



DEPARTMENT OF THE AIR FORCE
HEADQUARTERS AIR FORCE CIVIL ENGINEER SUPPORT AGENCY

3 April 2012

FROM: HQ AFCESA/CEO
139 Barnes Drive Suite 1
Tyndall AFB FL 32403-5319

SUBJECT: **Engineering Technical Letter (ETL) 12-10: Utility Energy Service Contracts (UESC)**

1. Purpose. This ETL presents guidelines for implementing a Utility Energy Service contract (UESC). The main body of this ETL is divided into two parts: legislative overview and required business practices. The attachments are tools that have been developed to assist in applying the required business practices.

2. Application. Requirements in this ETL are mandatory. Any deviations require written approval from the Energy Savings Performance Contract/UESC Program Manager, HQ AFCESA/CENI. This ETL applies to all UESC work, including, but not limited, to General Services Administration (GSA), Model Agreements, and individual base contracts.

2.1. Authority: Air Force Policy Directive (AFPD) 32-10, *Installations and Facilities*; Title 42, United States Code (U.S.C.), Section 8256, *National Energy Conservation Policy Act*; 10 U.S.C. 2911-13, *Energy Performance Goals and Plan for Department of Defense*; 10 U.S.C. 2866, *Water Conservation at Military Installations*; Public Law (P.L.) 109-58, *Energy Policy Act of 2005*, August 8, 2005; 42 U.S.C. 8253, *Energy Policy Act of 1992*; and Air Force Engineer Procedural Program Memorandum (AFEPMP) 04-1.

2.2. Effective Date: Immediately.

2.3. Intended Users: Major command (MAJCOM) civil engineers (CE), base civil engineers (BCE), base energy managers (EM), base financial managers (FM), and base contracting officers (CO).

2.4. Coordination: MAJCOM CE EMs.

3. Referenced Publications:

Note: For more information on UESCs, visit the Air Force Civil Engineer Support Agency (AFCESA) Web site:

<https://afkm.wpafb.af.mil/community/views/home.aspx?Filter=OO-EN-CE-A4>

APPROVED FOR PUBLIC RELEASE: DISTRIBUTION UNLIMITED

- 3.1. Air Force:**
- HQ USAF/A7C *Policy on Energy Savings Performance and Utility Energy Service Contracts (ESPC/UESC)*, available as Attachment 1
 - AFPD 32-10, *Installations and Facilities*, available at: <http://www.af.mil/shared/media/epubs/AFPD32-10.pdf>.
 - Air Force Federal Acquisition Regulation Supplement (AFFARS) 5341.201, *Acquiring Utility Services - Policy*, available at: <http://farsite.hill.af.mil/vfaffara.HTM>.
- 3.2. Department of Defense (DoD):**
- Defense Federal Acquisition Regulation Supplement (DFARS) 241.201, *Acquiring Utility Services - Policy*, available at: <http://farsite.hill.af.mil/vdfara.htm>.
- 3.3. Executive Orders (E.O.):**
- E.O. 13423, *Strengthening Federal Environmental, Energy, and Transportation Management, January 24, 2007*, available at: <http://www1.eere.energy.gov/femp/regulations/eo13423.html>.
 - E.O. 13514, *Federal Leadership in Environmental, Energy, and Economic Performance, October 05, 2009*, available at: <http://www1.eere.energy.gov/femp/regulations/eo13514.html>.
- 3.4. Public Law:**
- P.L. 109-58, *Energy Policy Act of 2005*, August 8, 2005, available at: <http://www.fedcenter.gov/programs/energy/>.
 - P.L. 110-140, *Energy Independence and Security Act of 2007*, December 19, 2007, available at: <http://www.fedcenter.gov/programs/energy/>.
- 3.5. United States Code (U.S.C.)**
(available at <http://www.gpoaccess.gov/uscode/index.html>):
- 10 U.S.C. 2866, *Water Conservation at Military Installations*
 - 10 U.S.C. 2911, *Performance Goals and Plans for Department of Defense*
 - 10 U.S.C. 2912, *Availability and Use of Energy Cost Savings*
 - 10 U.S.C. 2913, *Energy Savings Contracts and Activities*
 - 31 U.S.C. 1301, *Purpose Act*
 - 42 U.S.C. 8253, *Energy Policy Act of 1992*
 - 42 U.S.C. 8287, *National Energy Conservation Policy Act (NECPA)*
- 3.6. Code of Federal Regulations (CFR):**
- Title 10, CFR, Part 436, *Federal Energy Management and Planning Programs*, available at: <http://www.gpoaccess.gov/cfr/index.html>.
- 3.7. Federal Acquisition Regulation (FAR) (available at <http://farsite.hill.af.mil/>):**
- FAR 31.205-7, *Contingencies*
 - FAR 41, *Acquisition of Utility Services*

3.8. National Institute of Standards and Technology (NIST):

- NIST Handbook 135, *Life-Cycle Costing Manual for the Federal Energy Management Program*, available at: <http://fire.nist.gov/fire/firedocs/build96/art121.html>.
- National Institute of Standards and Technology Interagency Report (NISTIR) 85-3273-17, *Energy Price Indices and Discount Factors for Life-Cycle Cost Analysis* (current version) - annual supplement to NIST Handbook 135, available at: <http://www.nist.gov/>.

3.9. Federal Energy Management Program (FEMP) Utility Energy Service Contracts training is available at:

<http://apps1.eere.energy.gov/femp/training/>.

4. Acronyms

AFCESA	– Air Force Civil Engineer Support Agency
AFEPMP	– Air Force Energy Program Procedural Memorandum
AFFARS	– Air Force Federal Acquisition Regulation Supplement
AFFD	– Air Force Policy Directive
AMR	– Automated Meter Reading
AWC	– area wide contract
BCE	– Base Civil Engineer
BOA	– Basic Ordering Agreement
CE	– Civil Engineer
CFR	– Code of Federal Regulations
CO	– contracting officer
COR	– Contracting Officer Representative
DD	– Department of Defense (as used on forms)
DFARS	– Defense Federal Acquisition Regulation Supplement
DOE	– Department of Energy
ECIP	– Energy Conservation Investment Program
ECM	– energy conservation measure
ECP	– energy conservation project
E/D	– engineering/design
EISA	– Energy Independence and Security Act
EM	– Energy Manager
EO	– Executive Order
EPAct	– Energy Policy Act
ESCO	– Energy Services Company
ESPC	– Energy Savings Performance Contract
FAR	– Federal Acquisition Regulation
FEMP	– Federal Energy Management Program
FM	– Financial Manager
FS	– feasibility study
GSA	– General Services Administration

HQ AFCESA/CENI	– Headquarters Air Force Civil Engineer Support Agency Capital Investment Branch
HQ USAF/A7C	– Headquarters United States Air Force, The Office of the Civil Engineer
IDIQ	– Indefinite Delivery/Indefinite Quantity
IPMVP	– international performance measurement and verification protocol
J&A	– justification and approval
M&V	– measurement and verification
MAJCOM	– major command
MFH	– military family housing
MILCON	– military construction
NAF	– non-appropriated funds
NECPA	– National Energy Conservation Policy Act
NIST	– National Institute of Standards and Technology
NISTIR	– National Institute of Standards and Technology Interagency Report
O&M	– operations and maintenance
PA	– preliminary audit
PL	– Public Law
PMO	– Program Management Office
POC	– point of contact
POM	– Program Objective Memorandum
S/R&M	– Sustainment, Restoration, and Modernization
TO	– task order
UESC	– Utility Energy Service Contracts
U.S.C.	– United States Code

5. Background. Several Executive Orders (E.O.), the Energy Policy Act (EPAAct) of 2005 and the Energy Independence and Security Act (EISA) of 2007 tasked the Air Force to reduce energy consumption:

- EPAAct 05 (P.L. 109-58 and 42 U.S.C. 8253) and E.O.13423, *Strengthening Federal Environmental, Energy, and Transportation, Management* mandates all federal agencies reduce their energy consumption three (3) percent per fiscal year through 2015 using fiscal year 2003 as a baseline.
- E.O. 13514, *Federal Leadership in Environmental, Energy, and Economic Performance*, expanded upon the energy reduction and environmental performance requirements of E.O. 13423.
- Title 10 of the Code of Federal Regulations, Part 436 (10 CFR 436.18 and 10 CFR 436.19), provides detailed instructions for calculating life-cycle costs. EISA 2007 made several changes to the authorizations for federal ESPCs.

To the maximum extent practicable, energy and water conservation measures should have payback periods of less than 10 years. However, this does not preclude implementation of projects with longer payback periods.

5.1. UESC Use. The Air Force can use UESCs for all buildings, excluding leased buildings (unless leased from another Federal agency), where the Air Force pays the utility bill. UESCs are typically considered for increasing energy efficiency through improvements to installation infrastructure, buildings, and building systems. Under a UESC, a serving or franchised utility company identifies building/equipment energy savings potential that demonstrates an economic return on the investment, then designs, installs, operates, and where appropriate, maintains the equipment. The capital costs can be paid with appropriated funds or financed by the utility company. If financed, the utility company is paid by using cost savings from the utility service account until the task order (TO) is paid off. This ETL takes lessons learned from past projects and provides guidance in implementing a UESC. Using this ETL, a UESC can be implemented with assurance that the energy savings can be realistically measured and validated for the term of the UESC and meet the legal intent of the UESC. If a UESC is used effectively, an installation can reduce energy consumption and improve facility infrastructure.

5.2. Attachments.

5.2.1. Attachment 1, HQ USAF/A7C Policy Memorandum, dated 4 October 2010, requires bases to submit all proposed UESC projects to HQ AFCEA (through MAJCOMs) for initial vetting prior to engagement with a utility and approval for each stage of the project development and evaluation process.

5.2.2. Attachment 2, "UESC Considerations for the Base Energy Manager," lists items the base energy manager must consider when implementing a UESC. The attachment provides suggestions for potential problems that, if not addressed early in the process, could impact the base's success with the proposed TO. The list is not all-inclusive; add local base issues as needed.

5.2.3. Attachment 3, "Example Coordination Checklist," can be used by bases to help ensure all appropriate stakeholders reviewed and coordinated on each phase of TO development prior to award. This sheet is an example of recommended coordinating agencies and should be modified to meet base/MAJCOM requirements. The base energy manager should be assigned as the point of contact (POC). Use this coordination sheet concurrently with all phased reviews. The base CO signs the coordination sheet last, indicating that all appropriate stakeholders have coordinated on the TO.

5.2.4. Attachment 4, "UESC Contract Risk/Responsibility Matrix," is a risk responsibility assignment summary of key contract elements that identifies who takes responsibility for the risks and provides a decision-making process structure. It is divided into three risk categories: Financial, Operational, and Performance.

5.2.5. Attachment 5, "Model Agreement," is a uniform, approved set of standard contract terms and conditions, which includes approximately 80 percent of the

necessary terms and conditions for a utility energy services contract. The Model Agreement may be used as a stand-alone agreement or as a master agreement underneath an umbrella contract such as the GSA Area-wide Contract (AWC).

5.2.6. Attachment 6, ~~“Master Agreement Exhibit G”~~ “Authorization for Energy Management Services,” details the utility service or project to be provided under the area-wide contract. The area wide contract encompasses the general terms and conditions of the agreement, while the authorization details the specific services to be provided to the Ordering Agency.

5.2.7. Attachment 7, ~~“Justification and Approval (J&A) for Other than Full and Open Competition.”~~

5.2.8. Attachment 8, ~~“Guide to Government Witnessing and Review of Post-Installation and Annual M&V Activities,”~~ provides references to detailed guidance on witnessing baseline, post-installation, first-year, and annual measurement and verification (M&V) inspections and analyses, as well as commissioning of installed utility company equipment.

5.2.9. Attachment 9, “Distribution List.”

6. UESC Legislative Overview

6.1. General Information

6.1.1. Unlike typical acquisition practices, specific legislative authority (10 U.S.C. 2913) allows the Air Force to enter into sole source contracts with a serving or franchised utility company to take on debt to acquire energy-conserving infrastructure improvements under the condition that the overall utility costs to the installation do not increase as a result of the contract. The savings generated must be a result of the utility company efforts and investment. The use of a UESC requires a detailed understanding of its basic principles, how costs are assessed, and how risks are managed. The Secretary of Defense delegated the authority to directly negotiate contracts with utility companies that were competitively selected without additional competition or coordination under provisions of Title 10, U.S.C. 2913. In addition, full and open competition is not required when a statute expressly authorizes or requires that the acquisition be made through another agency or from a specified source, per FAR, 6.302-5(a) (2).

6.1.2. UESC projects, whether funded or financed must produce financial savings that are equal to or greater than the cost of implementing, including the cost of financing. All UESC costs, including mid-contract replacement of capital equipment, must be funded out of the UESC savings they generate, unless funded using appropriated funding. An installation's post-UESC utility costs (i.e., energy and operations and maintenance [O&M]) plus the cost of the UESC project cannot exceed the utilities costs prior to the implementation of the UESC

project. Thus, the costs cannot exceed the savings (i.e., energy and O&M) generated by the projects. The payment to the utility, if financed, is paid from the costs-savings resulting from the energy efficient improvements.

6.1.2.1. Energy cost savings are generally recurring savings – savings that occur year after year.

6.1.2.2. Energy-related cost savings are: (a) generally recurring reductions in expenses (other than energy costs) related to energy-consuming equipment, generally affecting operations, maintenance, renewal or repair expenses of equipment; and costs associated with waste disposal, such as waste disposal fees; (b) one-time energy-related cost savings resulting from avoided expenditures of operations and maintenance, repair and replacement, or capital expenditures funds for projects that, because of the utility energy service contract, are not necessary; (c) demand related savings, such as peak shaving; d) one-time utility rebates.

6.1.3. The utility contractor, and/or its subcontractors, is responsible for the design, acquisition, installation, M&V (if required by base), and maintenance of the energy conservation project's (ECP) equipment or systems that produce the savings.

6.1.4. Certain risks are always associated with implementing a UESC for both the utility and the Air Force. The Air Force assumes the risk of any stipulations, including utility rates, hours of operation, and mission changes, during the life of the TO. These risks require a thorough understanding and evaluation to minimize unnecessary risks. The utility assumes the risk for the performance of the implemented energy conservation measures (ECM) through its maintenance responsibility and performance of guaranteed savings (negotiable) for the entire term of the contract. Again, careful consideration is essential to ensure that the Air Force is not assuming any of the utility contractor's risk.

6.2. Guaranteed Savings.

6.2.1. Although there is no statutory requirement for a contractual guarantee of savings, guaranteed savings can be negotiated into a TO if your local utility provider offers it. If negotiated into the TO, the utility contractor shall provide a guarantee of savings to the Air Force and establish payment schedules reflecting such guarantee, taking into account any capital costs under the contract.

6.2.2. Annual guaranteed savings fall in two categories: energy and O&M savings. The utility contractor must provide these figures for each year of the TO. The actual payment to the utility is based on an agreed-to percentage of the calculated savings. These awarded TOs, like utility bills, are "must-pay" requirements and must be programmed into the annual utility budget process. See 42 U.S.C. 8287, Section 801(a)(2)(A).

6.2.3. Guaranteed savings should be proportional to the ECM's savings and performance risks. Guarantees for proven technologies such as lighting or boiler retrofits are not required. ECMs where savings can only be measured indirectly should be evaluated for guaranteed savings.

6.3. Energy Costs

6.3.1. Annual payments by the Air Force under a UESC cannot exceed the value of energy and O&M savings relative to costs prior to the UESC. See 42 U.S.C. 8287; Section 801(a) (2) (B).

6.3.2. Forecasted energy costs and the discount rate (present value of future cash flows) are major factors in determining UESC savings. 10 CFR 436, *Federal Energy Management and Planning Programs*, provides detailed instructions for UESCs, including the calculation of life cycle costs. For example, 10 CFR 436.14 mandates use of the annual supplement to *Life Cycle Costing Manual for the Federal Energy Management Program* (NIST 85-3273) to determine the discount rate and forecasted energy costs. To clarify, this requires using the NIST-published "implied long-term average rate of inflation" together with the appropriate regional fuel price indices. Furthermore, all Air Force installations shall be considered industrial for the purposes of calculating the NIST utility escalation rate. The provisions in 10 CFR 436.14 are mandatory and failure to comply will result in the contract being found legally insufficient.

6.4. Maintenance Responsibilities.

6.4.1. Maintenance and repair is critical to sustain an ECM's performance throughout the life of the TO. The base shall ensure that provisions are made for the labor, supplies, parts, and materials to maintain the ECP for the term of the TO. These items should be identified in the total ECM cost if they are higher than current costs.

6.4.2. The utility contractor is responsible for TO-required maintenance/repair unless AFCESA/CENI approves the installation assuming the responsibility. If the government agrees to perform maintenance for the utility contractor, the government may require the utility contractor to provide all parts and materials needed to accomplish this service. All parts and material needed to maintain and repair an ECM must be paid from either captured O&M or energy savings. Without capturing these savings, the government cannot assure that the funds will be available to cover future O&M costs necessary for maintaining equipment performance.

6.5. Capturing UESC Savings. Title 10 USC § 2913 (d) (3) specifies that repayment of financed costs shall be made from funds available to a military department for the purchase of utility services. **Use caution if applying anticipated cost avoidance**

to the UESC due to major repair/replacement that may not be needed because of the UESC. There may not be historical data to back up expenditures but these may still be justified as a future expense; for example, as an engineering analysis or as life cycle predictions. **If these major expenditures are included as captured savings, the installation must be aware that they will become a must-pay bill from operations and maintenance (O&M) funds. Before these funds are included in a UESC, the base and MAJCOM must agree to the funding source and create a record of decision to justify the action and agreement.**

6.5.1. Savings must be real and verifiable, so the base doesn't run the risk of a savings shortfall.

6.5.2. Work that encompasses O&M type savings or other savings that does not eliminate actual costs or produce actual savings versus avoided costs should not be included. Civilian personnel costs are not allowed unless positions are deleted from manpower documents.

6.6. Annual Reconciliation. (**Note:** This paragraph applies only if measurement and verification is negotiated with the utility contractor.)

6.6.1. Each year, a verification of energy savings reconciliation must be accomplished for each awarded TO. This requirement includes an approved M&V plan using at least the current International Performance Measurement and Verification Protocol (IPMVP) at the time the TO was awarded (paragraph 10.4). During the annual reconciliation, the utility contractor should confirm the adequacy of maintenance. See paragraph (a)(2)(A) of 42 U.S.C. 8287.

6.6.2. The government (typically the base energy manager) will validate the utility contractor's annual reconciliation is accomplished in accordance with the M&V plan.

6.7. Replacement Cost. Energy savings can only be captured if the equipment is installed by the utility contractor and the utility contractor remains responsible for its performance.

6.8. Buy-Down.

6.8.1. UESC costs may also be funded with installation funds used to buy down part of the existing TO; for example, end-of-year fallout funds. These one-time funds can be identified in the payment schedule to the utility company upon acceptance of the ECM and commencement of the performance period, which allows for a lower financed amount and shorter term, thereby reducing interest costs over the term.

6.8.2. Buy-down schedules are recommended for projects with payment periods greater than 5 years.

6.8.3. If, after award, O&M funds are used to buy down a portion of the TO, several steps are necessary: use of these funds must be identified as soon as possible to the utility company; economics must be considered; and any prepayment penalties must be identified by the utility company.

6.9. Title to ECM. In accordance with Title 10 USC § 2913 (d)(4), title to an ECM completed with a UESC agreement must be vested with the government at some time during the term of the TO or at the termination of the TO, as determined to be in the best interest of the government.

7. Funding Requirements

7.1. Facilities encumbered with a UESC may require a buyout of such encumbrances before non-UESC work is performed. When government actions on a facility (e.g., demolition, upgrades, construction, or privatization) will impact the utility company's materials/equipment installed under a UESC, or will otherwise alter the conditions of the contract, making the affected portion of the contract no longer valid, programming for the encumbered facility should consider funds to buy out the applicable portions of the contract. If possible, buyout funds should be programmed with the same fund source as the project itself; however, this may not be possible with all project categories. Any demolition, upgrades, construction, or privatization shall be identified to the CO for evaluating and determining appropriate contract action.

7.2. Military construction (MILCON) funds **cannot** be applied to a UESC, nor can MILCON projects be accomplished via a UESC. Use of MILCON funds for a purpose outside their appropriated use would result in a violation of the Purpose Act (31 U.S.C. 1301).

7.3. Non-appropriated fund (NAF) functions may be authorized to use appropriated O&M funds. NAF Category C ECPs must use savings only from other NAF ECPs to avoid subsidizing or being subsidized by other than NAF-funded sources. All actions affecting funding must be coordinated with the NAF funds manager.

7.4. Military family housing (MFH) funds are appropriated separately and used specifically for MFH purposes. MFH ECPs must use savings only from other MFH ECPs to avoid subsidizing or being subsidized by other than MFH-funded sources. Use of MFH funds for a purpose outside their appropriated use would result in a violation of the Purpose Act (31 U.S.C. 1301).

7.5. Reimbursable customers require separate accounting procedures to ensure that adequate payments are being applied to their accounts.

8. How to Access UESCs

8.1. The Air Force can access UESCs through several types of contracts. Three widely used types of contracting vehicles include area-wide contracts (AWCs), basic ordering agreements (BOAs), and model agreements (also known as separate contracts). These contracts have two major components that significantly streamline the contracting process – model terms and conditions that task orders (also referred to as delivery orders) can be executed under. *If an AWC exists with a utility, you need an extraordinary reason to use some other procurement mechanism.*

8.1.1. GSA Area-Wide Utility Contracts (AWC) - Indefinite-Delivery, Indefinite-Quantity (IDIQ) Contracts Awarded to a Utility for Public Utility Services. The basic scope of utility services includes electricity, natural or manufactured gas, water, sewage, thermal energy, chilled water, steam, hot water, and high-temperature hot water. AWCs outline general terms and conditions and authorize any agency in a utility’s franchised service territory to place task orders for utility services and utility energy services offered under the contract. The General Services Administration (GSA) has numerous active utility AWCs to procure energy, water, and renewable energy systems projects (**Note:** Financing is an option) for Federal facilities. Bases develop a UESC Master Agreement (Exhibit C) (see Attachment 6), which is provided as an attachment to the existing GSA area-wide utility contract. If more than one utility company can offer energy management services, you must provide a fair opportunity and select the one that provides the best value. If only one utility is available, the contracting officer must prepare a justification and approval (J&A), prior to negotiations leading to an award without full and open competition (FAR 6.302.5). A sample is provided as Attachment 7.

8.1.1.1. Prior to engaging with a utility, the base CO and BCE and/or EM shall prepare a summary of the type of energy conservation measures (ECM) being considered (including relevant baseline information and initial estimates of potential savings) and submit to AFCESA/CENI through their MAJCOM for initial vetting of potential energy projects. AFCESA will work with the base CO, BCE, and MAJCOM to determine if the UESC is the appropriate execution approach.

8.1.1.2. The base CO and EM must obtain a copy of the AWC and ensure it allows for energy and demand-side management services. Next, they must assemble a team (the “Energy Team”) and coordinate a date and time for an on-site meeting or telecon with the Team, the MAJCOM, and AFCESA/CENI, to explore potential opportunities, and develop the UESC criteria. Attachment 2, “UESC Considerations for the Base Energy Manager,” will help the installation implement a UESC. These suggestions will help in translating the requirements and applying lessons learned toward achieving a successful UESC project.

8.1.1.3. Preliminary Audit (PA): The base CO develops a Master Agreement (Exhibit —C), checks the appropriate box and provides details of specific base requirements. Exhibit C (see Attachment 6), must be bi-laterally signed by the utility representative and CO. The PA typically is at no cost to the government. Otherwise, cost should be negotiated with the utility and included in Exhibit C prior to signing. **Note:** If a long-term or multiple projects are anticipated, use the Model Agreement (Attachment 5). Attachment 5 is a template for developing a master agreement and contains terms and conditions essential to a UESC. It can be used to issue a single or multiple task orders for the four phases (Preliminary Audit, Feasibility Study, Engineering/Design and Construction/Implementation. If the model agreement is not used, each phase will have a separate Exhibit C.

8.1.1.3.1. The utility accomplishes a PA and delivers a proposal to the base Energy Team. The Energy Team reviews the proposal and provides written comments to the CO. A government-only meeting and/or telecon is held to discuss the comments and determine if recommended measures will be pursued in a Feasibility Study (FS). The CO should use Attachment 3, —Example Coordination Sheet” (modified for the specific base), to document all parties have reviewed the proposal. Once MAJCOM endorsement and AFCESA/CENI approval are obtained, the CO prepares authorization for the utility to begin an FS.

8.1.1.3.2. If the government decides to terminate at this point, and PA costs were negotiated, the CO documents the decision and provides an appropriation to pay the utility.

8.1.1.4. Feasibility Study (FS). Unless the model agreement was used at the PA, the CO develops a Master Agreement (Exhibit —C), and checks the appropriate box (Feasibility Study). The CO then clarifies the energy conservation measures from the PA to be included, and negotiates the development cost of the FS prior to obtaining signatures. If financing, the cost is rolled into the next phase.

8.1.1.4.1. The utility accomplishes an in-depth analysis of the selected measures and delivers a feasibility proposal to the Energy Team. The Energy Team reviews the proposal and provides written comments to the CO to consolidate. Prior to sending comments to the utility, a government-only meeting and/or telecon is held to discuss the consolidated comments and determine if recommended measures will advance to the Engineering/Design phase. The CO should use Attachment 3, —Example Coordination Sheet” (modified for the specific base) to document all parties have reviewed the proposal. Once MAJCOM endorsement and AFCESA/CENI approval are obtained, the CO prepares authorization for the utility to begin an Engineering/Design study.

8.1.1.4.2. If the government decides to terminate the FS at this point, the CO documents the decision and provides appropriation to pay the negotiated feasibility study costs.

8.1.1.5. Engineering/Design (E/D). The CO develops a Master Agreement (Exhibit —Q); checks the appropriate box (ECP Engineering/Design Study); clarifies the energy conservation measures from the feasibility proposal; directs use of all appropriate Air Force design and construction standards; and negotiates development cost for engineering/design prior to obtaining signatures. If financing, development cost is rolled into the TO.

8.1.1.5.1. The utility provides final design, plans, and specifications with detailed pricing consistent with the feasibility study and provides a final proposal to the Energy Team. The Energy Team reviews the final proposal and provides written comments to the CO to consolidate. Prior to sending comments to the utility, a government-only meeting and/or telecom is held to discuss consolidated comments and determine if recommended measures will progress to the construction/installation phase. The utility addresses consolidated comments. The Energy Team reviews the comments and determines if a TO should be issued for the construction phase. The CO negotiates any revisions and prepares internal documentation required prior to award.

8.1.1.5.2. The utility submits a final proposal with all negotiated changes and the final financing schedule. Once internal approval is obtained, the CO awards the TO and provides copies to AFCESA/CENI and the MAJCOM. In addition, the CO provides a copy of the award with the executed —Exhibit C” issued to the GSA region office within 30 days after execution.

8.1.1.6. Construction/Implementation.

8.1.1.6.1. The utility begins construction/implementation in accordance with the TO.

8.1.1.6.2. Once the utility performs the work, and prior to government acceptance, the utility will provide ECM training; provide operation & maintenance (O&M) manuals and as-built drawings/specifications; and test each ECM in accordance with the commissioning plan. The EM or Contracting Officer Representative (COR) must witness the utility’s commissioning activities.

8.1.1.7. If no award is made, the CO documents the decision and provides an appropriation to pay the negotiated engineering/design costs.

8.1.2. Basic Ordering Agreements (BOA). A BOA is an agreement, not a contract, between the utility and the government (installation) to establish general terms and conditions that are incorporated into future fixed priced task orders and may be used when an AWC does not exist. A federal agency can establish a basic ordering agreement with their utility when specific items, quantities, and prices are not known, but a substantial number of requirements are anticipated and there is potential for more than one UESC task order. A task order placed under a BOA constitutes the contract and details the services to be delivered.

8.1.2.1. A BOA does not guarantee future task orders to the utility and is not used to restrict competition if more than one utility supports an installation. The agreement is reviewed annually and revised, as necessary, to meet the requirements of FAR 16.703. A modification to the agreement itself does not retroactively affect any individual task orders issued under it.

8.1.2.2. The CO establishes the BOA with the utility employing normal contracting procedures in accordance with FAR 16.703, DFARS 216.703, and Procedures, Guidance and Information (PGI) 217.703(d). The “model agreement” format should be used when requesting proposals under the BOA.

8.1.2.3. Prior to engaging with a utility to provide a PA, the base CO, BCE, and/or base EM shall prepare a summary of the type and number of ECMs being considered (including relevant baseline information and initial estimates of potential savings) and submit the summary to AFCESA/CENI, through their MAJCOM, for initial vetting of energy projects. AFCESA will work with the base CO, BCE, and MAJCOM to determine if a UESC is the appropriate execution approach.

8.1.2.4. Next, the CO assembles the Energy Team and coordinates a date and time for an on-site meeting or telecon with the base, MAJCOM, and AFCESA/CENI, to explore potential opportunities and develop the UESC criteria. Attachment 2 will help the installation implement a UESC. These suggestions will help translate requirements and apply lessons learned toward achieving a successful UESC project.

8.1.2.5. The Energy Team reviews each proposal received under the various phases identified above in paragraphs 8.1.1.3 through 8.1.1.6 (preliminary assessment, feasibility study, engineering/design, and construction/implementation phases), and provides written comments to the CO to consolidate. Prior to sending comments to the utility, a government-only meeting and/or telecon is held to discuss consolidated comments and determine if recommended measures will progress to the next phase. The utility addresses consolidated comments. The Energy Team reviews comments and determines if a TO should be issued. The CO negotiates any proposal revisions and prepares any internal documentation required prior to

award. Copies of all proposals received under the BOA are to be provided to AFCESA/CENI and the MAJCOM.

8.1.2.6. The utility signs the task order and provides required submittals; e.g., construction schedule, equipment submittals, final performance/testing plan.

8.1.2.7. Construction/Implementation.

8.1.2.7.1. The utility starts construction/implementation in accordance with the TO.

8.1.2.7.2. Once the utility performs the work, and prior to government acceptance, the utility will provide ECM training, O&M manuals, and as-built drawings/specifications; and test each ECM in accordance with the performance assurance (commissioning) plan. The EM or COR must witness the utility's commissioning activities.

8.1.2.8. If no award is made, the CO documents the decision and provides an appropriation to pay the negotiated proposal development costs.

8.1.3. Individual "Site-Specific" Base UESC Contract. For those bases where the utility does not have an AWC, the model agreement is used as a template and award is made to the utility under the authority of 10 U.S.C. 2913.

8.1.3.1. Prior to engaging with a utility to provide a proposal, the base CO, BCE, and/or base EM shall prepare a summary of the type and number of ECM(s) being considered (including relevant baseline information and initial estimates of potential savings) and submit to AFCESA/CENI, through their MAJCOM, for initial vetting of energy projects. AFCESA will work with the base CO, BCE, and MAJCOM in discussing proposed energy conservation opportunities and determine if a UESC is the appropriate avenue.

8.1.3.2. The Energy Team reviews each proposal received under the various phases identified above in paragraphs 8.1.1.3 through 8.1.1.6 (preliminary assessment, feasibility study, engineering/design and construction/implementation phases), and provides written comments to the CO to consolidate. Prior to sending comments to the utility, a government-only meeting and/or telecon is held to discuss consolidated comments. The utility addresses consolidated comments. The Energy Team reviews comments and the CO negotiates any proposal revisions and prepares any internal documentation required. A copy of the award is to be provided to AFCESA/CENI.

9.0. Responsibilities

9.1. AFCESA/CENI:

9.1.1. Provides technical review and approval of all UESC projects. ***No UESC project may be awarded without AFCESA/CENI approval of technical and financial documents.***

9.1.2. Develops UESC procedures and guidance and provides training (via the Department of Energy [DOE] FEMP) on using and implementing the UESC to the CO, BCE, and/or base EM, base utility engineer, CE FM, base FM, MAJCOM representative, and a representative from the base legal office.

9.1.3. Supports the Air Force COs by providing a center of expertise for UESC contracts.

9.1.4. Is the UESC Project Management Office (PMO) and centrally manages all UESCs. Provides initial vetting; approves each stage of project development; manages the evaluation process; and assists bases/MAJCOMs from development of the UESC project through award and completion of the task order term.

9.1.5. Provides tools and expertise to assist in implementing a UESC and acts as a clearinghouse for UESC lessons learned.

9.2. MAJCOM A7 (CE):

9.2.1. Provides oversight and compliance with Air Force policies and guidance for the base's UESC program.

9.2.2. Provides initial project vetting and ensures the UESC contract vehicle is appropriate for the recommended ECMs.

9.2.3. Reviews and provides comments on all UESC proposals.

9.2.4. Ensures all approved UESC projects are submitted to AFCESA/CENI per AF/A7C policy memorandum (Attachment 1) and this ETL.

9.3. Base Energy Managers (BEM):

9.3.1. Works with the CO to implement the UESC program. Compiles and provides required project documentation, including site data packages and evaluation criteria to the CO; and performs an analysis on all construction costs and provides a statement to the CO that all costs are realistic for the work performed.

9.3.2. Submits all proposed UESC projects to AFCESA/CENI (through the MAJCOM) for initial vetting prior to formal engagement with the utility provider.

9.3.3. Completes UESC training before implementing a UESC program, and that newly assigned personnel associated with the UESC program receive this training for the term of the UESC.

9.3.4. Assists the base CO in ensuring that the utility company complies with continuing requirements for the term of the TO.

9.3.5. Determines if other funding sources or contracting mechanisms such as Sustainment/Restoration and Modernization (S/R&M) or Energy Conservation Investment Programs (ECIPs) are available and more cost-effective.

9.3.6. Ensures the base CO is notified of mission changes, facility modifications, or demolition.

9.4. Base CO:

9.4.1. Has overall responsibility to ensure that UESC projects serve the best interests of the Air Force and are consistent with the terms and conditions of the Air Force utility contracts, UESC legislation, and regulations.

9.4.2. Completes UESC training.

9.4.3. Awards and administers all issued UESC TOs (award shall only be made following AFCESA/CENI technical review and approval).

9.4.4. Assembles the UESC team and serves as chairperson for all meetings with the utility company.

9.4.5. Evaluates and documents mission changes, facility modifications, or demolition for appropriate contract action.

9.4.6. Appoints a COR to act as a liaison between the utility contractor and the CO.

9.4.7. Provides the total contract cost for each phase of a UESC and a final signed copy of the task order to AFCESA/CENI.

10. Business Practices. The following business practices are required to help the installation implement a UESC and will help in translating the legislative requirements and applying the lessons learned toward achieving a successful ECM. Each TO shall include procedures that are mutually agreeable to the parties to verify ECM performance following installation.

10.1. Baseline Development. An energy baseline is a prediction of the amount of energy that would have been used if no energy conservation equipment had been installed. The utility contractor must clearly document the baseline data and ensure that the data adequately supports the baseline.

10.1.1. Actual metering and data collection must be performed by the utility contractor and verified by the base to ensure that the baseline reflects realistic energy consumption upon which the savings calculations are based. Data collection requirements vary by ECP and M&V method, but a minimum of three months' data is required for weather-impacted ECPs. Previously installed Automated Meter Reading (AMR) meters should be used as much as possible to collect this data. The M&V plan (negotiable) must be measurement-based. If the utility contractor and the Air Force determine that simulation is the preferred methodology, the models must be validated (calibrated) by the utility contractor and verified by base personnel.

Note: It is extremely important that equipment controlled by ambient temperature devices has valid measurements. Savings validation as well as future baseline adjustments will require this accurate data before adjustments can be applied to the existing baseline.

10.1.2. All assumptions made in the preliminary audit should be validated in the feasibility phase by the utility contractor. Validation includes documenting all pertinent data and formulas used to compute the energy savings so the base EM can easily explain these savings now or in the future.

10.1.3. While M&V is not required, metering using building-level meters is highly desired.

10.1.4. AFCESA/CENI and MAJCOM review and endorsement of the baseline are required.

10.2. Performance Tests.

10.2.1. A performance test is a process for achieving, verifying, and documenting the performance of equipment installed or modified as part of an ECP. The process begins in the FS phase with the development and approval of a performance test plan that is implemented after the TO award. The performance tests will be accomplished during the Construction phase to certify that all equipment is functioning and operating properly and the results approved before conducting the energy savings verification tests.

10.2.2. A performance test plan developed as part of the Feasibility Study phase is prepared for each ECP. The performance test plan describes all aspects of the test process, including schedules, responsibilities, documentation

requirements, and functional performance test requirements. The functional performance tests should describe at what conditions or loads the tests are to be performed, the location of test sensors, the frequency of measurements, the type of test equipment, the test methods, and the acceptable range of results. The level of detail depends on the complexity of the ECP. The performance test plan shall be detailed enough that, prior to signing the TO award, the base knows exactly what tests will be performed.

10.2.3. After completing the performance tests, a final acceptance report should be submitted for approval in writing to the base CO and EM. The final acceptance report is submitted after all functional performance tests are completed. The final acceptance report should include the executive summary, ECP description, performance plan, and all test results. The CO will approve the performance test results after coordination and verification of results by the EM.

10.3. Energy Savings Validation.

10.3.1. A formal set of test procedures with the acceptable range of results shall be developed to validate energy savings. These test procedures shall be submitted by the utility contractor at the feasibility audit study and approved before awarding the TO. The tests must describe at what conditions or loads the tests are to be performed, the location of test sensors, frequency of measurements, and type of test equipment, test methods, and the acceptable range of results. The test procedures shall verify all energy savings intended under the ECP/ECM.

10.3.2. After the base approves the performance test results for each ECP, the utility contractor shall perform the approved energy savings test procedures to validate the energy savings for each ECP.

10.3.3. Once the validated energy savings have been approved for all ECPs, the utility contractor will submit an invoice for payment the first full month after acceptance of the ECM.

10.4. Annual Reconciliation Plan (Audit of Savings). (Note: This is required only if M&V is negotiated.)

10.4.1. Each ECM in the TO shall have a detailed annual (at a minimum) reconciliation plan approved before the TO award. The plan should describe a formal set of test procedures, an acceptable range of results, a schedule of how reconciliation payments will be assessed if savings fall below the guarantee, and a certification by the utility that all O&M requirements and conditions have been met for each ECP in the TO.

10.4.2. The procedures should be similar to those developed to validate energy savings. The purpose is to test, validate, and document the energy savings.

10.4.3. The CO must approve the annual reconciliation of savings after coordination and verification of savings by the base EM.

10.5. Maintenance Related to the TO. Maintenance should be the utility company's responsibility and performed by the utility company; however, in some cases, the installation may have the capability to perform such maintenance.

10.6. Pricing of TO Work.

10.6.1. The base should request the utility company to provide detailed supporting documentation needed to determine price reasonableness.

10.6.2. Utility company estimates for each ECP shall identify all major costs (e.g., equipment, labor, design, maintenance, repair, parts, overhead and profit, travel, M&V, if required in the ECP). The government should also prepare an independent estimate.

10.6.3. Contingencies shall be clearly identified and negotiated for each ECP. Contingency costs mitigate a project's risk, which is a factor in the profit negotiated; therefore, the level of contingencies for a project must be carefully considered. See FAR 31.205-7, *Contingencies*.

10.6.4. Ancillary savings are any savings attributable to the project other than energy savings, such as manpower, materials, or eliminating contract-operated functions. Maintenance, repair, or operations costs for tasks currently being performed by the government or by a contractor hired by the government are ancillary savings if the utility assumes the tasks, reduces the tasks, or eliminates the tasks. Savings must be real and verifiable. The base EM will determine whether a utility-proposed task elimination or reduction would be considered an ancillary savings available for sharing. The government will provide the dollar value of the ancillary savings.

10.6.4.1. Government civilian positions must be deleted from the official manpower rosters before related savings can be added to the UESC proposal. The base must work the request through the MAJCOM to Air Staff so the funds can be reprogrammed to the UESC account. A provision should be included in the package to capture the lost manning at least one (1) Program Objective Memorandum (POM) cycle prior to the end of the UESC TO. Use caution, as O&M funds may need to be expended to pay the ESCO until the reprogramming action is completed.

10.6.4.2. Since only the final negotiated savings can be applied to the UESC contract, all negotiated cost reductions due to reducing or eliminating contract-operated functions must be completed before those savings are accepted in the proposed TO.

10.7. Equipment Ownership. The utility retains ownership of all installed equipment for the term of the contract. At the TO closeout, the Air Force must update real property records to show ownership of utility-installed equipment. The utility is required to provide O&M manuals to the Air Force for the equipment, along with any required maintenance training prior to contract completion.

10.8. Infrastructure Privatization. Any utility system or family housing being considered for privatization should not be included in UESC efforts. A utility system is defined as infrastructure outside the 1.5-meter (5-foot) line of the using facility, and includes production and distribution assets.

11. Point of Contact (POC). Recommendations for improvements to this ETL are encouraged and should be furnished to the Air Force ESPC/UESC Program Manager, HQ AFCESA/CENI, 139 Barnes Drive, Suite 1, Tyndall AFB FL 32408-5319, DSN 523-6475, commercial (850) 283-6475, FAX DSN 523-6219, or via e-mail at AFCESAReachbackCenter@tyndall.af.mil.

ANDREW A. LAMBERT, Colonel, USAF
Chief, Operations & Programs Support Division

- 9 Atch
1. A7/A7C Policy Memorandum, dated 04 Oct 10
 2. UESC Considerations for the Base Energy Manager
 3. Example Coordination Checklist
 4. UESC Contract Risk/Responsibility Matrix
 5. Model Agreement
 6. Master Agreement Exhibit -G" Authorization for Energy Management Services
 7. Justification and Approval for Other than Full and Open Competition
 8. Guide to Government Witnessing and Review of Post-installation and Annual M&V Activities
 9. Distribution List



DEPARTMENT OF THE AIR FORCE
HEADQUARTERS UNITED STATES AIR FORCE
WASHINGTON, DC

04 OCT 2010

MEMORANDUM FOR MAJCOM ENGINEERS

FROM: HQ USAF/A7C
1260 Air Force Pentagon
Washington, DC 20330-1260

SUBJECT: Policy on Energy Savings Performance and Utility Energy Service Contracts
(ESPC/UESC) Ref: letter dated 30 Oct 07

In order to meet Air Force energy goals and comply with White House/DoD direction, we must leverage third-party financed options such as ESPCs and UESCs. Energy conservation goals are becoming more difficult to meet as we exhaust high return energy reduction projects and incur potential cuts to our energy capital investment budget. Executed and managed correctly, ESPCs and UESCs are effective tools to achieve energy savings.

The Air Force Facility Energy Center (AFFEC) at AFCESA will centrally manage all ESPCs and UESCs and will be involved in all stages of project development, evaluation and contract award and administration. Effective immediately, installations will submit all proposed ESPC/UESC projects to AFCESA (through MAJCOMs) for initial vetting prior to formal engagement with an Energy Service Company (ESCO) or utility company. AFCESA will approve each stage of the project development and evaluation process and will assist bases/MAJCOMs in awarding and administering ESPC/UESC contracts. AFCESA will provide periodic updates through the energy governance structure.

ESPCs and UESCs will be used where they make good business sense and when necessary to achieve energy goals. Generally, large primary energy conservation measures such as heat plant decentralizations or complex technologies are prime ESPC/UESC candidates. Compliance with ETL 10-9, Energy Savings Performance Contracts, is mandatory for ESPC projects.

Please contact the AFFEC Energy Conservation Branch Chief (AFCESA/CENE), Mr. Ken Walters, (DSN 523-6222) for additional information.

TIMOTHY A. BYERS, Maj Gen, USAF
The Civil Engineer
DCS/Logistics, Installations & Mission Support

UESC CONSIDERATIONS FOR THE BASE ENERGY MANAGER

A2.1. Before proceeding with a UESC, the base EM shall follow the process presented in Section 8.0 of this ETL, and should consider the ideas and suggestions in this attachment. These considerations can help the base EM implement a successful UESC project.

A2.1.1. The base EM must submit all proposed UESC projects to AFCESA/CENI (through the MAJCOM) for initial vetting. Projects submitted will be used only where they make good business sense and when necessary to achieve energy goals. AFCESA will approve each stage of the project development and evaluation process and assist in awarding and administering the task order.

A2.1.2. Though the utility company brings technical energy expertise to the base energy program, the base EM should also have a plan to improve the energy efficiency of the buildings. Determine how to most efficiently plan and schedule the work to be accomplished. Ask local facility managers and operations staff for ideas on improving their building's operational characteristics. The local staff often knows what equipment is failing or not operating properly due to design defects, age, or other factors. Keep in mind your overall goals. This is not a wish list for your building managers, and it is not an opportunity for a UESC contractor to —cherry pick” the most profitable projects, leaving the less-economical work for others. If that happens, the other work will never be completed, and you will be saddled with undesirable systems in their present condition.

A2.1.2.1. Keep in mind that a utility company's costs and overhead will be greater for widely-scattered buildings than it will be for facilities that are clustered together. Structure your packages of buildings to take maximum advantage of project economics. Include the less-desirable projects with the more attractive projects, and ensure that the utility company takes them as a package. Use the attractive savings from rapid payback projects like lighting retrofits to help support and subsidize the less-economical work such as chiller and cooling tower replacement.

A2.1.2.2. Do not accept a preliminary report that addresses only technology that the utility company elected to consider. If the base EM is interested in the viability of a specific technology, and the UESC contractor states that the proposed technology is not economical, have the contractor explain why in writing.

A2.1.3. Use a multidisciplinary team to evaluate proposals. Be certain to consider the cost of maintenance and repairs after equipment is installed, as well as items such as the equipment's noise level. Each ECP should be evaluated on a life-cycle cost basis, and energy-efficient or Energy Star[®] equipment should be used in the project where possible.

A2.1.4. Where practicable, consider having building energy management or advance pulse interval metering and load profile data recording devices installed as part of the contract. It is often difficult to assign energy savings value to such equipment, so be prepared for these issues. The importance of having this advanced metering technology available for obtaining the best energy procurement prices cannot be overstated.

A2.1.5. Ensure a clear understanding with the UESC contractor regarding expectations and goals.

A2.1.6. Keep the terms and provisions of the UESC TO as straightforward and clear as possible, without, for example, all sorts of added O&M savings or escalators for cost of fuel and services. Look at each ECM and determine how it contributes to the overall project. Look at its length of payoff and the impact of its removal or inclusion on the overall project economics. Make the appropriate business trade-offs and establish an optimal scope of work for the project. A project may be modified later if you want to include some O&M savings to accomplish a desired goal; however, before you make this kind of modification, make sure the O&M savings are real and can be demonstrated to be obtainable.

A2.1.7. Either obtain load profiles or have the utility company obtain load profiles and then go to the building during the peak energy use period. Tour the building and make observations about the operation of energy-using equipment. Determine if any equipment use or power loads could be shifted to a non-peak period of energy use. If not, explore peak shaving, thermal load shifting, and other means of saving energy and costs that could be used to cut expenses. Consider using automated building management systems and timed-out electronic locks on non-essential equipment so it cannot be operated during periods of peak demand.

A2.1.8. The importance of coordination cannot be overstated. Pay attention to detail and follow up on everything. Be sure to involve the MAJCOM, base engineering, AFCESA, construction, contracting, finance, and legal functions before awarding the TO.

A2.1.9. Coordinate with the local utility service providers. If you are considering a project that would allow you to go from a firm natural gas service rate to an interruptible service rate, check first to make sure an interruptible service rate is available or that one can be obtained from another service provider.

A2.1.10. A common area of contention is the contract language addressing M&V issues. Make sure there is a clear understanding and clear contract language addressing how much M&V is to be performed if required by the contract. Become familiar with the latest version of the International Performance Measurement and Verification Protocol (IPMVP) and make use of the M&V protocols in your contract. M&V must comply with the requirements of EPA Act 05. Attachment 8, "Guide to Government Witnessing and Review of Post-Installation and Annual M&V Activities,"

provides detailed guidance on witnessing baseline, post-installation, first-year, and annual M&V inspections and analyses, as well as commissioning installed ESCO equipment. After construction completion and acceptance, the EM and/or COR will provide the date of construction acceptance to HQ AFCESA/CENI.

A2.1.11. All MFH ECPs should be thoroughly evaluated against future MFH renovations or new housing initiatives for possible reduction or elimination of projected UESC savings. When ECM savings are eliminated or greatly reduced, a buyout may be required. The base programming function should include the cost of the ECP buyout on Department of Defense form (DD) 1391, **Military Construction Project Data**. Before proceeding with any UESC project in MFH, coordinate with the MAJCOM housing office and the Office of the Civil Engineer, Housing Division (A7/A7CH) to identify and eliminate any potential conflict with current or planned MFH projects.

A2.1.12. Additions to this attachment are encouraged; see paragraph 11 for POC information.

EXAMPLE COORDINATION CHECKLIST (Optional)

Title of Project:					
Location:					
	Preliminary Assessment	Feasibility Study	Engineering/ Design	Final Proposal	TO Award
BCE	Sign/Date	Sign/Date	Sign/Date	Sign/Date	Sign/Date
Funds Manager					
Energy Manager					
Design Chief					
Environmental Manager					
Ops Chief					
Planner (if required)					
MFH (if required)					
COMM (If required)					
Real Estate (if required)					
BASE					
Comptroller					
Legal					
MAJCOM CE					
A7O/A7P					
Funds Manager					
Energy Manager					
AFCESA/CENI Approval					

BASE CONTRACTING OFFICER: _____
Signature/Date

UESC CONTRACT RISK/RESPONSIBILITY MATRIX

Responsibility Description	Utility Company Proposed Approach	AFCESA Assessment
<u>FINANCIAL</u>		
<p><u>Interest Rates:</u> Neither the utility company nor the Agency has significant control over prevailing interest rates. Interest rates will change with market conditions during all phases of the project. Higher interest rates will increase project cost, financing/project term, or both. The timing of the delivery order signing may impact the available interest rate and project cost. Clarify when the interest rate is locked in, and if it is a fixed or variable rate.</p>		
<p><u>Energy Prices:</u> Neither the utility company nor the Agency has significant control over actual energy prices. For calculating savings, the value of the saved energy may either be constant, change at a fixed inflation rate, or float with market conditions. If the value changes with the market, falling energy prices place the utility company at risk of failing to meet cost savings guarantees. If energy prices rise, there is a small risk to the Agency that energy-saving goals might not be met while the financial goals are. If the value of saved energy is fixed (either constant or escalated), the Agency risks making payments in excess of actual energy cost savings.</p>		
<p><u>Construction Costs:</u> The utility company is responsible for determining construction costs and defining a budget. In a fixed-price design/build contract, the Agency assumes little responsibility for cost overruns. If construction estimates are significantly greater than originally assumed, however, the utility company may find that the project or measure is no longer viable and drop it. In any design/build contract, the Agency loses some design control. Clarify design standards and the design approval process (including changes) and how costs will be reviewed.</p>		
<p><u>M&V Costs:</u> The Agency assumes the financial responsibility for M&V costs directly or through the utility company. If the Agency wishes to reduce M&V costs, it may do so by accepting less-rigorous M&V activities with more uncertainty in the savings estimates. Clarify what performance is being guaranteed (equipment performance, operational factors, energy cost savings) and that the M&V plan is detailed enough to satisfactorily verify it. (IF M&V REQUIRED)</p>		
<p><u>Delays:</u> Both the utility company and the Agency can cause delays. Failure to implement a viable project in a timely manner costs the agency in the form of lost savings, and can add costs to the project. Clarify the schedule and how delays will be handled.</p>		
<p><u>Major Changes in Facility:</u> The Agency (or Congress) controls major changes in facility use, including closure. Clarify responsibilities in the event of a premature facility closure, loss of funding, or other major change.</p>		

Responsibility Description	Utility Company Proposed Approach	AFCESA Assessment
<u>OPERATIONAL</u>		
<p><u>Operating Hours:</u> The Agency generally has control over the operating hours. Increases and decreases in operating hours can show up as increases or decreases in "savings," depending on the M&V method (e.g., operating hours, improved efficiency of equipment vs. whole building, utility analysis). Clarify if operating hours are to be measured or stipulated and what the impact will be if they change. If the equipment loads are stipulated, the baseline should be carefully documented and agreed to by both parties.</p>		
<p><u>Load:</u> Equipment loads can change over time. The Agency generally has control over hours of operation, conditioned floor area, and intensity of use (e.g., changes in occupancy or level of automation). Changes in load can show up as increases or decreases in "savings," depending on the M&V method. Clarify if equipment loads are to be measured or stipulated and the impact if they change. If the equipment loads are stipulated, the baseline should be carefully documented and agreed to by both parties.</p>		
<p><u>Weather:</u> A number of energy efficiency measures are affected by weather. Changes in weather can increase or decrease "savings" depending on the M&V method (e.g., equipment run hours times efficiency improvement vs. whole building utility analysis). If weather is "normalized," actual savings could be less than payments for a given year but will "average out" over the long run. Weather corrections to the baseline or ongoing performance should be clearly specified and understood.</p>		
<p><u>User Participation:</u> Many energy conservation measures require user participation to generate savings (e.g., control settings). The savings can be variable and the utility company may be unwilling to invest in these measures. Clarify what degree of user participation is needed and utilize monitoring and training to mitigate risk. If performance is stipulated, document and review assumptions carefully and consider M&V to confirm the capacity to save.</p>		

Responsibility Description	Utility Company Proposed Approach	AFCESA Assessment
PERFORMANCE		
<p>Equipment Performance: Generally, the utility company has control over the selection of equipment and is responsible for its proper installation and performance. The utility company also has overall responsibility to demonstrate that the new improvements meet expected performance levels, including standards of service and efficiency. Clarify who is responsible for initial and long-term performance, how performance will be verified, and what will be done if performance does not meet expectations.</p>		
<p>Operations: Responsibility for operations is negotiable, and it can impact performance. Clarify how proper operation will be assured. Clarify responsibility for operations and the implications of taking on the operation of the equipment.</p>		
<p>Maintenance and Repair: Responsibility for maintenance and repair is negotiable; however, it is often tied to performance. Clarify how long-term maintenance and repair will be assured, especially if the party responsible for long-term performance is not responsible for maintenance. Clarify who is responsible for ECM overhaul and component or equipment repair required to maintain operational performance throughout the contract term.</p>		
<p>Equipment Replacement: Responsibility for replacement of contractor-installed equipment is negotiable; however, it is often tied to ECM performance. Clarify who is responsible for replacing failed components or equipment throughout the term of the contract. Specifically address potential impacts on performance due to equipment failure. Life of equipment is critical to ECM performance during the contract term. Specify equipment life expected for all installed equipment and specify warranties proposed for the installed ECMs.</p>		

MODEL AGREEMENT

AGREEMENT FOR ENERGY CONSERVATION AND DEMAND SIDE MANAGEMENT SERVICES

BETWEEN

THE UNITED STATES OF AMERICA

AND

_____ UTILITY COMPANY

This Agreement for implementation of Energy Conservation Measures (ECMs) is entered into this _____ day of _____, 200_, by and between _____ Utility Company (Utility) and the United States of America (Government), represented by the Contracting Officer executing this Agreement. The signatories to this Agreement will be sometimes collectively referred to as the "Parties" and individually as a "Party." This Agreement (when signed by the Parties), any Task Orders (T.O.) executed pursuant to this Agreement, and any other associated agreements shall constitute the entire Contract between the Parties with respect to a particular ECM. A term or condition contained in this Agreement may be amended at any time by mutual written agreement of the Parties. However, termination, modification, or expiration of a term or condition shall not retroactively affect T.O.s previously entered into under this Agreement. The Parties agree to the following principles, concepts and procedures.

GENERAL CONDITIONS

GC.1 Purpose. The Government desires assistance in accomplishing ECMs at _____ Installation (~~Installations~~) (may substitute ~~all~~ Installations within the Utility Company's service area, to include [list the installations by name] (~~hereinafter, "Installations"~~)). The purpose of this Agreement is to facilitate the implementation of ECMs through T.O.s. This Agreement sets forth the terms and conditions under which subsequent T.O.s may be entered into between the Parties.

GC.2 Definitions. Terms used in this Agreement shall have the following definitions:

Acceptance - Written acceptance by the authorized representative of the Government of an individual Phase or completed ECM pursuant to a T.O.

Carrying Charge - For the purpose of this Agreement, Carrying Charge shall be an interest rate applied to all ECM Costs incurred by the Utility until permanent financing is

put in place or the Government pays the ECM Cost. Accrued interest shall be considered an ECM Cost.

Contracting Officer - A Government official authorized to enter into, administer, and/or terminate a contract on behalf of the Government, and who is authorized to make related determinations and findings within the limits established pursuant to Government regulations.

Contracting Officer's Representative (COR) or Contracting Officer's Technical Representative (COTR) - A local or project site representative of the Contracting Officer delegated specific limited authority, as set forth in a formal delegation letter signed by the Contracting Officer, for a given T.O., including the feasibility study, engineering and design, operation and maintenance, and/or implementation of one or more ECPs.

Energy Conservation Measure Cost (ECM Cost) - The total cost may include, but is not limited to the Work, finance charges and overhead and profit, for the feasibility study, engineering and design, implementation and operation and maintenance of an ECM, less any financial incentive or rebates, if provided by the Utility. Payment for completed ECMs shall be calculated based upon the ECM Cost.

Energy Conservation Project (ECP) - A specific project intended and designed to provide any of the following: energy savings, demand reduction, efficiency improvements and water conservation. ECPs are described in more detail in Section GC 17.

Occupied Period - Hours during which a facility or building is occupied or used in the normal course of business.

Quality Assurance Evaluator (QAE) - A functionally qualified person who evaluates or inspects the contractor's performance of service in accordance with the quality assurance surveillance plan written specifically for the contracted service to be evaluated. The QAE performs technical monitoring of contractor actions, is responsible for requesting products and services through a government contract, and manages the day-to-day tasks of the contract.

Quality Control - A management function whereby control of quality of raw or produced material is exercised for the purpose of preventing production of defective material. For purposes of this Agreement, quality control is those actions taken by a contractor to control the production of outputs to ensure that they conform to the contract requirements.

Possession - When the Government takes beneficial occupancy of an ECP (~~Possession of an ECP~~) or an ECM (~~Possession of an ECM~~).

Subcontractor - Any corporation, partnership or individual hired directly by the Utility to perform a service or provide a product under this Agreement and T.O.s resulting from this Agreement.

Task Order (T.O.) - A binding contractual action entered into under this Agreement for the feasibility study, engineering and design, implementation, and/or operation and maintenance of, or any activity related to, an ECM. (A T.O. can also be identified as a Delivery Order (D.O.).)

Termination Schedule - A schedule developed for each financed ECM specifying the lump sum payment necessary at any time during the contract period following the initial Government payment for the complete repayment of the ECM Costs, including any finance costs accrued to that point.

Work - All labor, materials, tools, equipment, services, transportation and/or other items required for the completion of the ECM.

GC.3 Term. This Agreement shall have a term of ____ years. This Agreement may be terminated in its entirety by either Party upon thirty (30) days' written notice to the other Party. Thereafter, no new T.O.s shall be entered into under this Agreement. Termination, modification or expiration of this Agreement shall not affect in any way T.O.s previously entered into under this Agreement. This Agreement shall be effective from the date it is signed by both Parties. In the event the Parties sign this Agreement on different dates, then the effective date shall be the latter of the two dates.

GC.4 Services to be Provided by the Utility. The Utility shall provide preliminary audits, feasibility studies, engineering and design studies, and all initial capital, labor, material, supplies and equipment to the Agreement. These services may be ordered individually, as a group or in any combination under a single T.O.

GC.5 Information. Subject to national security constraints and unless otherwise prohibited by law, the Government shall provide the Utility with any information requested by the Utility to comply with regulatory commission requirements.

GC.6 Relationship of Parties. The Government acknowledges that the Utility and/or its Subcontractors shall each perform their work as independent contractors and the Government shall have no direct control and supervision of Utility or Subcontractor employees, who shall not be considered employees or agents of the Government for any purpose. The Utility, in negotiations with its Subcontractors, will ensure that the Government will be the direct beneficiary of any and all product and service guarantees and warranties.

GC.7 Subcontractor Selection. The Utility may perform some or all of the Work under a Task Order itself or through Subcontractors. When practical, the Utility shall competitively select Subcontractors for the purpose of determining the reasonableness of Subcontractor prices. When competition is not practical, price reasonableness may

be determined by comparing proposed prices with those obtained for the same or similar work, prices published in independent cost guides, published in competitive price lists, or developed by independent sources.

Subcontractor selection shall be based on cost, experience, past performance, reliability, and such other factors as the Utility may deem appropriate, as long as such factors are practicably related to the Government's minimum needs. In no event may such services be provided by Subcontractors listed as excluded from Federal Procurement Programs, which list is maintained by GSA pursuant to 48 C.F.R. 9.404. For any T.O., the Utility may submit the names of proposed Subcontractors to the Government Contracting Officer to ensure they are not excluded pursuant to 48 C.F.R. 9.404.

GC.8 Authority of Contracting Officer. The Government's Contracting Officer shall be the only Government official authorized to enter into and/or modify a T.O. entered into under this Agreement.

GC.9 Ownership of Work Product. The Government may elect not to use the Utility to implement the ECM. If the Government so elects, it will pay for any accepted work, including any equipment, completed studies, and engineering and design work. Title to any work done by the Utility for the Government under a T.O. shall become the property of the Government at the time of acceptance of the work.

GC.10 Responsibility for Operation and Maintenance. The operation and maintenance of the equipment installed pursuant to any T.O. executed under this Agreement shall be the responsibility of the Utility during the payment term unless otherwise provided in the T.O.

GC.11 Government Projects. The Government shall not be restricted from implementing equipment installation, construction projects and ECMs independent of work performed under this Agreement, including installing new energy conservation equipment, removing existing energy consuming equipment, or adding new energy consuming equipment. The Government will notify the Utility prior to implementing projects that may affect ECMs under this Agreement.

GC.12 ECM Performance Verification. Each T.O. shall include procedures that are mutually agreeable to the parties to verify ECM performance following installation.

GC.13 Emission Credits. All on-site Government emission credits earned by virtue of T.O.s entered into hereunder shall be the property of the Government.

GC.14 Order of Precedence. The Government and Utility shall determine in this Agreement or subsequent T.O.s the precedence given to the T.O., this Agreement or other documents, exhibits and attachments, in the event an inconsistency arises among these documents.

GC.15 Preliminary Audits. At the request of the Government or the Utility and upon the mutual consent of both parties, the Utility will conduct, at no cost to the Government, an audit consisting of an on-site building investigation and evaluation for a mutually agreeable facility to determine if any significant energy conservation opportunities exist and whether further detailed energy analysis is warranted. Government buildings/facilities plans will be made available upon request. Requests for plans shall be made to the COR at least fifteen (15) calendar days in advance of the audit start date. The Utility will provide a written report of the audit to the Government, typically at no cost. The Utility will utilize historical building data, utility data, and information obtained by the Utility to identify ECPs. Using this information, the Utility will generate a prioritized list of recommendations, in sequence of implementation, that are life-cycle cost-effective and can be implemented in the facility being audited. The preliminary audit, to the extent applicable, shall include, but not be limited to, the following information:

- (a) Preliminary estimated energy and water savings.
- (b) Preliminary estimated cost savings, including reduced maintenance costs.
- (c) Current utility rates.
- (d) Preliminary retrofit cost.
- (e) Utility financial incentive/rebate, if any.
- (f) Description of existing equipment.
- (g) Description of the proposed retrofit equipment.
- (h) Overview of the general environmental impact and potential hazardous wastes identified through existing facility records, if any.

GC.16 ECM Proposal. After reviewing the preliminary audit, the Government may request a proposal from the Utility, for the evaluation of an ECM. The Utility shall submit an ECM proposal, setting forth a prioritized list of the recommended ECPs within the ECM, a preliminary estimate of the cost to implement each ECP, the total costs for implementing the ECM (including estimated feasibility study, engineering and design, and implementation costs), and estimated cost savings.

GC.17 Energy Conservation Projects. The Utility may propose ECMs which include one or more ECPs. ECPs that substitute one energy type for another (e.g., natural gas in lieu of electricity) will not be considered for implementation unless a net overall energy or cost reduction can be demonstrated based on current market energy prices. Potential ECPs include, but are not limited to:

- (a) Interior and exterior lighting replacement.
- (b) Transformer replacement.
- (c) Lighting control improvements.
- (d) Motor replacement with high efficiency motor.
- (e) Construction of alternative generation or cogeneration facilities.
- (f) Boiler control improvements.
- (g) Packaged air conditioning unit replacement.
- (h) Cooling tower retrofit.

- (i) Economizer installation.
- (j) Energy management control system (EMCS) replacement/alteration.
- (k) Occupancy sensors.
- (l) LED exit sign installation.
- (m) Fans and pump replacement or impeller trimming.
- (n) Chiller retrofit.
- (o) Upgrade of natural gas-fired boilers with new controls (low NOX burners).
- (p) Solar domestic hot water system.
- (q) Solar air preheating system.
- (r) Steam trap maintenance and replacement.
- (s) Insulation installation.
- (t) Variable speed drive utilization.
- (u) Weatherization.
- (v) Window replacement.
- (w) Window coverings and awnings.
- (x) Reflective solar window tinting.
- (y) Fuel cell installation.
- (z) Photovoltaic system installation.
- (aa) Faucet replacement (infrared sensor).
- (bb) Replacement of air conditioning and heating unit with a heat pump.
- (cc) Addition of liquid refrigerant pump to a reciprocating air conditioning unit.
- (dd) High efficiency refrigerator replacement.
- (ee) High efficiency window air conditioner replacement.
- (ff) Water conservation device installation (e.g., flow restrictors, low flow flush valves, waterless urinals, horizontal axis washing machines).
- (gg) Installation, maintenance and operation of power quality and reliability measures including UPS systems, back-up generators, emergency generators.
- (hh) Fuel switching technology.
- (ii) Infrared heating system.
- (jj) Heat pipe dehumidification.
- (kk) Flash bake commercial cooking.
- (ll) Thermal energy storage system.
- (mm) Operation, maintenance, modification and/or extension of utility distribution and collection system.
- (nn) Training that will result in reduced energy costs.
- (oo) Power factor correction measures and equipment.
- (pp) Installation, maintenance and operation of standby propane facility.
- (qq) Installation, maintenance and operation of gas distribution system and associated equipment.
- (rr) Water distribution system leak detection, and cost effective repair.
- (ss) Any other ECP that is cost effective using the then-current DoD-prescribed procedures and standards, and which encourages the use of renewable energy, reduces the Government's energy consumption or energy demand, or results in other energy infrastructure improvements.

GC.17.1 ECM Restrictions. The Government shall not consider ECMs which include:

- (a) Measures which could jeopardize existing agency missions.
- (b) Measures which could jeopardize the operation of, or environmental conditions of computers or computer rooms.
- (c) Unless waived by the Contracting Officer, measures that would result in increased water consumption (e.g., once-through fresh water cooling systems).
- (d) Measures which would violate any federal, state, or local laws or regulations.
- (e) Measures which degrade performance or reliability of existing Government equipment.
- (f) Unless waived by the Contracting Officer, measures that would reduce energy capacity currently reserved for future growth, mobilization needs, safety, emergency back-up, etc.
- (g) Measures that violate the then-current versions of the National Electric Code, the National Electric Safety Code, the Uniform Building Code, or the Uniform Mechanical Code.
- (h) Utility-financed measures that do not result in savings in the base utility expenditures sufficient to cover the project costs.

GC.17.2 Facility Performance Requirements of ECMs. ECMs proposed by the Utility shall conform to the following facility performance standards:

- (a) Lighting levels shall meet the minimum requirements of the then-current Illuminating Engineering Society (IES) Lighting Handbook.
- (b) Heating and cooling temperature levels shall meet Government design standards.
- (c) ECMs shall permit flexible operation of energy systems for changes in occupancy levels and scheduling of facilities. In proposing an ECM, the Utility may assume the building function will remain constant unless otherwise indicated by the Government.

GC.18 Task Orders. Following the evaluation of the ECM proposal, the Government may elect to execute a T.O. with the Utility for the evaluation, implementation, or operation and maintenance of the ECM. If requested by the Government, the Utility will provide or obtain financing on terms at least as good as those available to customers in a comparable service class, or with a comparable risk profile, considering the nature of the security interests to be granted, if any, and other conditions affecting the cost of financing.

The T.O. may have five phases; Audit (when applicable), Feasibility Study Phase, Engineering and Design Phase, Implementation Phase, and Operation and Maintenance Phase. Because the extent of all the work is unlikely to be known at the time the T.O. is entered into, these phases shall be line items under the T.O., and shall be issued with an estimated Termination Schedule at the time the T.O. is executed. However, work will not commence on a particular phase unless and until a statement of work and a price for that phase have been agreed upon.

Following completion and acceptance of the Feasibility or Engineering and Design Phases, the Government may elect to (i) pay the ECM Cost for each completed Phase within thirty (30) calendar days of being invoiced; or (ii) defer payments for that Phase until the end of the next Phase, at which time the Government shall pay the ECM Cost for each completed Phase within thirty (30) calendar days of invoice; or (iii) include such amounts in the ECM Cost, if the Government elects to proceed with the Implementation Phase. If the Government elects not to proceed with the next Phase, it shall pay the Utility the ECM Cost for the prior completed Phases, plus a Carrying Charge as negotiated by the parties in the T.O. A decision to proceed or not to proceed with the next Phase must be made within sixty (60) days of receipt of a written request from the Utility. Only the Contracting Officer shall be authorized to exercise the Government's option to proceed to the next Phase, and such exercise shall be provided in writing within sixty (60) days of receipt of a statement of work and price. Government finance payments for the Implementation Phase shall begin on the date of the first Utility bill following the 30-day period after the Government takes possession of all or part of the ECM as provided in FAR, Part 36, Subpart 36.511, and a satisfactory ECM Performance Verification as defined in the T.O. and pursuant to Section GC.12 of this Agreement. The timing and amount of Government payments of appropriated funds for the Operation and Maintenance Phase shall be determined in the T.O. The T.O. shall be subject to any legally-required Federal Acquisition Regulations. Because services may vary widely from one T.O. to another, the Contracting Officer will insure that the appropriate FAR clauses from the FAR matrix found at FAR, Part 52, Subpart 52.301, are incorporated into any contract entered into by the parties for services provided by the Utility under the T.O.

GC.19 ECM Feasibility Study Phase. The Task Order shall set forth a scope of work feasible (the "~~Feasibility~~ Feasibility Study"). The Task Order shall specify the terms for the completion of the Feasibility Study and establish a price for the Feasibility Study. The Government will pay the Utility the agreed-upon price for the Feasibility Study in accordance with the T.O. If the Government elects to proceed with the Engineering and Design Phase as set forth below in Paragraph GC.20, the cost of the Feasibility Study shall be rolled into the Engineering and Design Phase ECM Cost. The Feasibility Study will provide, at a minimum, the following information:

Technical Factors:

- (a) Audits of energy consumption of existing equipment and facilities, including estimated energy and cost savings, and proposed retrofit costs and financial incentives/rebates.
- (b) Water audits of supply and utilization facilities, if specified by the Government.
- (c) Equipment to be removed or replaced, and new equipment to be installed.
- (d) Specifications, including catalog cuts, for new equipment. Specifications should include (as applicable): power rating, estimated energy consumption, input/output, power ratio, lighting level, and estimated equipment life.
- (e) Operation and maintenance procedures required after ECM implementation (if significantly altered by the ECM).

- (f) Training that will be provided for the proper operation and maintenance of ECPs, including details on how many hours of training will be provided and how many people will be trained.
- (g) Electrical and mechanical sketches for all ECPs that involve changes to existing systems (sketches will not be required for ECPs involving only component replacement).
- (h) Government support (e.g., minor changes in Government operation, movement of equipment) required during implementation of the ECM.
- (i) Utility interruptions needed for implementation of each ECP by type (gas, electricity, water, etc.), extent (room number, entire building, etc.) and duration.
- (j) Identification of potential adverse environmental effects.
- (k) Any documentation required to comply with applicable environmental laws.
- (l) Estimated construction time in calendar days, showing significant milestones.
- (m) Estimated annual energy savings in kilowatt-hour and kilowatt demand of electricity, decatherms of natural gas, and cubic feet of water for the life of each ECP, including all assumptions and detailed calculations showing how savings were determined.
- (n) Estimated equipment life for each ECP.
- (o) A proposed method to verify energy savings at the time of ECM Acceptance which shall be subject to Government approval.
- (p) Documentation that each proposed ECP has been recommended and selected without regard to fuel source.

Cost Factors:

- (a) Estimated annual operation costs (e.g., increased use of alternate fuel sources, replacement filters) and increased maintenance costs (e.g., relamping with a higher cost product).
- (b) Total estimated ECM Cost to the Government.
- (c) Estimated breakdown of financial incentives/rebates for each ECM (if any) in a format mutually agreeable to the Parties.
- (d) Estimated cost-of-money rate (percent).
- (e) Estimated annual energy and operation and maintenance cost savings including details on estimated annual savings for each area of savings, such as lighting, controls, motors and transformers.
- (f) Estimated breakdown of implementation costs for each area of energy savings, such as lighting, controls, motors and transformers.
- (g) Estimated costs for replacing existing components and installing new components/systems, listed separately.
- (h) Estimated unit costs for major components and systems.
- (i) An estimated life cycle cost analysis prepared in accordance with the then-current edition of the *Energy Prices and Discount Factors for Life-Cycle-Cost Analysis*, published as the annual supplement to the National Institute of Standards and Technology (NIST) Handbook 135.

GC.20 ECM Engineering and Design Phase. After evaluation and Acceptance of the feasibility study, the Government may elect to proceed with the Engineering and Design Phase. Prior to proceeding, the Parties shall agree upon a statement of work for all engineering and design services necessary for the implementation of a particular ECM, a time frame for completion of the work, and a price or cost cap for engineering and design work for the ECM. If the Government elects to proceed with the Implementation Phase as set forth below, the cost of the engineering and design work shall be rolled into the total ECM Cost. This T.O. shall include an estimated amortization schedule for the ECM.

GC.20.1 Verification of Floor Plans. The Utility will verify the accuracy of any floor plans provided by the Government.

GC.20.2 Government Design Review. Task Orders shall permit adequate time for Government review of engineering and design work at 35% and 95% design completion, or at any other stage, as negotiated in the T.O.

GC.20.3 Site Plans. If proposed ECMs require installation outside existing buildings or structures, a site plan showing recommended siting of ECMs shall be prepared for Government review and approval. Site plans shall be submitted as part of the Utility's proposal. It is recommended that the Utility propose alternate sites for review in case the primary site is unavailable.

GC.20.4 ECM Implementation Proposal. Upon completion and Acceptance of the Engineering and Design Phase, the Utility will submit to the Government an ECM implementation proposal (the "Proposal"). If requested by the Contracting Officer, the Utility will be required to present a briefing to the Government explaining the Proposal. At a minimum, the Proposal shall include all pertinent technical and cost factors listed in paragraph GC.19 of this Agreement, plus a copy of subcontractor(s) bid(s). The Proposal shall also set forth negotiated pricing criteria that describe the method for determining the prices to be paid to the Utility for supplies or services. The Government shall evaluate the Proposal for technical soundness and price reasonableness. If the Government elects to proceed with the ECM, the Utility and Government shall agree upon a complete scope of work with specifications, time for performance, ECM Cost, source and cost of capital or financing, payment terms, amortization schedule, and final Termination Schedule. If the Contracting Officer deems it appropriate, the Utility will provide acceptable performance and payment bonds.

GC.21 ECM Implementation Phase. The Utility shall perform work in accordance with the T.O. The following provisions shall apply to ECM implementation work performed pursuant to T.O.s executed under this Agreement, unless exceptions are provided in the T.O.

GC.21.1 Pre-Work Requirements. Prior to commencing ECM implementation Work on a T.O., the Utility shall meet with the Contracting Officer or COR at a time mutually

agreeable to the Utility and the Contracting Officer, to discuss and develop mutual understandings relative to safety, scheduling, performance, obtaining necessary permits, and administration of the Implementation Phase. Prior to commencement of on-site work, written approval of the following shall be obtained from the Contracting Officer by the Utility:

- (a) The utility's proposed implementation schedule, indicating the installation period and time required for delivery of equipment.
- (b) Evidence that the required insurance has been obtained.

GC.21.2 Interruptions. The Utility shall arrange on-site work to minimize interference with normal Government operation. All interruptions shall be made outside occupied periods whenever possible and coordinated with the Contracting Officer or COR. The Utility shall endeavor to keep the duration of utility interruptions to a minimum. Requests for utility outages shall be submitted for approval, in writing, as specified in the T.O. The request shall include the approximate duration, date, time, and reason for the interruption. Utility interruptions include, but are not necessarily limited to, the following systems:

- (a) electrical
- (b) natural gas
- (c) sewer
- (d) steam
- (e) water
- (f) telephone
- (g) computer cables

GC.21.3 Construction Documentation. The Utility shall provide construction drawings and specifications, certified by a registered engineer or architect, as applicable, to ensure compliance with all applicable federal, state and local codes and regulations as required by individual T.O.s.

GC.21.4 Standardization of Materials. All materials proposed to be installed pursuant to this Agreement shall be readily commercially available, and as similar in form, fit, and function to each other as is practicable to allow efficient provisioning of replacement parts.

GC.21.5 Water Conservation Measures. The Utility will consider water conservation in all ECMs. The Utility will obtain rebates from the local water utility if available. Rebates, if any, shall be applied to the cost of the project.

GC.21.6 Operation and Maintenance Manuals. At the time of Government Acceptance of a completed ECM, the Utility shall furnish, for the equipment specified, operation and maintenance manuals and recommended spare parts lists identifying components adequate for competitive supply procurement for operation and maintenance of ECM equipment. The operation and maintenance manuals shall include maintenance schedules for all equipment. The scope of each manual shall be agreed upon in the T.O.

GC.21.7 Government Personnel Training for ECPs. The Utility shall train Government personnel, as required, to operate, maintain, and repair ECM equipment and systems. The date and time of training shall normally be coordinated with the Contracting Officer or COR prior to Acceptance of the ECM. The cost for such training shall be included in the ECM Cost.

GC.21.8 As-Built Drawings. Within forty-five (45) calendar days after Government Acceptance of each installed ECM, the Utility shall submit as-built drawings to the Contracting Officer or COR. Drawings will not be required for component replacement. Drawings shall include at a minimum:

- (a) Installation (i.e., form, fit, and attachment details) of the interface between ECM equipment and existing Government equipment.
- (b) Location and rating of installed equipment on building floor plans.

GC.21.9 Installation. The Utility will arrange for the installation of approved ECMs and construction oversight and verify that the designed and specified energy efficiency equipment and/or system modifications are properly supplied or installed in a manner that will give the intended long term demand and energy reductions. The Utility will select Subcontractors in accordance with paragraph GC.7 above.

GC.22 Operation and Maintenance Phase. The Government may elect to have the Utility perform the operation and maintenance on part or all of the ECM. Before exercising its option for this Phase, the Government and Utility shall agree upon a complete scope of work with specifications, schedules, warranties, and cost.

GC.23 Required FAR Clauses. The following FAR clauses are required to be included in any contract with the Government:

52.203-3, *Gratuities*; 52.203-5, *Covenant Against Contingent Fees*; 52.203-7, *Anti-Kickback Procedures*; 52.222-3, *Convict Labor*, 52.222-25, *Affirmative Action Compliance*; 52.222-26, *Equal Opportunity*; 52.223-6, *Drug Free Workplace*; 52.233-1, *Disputes*

WARRANTIES AND REMEDIES

WR.1 Warranties. The Utility shall pass through to the Government all warranties on equipment installed pursuant to a T.O. In addition, the Utility shall provide, from the date of Acceptance or Government Possession of an ECP, whichever is earlier, a one-year comprehensive wrap-around warranty guaranteeing that the equipment installed shall perform in accordance with the specifications agreed upon between Government and Utility, as set forth in the applicable T.O. In the event the Utility provides O&M services, a separate warranty will be negotiated for such services, in accordance with FAR Part 52, Subpart 52.246-20.

WR.2 No Other Warranties. The warranties set forth in WR.1 are exclusive and in lieu of all other warranties. The Utility makes no other representations or warranties of any

kind with respect to the services and products it provides pursuant to this Agreement and subsequent T.O.s. The Utility does not guarantee any level of energy or water savings or cost reductions.

WR.3 Utility Limitation of Liability. The Utility shall not be liable for any special, incidental, indirect, or consequential damages, connected with or resulting from the performance or non-performance of work under this Agreement or subsequent T.O.s. In addition, the Utility shall not be liable under its warranty to the extent that damages are caused by Government negligence.

WR.4 Utility Default. The Government and Utility agree that Utility default provisions will be governed by those FAR clauses applicable to specific circumstances. A determination of applicable FAR default clauses will be made by the Contracting Officer for a specific T.O.

WR.5 Prompt Payment. As required in FAR, Part 32, Subpart 32.903, the Government shall promptly pay ECM utility bills. Late payments shall accrue interest as provided in FAR, Part 32, Subpart 32.907.

WR.6 Disputes. Disputes that arise under this Agreement and subsequent T.O.s shall be governed by the applicable dispute provisions found at FAR, Part 33, Subpart 33.2.

WR.7 Differing Site Conditions. In the event site conditions differ materially from those contained in the T.O., additional costs incurred by the Utility due to the differing conditions shall be negotiated prior to work, and the ECM Cost shall be increased to reflect an equitable adjustment as permitted in FAR, Part 36, Subpart 36.502.

WR.8 Suspension of Work. In the event work is delayed, suspended, or stopped by the Government, FAR, Part 42, Subpart 42.13 shall apply.

FINANCING AND PAYMENT PROVISIONS

FP.1 Energy Savings and Financing. It is intended that the life-cycle energy and related savings achieved from the implementation of an ECM funded or financed in a UESC project will produce financial savings to the Government that are equal to or greater than the cost of implementing the ECM, including the cost of financing, if applicable, provided under this Agreement. The payment term shall be in accordance with Agency policy following current legislation, legal opinions, and Agency guidance.

FP.2 Financial Incentives, Rebates, and Design Assistance. The Utility will provide to the Government the same financial incentives, rebates, design review, goods, services, and/or any other assistance provided without charge that is generally available to customers of a similar rate class or size. Incentives that may be available are to be identified in the preliminary audit report provided according to paragraph GC.15 and the ECM implementation proposal provided according to paragraph GC.20.4.

If rebates are available and have been applied for by the Government and such funds have been set aside, then the Utility shall provide a separate letter of agreement clarifying timelines and responsibilities of both parties and guaranteeing rebates and other incentives from the Utility to the Government.

The Utility shall also be responsible for determining the source, value, and availability of any applicable financial incentives to the project offered by the state and other jurisdictions in which the facility is located, and if the value of the incentives exceeds the administrative costs to be incurred by the Utility or the Government in acquiring such incentives.

The Utility shall be responsible for coordinating with the Agency Contracting Officer regarding preparation of any and all documentation required to apply for any such applicable financial incentives and to effectively apply such incentives to the capital cost of the project.

Rebate disbursement options include:

- Option 1: The Utility shall apply rebates to the next payment due to reduce capital cost of the project.
- Option 2: Where allowable by the Public Utility Commission, the Government may assign rebate to a third party to reduce the construction costs and thereby reduce the total amount financed.
- Option 3: Rebates may be accepted as a credit on the utility bill.

FP.3 Calculation of Payment. Payment for accepted ECMs shall be equal to the ECM Cost amortized over a negotiated term. In accordance with 10 U.S.C., Section 2912, the cost of financing, if any, for any completed ECM shall be recovered under terms and conditions no less favorable than those for others in the same customer class. Monthly payments will commence on the date of the first Utility bill following the 30-day period after the date the Government takes Possession of the ECM, and after ECM Performance Verification Testing, as required by GC.12 and negotiated in the T.O., is satisfactorily completed.

FP.4 Buydown. The Government reserves the right at any time following Acceptance, but prior to final payment, to buy down the outstanding T.O. payments without penalty by giving thirty (30) days' written notice to the Utility. Upon such buydown, the Government shall pay to the Utility a negotiated amount to include an additional finance charge based on an indexed formula, which reduces the financier's risk and reduces the cost of buydown to the Agency, or provide a termination schedule. Monthly payments will continue at the same level, but the term of ECM financing will be shortened to reflect the amount of the buydown payments.

FP.5 Pre-Acceptance Buyout. If the Government desires to terminate a T.O. for any reason (including, without limitation, for convenience) prior to Acceptance, the Government may do so by giving written notice to the Utility thirty (30) days prior to the effective date of such termination. The Government shall pay to the Utility a negotiated

amount to include an additional finance charge based on an indexed formula, which reduces the financier's risk and reduces the cost of buyout to the Agency, or provide a termination schedule which will be described in Attachment A of the T.O. If a termination occurs for the convenience of the Government, the amount payable pursuant to this paragraph shall be deemed as an allowable cost under FAR. (See Part 17 and Part 52, Subpart 52.249-2.)

FP.6 Post-Acceptance Buyout. In the event the Government desires to terminate a T.O. for any reason (including, without limitation, for convenience) after Acceptance, the Government may do so by giving written notice to the Utility thirty (30) days prior to the effective date of such termination. The Government shall pay to the Utility a negotiated amount to include an additional finance charge based on an indexed formula, which reduces the financier's risk and reduces the cost of buyout to the Agency, or provide a termination schedule which will be described in Attachment B of the T.O. If a termination occurs for the convenience of the Government, the amount payable pursuant to this paragraph shall be deemed as an allowable cost under FAR. (See Part 17 and Part 52, Subpart 52.249-2.)

FP.7 Assignment of Claims. Government payments under each T.O. executed pursuant to this Agreement may be assigned pursuant to FAR, Part 52, Subpart 52.232.23, —Assignment of Claims.” Any bank, trust company, or other financing institution that participates in financing an ECM shall not be considered a Subcontractor of the Utility. Any —Assignment of Claims” must comply with the provisions of FAR, Part 32, Subpart 32.8.

FP.8 Novation. The Parties agree that if, subsequent to the execution of this Agreement, it should become necessary, or desirable, to execute a —Novation Agreement,” said Novation Agreement will comply with the provisions of FAR, Part 42, Subpart 42.12 and will be in the form as provided at FAR, Part 42, Subpart 42.1204.

SPECIAL REQUIREMENTS

SR.1 Environmental Protection. The Utility shall comply with all applicable federal, state, and local laws, regulations, and standards regarding environmental protection ("Environmental Laws"). All environmental protection matters shall be coordinated with the Contracting Officer or designated representative. The Utility shall immediately notify the Contracting Officer of, and immediately clean up, in accordance with all federal, state and local laws and regulations, all oil spills, hazardous wastes (as defined at 42 U.S.C. §9601), and hazardous materials (as defined at 49 C.F.R. Pt. 172), collectively referred to as —hazardous Materials,” resulting from its operation on Government property in connection with the implementation of ECMs. The Utility shall comply with the instructions of the Government with respect to avoidance of conditions that create a nuisance or create conditions that may be hazardous to the health of military or civilian personnel.

SR.2 Environmental Permits. Unless otherwise specified, the Utility shall provide, at its expense, all required environmental permits and/or permit applications necessary to comply with all applicable federal, state, and local requirements prior to implementing any ECM in the performance of a T.O. executed pursuant to this Agreement. If any such permit or permit application requires the signature or other cooperation of the Government as owner/operator of the property, the Government agrees to cooperate with the Utility in obtaining the necessary permit or permit application.

SR.3 Handling and Disposal of Hazardous Materials. Notwithstanding the provisions of the FAR Part 52, Subparts 52.236-2 "Offering Site Conditions" and 52.236-3 "Site Investigations and Conditions Affecting Work," the Government understands and agrees that (i) the Utility has not inspected, and will not inspect, the project site in connection with a proposed ECM for the purpose of detecting the presence of pre-existing Hazardous Materials that relate to an ECM or any project site; and (ii) the Government shall retain sole responsibility for the proper identification, removal, transport, and disposal of any fixtures, components thereof, or other equipment or substances incidentally containing pre-existing Hazardous Materials, except as specifically agreed to by the Utility pursuant to paragraphs SR.4 and SR.5 (below).

If the Utility, during performance of the work under a T.O. executed pursuant to this Agreement, has reason to believe that it has encountered or detected the presence of pre-existing Hazardous Materials, the Utility shall stop work and shall notify the Government. The Government will evaluate the site conditions and notify the contractor of the results of this evaluation. The Utility shall not be required to recommence work until this situation has been resolved. Any delay resulting therefrom shall be grounds to request an increase in the ECM Cost to the extent that such delay increases ECM costs.

SR.4 Asbestos and Lead-Based Paint. To the extent provided for in a T.O. executed pursuant to this Agreement, in connection with the implementation of any ECM, the Utility may agree to remove pre-existing asbestos-containing material or lead-based paint, incidental to implementation of an ECM. However, unless the Utility explicitly agrees in said T.O. to perform any portion of the testing, removal, or abatement of the pre-existing asbestos or lead-based paint as part of the scope of work for any ECM, and unless the T.O. specifically references this paragraph SR.4, the Government shall be deemed to be solely responsible as provided for in paragraph SR.3.

If the Utility in the course of ECM implementation disturbs suspected lead-based paint or asbestos-containing material, the Utility may propose to the Government that the Utility will perform any portion of the testing, removal, or abatement of the lead-based paint or asbestos-containing material. Said proposal will include the requested increase in the ECM cost on account of such additional work. The Utility will not commence work involving additional cost without approval of the Contracting Officer.

Provisions of paragraph SR.3 shall apply in the absence of an agreement to the contrary.

If the Utility agrees to include any portion of the testing, removal, or abatement of the asbestos within the scope of work for an ECM implemented as described previously in this section, the hazardous waste manifests or other shipping papers shall identify the Government as the sole generator of the Hazardous Materials.

SR.5 Refrigerants, Fluorescent Tubes, and Ballasts. To the extent provided for in a T.O. executed pursuant to this Agreement in connection with the implementation of any ECM, the Utility shall remove and/or dispose of all ozone-depleting refrigerants, fluorescent tubes, and fluorescent magnetic core and coil ballasts incidental to an ECM to the Hazardous Materials (HAZMAT) disposal site on the installation. If there is no HAZMAT disposal site on the installation, the above HAZMAT will be disposed of in accordance with all applicable federal, state, and local laws and regulations, provided however, that the hazardous waste manifests or other shipping papers shall identify the Government as the sole generator of the Hazardous Materials.

SR.6 Ozone-Depleting Refrigerants. All ozone-depleting (ODC) refrigerants will remain the property of the installation. The Contractor will collect all ODCs and provide them to the installation in accordance with the procedures in the T.O.

MASTER AGREEMENT

EXHIBIT "C"

Contractor's ID NO. _____ (Optional)
Ordering Agency's ID NO. _____ (Optional)

**AUTHORIZATION FOR ENERGY MANAGEMENT SERVICES
CONTRACT NO. _____**

Ordering: _____

Agency: _____

Address: _____

Pursuant to Contract No. _____ between the Contractor and the United States Government and subject to all the provisions thereof, service to the United States Government under such contract shall be rendered or modified as hereinafter stated. Contract Articles 2 and 4 shall be followed for the initiation of service under this contract.

PREMISES TO BE SERVED: _____

SERVICE ADDRESS: _____

NATURE OF SERVICE:

- | | |
|---|---|
| <input type="checkbox"/> Preliminary Energy Audit | <input type="checkbox"/> ECP Engineering & Design Study |
| <input type="checkbox"/> Energy Conservation Project (ECP) Installation | <input type="checkbox"/> Demand Side Management (DSM) Project |
| <input type="checkbox"/> ECP Feasibility Study | <input type="checkbox"/> Special Facilities |
| <input type="checkbox"/> Other (See Remarks Below) | |

SERVICE HEREUNDER shall be provided consistent with the Contractor's applicable tariffs, rates, rules, regulations, riders, practices, and/or terms and conditions of service, as modified, amended or supplemented by the Contractor and approved, to the extent required, by the Commission. (See Article 5 of this contract.)

ESTIMATED PROJECT COST: \$ _____ Capital Cost: \$ _____ % of Cost
Financed: _____ %

REBATE AMOUNT (IF APPLICABLE): \$ _____
SIMPLE PAYBACK _____ YEARS

ACCOUNTING AND APPROPRIATION DATA: _____

ENERGY CONSERVATION MEASURES:

- Mechanical System Upgrades Controls Lighting Renewable(s)
- Steam System Upgrades Cogeneration Water Conservation
- Others _____

LIST OF ATTACHMENTS:

- General Conditions Payments Provisions Special Requirements Economic Analysis
- Facility Site Plans Historical Data Utility Usage History ECP Feasibility Study
- Design Drawing Design Specifications Certifications Commission Schedules

REMARKS:

ACCEPTED:

_____ (Ordering Agency)	_____ (Contractor)
By: _____ (Authorized Signature)	By: _____ (Authorized Signature)
Title: _____	Title: _____
Date: _____	Date: _____

NOTE: A fully executed copy of this Authorization shall be transmitted by the Contracting Officer to General Services Administration, WPE, Washington, DC 20407

**JUSTIFICATION AND APPROVAL
FOR
OTHER THAN FULL AND OPEN COMPETITION**

1. **Contracting Activity:** (FACILITY NAME), ATTN: _____
(LOCATION) _____

2. **Description of Action:** This action will establish a new Basic Ordering Agreement between the (SITE NAME AND UTILITY NAME) and will establish terms and conditions to receive energy management services by issuing separate task orders or contracts. The task orders will be funded by (FUNDS Account). The task orders will each be fixed-price type contracts.

3. **Description of Supplies/Services:** The (UTILITY NAME) will provide energy and water conservation and demand side management type projects and services to reduce energy consumption, directly or indirectly reduce the peak period demand, and provide energy related operations, maintenance, and repair services for natural gas, steam, electric power, water, or waste water at (SITE NAME) facilities. The energy conservation projects will be amortized for a term not to exceed ten years and the monthly payment will be included on the utility bill. The energy conservation projects will be required to show a net overall savings and thus the cost of the projects will be covered by the utility savings.

4. **Authority Cited:**

- Energy Policy Act of 1992 (42 USC Section 8256), Incentives for Agencies — Legislation addressing contracts, the Federal Energy Efficiency Fund, utility incentive programs, and the Financial Incentive Program for Facility Energy Managers.
- Energy Savings Contracts and Activities (10 USC Section 2913) — Legislation regarding energy-saving goals and plans at military facilities.
- Water Conservation at Military Installations (10 USC Section 2866) — Legislation regarding water-saving goals and plans at military facilities.
- Federal Acquisition Regulations (FAR), 6.302-5—FAR, Subpart 6.3 – Other than Full and Open Competition.
- Executive Order 13423: Strengthening Federal Environmental, Energy and Transportation Management — An Executive Order addressing energy reduction goals for Federal facilities.
- DEPPM 94-1, Subject: Participation in Public Utility Sponsored Energy Conservation and Demand Side Management (EC/DSM) Programs (PDF 188 KB, 32 pp) — A Defense Energy Program Policy Memorandum establishing guidelines for participation in EC/DSM programs offered by or to be negotiated with public utilities.

5. Reason for Authority Cited

Energy Policy Act of 1992 (42 USC Section 8256) – This legislation says that —Agencies are authorized and encouraged to participate in programs to increase energy efficiency and for water conservation or the management of electricity demand conducted by gas, water, or electric utilities and generally available to customers of such utilities.”

Energy Savings Contracts and Activities (10 USC Section 2913) – This legislation says that —The Secretary of Defense shall permit and encourage each military department, Defense Agency, and other instrumentality of the Department of Defense to participate in programs conducted by any gas or electric utility for the management of electricity demand or for energy conservation or by any utility for water conservation activities.”

Water Conservation at Military Installations (10 USC Section 2866) – This legislation says that —The Secretary of Defense shall permit and encourage each military department, Defense Agency, and other instrumentality of the Department of Defense to participate in programs conducted by a utility for the management of water demand or for water conservation.”

Federal Acquisition Regulations (FAR), 6.302-5 provides that full and open competition is not required where a statute; i.e., 10 USC 2913 (D) (3), expressly authorizes that an acquisition be made from a specified source; i.e., the servicing gas or electric utility. See also DOD memo for 021A from 09CB1, dated 29 Jan 93, L & AP Book p. 13-14.

Executive Order 13423 authorizes and encourages the use of utility energy-efficiency service contracts to meet the goals set out in the order.

DEPPM 94-1 was developed by Defense Components with Army leadership as chair and establishes the guidelines for participation in energy conservation and demand side management (EC/DSM) programs. This memorandum also states that it remains Defense policy that all DoD installations actively investigate and participate in EC/DSM programs offered by their utility companies. This guidance specifically allows for the direct negotiation with the utility companies or contractors approved and competitively selected by the utilities for the installation of improved energy efficiency, demand or energy reduction equipment, where utility incentives cover a portion or the entire amount of the implementation cost. This guidance specifically allows for the direct negotiation with utility companies for the development of EC/DSM programs not currently available.

6. Efforts to Obtain Competition: Not applicable. Per authorities cited above, these types of agreements are limited to either the servicing gas or electric utilities, or both.

7. Actions to Increase Competition: Not applicable. Per authorities cited above, these types of agreements are limited to either the servicing gas or electric utilities, or both.

8. **Market Research:** Not applicable. Per authorities cited above, these types of agreements are limited to either the servicing gas or electric utilities, or both.

9. **Interested Sources:** Not applicable. Per authorities cited above, these types of agreements are limited to either the servicing gas or electric utilities, or both.

10. **Other Facts:**

11. **Technical Certification:** I certify that the supporting data under my cognizance which are included in the justification are accurate and complete to the best of my knowledge and belief.

Name: _____ Date: _____
Title

Signature: _____

12. **Requirements Certification:** I certify that the supporting data under my cognizance which are included in the justification are accurate and complete to the best of my knowledge and belief.

Name: _____ Date: _____
Title

Signature: _____

13. **Fair and Reasonable Cost Determination:** I hereby determine that the anticipated cost to the Government for contracts issued under this BOA action will be fair and reasonable. The basis for this determination is _____
_____ .

Name: _____ Date: _____
Title

Signature: _____

14. **Contracting Officer Certification:** I certify that this justification is accurate and complete to the best of my knowledge and belief.

Name: _____ Date: _____
Title

Signature: _____

Approval

Based on the foregoing justification, I hereby approve the establishment of the Basic Ordering Agreement with (Utility name) authority for energy and water conservation and demand side management services on an other than full and open competition basis, pursuant to the authority of 10 U.S.C. 2913, and 42 USC Section 8256, subject to the availability of funds, and provided that the services herein described have otherwise been authorized for acquisition.

Date: _____ Signature: _____

GUIDE TO GOVERNMENT WITNESSING AND REVIEW OF POST-INSTALLATION AND ANNUAL M&V ACTIVITIES

A8.1. The base EM and/or COR must witness the Utilities M&V activities. This requires a thorough understanding of the awarded M&V plan to ensure the Utility is following the proper (i.e., contractual) methods, procedures, calculations, and other elements of the approved M&V plan.

A8.2. FEMP has written guidance, *Guide to Government Witnessing and Review of Post-Installation and Annual M&V Activities*, which is required when using a DOE ESPC contract. It is also useful for other third party financed contract vehicles (e.g., Air Force regional contracts), since it provides detailed energy-savings validation guidance to government agencies. The document addresses witnessing baseline, post-installation, first-year, and annual M&V inspections and analyses as well as commissioning of installed energy conservation projects/measures (ECP/ECM) by a utility. In addition, it recommends a process in which agencies designate an individual(s) to observe these inspections, review the resulting M&V reports, and certify in writing that those reports are acceptable and validate the actual savings. This guidance may also help the base pass an audit.

A8.3. FEMP has also published *Reviewing Post-Installation and Annual Reports for Federal ESPC Projects* to assist agencies when reviewing post-installation and annual M&V reports received from the Utility.

A8.4. These and other useful guidance documents can be found at:
http://www1.eere.energy.gov/femp/financing/espcs_resources.html.

DISTRIBUTION LIST

SPECIAL INTEREST ORGANIZATIONS

Information Handling Services (1)
15 Inverness Way East
Englewood CO 80150

Construction Criteria Database (1)
National Institute of Bldg. Sciences
1201 L Street NW, Suite 400
Washington, DC 20005