

DEPARTMENT OF STATE

No: 8247

Date: August 28, 2012

Approved Hon. Kenneth D. McClintock
Secretary of State



By: Eduardo Arosemena Muñoz
Assistant Secretary for Services

GOVERNMENT OF PUERTO RICO

PUERTO RICO ENERGY AFFAIRS ADMINISTRATION

Energy Savings Performance Contract Regulation

RECIBIDO
ADMINISTRACION DE
ASUNTOS ENERGETICOS
2012 SEP 10 P 2:11



Commonwealth of Puerto Rico
Puerto Rico Energy Affairs Administration

**Energy Savings Performance Contract Regulation of the Puerto Rico
Energy Affairs Administration**

INDEX

CHAPTER 1: GENERAL PROVISIONS

Section 1.01: Title and Introduction	1
Section 1.02: Legal Basis	1
Section 1.03: Statement of Purpose	1
Section 1.04: Applicability	2
Section 1.05: Definitions	2

CHAPTER 2: ENERGY SAVINGS PERFORMANCE CONTRACTS OVERVIEW

Section 2.01: Overview of Energy Savings Performance Contracts	4
Section 2.02: Energy Service Companies (ESCO)	5
Section 2.03: The Basic ESPC Process	5
Section 2.04: ESPC Advantages	6
Section 2.05: ESPC Financing	6

CHAPTER 3: ESPC PROCESS OVERVIEW

Section 3.01: Assistance for Government Units	7
Section 3.02: Assistance for Non-qualifying Organizations	7
Section 3.03: Project Development Overview	7

CHAPTER 4: ESPC PROJECT DEVELOPMENT

Section 4.01: Understanding ESCO Services	8
Section 4.02: Energy Action Team	8
Section 4.03: Selecting Project Site(s)	8
Section 4.04: PREAA'S Assistance	9
Section 4.05: Memorandum of Understanding for Technical Assistance	9

CHAPTER 5: ENERGY SERVICE COMPANY (ESCO) SELECTION

Section 5.01: ESCO Selection Overview	9
Section 5.02: ESCO Qualifications	10
Section 5.03: ESCO Selection Process	10
Section 5.04: PREAA'S RFP Model	11

CHAPTER 6: INVESTMENT GRADE AUDIT (IGA)

Section 6.01: PREAA'S Model IGA Contract	14
Section 6.02: Investment Grade Audit Overview	14

Section 6.03: Scope of Work	15
Section 6.04: Notice of Acceptance of Investment Grade Audit Report	26
Section 6.05: Preliminary Measuring and Verification (M&V) Plan	26
Section 6.06: Payment for Investment Grade Audit (IGA)	26
CHAPTER 7: CONTRACT WITH ESCO TO IMPLEMENT ESPC PROJECT	
Section 7.01: PREAA'S Model Energy Savings Performance Contract (ESPC)	27
Section 7.02: Equipment to be Installed by ESCO	27
Section 7.03: Description of Project Site(s); Pre-existing Equipment Inventory	27
Section 7.04: Energy Savings Guarantee; Payment and Performance Bond	27
Section 7.05: Compensation to ESCO for Annual Services	28
Section 7.06: Baseline Energy Consumption	28
Section 7.07: Savings M&V Plan; Methodology to Adjust Baseline	28
Section 7.08: Construction and Installation	29
Section 7.09: Systems Start-up and Commissioning of Equipment; Operating Parameters of Installed Equipment	29
Section 7.10: Standards of Comfort	29
Section 7.11: ESCO's Maintenance Responsibilities	29
Section 7.12: Government Units Maintenance Responsibilities	30
Section 7.13: Facility Maintenance Checklist	30
Section 7.14: ESCO's Training Responsibilities	30
Section 7.15: Payment Schedule	30
Section 7.16: Alternative Dispute Resolution	30
Section 7.17: Annual Reporting Requirements	30
Section 7.18: Pre-existing Service Contracts	31
Section 7.19: Energy Savings Projections	31
Section 7.20: Facility Changes Checklist	31
Section 7.21: Current and Known Capital Projects at Facility	31
Section 7.22: Supervision by a Puerto Rico Registered P.E.	31
CHAPTER 8: MEASUREMENT AND SAVINGS VERIFICATION	
Section 8.01: ECM-specific M&V Plan and Savings Calculation Methods	32
Section 8.02: Proposed Energy and Water Savings Calculations and Methodology	32
Section 8.03: Operations and Maintenance (O&M) Cost Savings	33
Section 8.04: Post-installation M&V Activities	33
Section 8.05: Post-acceptance Performance Period Verification Activities	33
CHAPTER 9: ADDITIONAL PROVISIONS	
Section 9.01: Applicability	34
Section 9.02: Overlapping or Contradictory Provisions	34
Section 9.03: Severability	35
Section 9.04: Discrepancy between English and Spanish Versions	35
Section 9.05: Effectiveness	35

CHAPTER ONE: GENERAL PROVISIONS

SECTION 1.01 - TITLE AND INTRODUCTION

This Regulation shall be known as the “Energy Savings Performance Contracting Regulation.”

The Puerto Rico Energy Affairs Administration (PREAA) is the lead agency in charge of promoting the concept of Energy Savings Performance Contracting (ESPC) and the agency that spearheaded the enactment of Act No. 19 of January 17, 2012, signed into law on January 17, 2012, (Act 19-2012) also known as the “Energy Savings Performance Contracts Act”. Through Act 19-2012, the Government of Puerto Rico adopted ESPC’s as an indispensable tool for promoting efficient energy use. Given that ESPC’s are a fiscally sound and energy efficient way to lower energy consumption, all components of the Government of Puerto Rico are mandated by Act 19-2102 to promote, implement and execute effective strategies to achieve energy efficiency and conservation in their operations. All Government Units must promote the use of ESPC’s as a contractual mechanism to achieve efficiency, conservation, and integration of renewable energy, and must promote mechanisms for provision of capital and public or private funding through the ESPC’s.

Act 19-2012 grants PREAA specific powers to coordinate and oversee the implementation, verification and observance of the Act. PREAA is responsible for accrediting the Energy Service Companies (ESCO) and maintaining and updating annually the list of Qualified ESCO’s. As part of the implementation of Act 19-2012, PREAA must provide to the Government Units the necessary advice and information needed for the consummation of the ESPC’s. PREAA is called to provide guidance so that the Government Units incorporate and improve their energy efficiency, conservation and reduction plans in their daily operations.

SECTION 1.02 - LEGAL BASIS

This Regulation is issued in accordance with and pursuant to the powers conferred to PREAA under Act 19-2012 and Act No. 170 of August 12, 1998, (Act 170-1988) as amended, also known as the Uniform Administrative Procedures Act, and shall have force of law.

SECTION 1.03 – STATEMENT OF PURPOSE

The purpose of this “Energy Savings Performance Contracting Regulation” is to provide Government Units with a standardized process with clear direction and accountability for all participants in the development, implementation, measurement and verification of Energy Savings Performance Contracting projects, by defining roles and responsibilities; formalizing process steps; and providing standard contract documents. Contractual goals include: Reduction of energy use in state and local government buildings; Market transformation to establish performance contracting as a standard and accepted means to implement energy-saving projects; Comprehensive project development in order to achieve energy savings of twenty percent (20%) or more across all buildings; Infrastructure improvements completed through reallocation of utility costs in order to avoid use of scarce capital dollars (capital avoidance); Provide streamlined pre-approved approaches to help decision-makers more effectively follow-through

with performance contracting projects to ensure success. Strict compliance with the parameters set-forth in this Regulation will result in the elimination of risks incidental to Energy Savings Performance Contracting and will protect the Government Unit from any potential contractual default.

SECTION 1.04 – APPLICABILITY

This Regulation shall be applicable to PREAA, all Government Units and all qualified ESCO's. Act 19-2012 authorizes Government Units to use ESPC as a mechanism to implement large capital-investment projects that aim at energy and water conservation, efficiency and renewable energy integration. All Government Units are required to promote, implement, enforce effective strategies to achieve energy conservation and efficiency, and must promote the use of ESPC's. ESPC's must be for existing buildings; no new construction is allowed. This Regulation will not affect previously executed ESPC's between Government Units and a particular ESCO.

SECTION 1.05 - DEFINITIONS

Administration – Puerto Rico Energy Affairs Administration (PREAA).

Allocation of Funds - ESPC's may be extended beyond the fiscal year in which the Energy Savings Performance Contract is awarded, subject to the allocation of funds for expenses incurred in subsequent fiscal years. The allocation of funds is guaranteed for the duration of the contract. The Office of Management and Budget (OMB) and/or the corresponding government agency shall allocate sufficient funds for payment of public utilities of each Government Unit, in such a manner that complies with the purposes and spirit of the Act.

Contract Sum - The sum of all materials, labor, auditing, design, engineering, project construction management fees, overhead, profit, contingency, tax, bonds, and subcontracted services related to an ESPC project.

Contract Administrator - The person designated by the Government Unit to administer an ESPC.

Energy Savings Performance Contract (ESPC) - A contract between a Government Unit and a Qualified Energy Service Company for the evaluation, recommendation, and implementation of one or more conservation and savings measures in energy and water consumption. Energy savings performance contracting is a method of financing a capital improvement project in a Governmental Unit. It is a fiscally sound and energy efficient way to lower energy consumption, and thus, utilities spending, while avoiding the need to incur costs related to purchasing energy efficient equipment and renewable energy power sources. ESPC is a tool for sustainability and asset modernization that establishes a (guaranteed) relationship that is based on mutual accountability. An ESPC constitutes a partnership between a facility owner and an energy service company (ESCO), and is considered a time and cost-effective method for completing comprehensive energy upgrades.

Energy Service Company (ESCO) - Company with experience and technical, management and

financial capabilities needed to provide for the discovery, engineering, procurement, installation, financing, savings guarantee, maintenance and monitoring of energy and water saving measures that will result in energy conservation and efficiency.

Energy Conservation Measure (ECM) - Any improvement, repair or alteration, equipment, fixtures, training program, or strategy of any other kind, to be added or used in a building, facility or on any system that consumes energy, to obtain savings related to energy consumption, by reducing operational costs or increasing operational efficiency during the useful life cycle. All measures must meet or exceed applicable state building codes.

Financing – Act 19-2012 allows the Government Unit to finance the improvements via third party, direct from the ESCO, or other financing mechanism available, in coordination and with the financial advice of the Government Development Bank (GDB).

Government Unit - Any agency, instrumentality, office or department of the Executive Branch, authorities or political subdivisions of the Government of Puerto Rico, or any other defined or identified by the Administration.

Investment Grade Audit (IGA) - A study by the qualified energy services provider selected for a particular energy performance contract project which includes detailed descriptions of the improvements recommended for the project, the estimated costs of the improvements and the utility, operations and maintenance cost savings projected to result from the recommended improvements.

Measurement and Verification (M&V) - Once every three months per contract year, the ESCO shall submit a report of cost savings (corroborate the results of the measures of conservation and energy efficiency), validated by PREAA. ESCO's measurement and verification (M&V) services provide the client agency with assurance that equipment will perform for the life of the agreement.

Operations and Management (O&M) - ESCO must provide adequate justification for O&M cost savings by providing a detailed description of how savings are generated and detail cost savings calculations.

Payment and Performance Bond - As a condition for granting an ESPC and in order to ensure the contractual measures and energy saving representations, the ESCO shall provide evidence of payment and performance bonds, in the amount of the contract value, in favor of the Government Unit which shall guarantee the faithful performance of the ESPC. The bond shall be issued by an insurer authorized by Commissioner of Insurance to do business in Puerto Rico, which has at least a B+ in the publication AM Best.

Procurement Process – The ESCO selection process must be conducted in accordance with the rules laid-out by the Administration in this Regulation.

Project Site(s) - The facilities of the Government Unit in need of energy and water saving equipment and services designed to reduce consumption and associated costs at said Project Site(s).

Public Building - Any structure, building or facility, including its electrical equipment and infrastructure, owned by a Government Unit or operated by it.

Savings in public utility services costs - Any reduction in the cost of public utility services for a prolonged period of time, due to efficiency and conservation measures that have been implemented, or by reason of services rendered by a Qualified Energy Service Company.

Savings in operational and maintenance costs – Measurable reductions in operational and maintenance costs, and in replacement costs, which directly result from the implementation of energy efficiency measures, and conservation of energy and water. These savings will be calculated in comparison with the operational and maintenance costs established as the baseline for calculation.

Savings Guarantee - ESCO must provide a written guarantee that savings will meet or exceed cost of conservation measures implemented, financing costs, and ESCO payments.

Term of the Contract - The Energy Savings Performance Contract may be granted for a term no longer than fifteen (15) years. The term allowed in the contract shall reflect the useful life of the conservation measure.

Water Conservation Measures - Any improvement, modification, equipment, changes in maintenance practices or training programs designed to reduce water consumption or operating costs related to its conservation. Measures should match or exceed compliance with applicable state building codes.

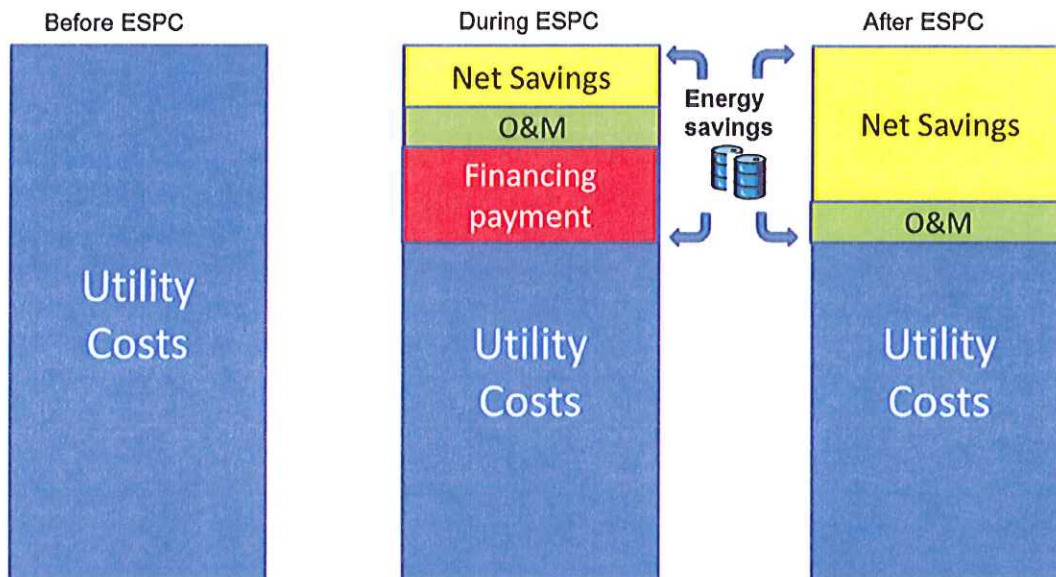
CHAPTER TWO: ENERGY SAVINGS PERFORMANCE CONTRACTS OVERVIEW

SECTION 2.01 - OVERVIEW OF ENERGY SAVINGS PERFORMANCE CONTRACTS

Energy savings performance contracts (ESPC) is a methodology of financing an energy efficiency improvement project out of a public entity's operating budget. It is a fiscally sound method to improve conditions in government facilities through reinvestments at no additional outlay for the government. ESPC is an energy efficient way to lower energy consumption, and thus, utilities spending, while avoiding the need to incur in costs related to purchasing energy efficient equipment and renewable energy power sources. ESPC is a tool for sustainability and asset modernization that establishes a (guaranteed) relationship that is based on mutual accountability. An ESPC constitutes a partnership between a facility owner and an energy service company (ESCO), and is considered a time and cost-effective method for completing comprehensive energy upgrades.

Energy bills are frequently higher than they need to be due to obsolete or aging equipment, inadequate maintenance and poor management. Contracting with an energy service company (ESCO) can effectively redirect those taxpayer funds to improve conditions at not net increase in budget.

The ESCO will recommend cost-effective improvements, work together with the Government unit, and the PREAA, in order to implement the selected recommendations and guarantee that the resulting savings will cover all project costs. Governmental units which have granted Energy Savings Performance Contracts will retain the net savings achieved as a result of such contracts and shall be utilized to fulfill the purposes of Act 19-2012.



SECTION 2.02 - ENERGY SERVICE COMPANIES (ESCO)

An ESCO will develop and install energy and water-saving projects to improve energy and water efficiency, and help reduce costs. An ESCO functions as a project developer for a wide range of tasks. ESCO's differ from other firms that offer energy efficiency improvements by taking on the savings performance risk through performance-based contracting, and facilitating borrowing to pay for the project.

SECTION 2.03 - THE BASIC ESPC PROCESS

An ESPC allows you to finance and install proven energy-efficient technologies and upgrade energy infrastructure at no up-front cost. The Government unit competitively selects an ESCO, with the help of PREAA, that best understands its facilities and operations, to complete an energy audit of the facilities, and propose a project that the financed debt service can be paid for from the utility savings. Once an ESPC is negotiated, the ESCO designs, installs, and commissions energy conservation measures selected by the owner, from the suggested list of energy conservation measures prepared by the ESCO. The ESCO can be contracted to provide maintenance of the system, over-sight, operations training, or a combination to ensure savings persist. Energy savings are measured and verified, and the ESCO guarantees the savings.

SECTION 2.04 - ESPC ADVANTAGES

Among the many advantages of entering into an Energy Savings Performance Contract are:

GUARANTEED PERFORMANCE: ESCO must provide a written guarantee of energy savings from the conservation measures implemented that will create cost avoidance larger than the costs incurred by the government unit. ESCO installs equipment that it guarantees will generate savings for the payback period of the loan.

PARTICIPATION: During contract negotiations with ESCO, owners participate in design, specifications and equipment selection.

RESPONSIBILITY: ESCO is obligated to pay in the event of an energy savings shortfall, and must guarantee the energy savings. If actual savings are lower than guaranteed in any given year, the company reimburses the owner for the shortfall. ESCO will have sixty (60) days to settle the shortfall.

MEASUREMENT & VERIFICATION: ESCO provides a written report detailing actual performance compared to the guarantee every 3 months. Report must be reviewed by an appropriately qualified Puerto Rico 3rd party licensed engineer and the PREAA, within 30 days of receipt. The report is critical as to ensure savings exceed payments.

ACCOUNTABILITY: The ESCO serves as a single point of accountability.

FINANCING: Government Unit are allowed to finance the improvements via third party, direct from the ESCO, or other financing mechanism available, in coordination and with the financial advice of the Government Development Bank (GDB).

COST CERTAINTY: Project financing costs are paid from the utility cost savings, which are guaranteed by the payment and performance bond.

LOWER UTILITY COSTS: Lower energy consumption and peak electricity demand translate to lower utility bills.

PUERTO RICO ECONOMY: As the project is paid for through energy savings that would otherwise purchase foreign oil, public policy established through Act 19-2012 is effectively implemented.

SECTION 2.05 - ESPC FINANCING

A financing mechanism must be identified early in the process, to include borrowing capacity and terms available to support an ESPC project. Some agencies may have limited capacity for funding available to support an ESPC project, while other agencies may have greater funding options. Identifying financing sources from the public and private sector will allow both the Government Unit and the ESCO to develop projects consistent with the Government Unit's business objectives

and available funds. More favorable financing terms enhance the potential scope of work, the contract terms, and can also reduce the overall cost of the project.

The ESPC and financing is structured so that the total savings are enough to cover for each financing payment period, and all the contract sums due under the contract. Therefore, the project can be cash flow positive from the first day, and the totality of the improvements is funded by the savings.

In many cases, ESCO's do not finance projects, however ESCO's guarantee that the projected savings will meet or exceed the finance payment. A number of financing companies are knowledgeable of the ESPC approach and seek out opportunities to provide financing. An ESCO selected for a project can help bring-in a financing partner.

CHAPTER THREE: ESPC PROCESS OVERVIEW

SECTION 3.01 - ASSISTANCE FOR GOVERNMENT UNITS

PREAA will offer direct performance contracting assistance during the planning and pre-selection process, as well as supporting the secondary selection of a Prequalified ESCO. PREAA will also offer assistance with the other stages of the performance contracting process. PREAA will assist the Government Unit, and provide performance contracting resources specific to each Government Unit's needs.

SECTION 3.02 - ASSISTANCE FOR NON-QUALIFYING ORGANIZATIONS

PREAA is an informational resource for all types of organizations that are interested in energy savings performance contracting. PREAA screens and pre-qualifies ESCO's and offers a number of informational resources to assist the Government Units throughout the performance contracting process.

SECTION 3.03 - PROJECT DEVELOPMENT OVERVIEW

Government Units that seek capital and operational improvements for their energy-consuming infrastructure systems in order to contain energy costs and reduce energy consumption must consider entering into an ESPC agreement. The ESCO will identify and evaluate energy and water-saving opportunities, and then recommend and install a package of improvements that will be paid for through savings. The ESCO will guarantee that savings meet or exceed annual payments to cover all project costs over a maximum contract term of 15 years. If savings do not materialize the Government Unit can claim the difference from the ESCO's guarantee.

There are five (5) steps to successfully initiate and complete an energy savings performance contracting project:

- (1) Identifying a Project
- (2) Selecting an Energy Service Company (ESCO)

- (3) Contracting with ESCO to Conduct an Investment Grade Audit (IGA)
- (4) Contracting with ESCO to implement ESPC Project
- (5) Payments, O&M, and Measurement and Savings Verification.

CHAPTER FOUR: ESPC PROJECT DEVELOPMENT

SECTION 4.01 - UNDERSTANDING ESCO SERVICES

ESCO's offer a wide variety of services including auditing, construction management, project development, engineering design, project management, training for maintenance staff, financing assistance, and long-term maintenance services. ESCO's address a wide range of energy, water and cost-saving measures, as well as opportunities to apply renewable energy technologies and system-wide approaches.

SECTION 4.02 – ENERGY ACTION TEAM

Developing and managing an ESPC will benefit from assembling an “Energy Action Team” with a broad range of expertise including facilities, planning, procurement, budget and finance, maintenance, and legal advice, when available.

To develop an ESPC project a Government Unit must assemble an Energy Action Team within the organization, and work together to explore the possibility of an ESPC project with the assistance of PREAA, and the GDB. The more the facility representatives are involved, the more successful the project will be. The Energy Action Team should represent all sectors of the facilities and decision-making processes. The Government Unit must appoint a project leader to lead the Energy Action team, and be the key point of contact between all the corresponding government agencies and the ESCO. The Energy Action Team chosen will be unique for each Government Unit.

The Government Unit must involve at minimum the facilities director, lead electrical, lead mechanical maintenance, and a representative from management, when available. It is important to ensure senior executive support for the project, so an executive sponsor must be included. Other energy action team members must include an engineering staff representative, a finance or budgeting representative, division or building managers (including the environmental department), the contracts officer (as an introduction to the ESPC contract to come), the janitorial supervisor, an occupant representative, when they are available, a representative of PREAA and the GDB.

SECTION 4.03 – SELECTING PROJECT SITE(S)

The Government Unit must determine if the project site has the potential for an ESPC project with energy and water-saving opportunities of substantial scope which will attract an ESCO. There are a number of technical factors to consider when selecting a suitable project site for an ESPC project. In general, the facility should have high annual energy and water use, coupled with sufficient energy savings opportunities to generate the necessary cash flow to amortize all project cost over the

contract term, fulfill the essential goal of Act 19-2012, and attract ESCOs interest. While every situation is different, the typical factors that make a performance contract project both viable and successful include:

- Desire to improve energy efficiency through comprehensive solutions
- Aging buildings or equipment (lighting, controls, heating and cooling systems)
- Stable facility use and occupancy
- High annual utility costs
- Consistent energy use and occupancy
- Limited capital budget to fund energy improvements up front
- Too many demands on maintenance staff
- Recurring maintenance problems or high maintenance costs
- Comfort complaints

Some ESCOs are willing to implement projects for smaller facilities, not necessarily satisfying all factors, but they make those decisions on a case-by-case basis. In some cases, it makes economic sense to combine several facilities into a single project offering. Multiple building projects with excessive energy and water costs are usually more attractive to ESCOs, and allows the Government Unit to finance and obtain greater improvements through a single procurement process.

SECTION 4.04 – PREAA’S ASSISTANCE

The Government Unit shall receive guidance and support from PREAA throughout the process. PREAA can help the Government Unit to identify if energy savings performance contracting is feasible for the project site. This can include a general introductory discussion on ESPC with respect to a Government Unit’s facilities, a review of the facility information, and a potential site visit.

SECTION 4.05 – MEMORANDUM OF UNDERSTANDING FOR TECHNICAL ASSISTANCE

All Government Units interested in procuring energy savings performance contracts are required to execute a Memorandum of Understanding (MOU) with PREAA. This agreement will establish that the Government Unit will receive assistance throughout the performance contracting process from PREAA, and the ESCO selected.

CHAPTER FIVE: ENERGY SERVICE COMPANY (ESCO) SELECTION

SECTION 5.01 – ESCO SELECTION OVERVIEW

The selected ESCO will be the Government Unit’s partner for the term of the contract, so it is important to select an ESCO that shares the Government Unit’s vision, understands its operations, and is able to meet its needs. PREAA will assist the Government Unit’s in the selection process.

SECTION 5.02 – ESCO QUALIFICATIONS

Act 19-2012 requires PREAA to establish and maintain a pre-qualified list of ESCOs capable of providing energy services to Government Units. To qualify, ESCOs respond to a Request for Qualifications (RFQ). PREAA evaluates the companies' qualifications and experience, and certifies those ESCOs which it deems qualified. The process satisfies public works selection requirements and enables public-sector clients to avoid having to conduct duplicative, individual public works selection processes. PREAA issued an RFQ in August 2011 to pre-qualify ESCOs for as-needed Energy Savings Performance Contracting services including preliminary auditing and assessment services for government buildings within the Government of Puerto Rico, and has selected the pre-qualified ESCOs for the first 3 year term.

ESCOs pre-qualified by PREAA through the RFQ are eligible to provide services to Government Units that may choose to participate in the ESPC Program. Government Units cannot engage in ESPC's with ESCO's that have not been qualified by PREAA. The Pre-qualified ESCOs understand the program goals and will conform to applicable laws and the regulations prescribed by PREAA. The primary intent of the selection process is four-fold:

1. To increase the number of successful performance contracts in the Government of Puerto Rico, as a means to implement comprehensive energy-efficiency projects in existing buildings.
2. To provide government units the opportunity to procure services of qualified firms in a timely and cost-effective way.
3. To ensure minimum qualifications of ESCOs to implement successful ESPC Program projects.
4. To offer qualified firms the opportunity of engaging into an ESPC agreement.

Pre-qualified ESCOs will be effective for a three (3) year term subject to annual update of their files in PREAA. Qualified ESCO's will update their files with PREAA within the first thirty (30) days of each government fiscal year. Failure to do so will automatically eliminate the ESCO from the ESPC Program.

SECTION 5.03 – ESCO SELECTION PROCESS

All pre-qualified ESCOs will be provided equal access and fair opportunity to compete for ESPCs in an open and transparent process. A step-by-step description of the ESCO selection process which shall be used to select an ESCO from the pre-qualified pool of ESCOs is included in Section 5.04. This process demonstrates a minimal procurement requirement of reviewing an overview from each ESCO, and allows a selection based on a Notice of Interest (NOI) prior to a Request for Proposal (RFP).

SECTION 5.04 – PREAA’S RFP MODEL

All Government Units are required to use PREAA’s model Request for Proposal (RFP), which is included as an Addendum to this Regulation. This form of RFP has been used over many years by the public sector and generally accepted by the industry. The Government Unit will only have to customize it to its particular needs.

1. Define Scope of Project

Government Units shall provide ESCO with a general description of the facilities, sufficient technical details about the facility, and any other relevant information necessary to enable the ESCO to assess and propose opportunities for a successful project (a technical facility profile). Rather than pre-determining a detailed scope of work specifying energy and water conservation measures that the ESCO should undertake, the Government Unit shall rely on the ESCO’s technical expertise and creativity to help identify and assess energy and water saving opportunities that are most cost-effective and suitable for the ESPC project.

The project can incorporate all agency buildings as one project, or may be executed in “phases” so as to minimize project development time (facility audits, data gathering, etc. by staff members), and move to reducing energy costs more quickly. In all cases, the preferred financing stream (total bond issuance, agency capital dollars, etc.) must be identified early in the process to avoid developing a project scope in excess of available financing.

At a minimum, a brief description of the premises and all major energy-using equipment should be provided. Government Unit shall also describe the facility’s energy use, equipment, operating schedules, maintenance problems, and planned equipment replacements or renovation plans. Also, the Government Unit must include the utility bill history for the past three (3) years, if available.

2. Request for Proposal (RFP)

After the Government Unit enters into the Memorandum of Understanding (MOU) with PREAA, it will be ready to initiate a Request for Proposals (RFP). The purpose of an RFP is to determine ESCO’s suitability according to the proposed project characteristics. Respondents will be encouraged to focus on their expertise for meeting the business objectives of the project.

PREAA will recommend a minimum of three (3) firms that have experience and expertise suited for the Government Unit’s particular project, from the list of ESCO’s that respond to the RFP.

Alternatively, the Government Unit may decide to send out a Notice of Interest (NOI) to all pre-qualified ESCO’s asking them to respond if they are interested in the project, then send out RFP’s to all ESCO’s that respond to the Notice of Interest (NOI).

The RFP shall, at minimum, contain the following information:

- General project scope
- The business objectives for the Government Unit

- Complete Facility Profile, that identifies the facilities to be considered, their current energy use, size, and unique conditions
- Contractual terms and conditions that will apply to the project
- A description of the required RFP Response format and content.
- Instructions for submission and a project schedule to identify specific dates for pre-proposal meetings, site visits, evaluation, and selection. The project schedule will help ESCO's understand the facility(s) project schedule and can serve as a guideline for keeping the project on-track
- The evaluation criteria that will be used as the basis for selection
- Government Unit's approval process
- Planned method for financing and paying for the project
- Required corporate and technical project specific qualifications to be submitted by ESCO in their response.
- Requirement that an appropriately qualified Puerto Rico registered Professional Engineer be in responsible charge of the project for the ESCO.

3. RFP Responses Evaluation

The Government Unit shall specify the evaluation criteria to be used for selecting an ESCO's. In general terms, the evaluation criteria are grouped into six major categories:

- a) Prior Experience
- b) Approach to Project Management
- c) Ability to meet the business objectives and timing
- d) Technical Capabilities & Expertise
- e) Financial Strength or ability to secure financing
- f) Proposed mark-ups and costs

Based on the evaluation criteria, RFP responses will be evaluated by an evaluation committee of government personnel with support from technical advisors, and the participation of the energy action team. The composition of the evaluation committee can involve any number of agency personnel, but not limited to:

- Facility/Operating Engineers
- Maintenance Staff
- Energy Manager/Designated Project Manager
- Administrative/Financial Manager
- PREAA Technical Advisor/Consultant

A procurement specialist shall administer the process, but not participate in the evaluation. Evaluation committee members will receive training on the evaluation process. Government Units must rely on PREAA's technical assistance, and any request to solicit additional evaluation information and assistance. All committee members shall execute a Non-Disclosure and Confidentiality Agreement (NDCA) and a Conflict of Interest Certificate.

4. ESCO Selection

The Government Unit shall interview the three highest rated proponents, if deemed appropriate, to better evaluate their approach to the project and their ability to work with the organization. This will allow the Government Unit to review each ESCO's project approach, and it gives the ESCO's an opportunity to respond to questions from the evaluation team. At its sole discretion the Government Unit may elect to re-issue the RFP to a wider selection of ESCOs if it deems that the responses it receives do not meet its business objectives.

The Government Unit, together with the PREAA and the energy action team, will evaluate the ESCO's audit costs, and make recommendations. ESCO's shall be scored according to the Evaluation Criteria established in the RFP, which will include the audit costs presented, and the ESCO deemed most qualified for the applicable project will be selected and invited to proceed with a Preliminary Assessment (PA) at the selected facility.

Participants not selected, shall have the option of requesting a reconsideration of the selection process within ten (10) days of notification. The PREAA shall have fifteen (15) days to respond to the reconsideration request. If PREAA does not respond or the reconsideration request is rejected, the participant not selected may request a judicial review to the Appellate Court of Puerto Rico, in compliance with Act 170-1988 and Act 19-2012.

5. Preliminary Assessment (PA)

After the Government Unit has duly notified the selected ESCO, a preliminary assessment (PA) will be conducted by the ESCO in consultation with the facility staff, owner representative consultant, PREAA's technical advisor, and the energy action team. A preliminary assessment evaluates the facility to determine the likelihood that further investigation and analysis will yield a project of cost-effective energy and water conservation measures. The PA and subsequent proposal will be used by both the ESCO and the Government Unit to ensure that the project meets the objectives, cost effectiveness criteria and addresses the facility's needs.

A proposal for an Investment Grade Audit (IGA) will be developed based upon the PA, which identifies potential cost-effective energy and water conservation measures.

The PA shall provide sufficient information, including the following key elements:

- a) A narrative summary of proposed project, including the business objectives.
- b) Description of ECMs.
- c) ESCO and Government resources and schedule requirements to complete an IGA.
- d) Estimates of proposed energy and cost savings.
- e) M&V approach (general).
- f) Risk, Responsibility and Performance Matrix.

6. PA Evaluation

The Government Unit must take the following steps in preparation for review of the PA:

1. Identify additional personnel needed, beyond the energy action team, prior to receiving the assessment (to include the site technical staff, procurement officer, PREAA's technical advisor, and other personnel as deemed necessary).
2. Consider requesting informal, preliminary information on the PA content for discussions before the written assessment is finalized. If mutually agreeable, this step can improve the suitability of the PA.

Upon submission of the written PA by the ESCO, the Government Unit shall proceed to review it. The Government will respond to the PA in writing within 45 days of receipt.

If the Government Unit determines not to proceed with the ESPC project, then it shall return the PA to the ESCO's, or issue a revised set of requirements. At this moment, Government Unit may withdraw from the process with no contractual obligation with the ESCO's. Any costs incurred up to this point in the process shall be the sole responsibility of the ESCO's. However, no decision to withdraw from the process shall be arbitrary or contradictory to the purpose of Act 19-2012, but based solely on the best interests of the Government Unit and the qualifications of the ESCO.

If the Government Unit accepts the PA and determines to proceed with the ESPC project, then it shall notify the ESCO. At this point, any deficiencies and/or desired changes found in the PA must be addressed by the ESCO in the Investment Grade Audit (IGA) and in the final proposal.

CHAPTER SIX: INVESTMENT GRADE AUDIT (IGA)

SECTION 6.01 – PREAA'S MODEL IGA CONTRACT

All Government Units are required to use PREAA's Model IGA contract, which is included as an Addendum to this Regulation. This form of contract has been used over many years by the public sector, and is generally accepted by the industry. The Government Unit will only have to customize it to meet its particular needs.

SECTION 6.02 – INVESTMENT GRADE AUDIT OVERVIEW

The selected ESCO will conduct an IGA to identify and evaluate energy, water, and related cost-saving opportunities. This will provide the Government Unit with critical information to later negotiate the performance contract.

The Contract for the IGA (Technical Energy Audit & Project Proposal) is the first of two contracts that will be procured with the selected ESCO. The ESCO will complete an investment grade technical energy audit that will include an analysis of each proposed project with projected energy and cost savings, and itemized project cost.

The ESCO will also propose terms for the energy performance contract and present a proposal that includes recommended projects, financing term and projected annual cash-flow analysis.

The results of the audit will form the basis for a subsequent Energy Savings Performance Contract.

SECTION 6.03 - SCOPE OF WORK

The Government Unit should consider taking full advantage of the ESCO's technical expertise, PREAA's, and the energy action team's input, to help identify and assess the opportunities that are most cost-effective or most valuable for the Government Unit's facilities.

The Government Unit may elect to pre-determine the scope of work for the ESCO, detailing exactly what projects the ESCO should undertake. This approach is not recommended by PREAA.

a. Process

This will be an interactive approach, working with the Government Unit, ESCO's and PREAA following these steps:

- 1) Preliminary Assessment of Needs and Opportunities
 - a) Meet to discuss interests, plans, problems, etc. related to facilities and operation of facilities.
 - b) Collect data and background information on buildings, equipment and facilities operation.
 - c) Perform a preliminary walk-through of facilities and interview staff and occupants to identify potential measures.
 - d) Meet to explain preliminary findings and establish agreement on measures to analyze.
- 2) Preliminary Analysis of Measures
 - a) Establish base year consumption and reconcile with end-use consumption estimates.
 - b) Conduct a preliminary analysis of potential measures.
 - c) Meet to present preliminary findings and establish agreement on measures to further analyze.
 - d) Establish costs, schedule and government resources required to complete an Investment Grade Audit Report
- 3) Further Analysis and Audit Report

- a) Further analyze measures.
 - b) Develop a preliminary IGA Report.
 - c) Meet with the Government Unit to discuss results.
 - d) Prepare final IGA Report.
- 4) Energy Savings Performance Contract Proposal.
- a) Develop the ESPC proposal.
 - b) Meet to examine results and negotiate final terms.

b. Scope Requirements

- 1) **Energy Savings Performance Contract Term.** The Energy Savings Performance Contract Term shall have a term no greater than 15 years, and no greater than the cost-weighted average lifetime of the equipment. ESCO's goal is for a term no greater than the desired financing term years.
- 2) **Annual Guaranteed Energy and Cost Savings.** A performance guarantee is required for the entire financing term. The guarantee is based on energy savings attributable to all conservation measures, and must create cost avoidance equal or exceed all annual project costs each year during the finance period. Annual project costs include debt service, ESCO fees, PREAA's consulting fees, maintenance services, monitoring services, and other services. The Government Unit and the ESCO shall agree on the forecast unit energy costs to be used for the guarantee.
- 3) **Monitoring and Verification Reports.** The OMB and/or the corresponding government agency shall reserve 5% of annually guaranteed savings for the Government Unit to pay for PREAA's operational costs, which will include all processes of the energy contracting, and review of the ESCOs monitoring and verification reports, as well as advice the Government Unit of compliance in monitoring and verifying savings, excluding the 3rd Party monitoring and verification of the results.
- 4) **Excess Savings.** Annual cost savings beyond the guaranteed minimum savings will be retained by the Government Unit, and will not be allocated to shortfalls in other years.
- 5) **Annual Savings Guarantee.** The annual savings guarantee for all measures must be estimated for each year during the contract period.
- 6) **Allowable cost and savings factors approved for consideration.** The Government Unit will provide ESCO with sufficient guidance to develop savings estimates.
 - a) Payment sources that can be incorporated:

1. Energy and water cost savings.
 2. Material/commodity savings, including scheduled replacement of parts (only for years that these cost savings are applicable).
 3. Outside labor cost savings, including maintenance contracts.
 4. In-house labor costs.
 5. Deferred maintenance cost.
 6. Offset of future capital cost.
 7. Outside incentive funds (utility incentives, grants, etc.).
 8. Any savings related to maintenance and operation of the facilities will be limited to those that can be thoroughly documented.
- b) Additional factors related to establishing savings that cover all costs:
1. Escalation rates that apply to each payment source. These are rates to be used in cash flow projections for project development purposes. NOTE: Federal government guidelines may be applied for utility escalation rates to ensure reasonableness.
 2. Interest rates (municipal tax-exempt rates for public institutions).
 3. The Government Unit's cash outlay (Institution's sole discretion).
- c) Cost and Pricing for IGA Development. The rates will be used in the Investment Grade Audit and subsequent Energy Savings Performance Contract.

c. Data Collection

Collect data and background information from the Government Unit concerning facility operation and energy use for the most recent three years from the effective date of the Contract as follows, and if available:

- 1) Building square footage.
- 2) Construction data of buildings and major additions including building envelope.
- 3) Utility company invoices.
- 4) Occupancy and usage information.

- 5) Description of all energy-consuming or energy-saving equipment used on the premises, as available.
- 6) Description of energy management procedures utilized on the premises.
- 7) Description of any energy-related improvements made or currently being implemented.
- 8) Description of any changes in the structure of the facility or energy-using or water-using equipment.
- 9) Description of future plans regarding building modifications or equipment modifications and replacements.
- 10) Drawings, as available (may include mechanical, plumbing, electrical, building automation and temperature controls, structural, architectural, modifications and remodels).
- 11) Original construction submittals and factory data (specifications, pump curves, etc.), as available.
- 12) Operating engineer logs, maintenance work orders, etc., as available.
- 13) Records of maintenance expenditures on energy-using equipment, including service contracts.
- 14) Prior energy audits or studies, if any.
- 15) Operating requirements for specialty use facility, for example, required pressurization, humidity, temperature, fresh air injection/outside air turnover, levels of any other contaminants et cet.

The Government Unit will agree to work diligently to furnish the ESCO, upon request, accurate and complete data and information as available. Where information is not available from the Government Unit, ESCO will make a diligent effort to collect such information through the facility inspection, staff interviews, and utility companies. The Government Unit will make appropriately qualified staff available to witness existing conditions and certify accuracy of data collected. It is important for the ESCO to provide an estimate of the level of resource required for this task in the IGA proposal.

ESCO will agree to work diligently to assess validity of information provided, and to confirm or correct the information as needed.

d. Identify potential measures

- 1) Interview the facility manager, maintenance staff, subcontractors and occupants of each building regarding:

- a) Facility operation, including energy management procedures.
 - b) Equipment maintenance problems.
 - c) Comfort problems and requirements.
 - d) Equipment reliability.
 - e) Projected equipment needs.
 - f) Occupancy and use schedules for the facility and specific equipment.
 - g) Facility improvements – past, planned and desired.
- 2) Survey major energy-using equipment, including lighting (indoor and outdoor), heating and heat distribution systems, cooling systems and related equipment, automatic temperature control systems and equipment, air distribution systems and equipment, outdoor ventilation systems and equipment; exhaust systems and equipment; hot water systems, electric motors, transmission and drive systems, special systems (kitchen/dining equipment, etc.), renewable energy systems, other energy using systems, water consuming systems (restroom fixtures, water fountains, irrigation systems, etc.).
- 3) Perform "late-night" surveys outside of normal business hours or on weekends to confirm building system and occupancy schedules, if deemed necessary.
- 4) Develop a preliminary list of potential energy and water saving measures. Consider the following for each system:
- a) Comfort and maintenance problems.
 - b) Energy use, loads, proper sizing, efficiencies and hours of operation.
 - c) Current operating condition.
 - d) Remaining useful life
 - e) Feasibility of system replacement.
 - f) Hazardous materials and other environmental concerns.
 - g) Institution's future plans for equipment replacement or building renovations.
 - h) Facility operation and maintenance procedures that could be affected.
 - i) Capability to monitor energy performance and verify savings.

The Government Unit will allow ESCO reasonable access to facility staff to ensure understanding of existing systems and opportunities.

ESCO will agree to work diligently to assess validity of information provided and to confirm or correct the information as needed.

e. Establish base year consumption and reconcile with end use consumption estimates.

- 1) Establish base year consumption by examining utility bills for the past three years for electricity, gas, steam, water, and others, where applicable. Present base year consumption in terms of energy units (kWh, kW, ccf, Therms, gallons, or other units used in bills), in terms of dollars, and in terms of dollars per square foot. Describe the process used to determine the base year (averaging, selecting most representative contiguous 12 months, etc.). Consult with facility personnel to account for any anomalous schedule or operating conditions on billings that could skew the base year representation. ESCO will account for periods of time when equipment was broken or malfunctioning in calculating the base year.
- 2) Estimate loading, usage and/or hours of operation for all major end uses of total facility consumption including, but not limited to: lighting, heating, cooling, motors (fans and pumps), plug loads, and other major energy and water using equipment. Where loading or usage are highly uncertain (including variable loads such as cooling), ESCO will use its best judgment, spot measurements or short-term monitoring. ESCO should not assume that equipment run hours equal the operating hours of the building(s) or facility staff estimates.
- 3) Reconcile annual end-use estimated consumption with the annual base year consumption. This reconciliation will place reasonable “real-world” limits on potential savings.
- 4) Propose adjustments to the baseline for energy and water saving measures that will be implemented in the future.

f. Develop a preliminary analysis of potential energy and water saving measures.

This list shall be compiled and submitted to the Government Unit within 30 calendar days of the execution of the IGA Contract.

- 1) List all potential opportunities, whether cost-effective or not. Consider technologies in a comprehensive approach including, but not limited to: lighting systems, heating/ventilating/air conditioning equipment and distribution systems, controls systems, building envelope, motors, kitchen equipment, pools, renewable energy systems, other special equipment, irrigation systems, and water saving devices.
- 2) Identify measures which appear likely to be cost effective and therefore warrant detailed analysis

- 3) For each measure, prepare a preliminary estimate of energy or water cost savings including description of analysis methodology, supporting calculations and assumptions used to estimate savings.

g. Present preliminary findings prior to thorough analysis.

Describe how the projected project economics meet the Institution's terms for completing the IGA and Proposal Contract. Discuss assessment of energy use, savings potential, project opportunities, and potential for developing an Energy Savings Performance Contract. Develop a list of recommended measures for further analysis. The Government Unit shall have the option to reject calculations of savings, potential savings allowed, or project recommendations.

h. Analyze savings and costs for each energy and water saving measure.

- 1) Following the methodology of ASHRAE or other appropriate nationally-recognized authority following the engineering principle(s) identified for each retrofit option.
- 2) Utilize assumptions, projections and baselines which best represent the true value of future energy or operational savings. Include accurate marginal costs for each unit of savings at the time the audit is performed, documentation of material and labor cost savings, adjustments to the baseline to reflect current conditions at the facility, calculations which account for the interactive effects of the recommended measures.
- 3) Use best judgment regarding the employment of instrumentation and recording, so as to achieve an accurate and faithful characterization of energy use.
- 4) Use markups and fees in all cost estimates.
- 5) Develop a preliminary measurement and verification plan for each measure.
- 6) Follow additional guidelines for analysis and reports.
- 7) Include cost to provide services and complete application for Energy Star Label, LEED-EB certification for Existing Buildings, or other certifications. Also include cost for EPA's Tools for Schools or other such program related to improved air quality.

i. Preliminary Investment Grade Audit Report.

The report provides an engineering and economic basis for negotiating a potential Energy Savings Performance Contract between the Government Unit and the ESCO. The report shall be completed within 60 calendar days of the date of execution of the IGA Contract. The report shall include:

- 1) Overview
 - a) Contact information.

- b) Summary table of recommended energy and water saving measures, with itemization for each measure of total design and construction cost, annual maintenance costs, the first year cost avoidance (in dollars and energy units), simple payback and equipment service life.
 - c) Summary of annual energy and water use by fuel type and costs of existing or base year condition.
 - d) Calculation of cost savings expected if all recommended measures are implemented, and total percentage savings of total facility energy cost.
 - e) Description of the existing facility, mechanical and electrical systems.
 - f) Summary description of measures, including estimated costs and savings for each as detailed above.
 - g) Discussion of measures considered but not investigated in detail.
 - h) Conclusions and recommendations.
- 2) Base year energy use
- a) Description and itemization of current billing rates, including schedules and riders.
 - b) Summary of all utility bills for all fuel types and water.
 - c) Identification and definition of base year consumption and description of how established.
 - c) Reconciliation of estimated end use consumption (i.e. lighting, cooling, heating, fans, plug loads, etc.) with base year (include discussion of any unusual findings).
- 3) Full description of each energy and water saving measure including:
- a) Written description
 - (1) Existing conditions.
 - (2) Description of equipment to be installed and how it will function.
 - (3) Include discussion of facility operations and maintenance procedures that will be affected by installation/implementation.
 - (4) Present the plan for installing or implementing the recommendation.

- (5) Demonstration of applicability of the measure for the environment in Puerto Rico.
- b) Savings calculations
 - (1) Base year energy use and cost.
 - (2) Post-retrofit energy use and cost.
 - (3) Savings estimates including analysis methodology, supporting calculations and assumptions used.
 - (4) Annual savings estimates. The cost savings for all energy saving measures must be estimated for each year during the contract period. Savings must be able to be achieved each year (cannot report average annual savings over the term of the contract).
 - (5) Savings estimates must be limited to savings allowed by the Government Unit.
 - (6) Percent cost-avoidance projected.
 - (7) Description and calculations for any proposed rate changes.
 - (8) Explanation of how savings interactions between retrofit options are accounted for in calculations.
 - (9) Operation and maintenance savings, including detailed calculations and description. Ensure that maintenance savings are only applied in the applicable years and only during the lifetime of the particular equipment.
 - (10) If computer simulation is used, short description and key input data shall be provided. If requested by the Government Unit, access will be provided to the program and all assumptions and inputs used, and/or printouts shall be provided of all input files and important output files and included in the Investment Grade Audit with documentation that explains how the final savings figures are derived from the simulation program output printouts
 - (11) If manual calculations are employed, formulas, assumptions and key data shall be stated.
 - (12) Conclusions, observations, caveats.
- c) Cost estimate - detailed scope of the construction work needed, suitable for cost estimating. Include all anticipated costs associated with installation and

implementation. Provide specifications for major mechanical components as well as detailed lighting and water fixture counts.

- (1) Engineering/design costs.
 - (2) ESCO/vendor estimates for labor, materials, and equipment; include special provisions, overtime, etc., as needed to accomplish the work with minimum disruption to the operations of the facilities.
 - (3) Permit costs and applicable taxes.
 - (4) Construction management fees.
 - (5) Environmental costs or benefits (disposal, avoided emissions, handling of hazardous materials, etc.).
 - (6) All markups and fees stated in the IGA Contract shall be used in the cost estimates, unless otherwise documented and justified due to change in scope or size of project or other unforeseen circumstances.
 - (7) Conclusions, observations, caveats.
- d) Other considerations
- (1) Estimate of average useful service life of equipment.
 - (2) Preliminary commissioning plan.
 - (3) Preliminary measurement and verification plan, following the International Performance Measurement and Verification Protocol (IPMVP), explaining how savings from each measure is to be measured and verified.
 - (4) Discussion of impacts that facility would incur after contract ends. Consider operation and maintenance impacts, staffing impacts, budget impacts, etc., and identify who is responsible for maintenance.
 - (5) Compatibility with existing systems. Include the name of the existing controls system, if new controls systems will have to be compatible with an existing brand of controls. Also note if a sole-source vendor is established for controls systems.
 - (6) Complete appendices that document the data used to prepare the analyses. Describe how data were collected.
 - (7) Certification by a Puerto Rico registered Professional Engineer that commonly accepted principles have been applied to the measurements,

design, and calculations presented in the IGA; and that the estimates appear reasonable.

- (8) An estimate of the Government Unit resources, and schedule, required to support implementation, operations and maintenance of the measures.

j. Review Recommendations

Review the recommendations, savings calculations and impact of the measures on the operations of the facility. Describe how the projected savings meet the Institution's terms for completing the IGA and Performance Contract Proposal. Discuss the willingness and capability of the Government to make capital contributions to improve the economics of the overall project.

k. Revise Audit as directed by the Government Unit

Review the IGA report under the guidance of the energy action team. The energy action team will generate a recommendation report addressed to the ESCO before proceeding with the Energy Savings Performance Contract Proposal.

l. Prepare an Energy Savings Performance Contract Proposal (Term Sheet).

In anticipation of ESCO and the Government unit entering into an Energy Savings Performance Contract to design, install, and monitor the energy and water saving measures proposed in the Investment Grade Audit Report, ESCO shall prepare a proposal for terms to be incorporated in an Energy Savings Performance Contract to include:

- 1) Project Price is the total amount the Government Unit will pay for the project and ESCO's services. Costs may include but are not limited to: engineering, designing, packaging, procuring, installing (from Investment Grade Audit Report results); performance/payment bond costs; construction management fees; commissioning costs; maintenance fees; monitoring fees; training fees; legal services; overhead and profit; other markups.
- 2) Include a List of Services that will be provided as related to each cost.
- 3) Expected term of the Energy Savings Performance Contract.
- 4) Description of how the project will be financed including available interest rates and financing terms, based on interest rates likely available to the Government Unit at this time, and based on a 30-day, 60-day and 90-day lock option.
- 5) Explanation of how the savings will be calculated and adjusted due to weather (such as heating and cooling degree days), occupancy or other factors. Monitoring and verification methods must be consistent with the latest version of the International Performance Monitoring and Verification Protocol.

- 6) Analysis of annual cash flow for the Government during the contract term.

m. Portfolio Manager rating and energy performance target score estimate.

For each eligible building, ESCO shall provide a pre-retrofit Energy Performance Rating using EPA ENERGY STAR's Portfolio Manager, the weather normalized energy intensity in Btu/SF, and an estimated post-retrofit Energy Performance Rating. If the building type is not eligible for rating in Portfolio Manager, then the normalized source Energy Use Intensity will suffice. ESCO shall provide a completed Cash Flow Opportunity Calculator (CFO Calculator) for the project, with variables inserted that represent the most likely options available to the customer. This will enable the ESCO and the Government Unit to have an agreed-upon format for discussing project financing options and the potential costs of project delays. The CFO Calculator will be provided in both hard copy and electronic format, so that the Government Unit, in coordination with GDB can run its own analyses on financing options in the agreed format. ESCO will submit a completed Cash Flow Opportunity spreadsheet using the Cash Flow Opportunity Calculator (CFO Calculator) for the total project which shall include all facilities to be improved.

SECTION 6.04 - NOTICE OF ACCEPTANCE OF INVESTMENT GRADE AUDIT REPORT

If applicable the Government Unit will provide the ESCO with a Notice accepting the IGA Report and Energy Savings Performance Contract Proposal within 30 days of receipt, after discussion and acceptance by PREAA and the Energy Action Team.

SECTION 6.05 - PRELIMINARY MEASUREMENT AND VERIFICATION (M&V) PLAN

A measurement and verification plan will be developed as a deliverable in the IGA in coordination with PREAA. The ESCO shall complete a "Risk, Responsibility and Performance Matrix" detailing the ESCOs suggested approach and allocation of responsibility for key items related to M&V, including: (1) Financial Matters (Interest rates; Construction costs; Project Savings Verification Methodology; Energy Related Cost Savings; Delays; Major changes in facility use); (2) Operational Matters (Operating hours; Equipment loads; Weather; User participation); (3) Performance Matters (Equipment performance; Operations; Preventive Maintenance; Equipment Repair and Replacement).

The M&V Plan will be further refined as an essential component of the Energy Savings Performance Contract.

SECTION 6.06 - PAYMENT FOR INVESTMENT GRADE AUDIT (IGA)

The audit cost will be proposed in the ESCOs response to the solicitation. Once the Energy Savings Performance Contract is executed, the cost of the IGA will be rolled into the overall project cost and paid for from the proceeds of the financing. The Investment Grade Audit is a stand-alone contract. The Government Unit will be required to have funds obligated to pay for the cost of the audit in the event the Government Unit elects not to proceed with a performance contract and the IGA demonstrates a project that can meet the business objectives. This is a

temporary obligation as long as a subsequent Energy Savings Performance Contract is executed with the provision to pay for the audit.

CHAPTER SEVEN: CONTRACT WITH ESCO TO IMPLEMENT ESPC PROJECT

SECTION 7.01– PREAA’S MODEL ENERGY SAVINGS PERFORMANCE CONTRACT

The Energy Savings Performance Contract is for design, construction, guaranteed savings, and maintenance of the measures proposed in the Final Proposal. The ESPC will be a road map for implementing and tracking the project over the term of the agreement. It must clearly define roles and responsibilities and explicitly state how savings are determined and how the savings performance guarantee will function. All Government Units are required to use PREAA’s Model contract, as a guide, which is included as an Addendum to this Regulation. This form contract has been used over many years by the public sector and accepted by the industry. The Government Unit will only have to customize it, negotiate costs and ensure open-book pricing for good value.

SECTION 7.02 – EQUIPMENT TO BE INSTALLED BY ESCO

The Energy Savings Performance Contract will include a Schedule that will specify all of the newly installed equipment including manufacturer, quantity, location and warranties. This schedule will also describe any modifications that may have been made to existing equipment, if applicable.

SECTION 7.03 – DESCRIPTION OF PROJECT SITE(S); PRE-EXISTING EQUIPMENT INVENTORY

The Energy Savings Performance Contract will include a Schedule that will contain basic information about the condition of the Project Site(s) at the time of contract execution. Such information will include facility square footage, building construction, use, occupancy, hours of operation etc., and any special conditions that may exist.

The inventory is important to include for the purpose of identifying what equipment was in place and how it was configured at the time of contract execution. This schedule is important to the accurate establishment of baseline, savings measurement and may need to be referred to in the later years of the contract.

SECTION 7.04–ENERGY SAVINGS GUARANTEE; PAYMENT AND PERFORMANCE BOND

The Energy Savings Performance Contract will include a Schedule that will fully describe all provisions and conditions of the energy saving guarantee provided by the ESCO. The guarantee will be defined in units of energy to be saved for the duration of the contract term. Reference to the annual reconciliation of achieved vs. guaranteed savings will be included.

As a condition for granting an ESPC and in order to ensure the contractual measures and energy saving representations, the ESCO shall provide evidence of payment and performance bonds in

favor of the Government Unit and PREAA. The bond shall be issued by an insurer authorized by Commissioner of Insurance to do business in Puerto Rico, which has at least an A- in the publication AM Best.

SECTION 7.05 – COMPENSATION TO ESCO FOR ANNUAL SERVICES

The Energy Savings Performance Contract will include a Schedule that will contain the amount and frequency of any payments that may be made to the ESCO for maintenance, or other services negotiated as part of the contract. It will contain information about how the compensation is calculated (e.g. percentage of savings above the guarantee, flat fee etc.), and if an annual inflation index is to be used to escalate fees over the duration of the contract term. An hourly fee structure will also likely be included to cover ESCO costs for any services provided beyond the scope agreed to at the time of contract execution.

SECTION 7.06 – BASELINE ENERGY CONSUMPTION

The baseline energy consumption is the "yardstick" by which all savings achieved by the installed project will be measured. The Energy Performance Contract will include a Schedule that will detail the methodology and all supporting documentation used to calculate the baseline, including unit consumption and current utility rates for each fuel type. This schedule will also include baseline documentation regarding other cost savings such as material savings (e.g. bulbs, ballasts, filters, chemicals etc.), and cost savings associated with the elimination of outside maintenance contracts. Baseline documentation must include evidence of Government Unit witnessing of the baseline conditions. Government Unit names, signatures, time and date on audit sheets, consumption records, photographs are a recommended minimum.

SECTION 7.07 – SAVINGS MEASUREMENT AND VERIFICATION PLAN; METHODOLOGY TO ADJUST BASELINE

The Energy Savings Performance Contract will include a Schedule that will contain a description of the energy savings measurements, monitoring and calculation procedures used to verify and compute the savings performance of the installed equipment. This calculation will include a method to compare the level of energy that would have been consumed without the project (referred to as the "Baseline") with what amount of energy was actually consumed during a specific time period (monthly, quarterly, etc.). All methods of measuring savings including engineered calculations, metering, equipment run times, pre- and post-installation measurements, etc. will be explicitly described for all equipment installed. Periodically (at least on an annual basis), the baseline will be adjusted to account for the prevailing conditions (e.g., weather, billing days, occupancy, etc.) during the measurement period. All methodologies used to account for any adjustments to the baseline will be clearly defined in this schedule.

SECTION 7.08 – CONSTRUCTION AND INSTALLATION

The Energy Savings Performance Contract will include a Construction and Installation Schedule that will contain the timetables and milestones for project construction and installation. If required by the Government Unit, documentation of required insurance and subcontractor lists may be included in this schedule or broken out into a separate schedule. The construction/installation phase of the project will be treated in compliance with individual Government Unit requirements and the appropriate governing statutes. This may require evidence to demonstrate appropriate levels of competition in the ESCOs procurement for materials and subcontractors for the project. Since construction is just one component of the overall project, a separate construction contract may be desirable and in some cases necessary. The construction contract would then be referred to in the body of the contract and attached as an exhibit, appendix or other type of attachment. Another approach would be to consolidate the appropriate construction language for inclusion in the body of the final contract. This will need to be decided as appropriate on a case-by-case basis.

SECTION 7.09 – SYSTEMS START-UP AND COMMISSIONING OF EQUIPMENT; OPERATING PARAMETERS OF INSTALLED EQUIPMENT

The Energy Savings Performance Contract will include a Schedule that will specify the performance testing procedures that will be used for start-up, and for the commission of the installed equipment and total system. The schedule will also provide for the Government Unit to be notified of, and present, during all commissioning procedures. This schedule will contain a provision for the documentation of the Government Unit's attendance at the various tests, and their approval that the tests followed the specified procedures, and met or exceeded the expected results.

The operating parameters will contain any specified parameters for the operation of the installed equipment such as temperature setbacks, equipment run times, load controlling specifications and other conditions for the operation of the equipment.

SECTION 7.10 – STANDARDS OF COMFORT

The Energy Savings Performance Contract will include a Schedule that will describe the standards of comfort to be maintained for heating, cooling, lighting levels, hot water temperatures, humidity levels and/or any special conditions for occupied and unoccupied areas of the facilities.

SECTION 7.11 – ESCO'S MAINTENANCE RESPONSIBILITIES

The Energy Savings Performance Contract may include a Schedule that will provide a complete description of the ESCO's specific operations and maintenance responsibilities along with the time intervals for their performance of the stated operations and maintenance (O&M) activities.

SECTION 7.12 – GOVERNMENT UNIT’S MAINTENANCE RESPONSIBILITIES

The Energy Savings Performance Contract may include a Schedule that will describe the O&M responsibilities that may be assigned to facility staff as agreed to by both parties. This Schedule will contain a description of routine O&M currently being performed on existing energy consuming equipment in the facilities.

SECTION 7.13 – FACILITY MAINTENANCE CHECKLIST

The Energy Savings Performance Contract will include a checklist as a method by which the ESCO may record and track the Government Unit’s compliance with any of the maintenance procedures being performed by facility personnel. The checklist typically specifies simple list of tasks and the corresponding schedule for the performance of the prescribed procedures. Facility staff will complete the checklist and forward it to the ESCO, on a monthly basis.

SECTION 7.14 – ESCO'S TRAINING RESPONSIBILITIES

The Energy Savings Performance Contract will include a Schedule that will describe the ESCO's training program or sessions for facility personnel, including the duration and frequency of the specified training. Any provisions for on-going training, commitments to train newly hired facility personnel, and training with respect to possible future equipment or software upgrades will also be described. Any fees associated with the client's request for training beyond what the ESCO is contractually bound to provide will also be specified.

SECTION 7.15 – PAYMENT SCHEDULE

The Energy Savings Performance Contract will include a detailed Payment Schedule.

SECTION 7.16 – ALTERNATIVE DISPUTE RESOLUTION

The Energy Savings Performance Contract will include a Schedule that will describe methods for resolving disputes or claims relating to construction or the contract, wherein the parties agree to exercise good faith efforts (e.g., mediation, dispute resolution board) and to only use litigation as a last resort. This schedule is included as an alternative to costly binding arbitration and litigation. If no dispute resolution is reached, parties agree to submit to the adjudicative proceedings available at PREAA.

SECTION 7.17 – ANNUAL REPORTING REQUIREMENTS

The Energy Savings Performance Contract will include a Schedule that will summarize the project and contain the energy, water and operational cost savings (in dollars and MMBTUs) for each year. Annually the ESCO is required to submit a summary of performance for the year and reconciliation against the performance guarantee. In addition, annual emission reductions and

ENERGY STAR rating (if applicable) are also located in this schedule. This summary information is useful for tracking and reporting on annual project performance.

SECTION 7.18 – PRE-EXISTING SERVICE CONTRACTS

The Energy Savings Performance Contract may include a Schedule detailing information regarding the scope and cost of pre-existing equipment service contracts; including how and when the existing equipment is being serviced. If the ESCO is credited with any maintenance savings or is taking over any existing service contracts, the scopes and costs of such Contracts will be useful in tracking the performance of the ESCO in providing the required services, and documenting any attributable cost savings.

SECTION 7.19 – ENERGY SAVINGS PROJECTIONS

The Energy Savings Performance Contract will include a Schedule containing the projected energy savings in units for each year of the contract. Oftentimes these projections are broken down on a measure by measure basis although some measures may be aggregated into general categories such as lighting or HVAC. If there are several buildings involved in the project, this schedule will contain projections for each facility, even though they may all be covered under a single guarantee.

SECTION 7.20 – FACILITY CHANGES CHECKLIST

A "Facility Changes Checklist" or other method may be provided by the ESCO for the Government Unit to notify the ESCO of any changes in the facility that could have an impact on energy consumption (e.g. occupancy, new equipment acquisition, hours of use etc.). This checklist is generally submitted on a monthly or quarterly basis.

SECTION 7.21 – CURRENT AND KNOWN CAPITAL PROJECTS AT FACILITY

The Energy Savings Performance Contract will include a Schedule containing any current or planned capital projects to be implemented in the facility. This information could prove to be very useful in the out-years of the contract in order to avoid potential disputes over long-term energy savings performance, overall facility energy consumption and costs.

SECTION 7.22 – SUPERVISION BY A PUERTO RICO REGISTERED P.E.

The Energy Savings Performance Contract will include a requirement that an appropriately qualified Puerto Rico registered Professional Engineer act in responsible charge for the ESCO, to ensure the project is fit for the purpose intended.

CHAPTER EIGHT: MEASUREMENT AND SAVINGS VERIFICATION

SECTION 8.01 - ECM-SPECIFIC M&V PLAN AND SAVINGS CALCULATION METHODS

Follow-up measurement and verification enables the Government Unit to ensure that it is getting full value from its energy savings performance contract. The success of the measurement and verification effort depends on the level of detail provided in the contract.

At least once every three months per contract year, the ESCO shall submit a report of cost savings (corroborate the results of the measures of conservation and energy efficiency) in coordination with the PREAA. ESCOs measurement and verification (M&V) services provide the Government Unit with assurance that equipment will perform for the life of the agreement. Savings must be verified and documented prior to payment. In order to achieve this, the ESCO shall:

- 1) Summarize the scope of work, location, and how cost savings are generated. Describe source of all savings including energy, water, O&M, and other (if applicable).
- 2) Work in conjunction with PREAA to specify the M&V guideline, and the option used from the International Performance Measurement and Verification Protocol (IPMVP).
- 3) Provide an overview of savings calculation methods for ECM. Provide a general description of analysis methods used for savings calculations.

SECTION 8.02 - PROPOSED ENERGY AND WATER SAVINGS CALCULATIONS AND METHODOLOGY

ESCO must provide a detailed description of measurement analysis methodology used. Including, but not limited to:

- 1) Detail of any data analysis that was conducted prior to applying savings calculations.
- 2) Detail of all assumptions and sources of data, including all stipulated values used in calculations.
- 3) Include equations and technical details of all calculations made.
- 4) Detail any savings or baseline adjustments that may be required.
- 5) Detail energy and water rates used to calculate cost savings. Provide post-acceptance performance period energy and water rate adjustment factors.
- 6) Detail proposed savings for this energy conservation measure for post-acceptance performance period.

- 7) Methods for handling bad, or missing, data.

SECTION 8.03 - OPERATIONS AND MAINTENANCE (O&M) COST SAVINGS

ESCO must provide adequate justification for O&M cost savings, including, but not limited to:

- 1) Detailed description of how savings are generated and detail cost savings calculations.
- 2) Provide post-acceptance performance period other cost savings adjustment factors.
- 3) Provide justification for cost savings.
- 4) Provide post-acceptance performance period other cost savings adjustment factors.

SECTION 8.04 - POST-INSTALLATION M&V ACTIVITIES

ESCO must describe the intent of post-installation verification activities, including what will be verified, and must, in coordination with PREAA:

- 1) Describe variables affecting post-installation energy or water use. Include variables such as weather, operating hours, set point changes, etc. Describe how each variable will be quantified, i.e., measurements, monitoring, assumptions, manufacturer data, maintenance logs, engineering resources, etc.
- 2) Define key system performance factors characterizing the post-installation conditions such as lighting intensities, temperature set points, etc.
- 3) Define requirements for the Government Unit to witness the measurements obtained, if different than the project data requirements.
- 4) Provide details of post-installation data to be collected, including: Parameters to be monitored; Details of equipment to be monitored (location, type, model, quantity, etc.); Sampling plan, including details of usage groups and sample sizes; Duration, frequency, interval, and seasonal or other requirements of measurements; Monitoring equipment to be used; Installation requirements for monitoring equipment; Calibration requirements/procedures; Expected accuracy of measurements/monitoring equipment; Quality control procedures to be used.
- 5) Detail data analysis to be performed.

SECTION 8.05 - POST-ACCEPTANCE PERFORMANCE PERIOD VERIFICATION ACTIVITIES

In order to be able to responsibly monitor and verify the energy and water saving measures proposed in the IGA Report, PREAA and Government Unit shall develop an M&V Plan, in coordination with the ESCO, that must:

- 1) Describe variables affecting post-acceptance performance period energy or water use. Include variables such as weather, operating hours, set point changes, etc. Describe how each variable will be quantified, i.e., measurements, monitoring, assumptions, manufacturer data, maintenance logs, engineering resources, etc.
- 2) Define key system performance factors characterizing the post-acceptance performance period conditions. Include factors such as comfort conditions, lighting intensities, temperature set points, etc.
- 3) Describe the intent of post-acceptance performance period verification activities.
- 4) Provide detailed schedule of post-acceptance performance period verification activities and inspections.
- 5) Define requirements for the Government Unit witnessing of measurements if different than whole project data requirements.
- 6) Provide details of post-acceptance performance period data to be collected, including, but not limited to: Parameters to be monitored; Details of equipment to be monitored (location, type, model, quantity, etc.); Sampling plan, including details of usage groups and sample sizes, Duration, frequency, interval, and seasonal or other requirements of measurements; Monitoring equipment to be used; Installation requirements for monitoring equipment; Calibration requirements/procedures; Expected accuracy of measurements/monitoring equipment; Quality control procedures to be used; Form of data to be collected (.xls, .cvs, etc.), among others.
- 7) Detail data analysis to be performed.
- 8) Define O&M and repair reporting requirements. Detail verification activities and reporting responsibilities of the Government and contractor on operations and maintenance items. Define reporting schedule.

CHAPTER NINE - ADDITIONAL PROVISIONS

SECTION 9.01 - APPLICABILITY

The requirements of this Regulation are applicable to all Government Units, PREAA, and all ESCO's that have been Pre-Qualified by PREAA. All ESCO's who have contracted with Government Units prior to the adoption of this Regulation, will be exempt from the provisions of this Regulation.

SECTION 9.02 - OVERLAPPING OR CONTRADICTORY PROVISIONS

In the event that a requirement established by any provision of this Regulation is either more restrictive than a requirement established by any other part of this Regulation or by any other

law, regulation, standard, or limit established by any duly constituted government authority having jurisdiction, the more restrictive requirement shall prevail.

SECTION 9.03 - SEVERABILITY

Should any section, subsection, clause, paragraph or any part of this Regulation be declared unconstitutional, or void, by a court with jurisdiction over them, said decision shall not affect or invalidate the remaining sections, subsection, clauses, paragraphs or parts.

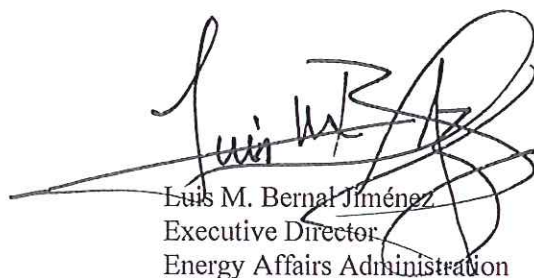
SECTION 9.04 - DISCREPANCY BETWEEN ENGLISH AND SPANISH VERSIONS

In the event of a discrepancy between the English and the Spanish versions of this Regulation, the English version shall prevail.

SECTION 9.05 - EFFECTIVENESS

This Regulation shall enter into effect immediately after it has been filed at the Puerto Rico Department of State, in conformity with Article 2.13 of Act 170-1988, as amended.

Approved By:



Luis M. Bernal Jiménez
Executive Director
Energy Affairs Administration