Department of Defense

Oversight of Third-Party Financed Energy Projects

Office of the Assistant Secretary of Defense for Sustainment (OASD(S))

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Acronyms

ASD(S)	Assistant Secretary of Defense for Sustainment
COR	Contracting Officer's Representative
DFARS	Defense Federal Acquisition Regulation Supplement
DLA	Defense Logistics Agency
DoD	Department of Defense
DoDI	Department of Defense Instruction
DoD IG	Department of Defense Inspector General
DOE	Department of Energy
DON	Department of Navy
ECM	Energy Conservation Measure
ESPC	Energy Savings Performance Contract
FAR	Federal Acquisition Regulation
FEMP	Federal Energy Management Program
GAO	Government Accountability Office
IDIQ	Indefinite Delivery Indefinite Quantity
KO	Contracting Officer
M&V	Measurement and Verification
OASD(S)	Office of the Assistant Secretary of Defense for Sustainment
OASD(EI&E)	Office of the Assistant Secretary of Defense for Energy, Installations, and Environment
ODASD(ENR)	Office of the Deputy Assistant Secretary of Defense for Energy
OMB	Office of Management and Budget
PDASD(EI&E)	Principal Deputy Assistant Secretary of Defense (Energy, Installations, and Environment)
PIR	Post-Installation Report
PPA	Power Purchase Agreement
QASP	Quality Assurance Surveillance Plan
TO	Task Order
UESC	Utility Energy Services Contract
UP	Utilities Privatization
USD(A&S)	Under Secretary of Defense for Acquisition and Sustainment

1. EXECUTIVE SUMMARY

Energy is a key enabler of military capability, and the Department of Defense (DoD) depends on energy-resilient installations and forces to achieve its mission and meet its energy priorities. While the Department faces challenges, particularly in a budget-constrained environment, it has been able to leverage third-party financing to mitigate risks from a full range of hazards and to ensure that its warfighters have access to reliable and resilient sources of energy. The Department supports the continued use of third-party financing to pursue energy projects that improve installation resilience, address mission assurance and readiness, and offer long-term cost savings.

In recent years, the Department has received recommendations from the Government Accountability Office (GAO) and the DoD Inspector General (DoD IG) for DoD to improve its Measurement and Verification (M&V) in its performance contracting portfolio. While recommendations have focused on Energy Savings Performance Contracts (ESPCs) and Utility Energy Services Contracts (UESCs), it is prudent to strengthen the oversight of all third-party financed energy projects to include those implemented using the following authorities:

- ESPCs; 42 U.S.C. § 8256
- UESCs; 10 U.S.C. § 2913
- Real Property Outgrants[1]; 10 U.S.C. § 2667
- Power Purchase Agreements (PPAs); 10 U.S.C. § 2922a
- Utilities Privatization (UP) Service Contracts; 10 U.S.C. § 2688

Establishing requirements for post-award oversight of these projects will ensure the Department is maximizing the value of its investments and is audit-ready. Notably, DoD Components must comply with existing requirements to maintain adequate documentation to demonstrate that contractors are meeting or exceeding the Government's requirements. The following requirements, when applicable, are critical to ensure contractors meet Government requirements and the Government is tracking contract performance:

- Quality Assurance Surveillance Plans (QASPs) (see Section 3.1)
- Performance-Monitoring Plans (see Section 3.2)
- Post-Installation Reports (PIRs) (see Section 3.3)
- Validate contract adjustments, including foreign exchange adjustments (see Section 3.4)
- Central Electronic Tracking System (see Section 3.5)

DoD Components must incorporate these requirements, when applicable, into all third-party financed projects implemented under these authorities, including projects under development and, to the extent possible, projects in operation. The appendices to this guidance contain templates to use and adapt to project specifics. Although not explicitly stated in each of the templates, oversight of energy resilience measures must be included commensurate with the project and investment. This is most important with ESPC, UESC, and UP projects because the Government's payment obligations under those types of agreements are dependent on accurate measurement of contractor

[1] Because all leases under 10 U.S.C. § 2667 constitute, by definition, so-called "enhanced use leases," that distinction is not made in this guidance.

performance of M&V. In the case of Real Property Outgrants, it is important to ensure the Government receives full payment, if payment is based on contractor output, as opposed to a set rental. In the case of PPAs, it relates more to ensuring continued contractor performance for purposes of evaluating termination with cause or without cause. The DoD Component must apply this guidance in line with the nature and purpose of the type of project. DoD Components must implement the Under Secretary of Defense for Acquisition and Sustainment (USD(A&S)) *Metrics and Standards for Energy Resilience at Enduring Installations* memorandum, signed February 25, 2020, for energy resilience metrics, standards, and policy for DoD Components.

2. BACKGROUND

The DoD continues to focus its energy priorities in support of the 2018 National Defense Strategy and in efforts to mitigate threats to our critical infrastructure. Use of third-party financing to close energy gaps and increase energy resilience across the Department has become increasingly important, particularly as budgets continue to be constrained. Because of this, it is critical that the Department demonstrate good stewardship in the execution of these contracts in order to ensure the relevant authorities continue to be available and in order to prevent inadequate oversight causing a drain on budgets.

2.1 GAO and DoD IG Recommendations

Because of an increased use of third-party financed contracts, the GAO and the DoD IG conducted several studies of DoD's use of ESPCs, UESCs, UP service contracts, and renewable energy contracts in recent years.[2] These studies identified M&V and related post-award contract oversight as significant areas in need of improvement. The recommendations to address these areas include the following:

- OSD must develop ESPC and UESC M&V and performance assurance guidance for the DoD Components, as the existing guidance in DoD Instruction (DoDI) 4170.11 is silent on the matter.

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[2] GAO-17-461 *Defense Infrastructure: Additional Data and Guidance Needed for Alternatively-Financed Energy Projects,* June 2017

DoD IG-2017-125 *Naval Facilities Engineering Command Southwest and Marine Corps Base Camp Pendleton Officials' Use of Utility Energy Services Contracts,* September 28, 2017

DoD IG Project No. D2017-D000CI-0037.000 *Naval Facilities Engineering Command Administration of Selected Energy Savings Performance Contracts DRAFT*, September 15, 2017

DoD IG-2017-044 *Naval Facilities Engineering Command Management of Energy Savings Performance Contracts Needs Improvement,* January 26, 2017

DoD IG-2016-087 *Air Force Civil Engineer Center Management of Energy Savings Performance Contracts Needs Improvement*, May 4, 2016

GAO 15-432 *Energy Savings Performance Contracts: Additional Actions Needed to Improve Federal Oversight,* June 2015

DoD IG-2015-138 *The Air Force Did Not Monitor the Energy Savings Performance Contract at Joint Base McGuire*, June 29, 2015

GAO-18-558 *Guidance Needed to Develop Metrics and Implement Cybersecurity Requirements for Utilities Privatization Contracts*, September 4, 2018

- DoD Components must prepare ESPC and UESC guidance for M&V and performance assurance, respectively, that is consistent with DoD guidance, Office of Management and Budget (OMB) guidance, the Federal Acquisition Regulation (FAR), and Defense Federal Acquisition Regulation Supplement (DFARS).
- Overall, the DoD Components must adhere to the tenets of DoDI 5010.40 "Managers' Internal Control Program Procedures" because the lack of internal controls was the fundamental impediment to good contract oversight in several of the DoD IG studies.
- All ESPCs and UESCs must have a QASP to ensure the proper identification of roles and responsibilities in the M&V process, and for other purposes (see Appendix C for the Department of Navy (DON) QASP example).
- DoD Components must ensure that a Contracting Officer's Representative (COR) is appointed and updated promptly for all ESPCs and UESCs, so that they can review the M&V plan or performance assurance plan, Post-Installation Report (PIR), and annual reports in a timely manner.
- DoD Components must communicate oversight requirements, particularly M&V/ performance assurance, to Contracting Officers/Contracting Officers' Representatives (KOs/CORs) (see Appendix C for the DON QASP example).
- DoD Components must ensure KOs and CORs have access to training on ESPC and UESC oversight and the necessary technical expertise needed for contract oversight.
- DoD Components and Defense Logistics Agency (DLA) Energy must develop and implement performance metrics and measurable performance standards to track UP contract performance for current and future UP contracts.

2.2 Stewardship of All Third-Party Investments

While the GAO's and DoD IG's findings focused on improvements for ESPCs, UESCs, and UP contracts, DoD intends to incorporate improvements into all third-party financed contracts to provide prudent oversight and guidance across all investments.

2.3 Existing Guidance

It is critical that all KOs, CORs, and technical and legal teams who execute third-party financed projects on behalf of the Department are aware of the requirements associated with each contracting authority, and ensure that processes are in place to transfer knowledge to new staff and to maintain awareness of changes to statutes, regulations, policies, or guidance affecting these contracts. Following are some of the resources available for developing and executing these contracts.

1. **ESPC and UESC M&V technical guidance** is available from the Department of Energy (DOE) Federal Energy Management Program's (FEMP) *M&V Guidelines: Measurement and Verification for Performance-Based Contracts Version 4.0* (hereinafter "M&V Guidelines"), published November 2015. Both the DOE and the U.S. Army Corps of Engineers use this document as the basis for M&V plans under their Indefinite Delivery Indefinite Quantity (IDIQ) ESPCs.

2. **ESPC and UESC budget scoring** is offered by the OMB Memorandum M-12-21 Addendum to OMB Memorandum M-98-13 on *Federal Use of Energy Savings Performance Contracts (ESPCs)* and *Utility Energy Service Contracts (UESCs)*. High-level guidance is also provided in DoDI 4170.11, *Installation Energy Management*, dated March 15, 2016, and in the ASD(S) memorandum *Policy on Energy Savings Performance Contracts and Utility Energy Service Contracts*, issued November 20, 2018.
3. **Long-term power purchase agreements** under 10 U.S.C. § 2922a and real property outgrants under 10 U.S.C. §§ 2667 and 2668 are described by *Guidance on Development of Energy Projects*, signed by the Principal Deputy Assistant Secretary of Defense (PDASD(EI&E)) on November 3, 2016. The document describes appropriate use of authorities for the development of energy projects for DoD use.
4. **Utilities Privatization guidance**, *Supplemental Guidance for the Utilities Privatization Program*, was issued by the USD(A&S) on February 7, 2019. This guidance provides detailed requirements for pre- and post-conveyance of utility systems, including cybersecurity and performance metrics and measurements.

3. NEW GUIDANCE FOR DOD THIRD-PARTY FINANCED PROJECT OVERSIGHT

Table 1 shows requirements for each contracting authority and should be applied to the guidance in this section:

Table 1: DoD Third-Party Financed Project Oversight Requirements

	Contract Requirements			Contract Management Requirement	
Contract Type	**Performance-Monitoring Plan & Reports**	**PI Report**	**Validate Annual Adjustments & Reconciliations**	**QASP**	**Central Tracking System**
ESPC	✓	✓	✓	✓	✓
UESC	✓	✓	✓	✓	✓
Real Property Outgrant	✓	✓	✓		✓
PPA	✓	✓	✓	✓	✓
UP Service Contract	✓	✓	✓	✓	✓

Government personnel must exercise expertise and commitment to both pre-award activities and post-award contract management and oversight to ensure successful contract performance. Underperforming energy conservation measures (ECMs) or energy production facilities are wasted taxpayer dollars. As the Department invests more in energy resilience, underperforming contracts may result in failure to support mission assurance and drive operating costs up, rather than down.

3.1 Quality Assurance Surveillance Plan

As listed in Table 1, ESPCs, UESCs, PPAs, and UP service contracts require a QASP. Contracting offices are required to ensure that DoD Components develop a QASP with the statement of work. The QASP must be maintained and kept with other contract files, and be available upon request. The level of

detail in the QASP will depend on the complexity and need for measurement in the business relationship between the Government and the contractor. For instance, an ESPC and UP service contract will generally require a greater level of detail and oversight than will a UESC or PPA because an ESPC and UP service contract will normally require extensive reconstruction of systems. The assurance that such reconstruction takes place and the Government is receiving the full benefit from such new systems is vital to contract integrity.

DoD Components are required to "apply Government quality assurance to all contracts for services and products designed, developed, purchased, produced, stored, distributed, operated, maintained, or disposed of by contractors."[3] DoD Components are responsible for developing a QASP for each contract prior to approval or award of the contract to ensure effective contract oversight.

As stated in FAR 46.401(a), "Government contract quality assurance shall be performed at such times (including any stage of manufacture or performance of services) and places (including subcontractors' plants) as may be necessary to determine that the supplies or services conform to contract requirements. Quality assurance surveillance plans should be prepared in conjunction with the preparation of the statement of work. The plans should specify --

> "(1) All work requiring surveillance; and
>
> "(2) The method of surveillance."

To ensure contract performance, the QASP must:

- Establish the administrative framework under which the Government executes contract oversight;
- Assign key Government personnel with appropriate clearances to contracting roles and responsibilities;
- Establish project review mechanisms and schedules, including execution plans for all types of performance reporting (e.g., M&V, performance assurance plans, and annual reports);
- Define acceptable and unacceptable performance;
- Develop procedures for corrective action; and
- Develop procedures to ensure continuing contract performance during internal Government changes to personnel or facilities.

The DoD Component is responsible for updating the QASP as contract conditions change, whether prior to award or during the contract performance period. The KO/COR is responsible for ensuring the QASP is up to date and requirements are communicated to the contractor, as needed.

The appendices provide QASP resources, including the DON ESPC QASP template and the DLA Energy UP QASP template, to assist DoD Components in developing their QASP for each contract.[4]

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[3] See DFARS Part 246.102; exceptions may exist below simplified acquisition thresholds.

[4] These templates should be adapted to the specific circumstances of the installation and contract requirements.

3.2 Performance-Monitoring Plans and Performance Reports

As listed in Table 1, ESPCs, UESCs, Real Property Outgrants, PPAs, and UP service contracts all require contracting offices to require contractors to develop performance-monitoring plans and performance reports to establish the framework for reporting on any guaranteed energy savings or other performance metrics delivered by the project. The project performance period must be contingent on Government approval of the performance-monitoring plan. Future payments *may be* contingent on meeting project objectives. Performance-monitoring plans and reports must be maintained in the project folder and available upon request. Because the level of detail required for accurate evaluation of an ESPC, UESC, and UP service contract is greater because of the typical requirement for upgraded systems, such types of projects will likely have even more robust performance-monitoring plans and reports than for a typical Real Property Outgrant or a PPA.

Government contracts must require a performance-monitoring plan, including regular performance reports, to enable evaluation of the contractor's performance against contract requirements, at the frequency agreed upon in the contract. The plan must require performance reports delivered by the contractor to the KO/COR. This requirement is the KO/COR's responsibility to enforce, and the performance-monitoring plan must be approved by the KO/COR prior to the performance period. For all contracts, it is recommended that the effort and rigor applied through the performance-monitoring plan and performance reports be commensurate with the project's capital investment and performance risk. Table 2 shows which documents satisfy this requirement for each contract type.

Table 2: Document Crosswalk for Performance Monitoring and Reporting Plans

Contract Type	Contracting Documents for Performance-Monitoring Plan	Contracting Documents for Quality Control Reporting
ESPC	M&V Plan	Annual M&V Report
UESC	Performance Assurance Plan	Annual Performance Assurance Report
Real Property Outgrant	*See note below	*See note below
PPA	*See note below	*See note below
UP Service Contract	QASP	*See note below

*No technical document is formally designated; it is the responsibility of the DoD Component to develop this document and of the contracting office to ensure it is enforceable.

To measure energy savings performance, performance-monitoring plans must adequately address the impact of other variables on performance, including other building upgrades, removal or damage of equipment, or alterations to temperature set points, building occupancy, and other factors. To measure resilience, performance-monitoring plans must be designed to evaluate the resilience attributes of the project. Evaluations of resilience may include equipment-testing, analysis of performance during actual energy supply reductions or interruptions, or using other key performance indicators. For more information, DoD Components should review the following: *Metrics and Standards for Energy Resilience at Enduring Installations Memorandum*, issued by the USD(A&S) on February 25, 2020; *Operations, Maintenance, & Testing (OM&T) Strategy and Implementation Guidance*, issued by ODASD(Energy) on March 17, 2017; and DoDI 4170.11, *Installation Energy Management*, of March 15, 2016, which includes policy on energy resilience.

FEMP's *M&V Guidelines* provides technical guidance on quantifying the savings resulting from ESPCs. Energy managers and procurement officers should use this document to develop contractual requirements for monitoring ESPCs and UESCs.[5]

For example, the performance assurance plans for UESCs, at a minimum, must require functional testing for each installed ECM upon completion of the construction period, a commissioning plan for all new equipment installed by the utility, and a recommissioning plan for continued performance assurance through the life of the contract. The recommissioning plan shall also include a training plan in cases where installation personnel will be maintaining the equipment. Each ECM must be tied to key performance indicators and a method for annual verification to be assessed for the annual report.

Reference (v) requires that DoD Components develop correlated, outcome-oriented performance metrics and measures to implement and manage their utility service contracts in order to meet economic, utility reliability, energy resilience, and cybersecurity requirements. Section 4 *Performance Metrics, Measures, and Requirements* of Reference (v) also provides minimum metrics, measures, and requirements and requires that DoD Components document the method and frequency by which metrics and measures will be gathered, monitored, analyzed, and reported. At a minimum, DoD Components must establish baseline metrics at the inception of privatization actions in order to produce a quantitative framework for comprehensive continuous improvement, monitoring, and reporting of UP service contracts and their provision of upgraded systems.

DoD Components shall adopt oversight practices for performance monitoring of energy production facilities, other energy infrastructure, ECMs, and resilience projects.

The KO/COR must distribute performance-monitoring plans to the project teams and new team members, including on-site personnel. Review of the performance-monitoring plan is required prior to operation, and is highly encouraged on an annual basis in order to ensure that performance reports are capturing the Government's objectives.

3.3 Post-Installation Reports

All contracts in Table 1 require contracting offices to include a Post-Installation Report (PIR) as a contract requirement, which must be approved by the KO/COR prior to the project performance period. The PIR must be maintained in the project folder and available upon request.

This guidance directs all projects to include PIRs as part of standard operations. With the exception of UP service contracts, the contractor will be required to submit the PIR to the KO/COR prior to the project performance period. Multi-phase installations require PIRs at each phase of the project.

[5] UESCs do not guarantee cost savings, but M&V activities should be leveraged to verify contractors are performing in accordance with the contract requirements.

Table 3: Document Crosswalk for Post Installation Reporting Requirement

Contract Type	Contracting Documents for Post-Installation
ESPCs	Post-Installation Report
UESCs	Post-Installation Report
Real Property Outgrants	*See note below
PPA	*See note below
UP Service Contract	Post-Conveyance Review

**No technical document is formally designated; it is the responsibility of the DoD Component to develop this document and of the contracting office to ensure it is enforceable.*

Upon completion of construction, the PIR documents any changes to schedule or updates to the execution of the proposed project. This report also serves as an opportunity to update the performance-monitoring plan. In the case of ESPCs and UESCs, the PIR should describe the status of all ECMs or energy production facilities compared to their description in the Task Order (TO) specifications. The PIR should also document whether any energy savings were achieved during the construction period. Finally, the PIR must describe implementation of any required cybersecurity plans.

With the exception of UP service contracts, the KO/COR shall review each PIR for completeness and accuracy, and ensure that any outstanding issues are addressed before acceptance and commencement of the performance period. Payments may be contingent upon the KO's approval of the PIR. In the case of UP service contracts, the KO/COR shall review each Post-Conveyance Review, the number of which may span the entire period of the contract, to ensure that the contractor is providing the upgraded systems that the Government contracted to have provided and which the Government is paying for in its rates.

3.4 Validate Contract Adjustments

For all contract types listed in Table 1, contracting offices must validate all contract adjustments, to include foreign currency adjustments. All contracts executed with contract price adjustments, to include foreign currency adjustments, must include a detailed process to receive, reconcile, and validate a contractor's request for adjustment in compliance with the contract requirements. The KO is responsible for approving this process, validating adjustments, and monitoring its compliance to ensure the Government is tracking the value and liability of its contract actions.

3.5 Central Electronic Tracking System

DoD Components shall maintain record-keeping systems to track and monitor project status and performance of all energy projects within all the contract types listed in Table 1. DoD Components must maintain a method to track and report on all energy projects. Where feasible and beneficial, OSD will support this function with Department-wide reporting templates and by maintaining records.[6] DoD Components must follow the OSD reporting requirements for each contracting authority. Additionally, all DoD Components are independently responsible for their own project

[6] ODASD(ENR) manages databases to track ESPC, UESC, PPA (10 U.S.C. § 2922a) and UP projects, and is developing a monitoring system for EULs.

tracking, performance monitoring, and contract fulfillment. DoD Components must maintain all contract documents, including QASPs, performance-monitoring documents, and PIRs.

OASD(EI&E) provided guidance for ESPC and UESC tracking in a memorandum, *Energy Savings Performance Contract (ESPC) and Utility Energy Services Contract (UESC) Tracking Guidance*, issued July 3, 2018. Each DoD Component is required on a quarterly basis to enter performance-based facility energy efficiency contracting information into a spreadsheet, and submit corresponding TO Schedules 1-5 or their equivalent for each new project award/modification. For UESCs, DoD Components must submit documentation of the performance requirements and performance-monitoring plan. DoD Components must also submit payment and cancellation schedules. In addition, for each project awarded, the Department requires the DoD Components to collect and submit annual M&V reports for each project, once these reports have been reviewed and accepted by the KO/COR.

APPENDICES

Appendix A: References
Appendix B: QASP Template
Appendix C: ESPC QASP Template Example (DON)
Appendix D: UP QASP Template
Appendix E: Post-Installation Report Outline