27 referred to itself as economic price adjustment clause, the ESPC contained no FAR reference or Defense Federal Acquisition Regulation Supplement economic price adjustment criteria. The baseline yen exchange rate at contract award was 115 yen per U.S. dollar. On November 25, 2008, the NAVFAC-EXWC contracting officer modified the contract yen exchange baseline to 107 yen per U.S. dollar. NAVFAC incorporated the baseline change into the contractual payment schedule but, due to an administrative oversight, did not incorporate it into Clause H-27. On July 27, 2017, NAVFAC modified the Clause H-27 to incorporate the 107 yen per U.S. dollar baseline.

## ***NAVFAC Officials Improperly Validated Contractor-Proposed Annual Yen Currency Adjustments***

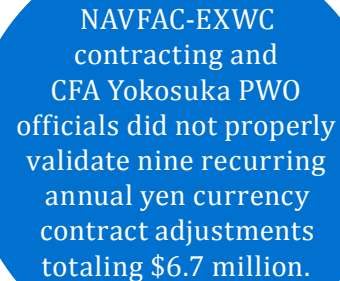
From December 2008 through January 2017, NAVFAC-EXWC

contracting and CFA Yokosuka PWO officials did not properly validate nine recurring annual yen currency contract adjustments totaling \$6.7 million.

The CFA Yokosuka ESPC Clause H-27 allows the contractor to submit an annual currency adjustment proposal. From December 2008 through November 2016, the contractor submitted nine proposals requesting an adjustment to the annual yen currency rate.<sup>34</sup> In each case, the contractor's proposal for an annual adjustment to

the yen currency rate was not calculated as outlined in the

CFA Yokosuka ESPC. NAVFAC made the annual currency adjustment payments based on the contractor's annual proposals, which did not comply with ESPC.



NAVFAC-EXWC contracting and CFA Yokosuka PWO officials did not properly validate nine recurring annual yen currency contract adjustments totaling \$6.7 million.

The CFA Yokosuka ESPC required the contractor to use the currency exchange rate published in the Wall Street Journal on the day NAVFAC officials provided the contractor with its annual performance year payment. Specifically, the Clause H-27 stated the contractor should use the currency exchange rate on the date the contractor's payment was received, as published in a mutually agreed source. In addition, the Clause H-27 referred to the June 15, 2006 Detailed Energy Survey, which defined the mutually agreed source as the Wall Street Journal. Instead, the contractor's proposals were based on contractor-claimed bank exchange rates to purchase yen. NAVFAC contracting officials accepted the contractor's proposal and made the currency adjustment payment.

## ***NAVFAC Contracting Officials Incorrectly Applied Contract Escalation Clause Requirement for Annual Currency Adjustments***

The currency adjustment errors occurred because NAVFAC-EXWC contracting officials incorrectly applied the contract escalation clauses. None of the nine annual currency adjustment contractor proposals were calculated using the method prescribed in the ESPC Clause H-27 and the associated Detailed Energy Survey. In each instance, the NAVFAC contracting officer accepted the contractor's proposed revised payment schedules and yen currency adjustments without validating the contractor's calculation of payment according to the requirements

<sup>34</sup> The contractor submitted eight annual currency adjustment proposals covering performance years 1 through 9. The eight proposals included a combined proposal for performance years 8 and 9.

of Clause H-27. The NAVFAC-EXWC contracting officer accepted the contractor's calculations and approved the payment without ensuring the payments were calculated in accordance with the terms of the CFA Yokosuka ESPC.

For example, on October 4, 2011, the contractor proposed a \$2.0 million annual currency adjustment for ESPC performance year 4. On October 24, 2011, the NAVFAC-EXWC contracting officer approved the annual currency adjustment payment without validating the contractor's currency adjustment method to the contract's requirements for adjusting currency. Specifically, the contractor proposed a performance year 4 currency adjustment rate of 76.3 yen to U.S. dollar. The contractor based the rate on the actual yen rate it claimed to have paid to purchase yen for performance year 4. The CFA Yokosuka ESPC required the contractor to use the currency exchange rate published in the Wall Street Journal as of the day the contractor received its performance year 4 payment (in U.S. dollars) from NAVFAC.

The Wall Street Journal yen exchange rate on September 1, 2011, was 76.9 yen to one U.S. dollar. We calculated that the NAVFAC currency adjustment payment to the contractor should have been \$1.9 million. As a result, NAVFAC officials overpaid the contractor \$53,100 for the performance year 4 currency escalation. If the NAVFAC-EXWC contracting officers had used the annual currency adjustment calculation method outlined in the ESPC, they would not have overpaid the contractor \$53,100. Table 2 outlines the over or under payments for the nine annual recurring currency adjustments made to the CFA Yokosuka ESPC.



Table 2. CFA Yokosuka Recurring Currency Adjustment Payments

| CFA Yokosuka ESPC Performance Year | ESPC Performance Year Date Range | Actual Currency Adjustment (in Thousands) <sup>1</sup> | Contractually Required Currency Adjustment (in Thousands) <sup>2</sup> | Currency Adjustment Overpayment (Underpayment) (in Thousands) |
|------------------------------------|----------------------------------|--|--|---|
| 1                                  | Sept 1, 2008-Aug 31, 2009        | \$575  | \$419  | \$156   |
| 2                                  | Sept 1, 2009-Aug 31, 2010        | 932  | 758  | 174   |
| 3                                  | Sept 1, 2010-Aug 31, 2011        | 1,327  | 1,320  | 7   |
| 4                                  | Sept 1, 2011-Aug 31, 2012        | 1,983  | 1,930  | 53  |
| 5                                  | Sept 1, 2012-Aug 31, 2013        | 1,844  | 1,872  | (28)  |
| 6                                  | Sept 1, 2013-Aug 31, 2014        | 403  | 397  | 6   |
| 7                                  | Sept 1, 2014-Aug 31, 2015        | (14)   | 133  | (147)   |
| 8                                  | Sept 1, 2015-Aug 31, 2016        | (560)  | (546)  | (14)  |
| 9                                  | Sept 1, 2016-Aug 31, 2017        | 234  | 191  | 43  |
| <b>Total</b>                       |                                  | <b>\$6,723</b>   | <b>\$6,473</b>   | <b>\$250</b>  |

Source: DoD OIG

<sup>1</sup> Actual Currency Adjustment amounts proposed by contractor and approved by NAVFAC. Positive amounts paid by NAVFAC to the contractor. Negative amounts (in parenthesis) deducted by NAVFAC from the next available NAVFAC performance year payment to the contractor.

<sup>2</sup> We calculated the contractually required currency adjustment entries using the contractually required methodology. Negative amounts (in parenthesis) represent potential refund or offset amounts to the contractor for that performance year.

Note: Amounts are rounded to nearest thousand, which may cause variations.

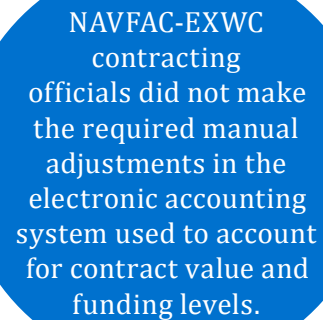
NAVFAC-EXWC contracting officials stated that they were not aware of the specifics of the CFA Yokosuka ESPC escalation clause.<sup>35</sup> In addition, NAVFAC officials stated that the terms of Clause H-27 only states that the adjustment rate would be the rate of exchange on the date the contractor receives payment, as published in a mutually agreed source. NAVFAC officials stated that the contract never states what the source should be. However, Clause H-27 stated the currency fluctuation amounts are subject to escalation as defined in the detailed energy survey, which defines the Wall Street Journal as the source. In addition, when we informed them of the ESPC clause specifics, NAVFAC-EXWC officials stated that the clauses were poorly written and needed to be revised. Specifically, NAVFAC officials made payments to the contractor that were based on an incorrect yen currency exchange rate and overpaid the contractor by \$250,000.

<sup>35</sup> Clause H-27, "Currency True-Up," established the contract baseline-dollar exchange rate at 115 yen per 1 U.S. dollar and the referenced contractual Detailed Energy Survey (DES), June 15, 2006, which provides details on the annual currency adjustments.

## NAVFAC Officials Did Not Properly Track Price Changes to the ESPC at Commander Fleet Activities Yokosuka

NAVFAC-EXWC officials did not properly track and record adjustments to the CFA Yokosuka ESPC value and funding levels resulting from the multiple changes to the yen exchange rate. The CFA Yokosuka ESPC contract value and funding levels as stated in periodic contract modifications were overstated when compared to the value of corresponding payment schedules. As of January 2017, NAVFAC misstated the official CFA Yokosuka ESPC value and funding levels by \$760,000. Specifically, as of ESPC Performance Year 9, the total contract value was \$364.1 million but should have been \$363.3 million.

The contract tracking errors occurred because NAVFAC-EXWC contracting officials did not make the required manual adjustments in the electronic accounting system used to account for contract value and funding levels. NAVFAC-EXWC contracting officials used the DoD-wide Procurement Desktop-Defense (PD<sup>2</sup>) as its electronic accounting system to create, document, and track modifications made to contract actions.<sup>36</sup> According to NAVFAC-EXWC officials, the PD<sup>2</sup> did not automatically adjust the ESPC value for future-year payment revisions and needed to be manually adjusted by NAVFAC-EXWC officials.



NAVFAC-EXWC contracting officials did not make the required manual adjustments in the electronic accounting system used to account for contract value and funding levels.

Without the manual adjustment to the PD<sup>2</sup> system, the resulting ESPC modifications either stated an incorrect contract value or were issued without stating any contract value at all. NAVFAC-EXWC officials stated that they were setting up training for contracting personnel to prevent input errors in the future when making manual adjustments to the electronic accounting systems. The contract value errors in the PD<sup>2</sup> began with a modification issued on November 5, 2013, and continued through Modification 32 issued on January 7, 2017. On March 21, 2017, the NAVFAC-EXWC contracting officer issued a modification to decrease the CFA Yokosuka ESPC value and funding by \$760,000 to \$363.3 million. By issuing the modification, NAVFAC-EXWC contracting officer eliminated the value and funding tracking error.

The NAVFAC headquarters official, overseeing the local PD<sup>2</sup> implementation, stated that the unique nature of adjusting long-term ESPC payment schedules for currency adjustments contributed the system's failure to accurately calculate the ESPC value

<sup>36</sup> The PD<sup>2</sup> system is DoD-wide and provides procurement support throughout the acquisition process.

and funding levels. The PD<sup>2</sup> system owner stated that there were three versions of the PD<sup>2</sup> system in the DoD and referred any potential corrections back to NAVFAC. According to NAVFAC headquarters officials, the PD<sup>2</sup> as implemented at NAVFAC was an older system and could not easily be changed. In addition, NAVFAC headquarters officials indicated that replacing the older PD<sup>2</sup> system was a primary NAVFAC priority. We concluded that a DoD-wide systemic change to correct the detected contract pricing errors was not warranted because of difficulties to apply a systemic fix to the multiple PD<sup>2</sup> system variations currently fielded across the DoD.

## NAVFAC Made Incorrect Currency Adjustment Payments

Because NAVFAC-EXWC contracting officials did not properly validate 9 of 11 contractor-proposed currency escalation modifications, NAVFAC-EXWC overpaid the contractor \$250,000 in annual currency adjustment payments, and inadvertently increased the contract value by \$760,000. Therefore, NAVFAC-EXWC contracting officials did not ensure that the CFA Yokosuka ESPC fully complied with contract requirements and currency adjustment guidance included in the DoD Financial Management Regulation and the FAR.

## Recommendations, Management Comments, and Our Response

### ***Recommendation B.1***

**We recommend that the Commander, Naval Facilities Engineering Command:**

- a. **Direct the Naval Facilities Engineering Command–Expeditionary Warfare Center Contracting Officer to validate contractor-proposed currency adjustments for the Commander Fleet Activities Yokosuka performance of September 1, 2008 through August 31, 2017 (performance years 1, 2, 3, 4, 5, 6, 7, 8, and 9).**

### *Assistant Secretary of the Navy (Energy, Installations, and Environment) Comments*

The Assistant Secretary of the Navy (Energy, Installations, and Environment), responding for the Commander, NAVFAC, partially agreed with the recommendation, stating that NAVFAC contracting officer shall validate the contractor proposed currency adjustments by February 28, 2018. The Assistant Secretary also stated that contract Clause H-27 only requires the currency adjustment rate be published in an agreed-upon source and does not specify the Wall Street Journal.

### *Our Response*

Comments from the Assistant Secretary addressed all specifics of the recommendation. We agree that Clause H-27 could result in another agreed-upon currency adjustment rate. However, Clause H-27, as presently written, also incorporates references to contractual Detailed Energy Survey language that specifies the published rate as the Wall Street Journal rate. Any contracting officer validation of past currency fluctuation payments should be based on the contractual requirement in place at the time of the payments. When NAVFAC officials validate the contractor proposed currency adjustment on past contractor payments, they should validate the adjustment based on the instructions given in Clause H-27 and the contractual Detailed Energy Survey language. The recommendation is resolved but will remain open. We will close the recommendation once we have verified that NAVFAC has validated currency fluctuation payments for CFA Yokosuka ESPC Performance Years 1 through 9.

**b. Direct the Naval Facilities Engineering Command–Expeditionary Warfare Center Contracting Officer to:**

- 1. Recover the unsupported currency fluctuation payments calculated by the audit at \$250,000.**

### *Assistant Secretary of the Navy (Energy, Installations, and Environment) Comments*

The Assistant Secretary of the Navy (Energy, Installations, and Environment) partially agreed with the recommendation, stating that by February 28, 2018, NAVFAC would recover any unsupported currency fluctuation payments, if found.

### *Our Response*

Comments from the Assistant Secretary addressed all specifics of the recommendation; therefore, the recommendation is resolved but will remain open. We will close the recommendation once we have verified that NAVFAC has identified and recovered any unsupported currency fluctuation payments.

- 2. Follow the contractually required process to calculate and approve currency adjustments in future years or modify contract Clause H-27 and the detailed energy survey to establish a revised process.**

### *Assistant Secretary of the Navy (Energy, Installation, and Environment) Comments*

The Assistant Secretary of the Navy (Energy, Installations, and Environment) agreed with the recommendation, stating that NAVFAC shall either modify or follow the contractually required process. By March 31, 2018, NAVFAC will work with the contractor to negotiate a replacement clause that provides a clear and straightforward method to calculate the currency adjustments.

### *Our Response*

Comments from the Assistant Secretary addressed all specifics of the recommendation; therefore, the recommendation is resolved but will remain open. We will close the recommendation once we have verified that NAVFAC contracting officials either have modified the contract or is following the present contractually required process.

3. **Modify the contract to reduce contract price and de-obligate \$760,000 to the Commander Fleet Activities Yokosuka energy savings performance contract.**

### *Assistant Secretary of the Navy (Energy, Installations, and Environment) Comments*

The Assistant Secretary of the Navy (Energy, Installations, and Environment) agreed with the recommendation, stating that the action has been completed to modify the contract.

### *Our Response*

Comments from the Assistant Secretary addressed all specifics of the recommendation. On March 14, 2017, we notified the NAVFAC-EXWC officials of the CFA Yokosuka ESPC value and funding tracking errors. On March 21, 2017, the NAVFAC-EXWC contracting officer issued a modification to decrease the CFA Yokosuka ESPC value and funding by \$760,000 to \$363.3 million. By issuing the modification, NAVFAC-EXWC contracting officer eliminated the value and funding tracking error. Therefore, Recommendation B.1.b.3 is closed.

- c. **Issue guidance to adjust electronic accounting systems to record and account for future year payment revisions created by contractual currency rate adjustments; and**

### *Assistant Secretary of the Navy (Energy, Installations, and Environment) Comments*

The Assistant Secretary of the Navy (Energy, Installations, and Environment) agreed with the recommendation, stating that NAVFAC will develop written guidance for manually adjusting the PD<sup>2</sup> system to record and account for future revisions by February 28, 2018.

### *Our Response*

Comments from the Assistant Secretary addressed all specifics of the recommendation; therefore, the recommendation is resolved but will remain open. We will close the recommendation once we have verified that guidance is developed and issued.

- d. Direct the Director, Naval Facilities Engineering Command-Expeditionary Warfare Center provide training to all ESPC contracting officials on adjustments to the electronic accounting systems to record and account for future year payment revisions created by contractual currency rate adjustments.**

*Assistant Secretary of the Navy (Energy, Installations, and Environment) Comments*

The Assistant Secretary of the Navy (Energy, Installations, and Environment) agreed with the recommendation, stating that once the guidance is completed, NAVFAC will train contracting officials working ESPCs on the guidance. The Assistant Secretary also stated that the training would include adjusting the PD<sup>2</sup> electronic contract record to account for payment revisions created by currency rate adjustments. The Assistant Secretary set a target date of March 31, 2018, for this action.

*Our Response*

Comments from the Assistant Secretary addressed all specifics of the recommendation; therefore, the recommendation is resolved but will remain open. We will close the recommendation once we have verified that training is completed.



## Appendix A

### Scope and Methodology

We conducted this performance audit from November 2016 through September 2017 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 that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

### ***Guidance for ESPC Project Management***

To determine whether NAVFAC officials administered ESPCs effectively, we reviewed Federal, DoD, Department of Energy, Department of the Navy, and NAVFAC guidance to identify Navy ESPC program management requirements. We referenced the following primary guidance used during the review.

- Section 8287, title 42, United States Code
- FAR 16.203 “Fixed-Price Contracts with Economic Price Adjustment”
- FAR Part 46, “Quality Assurance,” Subpart 46.4, “Government Contract Quality Assurance”
- DFARS 252 216, “Economic Price Adjustment Wage Rates or Material Prices Controlled by a Foreign Government” June 26, 2015
- “Department of Energy Federal Energy Management Program M&V Guidelines: Measurement and Verification for Performance-Based Contracts,” Version 4.0, November 2015
- “DoD Contracting Officer Representative Handbook,” March 22, 2012
- DoD Financial Management Regulation, Volume 3, Chapter 8, Section 080413, “Foreign Currency Exchange Fluctuations”
- Navy Installations Command Instruction 4101.1, “Standardization for Management of Utility Energy Service Contracts and Energy Savings Performance Contracts,” February 8, 2013
- Navy Installations Command Instruction 4101.2, “Evaluation of Energy Project Investment Performance,” March 16, 2015
- NAVFAC Energy Project Management Guide, November 2012
- NAVFAC Energy Project Management Guide, January 2017
- NAVFAC Business Management System Process B-5.1.2, “Energy-Funded Projects,” February 14, 2010
- NAVFAC Business Management System Process B-5.1.5, “Measurement and Verification on Energy Project, April 27, 2015

### ***Review of NAVFAC Validation of Contractor PI and M&V Reports***

To determine whether NAVFAC officials effectively validated contractor-claimed energy savings in the ESPC PI and M&V reports, we nonstatistically selected two ESPC projects for review: NAS Oceana DO #1 and MCLB Albany DO #1. We based our contract selection on ESPC projects at the NAS Oceana and MCLB Albany installations that had completed their construction phases and whose PI and M&V reviews were not previously audited.

For the NAS Oceana DO #1 and MCLB Albany DO #1 ESPCs, we reviewed NAVFAC-EXWC contract files to determine whether NAVFAC officials validated the contractor-claimed energy savings defined in the PI and annual M&V reports through a base-level review and a higher-level review. We reviewed ESPC contract clauses, modifications, payment schedules, and business clearance memorandums to determine contractual PI and M&V report content and submission requirements, as well as the presence of any contractual completion dates for Navy review of PI and M&V reports. We obtained contractor PI and M&V report submissions as well as all available NAVFAC validation and higher-level reviews of the subject PI and M&V reports. We interviewed officials at NAVFAC headquarters and NAVFAC-EXWC to determine reasons for the absence of the NAVFAC validation and higher-level review reports and NAVFAC review of contractor-claimed price adjustments.

### ***Review of NAVFAC QASPs***

We nonstatistically selected 7 of 50 ongoing ESPCs valued at \$822.7 million. To determine whether NAVFAC officials tailored the QASPs to the implemented ECMs, we:

- reviewed seven QASPs for the ongoing ESPCs;
- reviewed the ECM specifics in the ESPCs, detailed energy savings reports, and annual M&V reports;
- interviewed NAVFAC-HQ and base-level PWO officials; and
- toured the NAS Oceana and MCLB Albany installations to observe how the ECMs functioned.

### ***Review of NAVFAC Installation ESPC Oversight***

To review NAVFAC installation-level oversight of ESPCs, we nonstatistically selected two Navy installations and one Marine Corps installation: NAS Oceana, MCLB Albany, and CFA Yokosuka. We selected the NAS Oceana and the MCLB Albany locations because those installations had multiple active ESPCs. We selected the CFA Yokosuka ESPC because it was the largest Navy ESPC by contract value.

For each ESPC selected, we reviewed NAVFAC-EXWC contract files and interviewed CORs and PWO officials to determine whether NAVFAC officials effectively performed on-site oversight of the ESPCs. We obtained PWO on-site inspections of ECMs and maintenance and repair review documentation. We toured NAS Oceana and MCLB Albany to observe the operations of the ESPC ECMs.

### ***Review of CFA Yokosuka Currency Adjustments***

We reviewed the universe of 11 contractor-proposed currency escalation modifications for the CFA Yokosuka ESPC. To determine whether NAVFAC-EXWC contracting officials justified and validated the contractor-proposed recurring currency exchange rate adjustments, we reviewed the CFA Yokosuka ESPC contract file including contract clauses, delivery order schedules, contractor adjustment proposals, and contract modifications. We obtained and reviewed the contractor's currency adjustment proposals for Performance Years 1 through 9 of September 1, 2008, through August 31, 2017. In addition, we interviewed the NAVFAC CFA Yokosuka COR and NAVFAC-EXWC contracting and program officials to obtain the contractor proposals and any available records of NAVFAC review of the contractor currency adjustment proposals.

To determine whether NAVFAC-EXWC overpaid the contractor for annual currency adjustment payments we recalculated yen rates for each of the 9 performance years using the contractually mandated use of currency exchange rates published in the Wall Street Journal.

To determine whether NAVFAC-EXWC contracting officials properly tracked and recorded contract price adjustments to the CFA Yokosuka ESPC that resulted from multiple yen currency adjustments we obtained and reviewed 33 contract modifications made through March 2017 for the 9 performance years. We compared selected contract modifications created by the PD<sup>2</sup> contract writing system to annually revised Delivery Order Schedules. We also interviewed NAVFAC and Defense Logistics Agency system owner officials to discuss the systemic impact on the PD<sup>2</sup> contract writing system and whether a systemic change was warranted to correct the contract pricing errors detected.

### **Use of Computer-Processed Data**

We did not use computer-processed data to perform this audit.

### **Prior Coverage**

During the last 5 years, the Government Accountability Office (GAO), the Department of Defense Inspector General (DoD OIG), and the Naval Audit Service issued six reports discussing Department of the Navy or Department of the

Air Force award and administration of ESPCs. Unrestricted GAO reports can be accessed at <http://www.gao.gov>. Unrestricted DoD OIG reports can be accessed at <http://www.dodig.mil/reports.html/>. Naval Audit Service reports are not available over the Internet.

## **GAO**

Report No. GAO-17-461, “Defense Infrastructure: Additional Data Guidance Needed for Alternatively Financed Energy Projects,” June 20, 2017

GAO reviewed 16 DoD alternatively financed energy projects including 11 ESPCs. GAO reported that some potential costs for these alternatively financed energy projects, such as costs associated with operation and maintenance and repair and replacement of equipment, add to overall project costs and may not be included in the total contract payments. GAO recommended that the military services collect and provide DoD complete and accurate data on all alternatively financed energy projects and that DoD update its guidance to clarify requirements for verifying utility energy savings contract savings.

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

GAO found that contractors reported their calculated savings according to their contracts with agencies. However, contractors were not required to reduce the amount of savings they report or measure the effects of factors that cause a reduction in project savings. Because contractors were not required to report the reductions in savings, the contractor reporting becomes unclear. Without clear reporting of savings not being achieved, GAO concluded agencies may be unable to determine what, if any, corrective actions should be taken.

## **DoD OIG**

Report No. DODIG-2017-044, “Naval Facilities Engineering Command Management of Energy Savings Performance Contracts Needs Improvement,” January 26, 2017

NAVFAC officials did not effectively manage 38 ongoing performance-phase ESPCs, valued at \$1.55 billion. NAVFAC officials did not initially appoint CORs, did not validate PI or M&V reports, and did not perform higher-level reviews of the contractor-claimed energy savings. This lack of review and validation of reports totaled \$67.7 million in questionable contractor-claimed energy savings.

Report No. DODIG-2016-087, “Air Force Civil Engineer Center Management of Energy Savings Performance Contracts Needs Improvement,” May 4, 2016

Air Force Civil Engineer Center officials did not centrally manage 52 existing ESPCs, collectively valued at \$849 million, effectively. Specifically, Air Force Civil Engineer Center did not perform post-award project management, track project status, verify energy savings resulting from the ESPC projects, track required ESPC training, and maintain an Air Force ESPC lessons learned program. As a result, Air Force officials did not know whether the 52 projects achieved contractor-guaranteed energy savings, which were the basis of compliance with statutory requirements.

Report No. DODIG-2015-138, “The Air Force Did Not Monitor the Energy Savings Performance Contract at Joint Base McGuire,” June 29, 2015

Air Force officials did not know whether the approximately \$19 million spent on the Joint Base McGuire ESPC achieved energy savings and whether planned future payments of approximately \$115 million for the remaining 16 contract performance years will result in energy savings.

### ***Naval Audit Service***

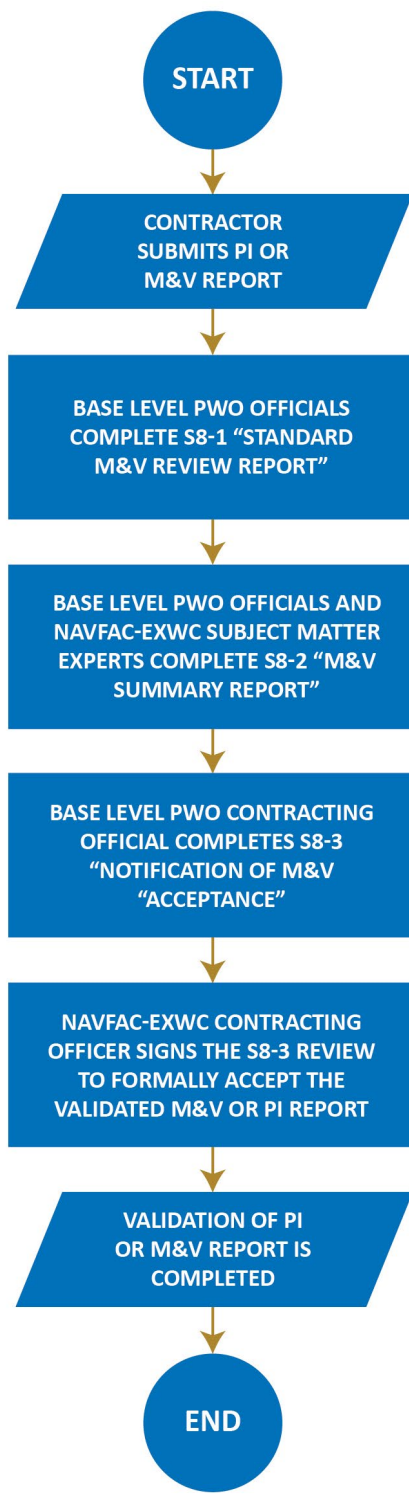
Report No. N2013-0031, “Followup on Internal Controls Over Department of the Navy Energy Funding and Financing Tools,” June 13, 2013

The Naval Audit Service conducted a followup audit of recommendations from a 2011 Naval Audit Service report on Navy energy projects including ESPCs. The prior Naval Audit Service report<sup>37</sup> found that Navy energy projects were not effectively managed to verify energy reductions and cost savings. The Naval Audit Service determined that the recommendation to Commander, NAVFAC to ensure acquisition officials performed their assigned duties, strengthened controls, and oversight of procurement performance management remained open. The Naval Audit Service recommended NAVFAC officials establish detailed procedures to verify the accuracy of the M&V reports and to provide oversight to ensure that NAVFAC officials adhered to those procedures.

<sup>37</sup> Report No. N2011-0023, “Internal Controls Over Department of Navy Energy Funding and Financing Tools,” March 4, 2011.

# Appendix B

## PI & M&V Validation Process Flowchart





## Appendix C

### PI and M&V Report Base-Level Validations and Higher-Level Reviews

| Year  | Contractor Annual M&V Report Date | S8-1 Validation Performed | S8-2 HLR Performed | S8-3 HLR Performed  | Dollar Value of Validation or Higher-Level Review Not Completed (in Millions) |
|---|-----------------------------------|---------------------------|--------------------|---------------------|---|
| <b>Naval Air Station Oceana DO #1 (Main Base)</b> |                                   |                           |                    |                     |   |
| 0   | Not Available <sup>1</sup>        | No                        | No                 | No                  | \$1.4   |
| 1   | March 31, 2006                    | No                        | No                 | No                  | 0.9   |
| 2   | May 31, 2007                      | No                        | No                 | No                  | 1.0   |
| 3   | February 02, 2008                 | No                        | No                 | No                  | 1.0   |
| 4   | March 06, 2009                    | No                        | No                 | No                  | 1.0   |
| 5   | March 17, 2010                    | No                        | No                 | No                  | 1.1   |
| 6   | February 17, 2011                 | No                        | No                 | No                  | 1.1   |
| 7   | February 29, 2012                 | Yes                       | Yes                | Yes                 | N/A   |
| 8   | February 21, 2013                 | Yes                       | Yes                | Yes                 | N/A   |
| 9   | February 07, 2014                 | Yes                       | Yes                | No                  | 1.2   |
| 10  | February 24, 2015                 | Yes                       | Yes                | No                  | 1.3   |
| 11  | March 11, 2016                    | No                        | No                 | No                  | 1.3   |
| <b>Subtotal</b>                                   |                                   | <b>4 Yes, 8 No</b>        | <b>4 Yes, 8 No</b> | <b>2 Yes, 10 No</b> | <b>\$11.3</b>   |
| <b>Marine Corps Logistics Base Albany DO #1</b>   |                                   |                           |                    |                     |   |
| 1   | May 08, 2006                      | No                        | No                 | No                  | \$1.2   |
| 2   | November 28, 2007                 | No                        | No                 | No                  | 1.3   |
| 3   | April 18, 2008                    | No                        | No                 | No                  | 1.3   |
| 4   | January 28, 2010                  | No                        | No                 | No                  | 1.3   |
| 5   | May 10, 2010                      | No                        | No                 | No                  | 1.3   |
| 6   | April 06, 2011                    | No                        | No                 | No                  | 1.4   |
| 7   | May 01, 2012                      | Yes                       | Yes                | Yes                 | N/A   |
| 8   | March 14, 2013                    | Yes                       | No <sup>2</sup>    | No                  | 1.4   |
| 9   | March 05, 2014                    | Yes                       | No                 | No                  | 1.5   |
| 10  | June 09, 2015                     | Yes                       | Yes                | Yes                 | N/A   |

*PI and M&V Report Base-Level Validations and Higher-Level Reviews (cont'd)*

| Year | Contractor Annual M&V Report Date | S8-1 Validation Performed | S8-2 HLR Performed  | S8-3 HLR Performed  | Dollar Value of Validation or Higher-Level Review Not Completed (in Millions) |
|------|-----------------------------------|---------------------------|---------------------|---------------------|---|
|      | <b>Subtotal</b>                   | <b>4 Yes 6 No</b>         | <b>2 Yes, 8 No</b>  | <b>2 Yes, 8 No</b>  | <b>\$10.7</b>   |
|      | <b>Total (22)</b>                 | <b>8 Yes, 14 No</b>       | <b>6 Yes, 16 No</b> | <b>4 Yes, 18 No</b> | <b>\$22.0</b>   |

Source: DoD OIG

<sup>1</sup> NAVFAC EXWC officials stated that a PI report was performed but could not locate the report. No validation or HLR of the report was performed by NAVFAC-EXWC or the NAS Oceana PWO.

<sup>2</sup> A NAVFAC EXWC technical official signed the S8-2 on March 13, 2017, approximately 3.5 years after the S8-1 was initially signed on September 3, 2013 by a MCLB Albany PWO official. As of March 31, 2017 the NAVFAC-EXWC contracting specialist had not signed the S8-2 as required by NAVFAC guidance. We concluded the S8-2 HLR was not performed.

Note: N/A represents "Not Applicable."

# Management Comments

## Assistant Secretary of Defense

**Final  
Report Reference**



ENERGY,  
INSTALLATIONS,  
AND ENVIRONMENT

### ASSISTANT SECRETARY OF DEFENSE

3400 DEFENSE PENTAGON  
WASHINGTON, DC 20301-3400

NOV 27 2017

MEMORANDUM FOR PROGRAM DIRECTOR FOR CONTRACT MANAGEMENT AND  
PAYMENTS, OFFICE OF THE INSPECTOR GENERAL

THROUGH: DIRECTOR, ACQUISITION RESOURCES AND ANALYSIS *YJS 11/27/17*

SUBJECT: Response to DoDIG Draft Report on Naval Facilities Engineering Command  
Administration of Selected Energy Savings Performance Contracts (Project No.  
D2017-D000CI-0037.000)

As requested, I am providing responses to the recommendation A.1 contained in the  
subject report.

#### Recommendation A.1:

We recommend the Assistant Secretary of Defense (Energy, Installations, and Environment):

- a. Develop and implement DoD-wide guidance to monitor energy savings performance contracts to include validating contractor-claimed energy savings included in post-installation and annual measurement and verification reports the following minimum requirements;
- b. Coordinate with the Director, Defense Procurement and Acquisition Policy to:
  1. Require oversight of the energy savings performance contracts by the development of quality assurance surveillance plans tailored to the specific energy conservation measures in the energy savings performance contracts; and,
  2. Monitor energy savings performance contract programs to ensure consistent award and administration throughout the Department.

#### Response:

For A.1.a, Concur. The Office of the Assistant Secretary of Defense (Energy, Installations and Environment (OASD(EI&E))) will develop and implement guidance to validate contractor-claimed energy savings. The estimated completion date is one year from the date of this memorandum. Also, we recommend, "...the following minimum requirements..." be deleted from the recommendation. There are no minimum requirements listed.

For, A.1.b, Concur. The OASD(EI&E) does not have oversight responsibility of contract requirements. However, OASD(EI&E) will work with DPAP and the Military Departments to ensure appropriate guidance/policy is in place to require measurement and verification plans and QASPs for energy savings performance contracts.

Please contact [REDACTED] if additional information is required.

*[Signature]*  
Lucian Niermeyer

**Revised  
Recommendation**  
A.1.a

## Department of the Navy



**DEPARTMENT OF THE NAVY**  
THE ASSISTANT SECRETARY OF THE NAVY  
(ENERGY, INSTALLATIONS AND ENVIRONMENT)  
1000 NAVY PENTAGON  
WASHINGTON, DC 20305-1000

16 October 2017

MEMORANDUM FOR THE INSPECTOR GENERAL, DEPARTMENT OF DEFENSE

SUBJECT: OFFICIAL MANAGEMENT RESPONSES: NAVAL FACILITIES  
ENGINEERING COMMAND ADMINISTRATION OF SELECTED ENERGY  
SAVINGS PERFORMANCE CONTRACTS (Project No. D2017-D000CI-  
0037.000)

The Department of the Navy comments on the subject draft report are attached.  
Thank you for the opportunity to review and provide feedback on the subject draft report.  
My point of contact is [REDACTED]

  
Steven Iselin

Attachments  
As stated

Copy to:  
NAVINSGEN  
NAVFAC

## Department of the Navy (cont'd)



DEPARTMENT OF THE NAVY  
NAVAL FACILITIES ENGINEERING COMMAND  
1322 PATTERSON AVENUE, SE SUITE 1000  
WASHINGTON NAVY YARD DC 20374-5065

5041  
Ser 09IG/014  
13 Oct 2017

From: Commander, Naval Facilities Engineering Command  
To: Department of Defense Inspector General  
(Attn: Program Director, Contract Management and Payments)  
Via: Assistant Secretary of the Navy (Energy, Installations and Environment)  
Subj: NAVAL FACILITIES ENGINEERING COMMAND ADMINISTRATION OF  
SELECTED ENERGY SAVINGS PERFORMANCE CONTRACTS (Project No.  
D2017-D000CI-0037.000)  
Ref: (a) DoDIG Draft Audit Report 2017-0037 dated 15 Sep 2017  
Encl: (1) NAVFAC management responses

1. Per reference (a), enclosure (1) is submitted in response to the subject draft audit report. The NAVFAC Headquarters is providing official management responses in coordination with the Naval Facilities Engineering and Expeditionary Warfare Center.
2. We acknowledge and appreciate the opportunity to continuously improve the oversight in the execution and performance of ESPC projects. The Assistant Commander and Director for Public Works and the Director for Energy, with the full support of NAVFAC leadership, continues to communicate the importance of contract administration; compliance with federal regulations; and adequate management of ESPC projects, to include conduct of M&Vs and the validation of energy savings. The tone from the top has been and will continue to be promulgated throughout the Enterprise. NAVFAC has and will continue to effectively manage the life cycle of ESPC projects.
3. The NAVFAC Headquarters' point of contact is [REDACTED] can be reached on [REDACTED] or via email at [REDACTED]

KARLSON.ERIK.JON [REDACTED]  
[REDACTED]  
ERIK J. KARLSON  
Captain, CEC, U.S. Navy  
Inspector General

Copy to:  
OASN (EI&E)  
NAVFAC PW  
NAVFAC AQ  
NAVFAC EXWC

## Department of the Navy (cont'd)

**Department of Defense Inspector General (DoDIG) Draft Report D2017-D000CI-0037.000  
of 15 September 2017:**

**NAVAL FACILITIES ENGINEERING COMMAND ADMINISTRATION OF  
SELECTED ENERGY SAVINGS PERFORMANCE CONTRACTS**

The Naval Facilities Engineering Command's (NAVFAC) responses to the recommendations of the DoD IG Draft Report D2017-D000CI-0037.000 of 15 September 2017 are provided below.

DoD IG recommends the Commander, Naval Facilities Command:

**Recommendation A.2.a. Direct Naval Facilities Engineering Command-Expeditionary Warfare Center and base Public Works officials to validate energy savings performance contracts contractor-claimed energy savings achieved for:**

- Naval Air Station Oceana (Main Base Delivery Order #1) for performance years 0, 1, 2, 3, 4, 5, 6, 9, 10 and 11; and
- Marine Corps Logistics Base Albany (Delivery Order #1) performance years 1, 2, 3, 4, 5, 6, 8 and 9.

**NAVFAC Response:** Concur. NAVFAC officials will review the prior year documentation for the above eighteen identified energy savings performance contract measurement and verification (M&V) reports. Where prior year data (such as meter readings or efficiency tests) is not available, alternative evaluation procedures may be employed.

**Target Completion Date:** Target completion date for this action item is 28 February 2018.

**Recommendation A.2.b. Direct Naval Facilities Engineering Command-Expeditionary Warfare Center contracting officers, based on the result of the validation, as mandated by law, to take appropriate contractual action (if necessary), such as recovering unrealized guaranteed energy savings.**

**NAVFAC Response:** Concur. NAVFAC will take appropriate contractual action (if necessary), such as recovering unrealized guaranteed energy savings.

**Target Completion Date:** Target completion date for this action item is 31 May 2018.

**Recommendation A.2.c. Direct Naval Facilities Engineering Command-Expeditionary Warfare Center program and contracting officials to perform higher-level review of energy savings performance contracts contractor-guaranteed energy savings achieved for:**

- Naval Air Station Oceana (Delivery Order #1) performance period years 9 and 10; and
- Marine Corps Logistics Base Albany (Delivery Order #1) performance years 8 and 9.



## Department of the Navy (cont'd)

### SUBJ: NAVFAC Administration of Selected ESPCs (D2017-D000CI-0037.000)

**NAVFAC Response:** Concur. Naval Facilities Engineering Command-Expeditionary Warfare Center program and contracting officials will perform higher-level reviews of energy savings performance contracts contractor-guaranteed energy savings achieved for:

- Naval Air Station Oceana (Delivery Order #1) performance period years 9 and 10;
- Marine Corps Logistics Base Albany (Delivery Order #1) performance years 8 and 9.

**Target Completion Date:** Target completion date for this action item is 28 February 2018.

**Recommendation A.2.d:** Direct Naval Facilities Engineering Command-Expeditionary Warfare Center contracting officer to develop tailored quality assurance surveillance plans for energy savings performance contracts at Commander Fleet Activities Yokosuka, Naval Air Station Oceana, and Marine Corps Logistics Base Albany to:

1. Include methods for energy savings performance contracts on how to validate periodic contractor-claimed energy savings in post-installation and annual measurement and verification reports.
2. Include methods on how to monitor the specifics of the individual energy conservation measures listed in the energy savings performance contract to aid in properly monitoring the onsite performance of energy savings performance contracts.

**NAVFAC Response:** Concur. NAVFAC Officials will develop tailored Quality Assurance Surveillance Plans (QASPs) that will include, or incorporate by reference, methods on how to validate periodic contractor-claimed energy savings for the energy conservation measures (ECMs) in post-installation and annual measurement and verification reports. QASPs will include references to the contractor's specific measurement and verification methods, which are incorporated in the contract. The QASP's will also include on-site monitoring of the ECM's by government officials.

On page 6, Finding A, the fourth paragraph states that by not tailoring QASPs to the specific ECMs, NAVFAC contracting officials improperly validated the contractor-claimed energy savings in post installation (PI) and M&V reports and oversight of ESPC contractor performance. Although QASPs will assist government reviewers in providing a consistent means of performing reviews and documenting the contractor's measurement and verification, the contractor's measurement and verification plan provides the agreed-upon means and methods for the substantive validation of the energy savings. M&V plans are now developed to be specific to each ESPC contract, and government reviewers have the ability to use those plans to review the contractor's performance of M&V validation.

**Target Completion Date:** Target completion date for this action item is 28 February 2018.

## Department of the Navy (cont'd)

**SUBJ: NAVFAC Administration of Selected ESPCs (D2017-D000CI-0037.000)**

**Recommendation B.1.a. Direct Naval Facilities Engineering Command-Expeditionary Warfare Center contracting officer to validate contractor-proposed currency adjustments for the commander Fleet Activities Yokosuka performance of September 1, 2008 through August 31, 2017 (performance years 1, 2, 3, 4, 5, 6, 7, 8 and 9).**

**NAVFAC Response:** Partially Concur. NAVFAC agrees that the Contracting Officer shall validate the contractor-proposed currency adjustments. NAVFAC does not agree, however, with the report statement on Page 17 that, *“The CFA Yokosuka ESPC required the contractor to use the currency exchange rate published in the Wall Street Journal”*. Clause H-27 only requires the rate of exchange be published in a mutually agreed source. Accordingly, NAVFAC’s interpretation is that the contract permits the parties to mutually agree to other bases (other than the Wall Street Journal) for determining the exchange rate.

**Target Completion Date:** Target completion date for this action item is 28 February 2018.

**Recommendation B.1.b. Direct the Naval Facilities Engineering Command-Expeditionary Warfare Center Contracting Officer to:**

1. **Recover the unsupported currency fluctuation payments calculated by the audit at \$250,000.**

**NAVFAC Response:** Partially Concur. NAVFAC agrees that any unsupported currency fluctuation payments, if found, will be recovered.

**Target Completion Date:** Target completion date for this action item is 28 February 2018.

2. **Follow the contractually required process to calculate and approve currency adjustment in future years or modify contract Clause H-27 and the detailed energy survey to establish a revised process.**

**NAVFAC Response:** Concur. NAVFAC agrees that the contractually-required process shall be either modified or followed. NAVFAC will work with the contractor to negotiate a replacement clause that provides a clear and straight-forward method to calculate the adjustment.

**Target Completion Date:** Target completion date for this action item is 31 March 2018.

3. **Modify the contract to reduce contract price and de-obligate \$760,000 to the commander Fleet Activities Yokosuka energy savings performance contract.**

**NAVFAC Response:** Concur. As stated on page iii of the Draft Report, this action has been completed and is closed.

## Department of the Navy (cont'd)

**SUBJ: NAVFAC Administration of Selected ESPCs (D2017-D000CI-0037.000)**

**Recommendation B.1c.** Issue guidance to adjust electronic accounting systems to record and account for future year payment revisions created by contractual currency rate adjustments.

**NAVFAC Response:** Concur. NAVFAC will develop written guidance to manually adjust the Procurement Desktop-Defense (PD2) system to record and account for future payment revisions.

**Target Completion Date:** Target completion date for this action item is 28 February 2018.

**Recommendation B.1.d.** Direct the Director, Naval Facilities Engineering Command-Expeditionary Warfare Center provide training to all ESPC contracting officials on adjustments to the electronic accounting systems to record and account for future year payment revisions created by contractual currency rate adjustments.

**NAVFAC Response:** Concur. Once written guidance is completed, NAVFAC will train contracting officials working ESPCs on this guidance; to make adjustments to the electronic contract record in the procurement desktop 2 system, and record and account for future year payment revisions created by contractual currency rate adjustments.

**Target Completion Date:** Target completion date for this action item is 31 March 2018.

## Acronyms and Abbreviations

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|                       |   |
|-----------------------|---|
| <b>CFA</b>            | Commander Fleet Activities  |
| <b>COR</b>            | Contracting Officer's Representative                              |
| <b>ECM</b>            | Energy Conservation Measure                                       |
| <b>ESPC</b>           | Energy Savings Performance Contract                               |
| <b>M&amp;V</b>        | Measurement and Verification                                      |
| <b>MCLB</b>           | Marine Corps Logistics Base                                       |
| <b>NAS</b>            | Naval Air Station   |
| <b>NAVFAC</b>         | Naval Facilities Engineering Command                              |
| <b>NAVFAC-EXWC</b>    | Naval Facilities Engineering Command-Expeditionary Warfare Center |
| <b>PD<sup>2</sup></b> | Procurement Desktop-Defense system                                |
| <b>PI</b>             | Post-Installation   |
| <b>PWO</b>            | Public Works Office   |
| <b>QASP</b>           | Quality Assurance Surveillance Plan                               |

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