

Energy Performance Contracting Manual

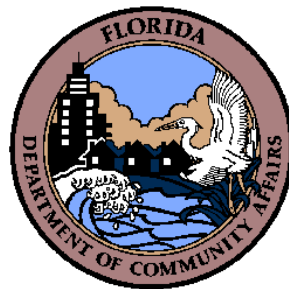


Energy Performance Contracting Manual

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DISCLAIMER

This manual has been prepared for the Florida Energy Office (FEO) of the Department of Community Affairs to serve as a "how-to" guide for Florida's public agencies procuring performance contracting agreements that will reduce energy consumption and costs in their facilities.

In 1992, the Florida Legislature passed authorizing legislation that enabled the state's school districts, community colleges, and universities to use energy performance contracting to implement large capital-improvement energy projects and reap the associated long-term energy-saving benefits (see § 1013.23, Florida Statutes). In 1994, the Florida Legislature subsequently passed similar enabling legislation for state and local governmental agencies (§ 489.145, Florida Statutes). These statutes were substantially amended in 1997 and 2001, respectively.

The intent of this FEO manual is to assist public agencies in investigating the use of energy-saving performance contracting arrangements to accomplish the goals of Florida law.

Notice

This manual was prepared by Donahue & Associates, Inc., while under contract with the Department of Community Affairs' FEO and with grant support from the U.S. Department of Energy (DOE) Grant Number DE-FG44-00R410760. The opinions expressed in this report do not necessarily reflect those of the FEO or DOE. Any reference to a specific product, service, process, or method does not constitute an implied or expressed recommendation or endorsement of the same. The opinions, findings, conclusions or recommendations expressed herein are those of the author only and do not necessarily reflect the views of FEO or DOE.

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INTRODUCTION

What Is Energy Performance Contracting?

Across the country, energy performance contracting (EPC) is offered by Energy Service Companies (ESCOs) as a practical way for public sector entities to obtain and finance energy-saving projects for their facilities. EPC can provide the resources to finance and acquire needed capital equipment and improve energy efficiency and comfort in public buildings. Numerous states, including Florida and the federal government, have enacted legislation that authorizes public facilities to use EPC for implementing energy improvement projects.

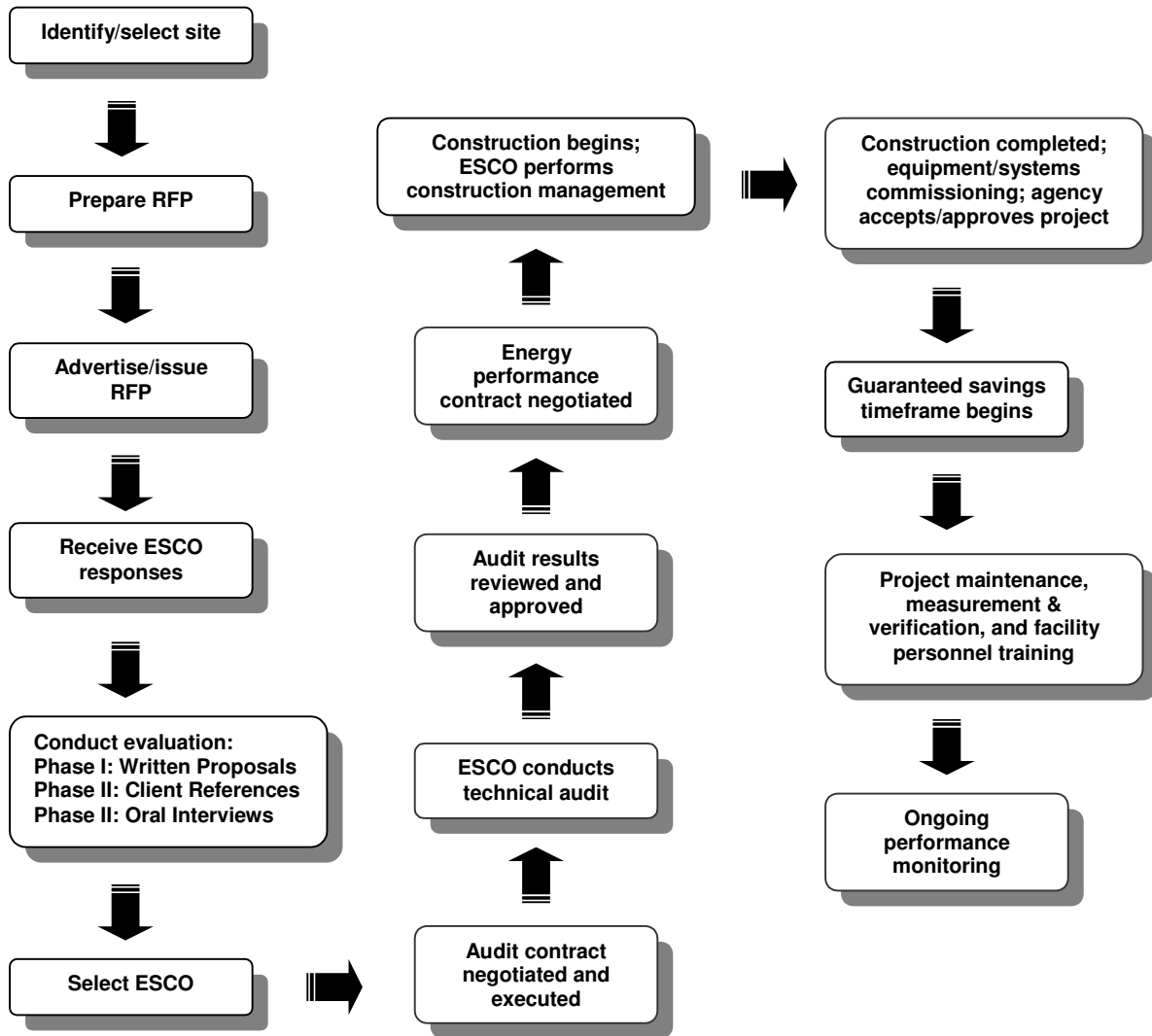
EPC is rapidly achieving widespread use by Florida's public agencies, primarily because it offers a mechanism for overcoming constrained capital budgets, aging and inefficient buildings and equipment, and limited maintenance staff resources. In Florida, one of the most attractive and distinguishing features of EPC is the **guaranteed** energy cost savings that pay for all associated project costs over the life of the contract. This provides an opportunity for agencies to free-up scarce budget resources for other needed services and activities.

The larger the annual energy costs and the potential for savings, the greater the opportunity for both the Agency and ESCO to benefit from energy performance contracting.

By allowing the building energy savings to cover all project and financing costs, EPC provides agencies the ability to purchase these comprehensive energy improvements (e.g., lighting, heating, air conditioning, and system controls, etc.) and services from qualified ESCOs. Often in the early years of the contract term, ESCOs structure the public building projects to generate a positive cash flow to the agency.

Florida laws authorize the use of EPC by all public agencies and specify the contract term limits for EPC. For state and local agencies and schools (school districts, community colleges, and state universities), the length of the contract term cannot exceed 20 years. For purposes of this report and to assist the reader, all public sector entities (e.g., state agencies, local governments [counties and cities], schools, community colleges, and universities) will be referred to as "agencies" or "agency." Figure 1-1 outlines procedural steps for developing a performance contract.

**FIGURE 1-1
State of Florida
Energy Performance Contracting
Project Implementation**



Florida Laws

Due to the Florida Legislature' s 1992 and 1994 enactment of Senate Bills 1648 and 394, respectively, the state' s school districts, community colleges, universities, and state and local government agencies NOW are authorized to use EPC to implement large capital-investment energy projects and reap the long-term energy-saving benefits. In 1997 during the Legislative Special Session on schools, the EPC law for Florida's schools was amended substantially. During the 2001 Regular Session, the Florida Legislature also amended the EPC law for state and local agencies. These legislative changes mirrored many of the changes made for schools in 1997.

These Florida Statutes, codified at s. 1013.23 (for school districts, community colleges and state universities) and s. 489.145 (for state and local agencies) are included in Appendices A and B found at the end of this manual.

Figure 1-2 highlights the feature-by-feature comparison between these statutes.

“Over the next 20 years, Florida will have to greatly expand its energy capacity and supply to meet the increasing demand. Yet the cheapest, easiest and fastest kilowatt we generate is the one we can save through efficiencies. There is a consensus on conservation and efficiency, so let us start there.”

--Governor Jeb Bush

**FIGURE 1-2
Key Provision Comparisons
of Florida's Energy Performance Contracting Laws**

Section 1013.23, Florida Statutes	Section 489.145, Florida Statutes
<p>Name: Energy Efficiency Contracting</p>	<p>Name: Guaranteed Energy Savings Contracting Act</p>
<p>Applicability: School districts, community colleges, state universities</p>	<p>Applicability: State and local (city & county) agencies</p>
<p>ECMs (energy conservation measures):</p> <ul style="list-style-type: none"> • Insulation • Storm windows and doors • Energy control systems • Heating and air conditioning • Lighting • Energy recovery systems • Cogeneration systems • Measures reducing operating costs & BTUs • Renewable energy systems (solar, biomass, wind) • Devices that reduce water consumption or sewer charges 	<p>ECMs (energy conservation measures):</p> <ul style="list-style-type: none"> • Insulation • Storm windows and doors • Energy control systems • Heating and air conditioning • Lighting • Energy recovery systems • Cogeneration systems • Measures reducing operating costs & BTUs • Renewable energy systems (solar, biomass, wind) • Devices that reduce water consumption or sewer charges • Storage systems, such as fuel cells and thermal storage • Generating technologies, such as microturbines • Any other repair, replacement or upgrade of existing equipment
<p>Procurement Process: Consultants' Competitive Negotiation Act (s. 287.055)</p>	<p>Procurement Process: Consultants' Competitive Negotiation Act (s. 287.055)</p>
<p>Advertising Requirements:</p> <ul style="list-style-type: none"> • Notice of meeting at which contract will be awarded • Names of parties to proposed contract • Purpose of contract 	<p>Advertising Requirements:</p> <ul style="list-style-type: none"> • Notice of meeting at which contract will be awarded • Names of parties to proposed contract • Purpose of contract
<p>Energy Cost Savings:</p> <ul style="list-style-type: none"> • Derived from reductions in fuel, energy, and operation and maintenance costs • Derived from reductions achieved in new construction when minimum Florida Building Code standards for educational facilities construction are implemented, then signed and sealed by a registered professional engineer 	<p>Energy Cost Savings:</p> <ul style="list-style-type: none"> • Derived from reductions in fuel, energy, and stipulated operation and maintenance costs • Derived from reductions achieved in new construction

**FIGURE 1-2
Key Provision Comparisons
of Florida's Energy Performance Contracting Laws**

Section 1013.23, Florida Statutes	Section 489.145, Florida Statutes
<p>Contract Provisions:</p> <ul style="list-style-type: none"> • Design and installation of project • Operation and maintenance of equipment • Actual annual savings (must meet or exceed total annual contract payments) • Finance charges incurred over contract life • Guarantee that annual energy cost savings meet or exceed the amortized cost of energy conservation measures • Annual reconciliation 	<p>Contract Provisions:</p> <ul style="list-style-type: none"> • Design and installation of project • Operation and maintenance of equipment • Actual annual savings (must meet or exceed total annual contract payments) • Finance charges incurred over contract life • Written guarantee that savings will meet or exceed amortized cost of energy conservation measures • Allocation of excess savings (optional) • Annual reconciliation
<p>Contract Term: 20 years</p>	<p>Contract Term: 20 years</p>
<p>Bonding Requirements: 100 percent public construction bond</p>	<p>Bonding Requirements: 100 percent public construction bond</p>
<p>Payback Calculation: Life cycle costing, which takes into account fuel costs and maintenance over the life of the ECMs</p>	<p>Payback Calculation: Life cycle costing, which takes into account fuel costs and maintenance over the life of the ECMs</p>
<p>Savings Calculation: Annual reconciliation conducted by ESCO; requires ESCO to be liable for annual savings shortfall; excess savings can not be used to cover shortages in subsequent contract years</p>	<p>Savings Calculation: Annual reconciliation conducted by ESCO; requires ESCO to be liable for annual savings shortfall; excess savings cannot be used to cover shortages in subsequent contract years</p>
<p>Audit Report Review: Department of Education or Department of Management Services or signed and sealed by a registered professional engineer</p>	<p>Audit Report Review: None</p>
<p>Contract Review: None required by this law</p>	<p>Contract Review: Authorizes the Department of Management Services, with the assistance of the Office of the Comptroller (now called the Department of Financial Services) , to provide technical assistance to state agencies and other activities as needed. Also, the Department of Financial Services is authorized to develop model contractual and related documents for use by state agencies. Agencies are required, prior to entering into these contracts, to submit the proposed contract to the department for its review and approval</p>

ESCO Standard Services

ESCOs provide comprehensive technical services as a part of an EPC project. In addition to analyzing facility energy use and designing comprehensive projects, they provide ongoing equipment maintenance, project monitoring, and savings measurement and verification services that ensure persistent and reliable project performance. In essence, the ESCO becomes a partner with the agency to improve, efficiently manage, and maintain a facility' s energy consumption throughout the term of the contract.

ESCOs design projects to use state-of-the-art technologies. They also provide extensive training for facility operation' s personnel and provide or arrange for project financing. This will be repaid over the contract term from the energy cost savings. In the event that actual savings fall short of the guarantee, the ESCO is contractually liable to reimburse the agency for the shortfall.

Standard services offered by ESCOs under an energy performance contract:

- An investment-grade technical energy audit that analyzes current building conditions, establishes base-year energy consumption, recommends energy conservation measures (ECMs), and calculates associated energy cost savings
- A sound technical project, which includes capital equipment and ongoing energy services
- Project engineering and design
- Tax-exempt project financing options
- Construction bonding to comply with statutory and agency requirements
- Equipment acquisition
- Complete project installation and construction management
- Guaranteed savings for the life of the contract
- Project commissioning
- Savings measurement and verification
- Project monitoring services
- On-going equipment service and maintenance (if needed)
- Extensive training for building operators and facility personnel

Project Site Selection

There are a number of technical factors to consider when selecting a suitable project site for an EPC energy project. In general, the facility should have high annual energy use, coupled with sufficient energy saving opportunities to generate the necessary cash flow to amortize all project costs over the contract term and attract ESCOs' interest. Some ESCOs are willing to implement projects for smaller facilities, but they make those decisions on a case-by-case basis.

A facility that makes a good candidate for EPC will possess most of the following characteristics:

- Annual utility costs in excess of \$300,000
- Potential annual energy savings from \$45,000 to \$75,000 (15% to 25% of the project cost)
- Stable facility use and occupancy
- Consistent energy-use patterns over several years
- Access to several years of utility records
- A structurally-sound facility with no extensive building renovations planned, nor recently completed



Often, it makes economic sense to combine several facilities into a single project offering. Multiple building projects with excessive energy costs are usually very attractive to ESCOs and allow the agency to finance and obtain a greater number of energy improvements through a single procurement.

A simple rule of thumb to consider when selecting candidate project sites:

The larger the annual energy costs and potential for savings, the greater the opportunity for both parties to benefit from energy performance contracting.

Features of Energy Savings Guarantees

Since expected energy cost savings must pay for **all** project costs over the term of the contract, ESCOs have a strong financial incentive to design optimal-performing projects. In addition, payment of ongoing ESCO service fees (e.g., maintenance services, project monitoring, savings measurement and verification, etc.) must also be paid from the facility savings. Therefore, if savings are not achieved the ESCO does not get paid.

At a minimum, any savings guarantee should meet the annual debt service payments (e.g., tax-exempt lease, bonds, bank loan, etc.). Typically, these savings guarantees are structured to be 85 percent to 90 percent or more of the predicted savings.

Savings guarantees are generally expressed in both dollars and fuel units. The dollar value attributed to fuel units should be the prevailing utility rate for that particular fuel at the time of contract execution. It is standard practice for ESCOs to establish the prevailing unit utility rate as a "floor rate" from which the dollar value of savings will not fall. This "floor rate" protects the ESCO from future projected savings devaluation should utility rates drop during

the contract term. This structure assumes that if utility rates fall, the facility will immediately benefit from an overall reduction in utility costs.

However the savings guarantee is structured, it is critical that both parties agree to and thoroughly understand the terms of the guarantee and how it will be applied throughout the contract term.

Benefits of Energy Performance Contracts

In addition to the savings guarantee, there are a number of other benefits for public agencies using EPC to implement capital energy projects:

- Preserves limited budget dollars for other services and activities
- Finances capital energy improvements from utility savings
- Reduces frequency of repairs and maintenance costs for inadequate, aging, or obsolete equipment
- Provides operating personnel with technical training
- Decreases indoor air quality (IAQ) problems
- Creates a more comfortable work environment and increases employee productivity
- Enhances the local economy with the ESCOs' use of local subcontractors
- Creates an incentive for ESCOs to develop efficient projects, since compensation is linked to project savings
- Improves the environment and conserves scarce energy resources



Project Financing

In general, it is more economical for public agencies to secure their own project financing and to require an ESCO financial guarantee that covers the annual debt service from the project energy cost savings. The tax-exempt status granted to a public agency, enables them to access lower-cost financing than that typically available to an ESCO. More favorable financing terms enhance the potential scope of work, the contract terms, and can reduce the overall cost of the project.

Project Financing Considerations

There are a number of factors to consider when assessing financing options for EPC projects:

- Size of project investment
- Length of financing term
- Source of funds (e.g., bonds, tax-exempt lease, commercial lease, ESCO corporate fund or line of credit, etc.)

- Interest rate
- Flexibility of financing instrument to fund project "soft costs" (e.g., design, engineering, construction management, etc.)
- Creditworthiness of the agency and ESCO
 - Length of construction period
 - Construction financing options/interest rate
 - Equipment ownership
 - Buy-out schedule
 - Required security interest/project collateral
 - Project bonding requirements
- Risk premium charges for ESCO financing (if applicable)
- Preferred project repayment schedule (e.g., monthly, quarterly, annually)
- Ability to time the debt repayment schedule to coincide with the guarantee period



Available Sources of Project Financing

One of the primary benefits of EPC is the ESCOs savings guarantee. This guarantee makes the ESCO financially liable for any project performance savings shortfall. If the guaranteed level of savings does not materialize, the ESCO is contractually bound to reimburse the agency for the difference between the actual and guaranteed savings. This feature reduces the agency's financial risk.

There are a variety of sources available to public agencies for financing EPC projects. Since public agencies are tax-exempt, it makes economic sense to use some method of tax-exempt financing. Most ESCOs offer to assist with project financing arrangements, since many have established relationships with financial institutions willing to provide financing. While the repayment obligation resides with the agency, the ESCO should provide a guarantee that the agency's annual financial obligation will be met during the contract duration, regardless of the financing method chosen.

The primary project financing sources available to public agencies include:

- **General Obligation (G.O.) Bonds**
 These are typically the least expensive source of funds available for agencies with the authority to issue general obligation bonds. The bonds are attractive to the financial market because they are backed by the full-faith and credit of the issuer. This means that the issuer pledges its' authority to tax, raise, and collect sufficient funds to satisfy the bond obligations. There have been a number of instances where energy projects have been financed as a part of a larger G.O. bond issue that

included other capital projects. In those cases, the project costs were paid outright and the energy performance contract was structured to provide a guarantee that corresponds to the bond retirement schedule agreed to by both parties.

While general obligation bonds offer the lowest interest rates, there are statutory debt restrictions that limit their availability. Approval to issue the bonds must be obtained by the state legislature or by public referendum. This can impose project implementation delays. Also, the financing of capital energy projects must compete with the financing of other essential government services and capital project needs.

- **Revenue Bonds**

Revenue bonds are another option for energy project financing. They carry attractive interest rates, although the rates are slightly higher than G.O. bonds. Also, revenue bonds are not backed by the full faith and credit of the institution and are therefore considered a method of "off-budget" financing. In addition, revenue bonds require the identification and availability of a dedicated revenue source to retire the bond debt. While guaranteed savings would appear to fulfill that requirement, energy savings are not considered actual revenue by the financial markets. Appropriated payments dedicated specifically to revenue bond retirement would have to be secured to fulfill the revenue obligation. Approval by the state legislature or public referendum often is required prior to issuing revenue bonds; however, there is rarely a statutory limitation on the use of such bonds for public use. Similar to G.O. bonds, the performance contract would guarantee the retirement of the revenue bonds on a schedule agreed to by both parties.

- **Tax-exempt Lease Purchase**

The use of tax-exempt lease financing is the most common method used by public agencies to finance EPC projects. The interest rates associated with tax-exempt lease financing are significantly lower than commercial lease-purchase interest rates because the interest payments are tax-exempt income to the investor. A tax-exempt lease typically does not require public approval or constitute a long-term debt obligation for the agency. This type of financing also allows the agency to retain the equipment title with an equipment security interest held by the investors. The ESCO industry and financial institutions typically accept lease payments subject to annual appropriations with a standard non-appropriations provision included in the lease agreement. This ready access to tax-exempt lease financing makes this method the most attractive and commonly used method of financing EPC projects by public agencies.

- **Bank Financing**

A conventional installment-payment loan obtained from a local bank or financial institution also can be used to finance an EPC project. Depending upon the agency' s relationship with the bank, interest rates and contract terms could be negotiated to make this an attractive and economical means of project financing. Under an installment payment loan, the bank retains title to the equipment for the loan term. At the conclusion of the loan, the title is turned over to the agency subject to the agreed-upon terms. This type of financing is considered a long-term debt obligation and is credited against the agency' s outstanding debt limitation.

- **ESCO Financing** (Commercial Leases, Internal Corporate Funds or Credit Lines)
ESCO financing is generally the most expensive financing available for EPC projects - particularly for tax-exempt public agencies. Since ESCOs do not have direct access to tax-exempt financing sources, they must use commercial sources or their own internal funds or credit lines. Commercial credit lines carry higher interest rates. And, using an ESCO's internal corporate fund is subject to required rates of return for corporate shareholders. Additional financial risk premiums also may be charged to the project in exchange for the ESCO bearing all the financial risks associated with project repayment. The high cost of ESCO financing can impose limitations on the technical scope of the project and may place restrictive conditions on the terms of the energy performance contract.

2

PROCUREMENT PROCESS

Overview

Florida's public agencies are required to use a *Request for Proposal* (RFP) when procuring energy performance contracts. An RFP is used to solicit and invite proposal submissions by ESCOs who are capable of implementing EPC projects. The following is a step-by-step description of the procurement process. (A sample RFP is included in Appendix C.)

- 1. ESCOs Written Proposals:** The ESCOs written response to the RFP is the first step in this process. The written response includes information on the corporate background and technical qualifications of the ESCO, past EPC projects, and client references. This additional information will be used to investigate, evaluate, score, and rank the responses. The combined written proposal scores along with client references will be used to shortlist the three highest ranking firms.
- 2. Oral Interviews of Shortlisted ESCOs:** Oral interviews are a good way to gather additional information from competing ESCOs. This allows the agency to review each ESCOs project approach and it gives the ESCOs an opportunity to respond to questions from the evaluation team.
- 3. ESCO Selection:** Final selection is the last procurement step. Selection of the best-qualified ESCO should be based on the cumulative scores of the written proposals, client references, oral interviews, and consensus of the evaluation team. The highest ranked ESCO is typically recommended for selection.

...the RFP must clearly state that achieved energy cost savings must pay for all project costs for the duration of the contract.

After receiving the necessary administrative approvals for project commencement, an energy audit agreement is executed which authorizes the ESCO to conduct a complete technical and economic analysis of the facility(s). This investment-grade energy audit produces the ESCOs final list of energy improvements for installment, a description of services they

will provide, complete contract terms and conditions, a project timetable, and all energy cost savings projections associated with the project.

It is important for the agency to independently review and verify the results of the energy audit conducted by the ESCO. Whether technical consultants or in-house technical personnel verify the audit results, all components of the proposed and final technical scopes of the project should be thoroughly reviewed prior to final contract execution. Information gathered in this phase provides the basis for the final scope of work and services negotiations, and for final contractual terms and conditions. Please bear in mind that the agency is responsible for the cost of the energy audit if they are unable or choose not to proceed with the final EPC contract. If the agency decides to proceed with the project, the cost of the audit will be rolled into the project financing and amortized over the project term. Each ESCO's cost for conducting the audit should be disclosed in their written RFP response document.

Figure 2-1 compares a conventional competitive bid and spec procurement with a competitive EPC procurement.

**FIGURE 2-1
Comparison of Conventional Bid and Specification
vs. EPC Procurement**

Conventional Bid & Spec Procurement	Energy Performance Contracts: Competitive Negotiations for Professional Services
<ul style="list-style-type: none"> • Requires several years to secure sufficient funds to implement comprehensive energy projects • Piecemeal approach to bidding and managing separate project components results in high staff costs • Multiple contracts with multiple vendors can result in conflicting project requirements • No guaranteed energy savings • Comfort and operating standards usually are not offered by equipment vendors • Incremental project implementation misses savings design opportunities • Energy projects must compete for limited budget resources with other improvement projects • No direct incentive for building staff to reduce energy costs • Limited staff expertise and resources may put project performance at risk • Underfunded operations and maintenance typically result in wasted energy 	<ul style="list-style-type: none"> • All funds needed for a comprehensive energy project are readily available • Lower staff costs and quicker completion of a comprehensive project • Single contract with single point accountability for project performance • ESCO guaranteed long-term energy savings • Energy performance contracts typically contain explicit comfort and operating standards • Comprehensive project implementation maximizes savings design opportunities • Energy projects are funded with utility bill savings • ESCO payments are tied to achieving energy cost savings over the contract term • ESCO provides ongoing technical expertise to insure project performance • EPC projects generate energy cost savings to finance the operation and maintenance required to sustain long-term project performance

Preparing the Request for Proposals (RFP)

An RFP should define the project scope, project schedule, procurement process, evaluation criteria, special contractual terms and conditions, and corporate and technical information to be submitted by the ESCO in their response. In addition, the RFP should clearly state that achieved energy cost savings must pay for all project costs for the duration of the contract. This requirement establishes the economic bottom-line and financial performance requirements of the installed project.

Information requested in the RFP should include certain information from the ESCOs. The type of information can be found in Figure 2-2.

FIGURE 2-2

Key Information to Request

- o Experience with implementing performance contracting arrangements
- o Understanding of and experience with energy measures likely to be installed
- o Financial stability and experience with project financing
- o Background and EPC experience of all project personnel assigned to the project
- o Performance record of past EPC projects managed by the project team who will be assigned to the agency' s project
- o Calculation methods used to compute base-year utility use and project savings
- o Savings measurement and verification and project monitoring methods
- o Proposed approach to ongoing maintenance and other services
- o Proposed structure for the savings guarantee and ESCO fee payments
- o Technical energy audit cost
- o Training services for the facility staff
- o Sample investment-grade technical energy audit, project commissioning plan, maintenance plan, and customer savings report

An RFP needs to have sufficient information about the project to attract ESCOs' interest. One primary purpose of the RFP is to give form and substance to the project and to create ground rules by which competing ESCOs have to subscribe.

The *Sample RFP* located in Appendix C addresses the essential components common to most EPC arrangements. This sample has been designed for flexibility and is easily customized to accommodate specific project needs and agency requirements. Project-specific procedures and information on the following topics -- site visits, project schedule and evaluation criteria -- need to be included in the final RFP.

Site Visits

Most ESCOs will want to tour the facility and interview facility staff prior to submitting their written proposal. These site visits should be scheduled after the RFP is issued, but before responses are due. The facility should be available for scheduled tours for a specified period of time. It is recommended that each responding ESCO be scheduled to tour the site(s) separately.

Project Schedule

A project schedule should be developed that identifies specific procurement dates and activities. Figure 2-3 is a representative sample project schedule that is contained in the *Sample RFP* (Appendix C). The project schedule will help ESCOs understand the facility(s) procurement schedule and can serve as a guideline for keeping the project on-track.

FIGURE 2-3

<h1>Sample Project Schedule</h1>	
Activity	Timeframe
Advertise RFP	Week 1
Site Visit.....	Weeks 2-4
Proposals Due	Week 6
Written Proposals Reviewed/Evaluated.....	Weeks 7-11
Oral Interviews/Presentations	Week 12
Anticipated Board Approval Date	Week 14
Technical Audit, Project Analysis, and Contract Negotiations Begin.....	Week 16
Audit Report Submitted	Week 32
Anticipated Date for Contract Signing & Presenting Final Contract	Week 40

Evaluation Criteria

It is important to specify the evaluation criteria to be used for ranking competing ESCOs. The *Sample RFP* specifies a detailed list of the criteria. They are grouped into four major categories: 1) Prior Experience, 2) Approach to Project Management, 3) Technical Capabilities & Expertise, and 4) Financial Strength. These categories are useful in aggregating evaluation data and for the presentation of rankings.

Project Terms and Conditions

The *Project Terms and Conditions*, contained in Attachment C of the Sample Model RFP, describes the minimum conditions required of the selected ESCO for project implementation. The provisions described in the attachment cover the basic technical and legal elements that should be included in a performance contract. This attachment can easily be customized to incorporate all the project-specific technical and legal requirements and any agency policies that require ESCO compliance.

Technical Facility Profile

A technical description of the project facility(s) needs to be prepared and attached to the RFP as an appendix. An ESCO will need enough technical details about the facility to assess and design opportunities for a successful project. At a minimum, a brief description of the premises and all major energy-using equipment should be provided. Several years of past utility consumption data, preferably by fuel unit and cost, also should be included. Instructions for preparing this technical facility profile are located in Appendix D.

Evaluation Team Identification

It is important to identify members of the evaluation team early in the procurement process to receive their input during the development of the RFP scope and to keep them informed of the project progress. The members also need to be made aware of the evaluation timetable so they can schedule sufficient time to review written proposals, check client references, and participate in oral interviews. An evaluation team can involve any number of agency personnel, including but not limited to:

- Facility/Operating Engineers
- Maintenance Staff
- Purchasing Agent
- Energy Manager/Designated Project Manager
- Administrative/Financial Manager
- Legal Counsel
- Technical Advisors/Consultants



However the team is assembled, it is important to include individuals involved with daily facility operations during the entire procurement and evaluation process.

The role of this evaluation team will be to review and evaluate the proposals of competing ESCOs in order to select the most qualified company to implement the EPC project. It is likely that evaluation team members will have varying degrees of expertise and interests with regard to the project. Selecting a diverse technical, financial and legal team allows them to share evaluation tasks (e.g., client reference checking, reviews of sample energy audits and financial statements, etc.) and offers them the opportunity to address a wider variety of concerns and issues.

6

CASE STUDIES

- **Brevard Community College: Florida Power & Light**
- **City of Miami Beach: Johnson Controls, Inc.**
- **Cape Canaveral Air Force Station: NORESKO**
- **Arbor Shoreline Office Park: Progress Energy Solutions**
- **Broward County Libraries: Sempra Energy Solutions**
- **Jacksonville University: Siemens Building Technologies**
- **Florida Department of Corrections: TECO Solutions**
- **Hernando County School District: Tampa Bay Trane**
- **City of Jacksonville: Viron Energy Services**

4

AUDIT PROCESS & FINAL CONTRACT DEVELOPMENT

Audit Process

After the agency has approved selection of an ESCO, negotiation of the technical energy audit agreement begins. Once signed by both parties, this agreement authorizes the ESCO to conduct an audit. Under an EPC arrangement, the negotiated cost of the audit will be rolled into the project financing and repaid from savings. If the agency decides not to proceed with the project after the audit is completed, they are obligated to pay for the audit.

Since the audit results contain most of the information that will be incorporated into the final contract, the agency should conduct a rigorous technical review of the audit information before negotiating the final contract.

Appendix G includes a *Sample Investment Grade Technical Energy Audit Agreement*.

An investment grade audit is the technical and economic foundation of a successful EPC project.

What are Investment Grade Audits?

An investment grade audit is the technical and economic foundation of a successful EPC project. The audit needs to provide sufficient detail so a technically competent reviewer can effectively assess the ESCO's project site analysis. The audit results also must establish and define a representative annual consumption baseline for all utilities and fuel types (e.g., gas, water, electric, etc.) to allow a realistic analysis of potential energy and cost savings.

At a minimum, an investment grade audit should include:

- A summary table that defines the cost of each measure, the annual maintenance costs, simple payback, and expected life of the measure
- A full analysis and definition of base year energy for each fuel and utility type
- A full description of the analysis methods, calculations, data input, and all technical and economic assumptions

It is important that the ESCO conduct a thorough and comprehensive technical and economic facility analysis, since this serves as the basis for the project design and performance. The cost of an investment grade audit generally varies between 6 and 12 cents per square foot, but costs could be higher or lower depending on the complexity of existing equipment and the effort required for collecting accurate data. There are economies of scale, however, which help to control audit costs in large facilities. For example, using representative equipment sampling can reduce the need for analyzing many similar pieces of equipment.

The time required to complete an investment grade audit varies by the facility size and complexity, and data availability. Typically the time to conduct an audit ranges from two to six months.

Challenges of Investment Grade Audits

There are a number of challenges to completing a quality audit:

- Missing or inaccurate utility consumption/cost and equipment data
- Inaccurate building operation and equipment load data
- Inadequate cost estimates for implementing the energy savings measures
- Incorrect evaluation of available utility savings
- Undocumented operation and maintenance savings estimates
- Inaccurate accounting for interactive effects between energy saving measures
- Inadequate analysis of feasible energy saving measures
- Limited field measurement to verify equipment operating parameters

Final Energy Performance Contract Overview

The final energy performance contract (also known as an energy services agreement or ESA) serves as the blueprint for how the project will operate over the contract term.

This contract should clearly define each party's roles and responsibilities and should explicitly state how the project is expected and **guaranteed** to perform. The relationship between the agency and the ESCO - including who will do what, when, at what cost, and under what conditions - needs careful review. Due to the long-term nature of this relationship, the contract should be specific yet flexible enough to accommodate both current and future facility needs.



The main body of the contract frames the basic legal provisions and protections to which each party will conform. It specifies governing laws, contingent liabilities, conditions of default and remedies, regulatory requirements (e.g., insurance, labor and wage rates,

minority/women business goals, code compliance, etc.), and indemnification provisions. The contract can be customized to accommodate additional terms and conditions as necessary.

A *Sample Model Energy Services Agreement* is located in Appendix H. This model contract is designed to illustrate the usual legal provisions and protections covered in an energy performance contract.

Individual projects and circumstances vary widely. Each state agency, school district, university, community college, and local government should consult appropriate legal counsel about individual ESCO projects. The sample energy services agreement in Appendix H is included as a guideline only.

Contract Schedules

Contract schedules are referred to throughout the main body of the contract. These schedules contain specific details of the project negotiated between an ESCO and the agency. The schedules listed below are offered only as illustrative examples of the types of contract schedules that could be negotiated into the final contract.

- **Schedule A: Equipment to be Installed**

This schedule should specify newly installed equipment, including name of manufacturer, equipment quantity and location. The schedule also should describe, if applicable, any existing equipment modifications. New equipment warranties often are kept in a separate warranty schedule.

- **Schedule B: Energy Savings Guaranty**

This schedule fully describes all provisions and conditions of the savings guarantee provided by the ESCO. The guarantee should define the units of energy and dollars to be saved for the contract duration. Reference to the annual reconciliation of achieved vs. guaranteed savings should be included (Please see specific language in Section 3.4 of the *Sample Model Energy Services Agreement* regarding annual reconciliation).

- **Schedule C: Compensation to Company**

This schedule should cover the amount and frequency of payments that will be made to the ESCO for maintenance, monitoring, or other services negotiated as part of the contract. Schedule C also should contain information about how the compensation is calculated and if an annual inflation index will be used to escalate fees over the duration of the contract term. An hourly fee structure should be included to cover ESCO costs for any services provided beyond the scope agreed to at the time of contract execution.

- **Schedule D: Premises**

This schedule contains basic information about the condition of the premises at the time of contract execution. Such information would include facility square footage, construction type, use, occupancy, hours of operation, and any special conditions that may exist.

- **Schedule E: Calculation of Baseline/Benchmarks**
 The baseline utility consumption is the yardstick by which project savings will be measured. The methodology and all supporting documentation used to calculate the base year, including unit consumption and current utility rates for each fuel type, should be located in this schedule. This schedule also may include base year documentation regarding other cost savings such as commodity savings (e.g., bulbs, ballasts, filters, chemicals, etc.) and cost savings associated with the elimination of outside maintenance contracts.
- **Schedule F: Financing Agreement**
 This schedule contains a copy of the project financing agreement or terms and conditions of whatever financing vehicle is chosen (e.g., lease, COPs, bank financing etc.). Include an amortization and payment schedule in this section as well.
- **Schedule G: Company Maintenance Responsibilities**
 A complete description of the ESCOs specific operation and maintenance responsibilities should be included in this schedule along with a timeline for these activities.
- **Schedule H: Customer Maintenance Responsibilities**
 This schedule describes the agency operation and maintenance responsibilities that have been agreed to by both parties. In some instances, the schedule will contain no more than a description of routine operation and maintenance currently being performed on facility equipment. In other cases, facility staff may provide routine maintenance on newly-installed equipment, with the ESCO providing some specialized services on the same equipment.
- **Schedule I: ECMs Operating Parameters and Standards of Comfort and Service**
 Schedule I contains explicit standards of comfort and levels of service for heating, cooling, lighting levels, hot water temperatures, humidity levels, and/or any special conditions for occupied and unoccupied areas of the facility. In addition, operating schedules for installed equipment should be specified in this schedule.
- **Schedule J: Company Training Responsibilities**
 A description of the ESCO's facility staff training program should be contained in this schedule. The schedule also should include the duration and frequency of the training sessions, plus provisions for on-going training, commitments to train newly hired facility personnel, and future training for equipment or software upgrades. Any fees associated with the agency's training requests beyond the contractual specifications should be provided in this schedule.
- **Schedule K: Project Installation Schedule**
 Timetables and milestones for project installation should be contained in this schedule. If so desired, documentation of required insurance, subcontractor lists, and any MBE/WBE required subcontracts may be included in this schedule or broken out into a separate schedule.

NOTE: It is important that the construction/installation phase of the project be treated in compliance with individual agency requirements and the appropriate governing statutes. 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. Or, the appropriate construction language could be included in the body of the final contract. This decision should be made on a case-by-case basis. Sample construction contract language is contained in the *Model Energy Services Agreement* in Attachment A.

- **Schedule L: Current And Known Future Capital Projects at the Premises**
Information about the implementation of current or planned facility capital projects should be contained in this schedule. This information could prove useful in later contract years by avoiding disputes over long-term savings performance, overall facility energy consumption, and associated energy costs.
- **Schedule M: Pre-Installation Equipment Inventory**
A pre-installation equipment inventory helps to identify which equipment was in place and how it was configured at the time of contract execution. This schedule is important to accurately establish the energy base year and savings measurement, and may be need to be referred to in later years of the contract.
- **Schedule N: Methods of Savings Measurement and Verification**
This schedule contains a description of the savings measurement, monitoring, and calculation and modeling procedures used to verify and compute the savings performance of the installed equipment. The calculation formula will include a method to compare the energy that would have been consumed if the EPC project had not been implemented (referred to as the "base year") with the amount of energy actually used over a specified time (monthly, quarterly, etc.). All methods of measuring savings, including engineered calculations, metering, equipment run times, pre- and post-installation measurements, etc., should be explicitly described for all equipment installed. The technical review and approval process for baseline adjustments also should be fully described in this section.

Periodically, the baseline may be adjusted to account for changes in conditions that impact savings (e.g., weather, billing days, occupancy, etc.).

- **Schedule O: Systems Start-Up and Commissioning of ECMs**
This schedule should specify the performance testing procedures that will be used to start up and commission the installed equipment and total system. It also should provide for agency notification before all commissioning procedures. Schedule O ought to contain a provision for documenting the agency's commissioning attendance and for approval signatures that the commissioning tests followed the procedures specified and met or exceeded the expected results. Detailed specifications for these commissioning procedures should be developed during the project design phase.
- **Schedule P: Alternative Dispute Resolution (ADR)**
This schedule describes 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.

(See Appendix H, *Sample Model Energy Services Agreement* for sample ADR language.)

- **Schedule Q: Insurance and Bonds**

This schedule should contain evidence of each type of insurance policy and bond required by the Agency to be obtained by the ESCO during all project phases.

- **Schedule R: Warranties**

This schedule ought to contain all of the manufacturers' equipment warranties, specifications, and procedures for invoking warranty provisions.

- **Schedule S: Proposed Final Project Cost and Proposed Final Project Cash Flow Analysis**

This schedule should contain a spreadsheet depiction of the expected financial performance of the project throughout the entire contract term. The documentation should clearly identify all financial components of the project, including interest rates, current fuel prices, any escalation rates, guaranteed savings figures, ESCO compensation figures, cash-flow projections, and projected *Net Present Value* of any cumulative positive cash flow benefits to the agency. Savings projections should be delineated by utility/fuel type and should identify ongoing annual service fees provided over the contract term. Project cost breakdowns should identify both hard costs (labor costs, subcontractor costs, cost of materials and equipment, and miscellaneous costs like permits, bonds taxes, insurance, mark-ups, overhead and profit, etc.). A suggested presentation format for this information can be found in the *Sample Model Investment Grade Energy Audit Contract* located in Appendix G.



Optional Contract Schedules

The following schedules can be included as either separate schedules or combined with the above schedules:

- **Pre-Existing Service Contracts**

Information regarding the scope and cost of pre-existing equipment service contracts may be located in this schedule. This gives both the agency and the ESCO information about how and when existing equipment service should occur. If the ESCO is credited with maintenance savings or if it is taking over existing service contracts, the scope and cost of these contracts will be useful for tracking the ESCO's performance.

- **Facility Maintenance Checklist**

This checklist assists the ESCO in tracking the agency's compliance with maintenance procedures performed by facility staff. The checklist typically specifies a simple list of tasks and a corresponding schedule for performing prescribed procedures. When facility staff complete the checklist, they forward it to the ESCO on a pre-established schedule (monthly, quarterly, etc). This checklist is a useful tool for both the ESCO and agency to verify that the required maintenance activities are being performed at the scheduled intervals.

- **Facility Changes Checklist**

A facility changes checklist may be provided by the ESCO to assist the agency in notifying them when energy use changes occur (e.g., occupancy, new equipment acquisition, hours of use, etc.). This checklist is generally submitted to the ESCO on a monthly or quarterly basis.

Managing EPC Projects to Avoid Disputes

It should be a mutual goal of the ESCO and agency to voluntarily resolve any performance problems that may arise. Because of cost and time delays, it is not advisable to delegate a technical dispute to attorneys or others. But, it is important to fully disclose all pertinent information and not allow frustration to result in the parties losing focus on the project value and their real interests.



EPC projects require a cooperative effort between the agency and ESCO to achieve energy and cost saving goals, effective equipment maintenance and building comfort. Maintaining high quality performance results over a 10 or 20-year contract requires effective communication, a mutual understanding, and the fulfillment of contract responsibilities.

The voluntary resolution of performance problems is facilitated when both parties are committed to seeking resolution based on good faith. Pertinent facts should be fully disclosed early in the resolution process with the ESCO and the agency devoting sufficient time and resources to the proper evaluation of viable options. The ESCO and the agency must realistically evaluate the potential risk and cost of seeking legally binding involuntary resolution. Litigation and formal arbitration are usually very expensive and involve lengthy procedures by judges or arbitrators who often have inadequate expertise to understand complex technical issues. Alternative dispute resolution (ADR) that requires the use of mediation should be included as a standard contract provision to minimize the high cost of resolving performance problems.

Maintaining high quality performance results over a 10 or 20-year contract requires effective communication, a mutual understanding, and the fulfillment of contract responsibilities.

To ensure a successful relationship and reduce the potential for conflict, the following should be considered:

- **Document and Explain Adjustments Made to the Base Year Projections**

Mutual duties should be explicitly defined in the contract. Any contractual conditions that affect the savings guarantee must be realistic and technically sound. It is

important to document and explain any adjustments made to the base year projections. If unsound technical data are used for project analysis and planning, there will be problems with the project performance.

- **Document Equipment Technical Performance Requirements**
Adequate staff training and accurate documentation of equipment technical performance requirements are a must for a successful project. Continuous monitoring and regular performance reviews provide important feedback to keep the project on track. Also, coordination of energy performance contracts with other construction projects helps to minimize conflicts between project goals.
- **Put All Project Changes IN WRITING**
It is important to keep thorough and precise written records of approvals for all changes to the project. Individual memories are often unreliable and staff turnover is unavoidable. The resolution of problems through prompt and effective action by both the ESCO and the agency is essential to avoiding disputes. Sound technical solutions, transparent to both parties, should satisfy the legitimate interests of both the agency and the ESCO. It is advisable to have a process in place to confirm, by mutual sign-off, that performance problems are solved.
- **Create Explicit Definitions of Technical and Economic Data and Performance Measurement Methods**
Since vague definitions of technical and economic data and methods of performance measurement invite misunderstanding and differing perceptions, it is important that clear definitions be provided. Definitions and contract standards should be fair, economically viable, technically sound, transparent, and mutually approved. All technical calculations should be double-checked for data input and math errors and fully documented to explain any base year adjustments.
- **Encourage Open and Timely Communication**
Open and timely communication between the ESCO and agency staff charged with performance responsibilities is crucial to a project success, especially during project commissioning. Each party needs to fully describe project performance concerns and objectively evaluate the merits of available options in order to fairly and efficiently resolve performance problems.

5

PROJECT COMMISSIONING, SAVINGS MEASUREMENT & VERIFICATION, & PROJECT MONITORING

Energy Project Commissioning

Project commissioning is a systematic performance testing and quality control process designed to verify that newly-installed equipment and systems operate according to the intended design and the agency's needs. Commissioning typically begins during the project design phase and continues for at least one year after construction is complete. It requires thorough documentation of system design, construction quality, functional performance tests, and operation and maintenance requirements. The training of facility operators and staff also is a key component of building commissioning since staff may be responsible for some equipment maintenance. If the ESCO has sufficient commissioning expertise, it is typically cost effective to allow them to undertake the commissioning since they are the most familiar with the technical details of the project. Over time, continuous commissioning is the best way to determine whether controls and equipment function properly.

*An investment in commissioning usually
pays for itself in one to three years,
because it can reduce energy use
up to 15 percent.*

Why Do Commissioning?

Field studies show that building energy-systems rarely function to their full potential. Poor communication of design intent, inadequate equipment capacity, inferior equipment installation, insufficient maintenance, and improper system operation all reduce energy cost savings.

Typical problems in non-commissioned energy projects include:

- Large air flow problems
- Poor documentation of project installation and operational requirements

- Underutilized energy management systems for optimum comfort and efficiency
- Incorrect lighting and equipment schedules
- Incorrect cooling and heating sequences
- Improperly installed or missing equipment
- Incorrect calibration of controls and sensors
- Lack of building operator training
- Short cycling of HVAC equipment
- Malfunctioning economizers

The value of commissioning has become more important in recent years because of the following:

- There is more diversity in the number of building systems that are specialized and integrated.
- Building systems, especially building controls, are much more complex.
- HVAC systems are being designed with less excess capacity.
- Building and safety codes are becoming more stringent.
- There is wider recognition of the economic value of health and productivity benefits from properly operating buildings.
- Increasing building operation costs make efficient operation more valuable.

EPC Project Commissioning Benefits

Depending on the complexity of the project, commissioning costs can range from one percent to four percent of the construction budget. An investment in commissioning usually pays for itself in one to three years because it can reduce energy use up to 15 percent. Commissioning also can reduce future equipment repair costs, downtime, and replacement by 15 percent or more. Identifying equipment problems while under warranty also can reduce agency costs by making equipment manufacturers and ESCOs, rather than the agency, pay to remedy problems.

Benefits of commissioning include:

- **Increased in-house knowledge and improved equipment operation**
Project commissioning provides the agency with in-house knowledge for optimizing equipment, system, and control efficiencies. Optimization improves coordination between building systems and, therefore, improves overall building performance. Improved systems control extends equipment life and improves operation efficiency by avoiding frequent equipment cycling.
- **Better planning and coordination for smoother equipment start-up**
During project construction, commissioning provides better planning, coordination, and communication between the ESCO and agency. This results in fewer change orders, shorter punch lists, and fewer callbacks. Commissioning also provides faster and smoother equipment start-up due to systematic equipment and control testing procedures.

- **Better up-front performance accountability**
Since problem prevention is less expensive than problem correction, commissioning provides front-end performance accountability and quality control by allowing frequent comparison of consistent project construction with project design. This can provide quick feedback to design professionals on the dynamic performance of their design. Proper commissioning also reduces liability risks from environmental hazards or equipment failure.
- **Improved building control and performance**
Perhaps the most valuable benefit from commissioning comes from better building control and the ensuing improvements to thermal comfort and indoor air quality. These help reduce occupant complaints and employee absenteeism, increase staff retention, and save the agency money. While difficult to quantify, the health and productivity benefits of a comfortable building are likely worth more than five times the energy and operating cost savings.

Types of Projects Most Conducive to Commissioning

The types of projects that are the best candidates for commissioning, include:

- **Heating, Ventilating, and Air Conditioning Systems**
Check for proper sizing, controls, efficiency criteria, and performance testing.
- **Energy Management Systems**
Conduct functional performance tests on control capabilities, review sensor locations and calibration, and thoroughly train system operators.
- **Air Distribution Systems**
Check fan motor sizing, system alignment and control, air filtration, seasonal changeover procedures, and air and water quantity delivery.
- **Lighting Control Systems**
Conduct functional performance tests, control maintenance, and control calibration.

How Commissioning Works

The agency needs to identify, **prior to project design**, the facility' s commissioning requirements. Effective commissioning requires the use of performance continuity criteria to guide the decision process from design through agency acceptance. This ensures that the project is fully functioning. The ESCO should review the design intent documents with the agency and incorporate the commissioning requirements into their bid specifications. From these requirements, the scope of the commissioning plan can be developed. The plan should include a commissioning schedule, all documentation requirements, and specific team member responsibilities. Commissioning activities need to be an integral part of the construction schedule.

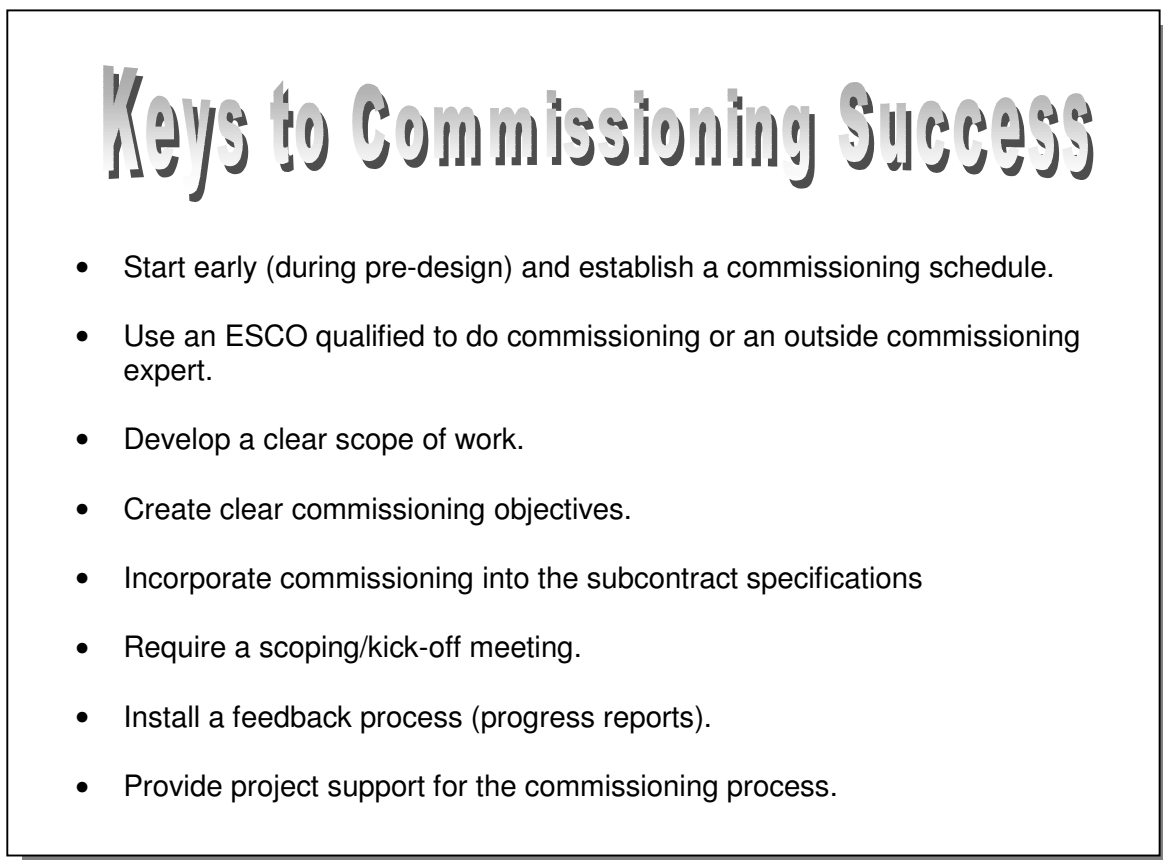
Generally, pre-functional equipment checklists are used to evaluate and correct equipment design deficiencies. This is the basis for the functional equipment tests and diagnostic monitoring plans. Once developed, testing and monitoring can be regularly performed and documented, and any equipment deficiencies are corrected early in the process.

Following the agency's testing approval, the testing documentation and training manual for system operation and maintenance should be prepared for the agency.

A model commissioning plan and guide specifications comprised of four documents are available via the Internet from Portland Energy Conservation, Incorporated. (www.peci.org/cx/mcpqs.html). These documents are entitled:

- Part 1 - Commissioning Requirements - Design Phase
- Part 2 - Model Commissioning Plan - Design Phase
- Part 3 - Commissioning Guide Specifications
- Part 4 - Model Commissioning Plan - Construction

Figure 5-1



Keys to Commissioning Success

- Start early (during pre-design) and establish a commissioning schedule.
- Use an ESCO qualified to do commissioning or an outside commissioning expert.
- Develop a clear scope of work.
- Create clear commissioning objectives.
- Incorporate commissioning into the subcontract specifications
- Require a scoping/kick-off meeting.
- Install a feedback process (progress reports).
- Provide project support for the commissioning process.

Savings Measurement and Verification

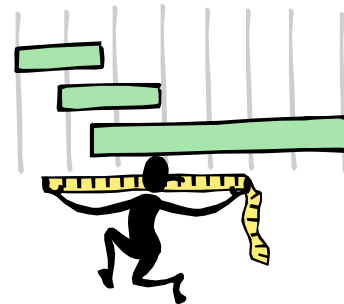
Since energy and operating savings are calculated by comparing consumption and costs before and after the installation of energy efficiency equipment, it is critical to accurately estimate the building energy use prior to execution of an EPC contract.

This estimate can include the base-year utility consumption and costs for the facility or a specific energy-using system (e.g., lighting system, HVAC).

The base year provides the foundation for the technical and economic analysis of savings from the new energy equipment and is used to define, measure, calculate, and monitor the value of future energy savings. Due diligence by both the ESCO and the agency is required to develop an accurate, representative base year.

The defined base year can be affected by a variety of factors, each of which should be carefully analyzed. These factors include:

- Changes in building equipment, schedule, occupancy, or controls
- Changes in operation or maintenance procedures
- Unusually mild or severe weather
- Changes in utility costs
- Existing service levels for lighting, ventilation, temperature, and humidity
- Equipment sizes, loads, and operating conditions



Significant changes could occur in the building or energy-using systems after project installation and may require a base year adjustment to correct for the impact on savings performance. In such instances, a corrected base year would need to be used for calculating project savings.

Some challenges to calculating accurate base year estimates include:

- Data analysis which does not account for the impact of broken or offline equipment
- Utility data errors due to billing or metering problems
- Unknown equipment run-hours
- Unknown equipment loads
- Inaccurate data provided to the ESCO by facility staff

Why Measure and Verify Savings?

In large buildings, equipment monitoring has the potential to significantly boost energy efficiency through improved operation and maintenance. Regular equipment monitoring maximizes the persistence of cost savings over the contract term by improving equipment reliability and optimizing system performance. Building system measurement also provides data to correct base year calculations and can provide useful load profiling and accurate analysis data for negotiating with energy suppliers.

Periodic savings reports provide valuable data for cost accounting and budget forecasting. Verification of the value of achieved savings provides project performance accountability for the savings guarantee

Methods of Measurement and Verification

The *International Performance Measurement and Verification Protocol* (IPMVP) was developed by the U.S. Department of Energy in cooperation with many nationally recognized technical advisors. This protocol establishes measurement and verification (M&V) technical guidelines and provides many basic project technical ideas. These guidelines must be customized before they can be applied to any EPC project, however. An electronic copy of the IPMVP can be downloaded online from <http://www.ipmvp.org>.

IPMVP identifies four main M&V options for EPC projects:

- Option A is designed for projects using either a one-time measurement of pre- and post-energy use or the manufacturer' s measurements together with agreed-to operating hours for estimating savings. Periodic equipment inspections also may be required to verify equipment condition.

Option A costs from one to five percent of construction costs and provides an accuracy of +/- 20 percent.

- Option B requires continuous measurement of pre- and post-energy use for specific equipment or a sampling of equipment end-use energy measurement. Submetering is typical of this approach.

Option B costs from three to 10 percent of construction costs with an accuracy of +/- 10 to 20 percent.

- Option C makes use of the main building meter to measure savings from all project efficiency measures. This approach also involves continuous usage measurement.

Option C, with monthly data, costs from one to three percent of construction costs and provides an accuracy of +/- 20 percent.

- Option D uses a calibrated computer simulation of post-installation energy use to measure project savings.

Option D costs between three to 10 percent of construction costs and provides an accuracy of +/- five to 10 percent.

Factors that affect the cost and appropriate choice level of M&V, include:

- Value of projected savings
- Complexity of efficiency equipment
- Total amount of equipment
- Number of interactive effects

- Level of savings certainty
- Risk allocation for achieved savings between agency and ESCO
- Value of other uses for the M&V data (e.g., optimizing operation and maintenance)
- Availability and capability of an energy management system

Usually, M&V operation and maintenance savings are stipulated by the parties in their labor and commodity cost-saving calculations. These savings may include outside labor costs, scheduled maintenance, unscheduled repairs, parts and materials, internal labor costs, and inventory costs.

The IPMVP contains guidelines for verifying operation and maintenance savings. Make sure that the contract clearly defines whether the ESCO will reimburse the customer if operation and maintenance savings are not achieved.

M&V and Project Performance Monitoring Guidelines

Use the following guidelines when conducting M&V and project performance monitoring.

- Describe the efficiency measures and data required for savings calculations.
- Plan how best to collect required data, how to format data, and define any inputs for calculated savings.
- Value utility and fuel savings, using utility bill reconstruction, to reflect the true cost of the new utility consumption.
- Clearly calculate and document operation and maintenance savings.
- Explicitly define in the contract, reasonable escalation rates for valuing future savings and service fees.
- Use measurement procedures that produce consistent results no matter which party uses the procedure.
- Use measurement methods that are clearly defined, provide timely data, and are cost-effective, technically sound, reasonably accurate, and contractually binding.
- Evaluate M&V data promptly and implement corrective actions (if necessary) to optimize project performance.
- Make certain that monitoring reports document calculations and support base year adjustments.
- Designated staff should be adequately trained to interpret and follow a defined review and approval schedule.

- Provide building operators with timely and focused performance data to allow them to optimize system performance.
- Present consumption and cost savings relative to target savings in both graphic and numeric data formats.
- Provide data sources, time periods, and explanations for any variances from predicted savings performance.

M&V Plans

M&V plans must specify the following:

- What will be measured, calculated, simulated, or estimated and by whom
- When the measurements or calculations will be done
- Descriptions of any measurement devices, calculations, computer models, and all assumptions
- How measurement devices are checked for accuracy
- How measured or calculated data will be used to verify savings (these should include sample savings calculations)
- A sample periodic savings report that shows all data and results

6

CASE STUDIES

- **Brevard Community College: Florida Power & Light**
- **City of Miami Beach: Johnson Controls, Inc.**
- **Cape Canaveral Air Force Station: NORESKO**
- **Arbor Shoreline Office Park: Progress Energy Solutions**
- **Broward County Libraries: Sempra Energy Solutions**
- **Jacksonville University: Siemens Building Technologies**
- **Florida Department of Corrections: TECO Solutions**

BREVARD COMMUNITY COLLEGE

Cocoa, Florida

ESCO	Florida Power & Light
Features	4 campus sites 40+ buildings 1,761,102 square feet
Pre-project Annual Utility Costs	\$1,493,955
Project Cost	\$6,034,324
Projected Annual Savings	\$657,322
Guaranteed Annual Savings	\$657,322
Measured Annual Savings	\$560,316
Stipulated Annual Savings	\$97,006
Annual Operational Savings	\$40,000/year (discontinued an outside maintenance contract)
Contract Term	10 years
Funding	Tax-exempt lease
Construction Completed	2003
Savings M&V	<ul style="list-style-type: none"> • Partial measured retrofit isolation • Whole facility bill analysis • Stipulated • Measured/calibrated
ECMs Installed	<ul style="list-style-type: none"> • Chillers (Titusville, Cocoa and Melbourne) • Thermal energy storage repairs (Cocoa and Melbourne) • Energy management controls (all 4 campus sites) • HVAC system and air handler repairs • Lighting retrofits • Water conservation facilities

FLORIDA POWER & LIGHT

CITY OF MIAMI BEACH

Miami Beach, Florida

ESCO	Johnson Controls, Inc.
Features	19 facilities 1.5 million square feet
Pre-project Annual Utility Costs	\$2 million (approximately)
Project Cost	\$1.9 million
Projected Annual Savings	\$240,000
Guaranteed Annual Savings	\$210,000
Measured Annual Savings	\$210,000
Stipulated Annual Savings	none
Annual Operational Savings	\$78,000 (approximately)
Contract Term	10 years
Funding	Tax-exempt lease
Construction Completed	1998
Savings M&V	<ul style="list-style-type: none">• Utility bill comparison using Metrix software• Monthly reporting with annual reconciliation
ECMs Installed	<ul style="list-style-type: none">• Chillers• Lighting• Variable speed drives• Energy management system
ESCO Notes or Comments	Actual project savings are exceeding guarantee each year by 10-20%

JOHNSON CONTROLS, INC.

CAPE CANAVERAL AIR FORCE STATION

Cape Canaveral, Florida

ESCO

Features

Project Cost

Annual Utility Unit Savings

Guaranteed Annual Savings

Contract Term

Funding

Construction Completed

Savings M&V

ECMs Installed

NORESKO

200 buildings 3 million square feet

\$11.9 million

848,470 therms of natural gas
678,492 gallons of oil
4,800,000 kWh in electric

\$1.1 million

13 years

ESCO financing

2001

- Meter
- Stipulated savings

- Base-wide lighting upgrade
- 4,000 point energy management system
- 300 ton gas-fired chiller
- Distribution transformers
- HVAC replacement
- Oil to gas boiler conversion
- Installation of a 5-mile extension of natural gas main
- 2 additional miles of gas distribution piping

NORESKO

ARBOR SHORELINE OFFICE PARK

Clearwater, Florida

ESCO	Progress Energy Solutions
Features	8 buildings (suburban office complex) 230,790 square feet
Project Cost	\$1,000,000
Pre-project Annual Utility Costs	\$551,847
Projected Annual Savings	\$140,800
Guaranteed Annual Savings	Guaranteed a kW reduction and agreed to perform more work if the measured kW reduction did not meet or exceed the guaranteed amount
Contract Term	See ESCO comments
Funding	Owner financed (part of a new 10-12 year mortgage)
Construction Completed	2000
Savings M&V	Pre and post measurements were made of all affected lighting loads
ECMs Installed	<ul style="list-style-type: none">• Lighting retrofits• RTU HVAC replacement project• Facility-wide HVAC controls• Centrifugal chiller (2) replacement
ESCO Comments	This project was not structured like a traditional performance contract project; however, pre- and post-measurements were made to verify a 272.9 kW demand reduction, which was required in the contract.
Customer Comments	“Under budget and on time with minimal tenant interruption.” — Albert Morrison, Chief Financial Officer, National Housing Corporation

BROWARD COUNTY LIBRARIES

Broward County, Florida

ESCO	Sempra Energy Solutions
Features	19 sites 512,210 square feet
Project Cost	\$2,177,155
Pre-project Annual Utility Costs	\$743,101
Projected Annual Savings	\$218,098
Guaranteed Annual Savings	\$152,374
Measured Annual Savings	\$30,935
Stipulated Annual Savings	\$187,154
Annual Operational Savings	\$32,322
Contract Term	10 years
Funding	Owner financed
Construction Completed	1999
Savings M&V	<p>IPMVP Option A: Verifying that the measure has the potential to perform and to generate savings.</p> <p>IPMVP Option B: Verifying that the measure has the potential to perform and verifying actual performance by end use.</p> <p>Engineering calculations with metering and monitoring throughout term of contract</p> <p>Engineering calculations (possibly including spot measurements) with stipulated values</p>
ECMs Installed	<ul style="list-style-type: none"> • Lighting at 19 sites • New unitary HVAC units (3 sites) • Thermal storage (1 site) • Two 350-ton chillers (1 site) • VFDs (3 sites) • EMCS (3 sites) • Load control

SEMPRA ENERGY SOLUTIONS

JACKSONVILLE UNIVERSITY

Jacksonville, Florida

ESCO	Siemens Building Technologies
Features	28 buildings 727,323 square feet
Project Cost	\$2,117,000
Pre-project Annual Utility Costs	\$900,000
Projected Annual Savings	\$342,000
Guaranteed Annual Savings	\$276,000
Measured Annual Savings	\$333,700 (partial year)
Stipulated Annual Savings	\$65,000
Contract Term	10 years
Funding	Tax-exempt lease
Construction Completed	2003
Savings M&V	Utility bill comparison using Metrix and stipulated savings
ECMs Installed	<ul style="list-style-type: none">• Energy management systems• Energy efficient chillers• New cooling towers• Lighting retrofit• HVAC unit replacement
ESCO Comments	This project was done in conjunction with major campus upgrades and building additions

FLORIDA DEPARTMENT OF CORRECTIONS

North Florida counties

ESCO

TECO Solutions

Features

16 facilities
4.6 million square feet

Project Cost

\$15,607,867

Projected Annual Savings

\$1,200,000

Guaranteed Annual Savings

\$1,150,000

Measured Annual Savings

\$1,150,000

Annual Operational Savings

Lighting (annual group relamp for 10 years, including lamps, ballasts, labor): \$481,654
HVAC maintenance: \$17,012
Laundry maintenance: \$15,000
Boiler maintenance/staffing: \$93,544
Avoided diesel handling costs: \$6,055

Contract Term

10 years

Funding

Tax-exempt lease; grant funding for natural gas

Construction Completed

1998

Savings M&V

IPMVP Option C: whole facility, main meter approach

ECMs Installed

- Luminare retrofits
- Efficient fan motors
- Chiller plant modifications
- HVAC replacement
- New heat recovery unit
- Boiler stack economizers
- Programmable thermostats
- Solar domestic hot water system
- Energy management controls
- Conversion of fuel oil-propane equipment to natural gas
- Laundry equipment and systems upgrades
- Cold water laundry
- Replace windows in open dormitories
- Boiler replacements and controls
- Fix steam leaks
- New variable-speed drives
- New chiller in medical facility

TECO SOLUTIONS

HERNANDO COUNTY SCHOOL DISTRICT

Brooksville, Florida

ESCO	Tampa Bay Trane Asset Management
Features	17 buildings (9 elementary, 4 middle, 3 high schools and 1 auditorium) Approximately 1.76 million square feet
Project Cost	\$17,421,873
Pre-Project Annual Utility Costs	Electric: \$2,600,000 Gas: \$47,000 Water: \$330,000
Projected Annual Savings	\$839,595
Guaranteed Energy Savings	\$839,595
Measured Energy Savings	\$802,865
Stipulated Energy Savings	\$36,730 (water conservation)
Operational Cost Savings	\$301,821 (material and outside maintenance contract savings)
Contract Term	20 years
Funding	Tax-exempt municipal lease
Construction Completed	2000
Savings M&V	Point Source (FEMP Option A)
ECMs Installed	<ul style="list-style-type: none"> • Lighting retrofits • Dedicated outdoor air units • Building automation systems & central workstation for district • Chiller replacements / central chilled water plant • Convert DX HVAC equipment to chilled water • Air handler replacements • Variable frequency drives on air handlers • VAV retrofits (replace VAV boxes and convert constant volume to VAV) • Water conservation • Energy awareness/behavior modification program
ESCO Comments	Hernando County School District is located in West Central Florida and comprised of 17 schools serving a population of over 130,000 residents of Hernando County. The School District was dealing with aging infrastructure and a lack of capital to fund needed HVAC and plant upgrades. The District also desired to improve their ability to perform preventative maintenance in their school buildings. Centralizing operations, converting inefficient DX and unitary systems to chilled water, upgrading building automation, and increasing outdoor air to ASHRAE 62 standards were among the goals of the performance contracting project.

TAMPA BAY TRANE

CITY OF JACKSONVILLE

Duval County, Florida

ESCO	Viron Energy Services
Features	19 buildings (city hall, police station, fire and rescue building, convention center, performing arts center, city services office building, libraries, traffic signals) 1,459,389 square feet 1,013 traffic signal intersections
Project Cost	\$7,276,854
Pre-project Annual Utility Costs	\$1,810,133
Projected Annual Savings	\$636,914
Guaranteed Annual Savings	\$618,903
Measured Annual Savings	\$534,594
Stipulated Annual Savings	\$84,309
Operational Cost Savings	\$11,333 (material and labor savings from traffic signal retrofits)
Contract Term	20 years
Funding	Local utility company bonds
Construction Completed	In construction
Savings M&V	IPMVP Option C: Ongoing building comparison of pre-retrofit and post retrofit utility usage IPMVP Option B: Pre and post retrofit measurement of utility usage
ECMs Installed	<ul style="list-style-type: none"> • LED traffic signals retrofits • New energy management control systems • Lighting retrofits • Variable frequency drives on pumps and supply fans • Solar photovoltaic system for lighting • Solar water heating • Primary to secondary chilled water conversions • Outdoor air ventilation retrofits • Energy efficient HVAC condenser units • Water conservation retrofits • Web-based utility monitoring – utility vision
ESCO Comments	This project represents Phase 1 of the retrofit of the City of

VIRON ENERGY SERVICES

RESOURCES

Florida Department of Community Affairs - State Energy Program

2555 Shumard Oak Boulevard

Tallahassee, FL 32399-2100

850-488-2475

<http://www.floridacommunitydevelopment.org/programs/sep/index.htm>

Florida Department of Environmental Protection

Florida Energy Office

3800 Commonwealth Boulevard, Room 170J

Tallahassee, FL 32303-3123

<http://www.dep.state.fl.us>

Florida Department of Management Services – Energy Program

<http://fc.state.fl.us/dms/dfm/energy/energy.html>

Florida Energy Plan

www.floridaenergyplan.net

Educational Energy Managers’ Association of Florida (EEMAF)

www.eemaf.org

Florida Educational Facilities Planners’ Association

www.fefpa.org

Florida Energy Services Coalition (FESC)

www.escperform.org/chapters/FL/index.htm

For an electronic copy of Florida’s Energy Performance Contracting Manual go to the FESC website above and click on “Resources”.

Energy Services Coalition (ESC)

www.escperform.org

Florida Solar Energy Center (FSEC)

www.fsec.ucf.edu

Florida Green Building Coalition

www.floridagreenbuilding.org

National Association of Energy Service Companies (NAESCO)

1615 M Street NW, Suite 800

Washington, DC 20036

202-822-0950

www.naesco.org

National Association of State Energy Officials (NASEO)

1414 Prince Street, Suite 200

Alexandria, Virginia 22314

Phone: (703) 299-8800

www.naseo.org

Alliance to Save Energy

www.ase.org

Energy Information Administration

www.eia.doe.gov/states

U.S. Department of Energy

www.doe.gov

U.S. Department of Energy

Rebuild America Program

www.rebuild.org

Federal Energy Management Program (FEMP)

www.eren.doe.gov/femp

U.S. Environmental Protection Agency

Energy Star Program

www.energystar.gov

International Performance Measurement Verification Protocol

www.ipmvp.org

Association of Energy Engineers (AEE)

www.aeecenter.org

Sustainable Buildings Industry Council

www.sbicouncil.org

American Society of Heating, Refrigerating, and Air-Conditioning Engineers, Inc. (ASHRAE)

www.ashrae.org

American Council for an Energy Efficient Economy

www.aceee.org

A

FLORIDA LAW: APPENDIX A

Energy Performance Contracting for Public Schools, Community Colleges, and Universities

1013.23 Energy Efficiency Contracting

(1) Legislative Intent

The Legislature finds that investment in energy conservation measures in educational facilities can reduce the amount of energy consumed and produce immediate and long-term savings. It is the policy of this state to encourage school districts, community colleges, and state universities to invest in energy conservation measures that reduce energy consumption, produce a cost savings, and improve the quality of indoor air in facilities, and, when economically feasible, to build, operate, maintain, or renovate educational facilities in such a manner so as to minimize energy consumption and maximize energy savings. It is further the policy of this state to encourage school districts, community colleges, and state universities to reinvest any energy savings resulting from energy conservation measures into additional energy conservation efforts.

(2) Definitions

For purposes of this section, the term:

- (a) "Energy conservation measure" means a training program, facility alteration, or equipment to be used in new construction, including an addition to an existing facility, that reduces energy costs, and includes, but is not limited to:
1. Insulation of the facility structure and systems within the facility.
 2. Storm windows and doors, caulking or weatherstripping, multiglazed windows and doors, heat-absorbing, or heat-reflective, glazed and coated window and door systems, additional glazing, reductions in glass area, and other window and door system modifications that reduce energy consumption.
 3. Automatic energy control systems.
 4. Heating, ventilating, or air-conditioning system modifications or replacements.
 5. Replacement or modifications of lighting fixtures to increase the energy efficiency of the lighting system which, at a minimum, shall conform to the Florida Building Code. Energy recovery systems.
 6. Cogeneration systems that produce steam or forms of energy such as heat, as well as electricity, for use primarily within a facility or complex of facilities.
 7. Energy conservation measures that provide long-term operating cost reductions and significantly reduce BTU consumed.

8. Renewable energy systems, such as solar, biomass, and wind.
9. Devices which reduce water consumption or sewer charges.

(b) "Energy cost savings" means:

1. A measured reduction in fuel, energy, or operation and maintenance costs created from the implementation of one or more energy conservation measures when compared with an established baseline for previous fuel, energy, or operation and maintenance costs; or
2. For new construction, a projected reduction in fuel, energy, or operation and maintenance costs created from the implementation of one or more energy conservation measures when compared with the projected fuel, energy, or operation and maintenance costs for equipment if the minimum standards of the Florida Building Code for educational facilities construction were implemented and signed and sealed by a registered professional engineer.

(c) "Energy performance-based contract" means a contract for the evaluation, recommendation, and implementation of energy conservation measures which includes, at a minimum:

1. The design and installation of equipment to implement one or more of such measures, and, if applicable, operation and maintenance of such measures.
2. The amount of any actual annual savings. This amount must meet or exceed total annual contract payments made by the district school board, community college board of trustees, or state university board of trustees for such contract.
3. Financing charges to be incurred by the district school board, community college board of trustees, or state university board of trustees over the life of the contract.

(d) "Energy performance contractor" means a person or business licensed pursuant to chapter 471, chapter 481, or chapter 489 and experienced in the analysis, design, implementation, and installation of energy conservation measures through the implementation of energy performance-based contracts.

(3) Energy Performance-Based Contract Procedures.—

- (a) A district school board, community college board of trustees, or state university board of trustees may enter into an energy performance-based contract with an energy performance contractor to significantly reduce energy or operating costs of an educational facility through one or more energy conservation measures.
- (b) The energy performance contractor shall be selected in compliance with s. 287.055; except that in a case where a district school board, community college board of trustees, or state university board of trustees determines that fewer than three firms are qualified to perform the required services, the requirement for agency selection of three firms, as provided in s. 287.055(4)(b), shall not apply and the bid requirements of s. 287.057 shall not apply.
- (c) Before entering into a contract pursuant to this section, the district school board, community college board of trustees, or state university board of trustees shall provide published notice of the meeting in which it proposes to award the contract, the names of the parties to the proposed contract, and the contract's purpose.
- (d) Prior to the design and installation of the energy conservation measure, the district school board, community college board of trustees, or state university board of trustees must

obtain from the energy performance contractor a report that discloses all costs associated with the energy conservation measure and provides an estimate of the amount of the energy cost savings. The report must be reviewed by either the Department of Education or the Department of Management Services or signed and sealed by a registered professional engineer.

- (e) A district school board, community college board of trustees, or state university board of trustees may enter into an energy performance-based contract with an energy performance contractor if, after review of the report required by paragraph (d), it finds that the amount it would spend on the energy conservation measures recommended in the report will not exceed the amount to be saved in energy and operation costs over 20 years from the date of installation, based on life-cycle costing calculations, if the recommendations in the report were followed and if the energy performance contractor provides a written guarantee that the energy or operating cost savings will meet or exceed the costs of the system. The contract may provide for payments over a period of time not to exceed 20 years.
- (f) A district school board, community college board of trustees, or state university board of trustees may enter into an installment payment contract for the purchase and installation of energy conservation measures. The contract shall provide for payments of not less than one-twentieth of the price to be paid within 2 years from the date of the complete installation and acceptance by the district school board, community college board of trustees, or state university board of trustees, and the remaining costs to be paid at least quarterly, not to exceed a 20-year term based on life-cycle costing calculations.
- (g) Energy performance-based contracts may extend beyond the fiscal year in which they become effective; however, the term of any contract shall expire at the end of each fiscal year and may be automatically renewed annually up to 20 years, subject to a district school board, community college board of trustees, or state university board of trustees making sufficient annual appropriations based upon continued realized energy cost savings. Such contracts shall stipulate that the agreement does not constitute a debt, liability, or obligation of the state or a district school board, community college board of trustees, or state university board of trustees, or a pledge of the faith and credit of the state or a district school board, community college board of trustees, or state university board of trustees.

(4) Contract Provisions. –

- (a) An energy performance-based contract shall include a guarantee by the energy performance contractor that annual energy cost savings will meet or exceed the amortized cost of energy conservation measures.
- (b) The contract shall provide that all payments, except obligations on termination of the contract before its expiration, are to be made over time, but not to exceed 20 years from the date of complete installation and acceptance by the district school board, community college board of trustees, or state university board of trustees, and that the annual savings are guaranteed to the extent necessary to make annual payments to satisfy the contract.
- (c) The contract must require that the energy performance contractor to whom the contract is awarded provide a 100-percent public construction bond to the district school board, community college board of trustees, or state university board of trustees for its faithful performance, as required by s. 255.05.
- (d) The contract shall require the energy performance contractor to provide to the district school board, community college board of trustees, or state university board of trustees

an annual reconciliation of the guaranteed energy cost savings. The energy performance contractor shall be liable for any annual savings shortfall which may occur. In the event that such reconciliation reveals an excess in annual energy cost savings, such excess savings shall not be used to cover potential energy cost savings shortages in subsequent contract years.

History.--s. 817, ch. 2002-387.

Energy Performance Contracting for State and Local Agencies

489.145 Guaranteed energy performance savings contracting.—

(1) Short Title.—

This section may be cited as the "Guaranteed Energy Performance Savings Contracting Act."

(2) Legislative Findings.—

The Legislature finds that investment in energy conservation measures in agency facilities can reduce the amount of energy consumed and produce immediate and long-term savings. It is the policy of this state to encourage agencies to invest in energy conservation measures that reduce energy consumption, produce a cost savings for the agency, and improve the quality of indoor air in public facilities and to operate, maintain, and, when economically feasible, build or renovate existing agency facilities in such a manner as to minimize energy consumption and maximize energy savings. It is further the policy of this state to encourage agencies to reinvest any energy savings resulting from energy conservation measures in additional energy conservation efforts.

(3) Definitions.—

As used in this section, the term:

- (a) "Agency" means the state, a municipality, or a political subdivision.
- (b) "Energy conservation measure" means a training program, facility alteration, or equipment purchase to be used in new construction, including an addition to an existing facility, which reduces energy or operating costs and includes, but is not limited to:
 - 1. Insulation of the facility structure and systems within the facility.
 - 2. Storm windows and doors, caulking or weatherstripping, multiglazed windows and doors, heat-absorbing, or heat-reflective, glazed and coated window and door systems, additional glazing, reductions in glass area, and other window and door system modifications that reduce energy consumption.
 - 3. Automatic energy control systems.
 - 4. Heating, ventilating, or air-conditioning system modifications or replacements.
 - 5. Replacement or modifications of lighting fixtures to increase the energy efficiency of the lighting system, which, at a minimum, must conform to the applicable state or local building code.

6. Energy recovery systems.
 7. Cogeneration systems that produce steam or forms of energy such as heat, as well as electricity, for use primarily within a facility or complex of facilities.
 8. Energy conservation measures that provide long-term operating cost reductions or significantly reduce BTU consumed.
 9. Renewable energy systems, such as solar, biomass, or wind systems.
 10. Devices that reduce water consumption or sewer charges.
 11. Storage systems, such as fuel cells and thermal storage.
 12. Generating technologies, such as microturbines.
 13. Any other repair, replacement, or upgrade of existing equipment.
- (c) "Energy cost savings" means a measured reduction in the cost of fuel, energy consumption, and stipulated operation and maintenance created from the implementation of one or more energy conservation measures when compared with an established baseline for the previous cost of fuel, energy consumption, and stipulated operation and maintenance.
- (d) "Guaranteed energy performance savings contract" means a contract for the evaluation, recommendation, and implementation of energy conservation measures, which, at a minimum, shall include:
1. The design and installation of equipment to implement one or more of such measures and, if applicable, operation and maintenance of such measures.
 2. The amount of any actual annual savings that meet or exceed total annual contract payments made by the agency for the contract.
 3. The finance charges incurred by the agency over the life of the contract.
- (e) "Guaranteed energy performance savings contractor" means a person or business that is licensed under chapter 471, chapter 481, or this chapter, and is experienced in the analysis, design, implementation, or installation of energy conservation measures through energy performance contracts.

(4) Procedures.—

- (a) An agency may enter into a guaranteed energy performance savings contract with a guaranteed energy performance savings contractor to significantly reduce energy or operating costs of an agency facility through one or more energy conservation measures.
- (b) Before design and installation of energy conservation measures, the agency must obtain from a guaranteed energy performance savings contractor a report that summarizes the costs associated with the energy conservation measures and provides an estimate of the amount of the energy cost savings. The agency and the guaranteed energy performance savings contractor may enter into a separate agreement to pay for costs associated with the preparation and delivery of the report; however, payment to the contractor shall be contingent upon the report's projection of energy cost savings being equal to or greater than the total projected costs of the design and installation of the report's energy conservation measures.
- (c) The agency may enter into a guaranteed energy performance savings contract with a guaranteed energy performance savings contractor if the agency finds that the amount the agency would spend on the energy conservation measures will not likely exceed the amount of the energy cost savings for up to 20 years from the date of installation, based on the life cycle cost calculations provided in s. 255.255, if the recommendations in the

report were followed and if the qualified provider or providers give a written guarantee that the energy cost savings will meet or exceed the costs of the system. The contract may provide for installment payments for a period not to exceed 20 years.

- (d) A guaranteed energy performance savings contractor must be selected in compliance with s. 287.055; except that if fewer than three firms are qualified to perform the required services, the requirement for agency selection of three firms, as provided in s. 287.055(4)(b), and the bid requirements of s. 287.057 do not apply.
- (e) Before entering into a guaranteed energy performance savings contract, an agency must provide published notice of the meeting in which it proposes to award the contract, the names of the parties to the proposed contract, and the contract's purpose.
- (f) A guaranteed energy performance savings contract may provide for financing, including tax exempt financing, by a third party. The contract for third party financing may be separate from the energy performance contract. A separate contract for third party financing must include a provision that the third party financier must not be granted rights or privileges that exceed the rights and privileges available to the guaranteed energy performance savings contractor.
- (g) In determining the amount the agency will finance to acquire the energy conservation measures, the agency may reduce such amount by the application of any grant moneys, rebates, or capital funding available to the agency for the purpose of buying down the cost of the guaranteed energy performance savings contract. However, in calculating the life cycle cost as required in paragraph (c), the agency shall not apply any grants, rebates, or capital funding.

(5) Contract Provisions.—

- (a) A guaranteed energy performance savings contract must include a written guarantee that may include, but is not limited to the form of, a letter of credit, insurance policy, or corporate guarantee by the guaranteed energy performance savings contractor that annual energy cost savings will meet or exceed the amortized cost of energy conservation measures.
- (b) The guaranteed energy performance savings contract must provide that all payments, except obligations on termination of the contract before its expiration, may be made over time, but not to exceed 20 years from the date of complete installation and acceptance by the agency, and that the annual savings are guaranteed to the extent necessary to make annual payments to satisfy the guaranteed energy performance savings contract.
- (c) The guaranteed energy performance savings contract must require that the guaranteed energy performance savings contractor to whom the contract is awarded provide a 100-percent public construction bond to the agency for its faithful performance, as required by s. 255.05.
- (d) The guaranteed energy performance savings contract may contain a provision allocating to the parties to the contract any annual energy cost savings that exceed the amount of the energy cost savings guaranteed in the contract.
- (e) The guaranteed energy performance savings contract shall require the guaranteed energy performance savings contractor to provide to the agency an annual reconciliation of the guaranteed energy cost savings. If the reconciliation reveals a shortfall in annual energy cost savings, the guaranteed energy performance savings contractor is liable for such shortfall. If the reconciliation reveals an excess in annual energy cost savings, the

excess savings may be allocated under paragraph (d) but may not be used to cover potential energy cost savings shortages in subsequent contract years.

- (f) The guaranteed energy performance savings contract must provide for payments of not less than one-twentieth of the price to be paid within 2 years from the date of the complete installation and acceptance by the agency, and the remaining costs to be paid at least quarterly, not to exceed a 20-year term, based on life cycle cost calculations.
- (g) The guaranteed energy performance savings contract may extend beyond the fiscal year in which it becomes effective; however, the term of any contract expires at the end of each fiscal year and may be automatically renewed annually for up to 20 years, subject to the agency making sufficient annual appropriations based upon continued realized energy savings.
- (h) The guaranteed energy performance savings contract must stipulate that it does not constitute a debt, liability, or obligation of the state.

(6) Program Administration And Contract Review.—

The Department of Management Services, with the assistance of the Office of the Comptroller, may, within available resources, provide technical assistance to state agencies contracting for energy conservation measures and engage in other activities considered appropriate by the department for promoting and facilitating guaranteed energy performance contracting by state agencies. The Office of the Comptroller, with the assistance of the Department of Management Services, may, within available resources, develop model contractual and related documents for use by state agencies. Prior to entering into a guaranteed energy performance savings contract, any contract or lease for third-party financing, or any combination of such contracts, a state agency shall submit such proposed contract or lease to the Office of the Comptroller for review and approval.

History.--s. 1, ch. 94-112; s. 1, ch. 2001-81.



SAMPLE MODEL REQUEST FOR PROPOSALS (RFP)

Energy Performance Contracting Program

Pursuant to (§1013.23 F.S. or §489.145 F.S.) and the Florida Consultant's Competitive Negotiation Act, Section 287.055 F.S., _____ (hereinafter referred to as the **Agency**), located in _____, Florida, is seeking qualifications from interested ESCOs capable of providing comprehensive energy management and energy-related capital improvement services for _____ facilities at the locations identified in Attachment F.

The Agency interested in contracting for a full range of energy services and energy-related capital improvements (financed through a guaranteed performance-based contract at no initial capital cost to them). These services may include but are not limited to: an investment grade technical energy audit; the design, acquisition, installation, modification, maintenance, monitoring and training in the operation of existing and new equipment, which will reduce energy consumption associated with the heating, ventilation and air conditioning system, the lighting system, building envelope, water usage, and other energy using devices, as well as for savings which would not reduce consumption per se, but are aimed at cost savings related to energy use, such as sewage, solid waste collection, fuel switching or demand reductions. **Any stipulated energy and/or non-energy cost savings that may be attributed to this project will be rigorously reviewed and, if agreed to, will be limited to those that can be thoroughly documented and verified by the ESCO and approved by the Agency.** Services requested also include the training of the Agency' s facility staff with respect to routine maintenance and operation of all improvements. **Improvements must result in a guaranteed minimum energy savings with any ESCO payments for services linked to the verified achievement of project savings.** The guaranteed energy savings must meet or exceed the amortized cost of energy conservation measures. ESCO' s will be required to guarantee energy and cost savings on an annual basis. No credit for the achievement of savings above and beyond the annual guarantee will be credited to satisfy performance guarantees in future years of the contract. Annual reconciliation of the achieved savings will be required.

All contracts must comply with the statutory provisions contained in (§1013.23 F.S. or §489.145 F.S.) This contract is subject to annual appropriations. The energy savings achieved by the installed projects must be sufficient to cover all project costs including any agreed-upon annual maintenance and monitoring fees for the duration of the contract term. At a minimum, the energy savings guarantee will be structured to match the annual contract payments associated with the project. The ESCO shall be liable for any annual energy savings shortfall that may occur. The selected ESCO must guarantee that none of the energy savings measures it will recommend or implement will cause the deterioration of indoor air quality in any of the relevant Agency facilities and agree to fully fund the cost of remedying any such deterioration and indemnify and hold harmless the Agency from any liability resulting from such deterioration. The ESCO must post a 100 percent public construction bond in accordance with the provisions of (§1013.23 F.S. or §489.145 F.S.).

Description of the Procurement Process

It is anticipated that the process for the procurement of these energy services will proceed as follows:

- **Submission of Written Qualifications and Client Reference Checks**
The Agency through its designated representatives and Project Evaluation Team will review and evaluate the written responses to this Request for Proposals (RFP) and conduct selected reference checks of ESCOs clients, in accordance with the evaluation criteria identified in Attachment A. The Agency will shortlist no more than three qualified ESCOs to proceed to the competitive oral interview stage of the procurement process. Any response resulting in an addendum will be forwarded to all ESCOs requesting copies of the RFP.
- **Oral Interviews**
Each of the three shortlisted responding ESCOS will participate in a detailed oral interview/presentation to more fully discuss how its approach to this project satisfies the evaluation criteria set forth in Attachment A. ESCOs will be required to answer questions posed by the Project Evaluation Team. Each oral interview may be tape-recorded and it will be the sole responsibility of the Project Evaluation Team to make the final selection of the most qualified ESCO based upon the evaluation of written responses to the RFP, client references, and oral responses received during the interview process. A more complete description of the interview format and logistical arrangements will be mailed to each responding ESCO.
- **Selection of ESCO to Develop Contract**
The Agency will select the highest ranked, best qualified firm to conduct a complete technical analysis of the facility and propose contract terms concerning a complete set of proposed energy improvements, the timetable for completing engineering and construction work, a detailed description of services to be provided, specific financing arrangements and terms, and an estimate of energy savings, as well as special conditions offered by the company. This report will meet the requirements of (§1013.23 F.S. or §489.145 F.S.). The Agency intends to negotiate a final contract for these services, which will include a minimum savings guarantee.

If an acceptable contract cannot be reached within 90 days from the date of ESCO selection, negotiations with the second ranked ESCO may be initiated.

It is recognized that detailed financial projections of project benefits are dependent upon the scope of technical retrofits finally selected and installed. It is premature to place a major emphasis on projected financial benefits prior to the completion of an investment grade technical energy audit and negotiation of the project structure. Respondents are encouraged to carefully review the evaluation criteria in the RFP under Financial Approach and to respond as fully as possible.

Agency will arrange walk-through inspection tours of the facilities prior to the submission of proposals. Site representatives will be available to answer questions about the operation of the buildings. All ESCOs are encouraged to visit the facility in order to enhance their understanding of existing building conditions and retrofit opportunities.

To make arrangements, please contact:

(Insert contact person, title and phone number)

To aid companies in their response to this request, the following items are attached:

- Attachment A: Evaluation Criteria
- Attachment B: Project Schedule
- Attachment C: Project Terms and Conditions
- Attachment D: ESCO Profile Form
- Attachment E: ESCO Qualifications and Approach to Project
- Attachment F: List of Facilities

- **ESCO Submissions**

Companies must submit one __ unbound original and _____ () copies of each of Attachments D & E (ESCO Profile Form & ESCO Qualifications and Approach to Project), and __ copies of the following documents:

- Sample Investment Grade Energy Audit
- Sample Savings Measurement and Verification Plan
- Sample Project Commissioning Plan
- Sample Maintenance Plan
- Sample Customer Savings Report
- Audited Financial Statements

Complete responses are due no later than _____p.m., Eastern Standard Time (E.S.T.), to the following address:

Late responses will be returned unopened and will not receive further consideration.

Each response will be reviewed to determine if it is complete prior to actual evaluation. The Agency reserves the right to eliminate from further consideration any response that is deemed to be unresponsive to the requests for information.

All submissions become the property of the Agency and will not be refunded to the ESCO.

Applicants responding to this RFP must be available for oral presentations/interviews to the Project Evaluation Team, in person. Each firm will be notified to schedule their appearance at the competitive oral interview/presentation that constitutes the final step of the selection process.

The Agency reserves the right to reject any or all submissions and to waive informalities and minor irregularities in submissions received and to accept any submissions if deemed in the best interest of the Agency to do so.

The Agency reserves the right to expand the proposed project or include additional sites if it is deemed in the best interest of the Agency to do so.

All costs associated with submission preparation will be borne by the submitting company.

The contents of the proposal of the successful applicant will become part of the contractual obligations.

Applicants are required to respond and submit proposals in the format requested, as shown in the attachments.

All firms are hereby placed on notice that Agency staff, and members of the Project Evaluation Team are not to be lobbied, either individually or collectively about this project.

Firms and their agents are hereby placed on notice that they are not to contact staff or members of the Project Evaluation Team for such purposes as holding meetings of introduction, dinners, etc. in an attempt to influence the outcome of the review and selection process, if they intend to, or have submitted a proposal for this project.

Attachment A – Evaluation Criteria

Proposals will be evaluated based on the completeness of the information provided. Failure to provide any requested information may result in disqualification. The criteria listed below will be used, as appropriate, in the evaluation of the written proposals, client references, and responses of the shortlisted ESCOs during final selection interviews. (These are not ranked in order of importance.) **The criteria have been weighted using the letters A and B where A is valued x 3 and B is valued x 2.**

Experience

- A ESCOs experience with implementing guaranteed energy savings contracts (specific branch office or project team members assigned to this project).
- A Qualifications and experience of ESCOs personnel.
- A Documented energy savings performance of previous projects.
- B Ability to manage construction and complete all phases of the project on schedule.
- A Quality of *Project History* and *Client Reference* documentation.

Project Management

- A Clear assignment of responsibility for various tasks to specific individuals.
- B Quality of approach to operations and maintenance and *Sample Maintenance Plan*.
- A Quality of monitoring, maintenance, and measurement and verification services on past projects.
- B Clarity, organization, and level of detail in written proposal.
- A Quality of communication skills of the ESCOs representative at the oral interview

Technical Approach

- B Quality of project-specific preliminary technical proposal, including comprehensiveness of analysis and understanding of existing building systems and conditions.
- A Reliability of equipment performance on past projects.
- A Quality of the sample investment grade technical energy audit.
- B Quality of proposed training for facility staff.
- A Quality of baseline energy calculations.
- A Quality of approach to savings calculations and measurement.

- B Quality of *Sample Measurement and Verification Plan*.
- B Quality sample *Commissioning Plan*.

Financial

- A Financial soundness and stability of the ESCO.
- B Reasonableness of proposed audit costs.
- B Demonstrated ability to provide project financing.
- B Quality of *Sample Customer Savings Report*.

The establishment, application, and interpretation of the above criteria shall be solely within the discretion of the agency. The agency reserves the right to reject any and all submissions.

Attachment B –Sample Project Schedule

Activity	Date
Advertise RFP	Week 1
Site Visit	Weeks 2-4
Proposals Due	Week 6
Written Proposals Reviewed/Evaluated	Weeks 7-11
Oral Interviews/Presentations	Week 12
Anticipated Board Approval Date	Week 14
Technical Audit, Project Analysis, and Contract Negotiations Begin	Week 16
Audit Report Submitted	Week 32
Anticipated Date for Contract Signing & Presenting Final Contract	Week 40

Attachment C – Project Terms and Conditions

This section describes the minimum conditions the Agency will accept from the selected ESCO(s). Part 1 defines the *Scope of Services* as they relate to the technical requirements to be included in the final contract. Part 2 defines the key contractual provisions.

Part 1 – Scope of Services

Technical Requirements:

1. Investment grade technical energy audit. The ESCOs proposed contract terms must include the performance and presentation of the results of a detailed investment-grade technical energy audit of acceptable quality to the Agency. If the Agency decides not to enter into a contract with the selected ESCO after the audit has been accepted, they agree to pay the fee indicated for said audit as set forth in Attachment E, provided the proposed contract terms

offered by the ESCO meet all the conditions set forth in this RFP.

2. A registered professional mechanical engineer must, at a minimum, review and approve design work done under this contract.
3. The Agency requires a minimum guaranteed savings approach to the project.
4. The ESCO will be required to work with current building management and maintenance personnel to coordinate construction and provide appropriate training in the operation of retrofits. No equipment shall be installed that will require the hiring of additional personnel by the Agency unless contract negotiations produce an explicit exemption from this rule for a specific installation and/or maintenance.
5. Within 30 days of the completed installation, the ESCO must provide mylar, reproducible "as built" and record drawings of all existing and modified conditions associated with the project, conforming to typical engineering standards. These should include architectural, mechanical, electrical, structural, and control drawings, and operating manuals.
6. The ESCO will be responsible for maintaining the levels of comfort and service for each building as specified. Persistent failure to maintain the defined climate and lighting conditions will constitute a default.
7. Eligible savings for this project include but are not limited to fuel, electricity (including KWh and demand), water, and sewage. *Any stipulated energy and/or non-energy cost savings that may be attributed to this project will be rigorously reviewed and, if agreed to, will be limited to those that can be thoroughly documented and verified by the ESCO and approved by the Agency.*

Part 2 – Contractual Provisions

Key elements that must be provided for in any contract that the Agency enters into will minimally include the following:

1. The contents of the RFP submission become part of the final contract.
2. The contract must comply with the statutory provisions contained in (§1013.23 F.S. or §489.145 F.S.)
3. The Agency retains final approval over the scope of work and end-use conditions.
4. The ESCO must provide a final schedule of project milestones in a format to be approved by the Agency and include any ongoing equipment servicing provisions. This schedule will become part of the final contract. In the event any milestone or equipment servicing provision is not met as scheduled without prior approval, the Agency reserves the right to consider it as a default and withdraw from all contractual obligations.
5. The ESCO will be required to carry an appropriate level of insurance for both the construction and operations phases of the project. Certificates of all required insurance will be filed with the Agency prior to commencement of work. ESCO shall ensure that the Agency is listed as "Additional Insured" under the "Commercial General Liability" policy in compliance with the statutes of the State of Florida. The ESCO will show proof of or proof of the ability to obtain Worker's compensation insurance to comply with Florida Statutes.
6. The ESCO will be required to provide a 100 percent public construction bond in a form satisfactory to the Agency, containing all obligations required by Florida Law and executed by a surety company satisfactory to the Agency and licensed to do business in Florida.

7. The Agency must have access to inspect, test, and approve both the work conducted in the facility, during construction and operations and to the books, records, and other compilations of data which pertain to the performance of the provisions and requirements of this agreement. Records shall be kept on a generally recognized accounting basis, and calculations kept on file in legible form.
8. The ESCO will be required to fully disclose all costs and fees associated with this project including audit, design, engineering, equipment, installation, financing, commissioning, monitoring, overhead, profit, etc.
9. The repayment obligation and term of the financing for this project must be arranged to coincide with the acceptance by the Agency that the project is fully installed and functioning.
10. All drawings, reports, and materials prepared in performance of the contract shall become the property of the Agency and shall be delivered to them as needed or within 30 days of the completion of construction.
11. The ESCO agrees to secure all necessary licenses and permits prior to award and agrees to comply with all Federal and state laws, in any manner affecting the work described in this RFP. All work completed under this contract must be in compliance with all building codes and appropriate accreditation, certification, and licensing standards.
12. The contract must contain a mutually agreeable clause whereby unanticipated changes in occupancy or use can be accommodated in a fair manner for both parties.
13. At contract expiration, the Agency will have the option to renegotiate the contract or terminate if without penalty.

Any person submitting a proposal in response to this invitation certifies that they are aware of, and in compliance with, all requirements under §287.133 F.S. on Public Entity Crimes. Prior to award, the recommended ESCO may be required to submit a sworn statement attesting to compliance with said statute.

Attachments D & E – ESCO Profile Form & ESCO Qualifications and Approach to Project

____ () original unbound and ____ () copies of Attachments D & E must be sent to the following address no later than _____ p.m., Eastern Standard Time, on _____:

Companies are required to submit only __ copies of the following documents:

- Sample Investment Grade Energy Audit
- Sample Savings Measurement and Verification Plan
- Sample Project Commissioning Plan
- Sample Maintenance Plan
- Sample Customer Savings Report
- Audited Financial Statements

Please label your submission as follows:

Re: Response to RFP – Energy Performance Contracting Program

From: (Firm Name) _____
(Address) _____
(City) _____ (State) _____ Zip _____
(Phone) _____ Fax _____
(Contact Person) _____ (Title) _____

Attachment D: ESCO Profile Form

NOTE: If this project is proposed to be implemented as a joint venture or partnership, Attachment D should be completed for each firm, including client references for energy performance contracting projects implemented by each firm.

Firm Information

1a. Firm Name _____

Business Address _____

City _____ State _____ Zip Code _____

1b. Names and Titles of Two Contact People

name _____ (phone _____)

name _____ (phone _____)

1c. Submittal is for

___ parent company (list any division or branch offices to be involved in this project)

___ division (attach separate list if more than one is to be included)

___ subsidiary

___ branch office _____

Name of entity: _____

Address: _____

2. Date prepared _____

3. Type of firm: ___ corporation ___ partnership ___ sole ownership ___ joint venture

4. Federal employer identification number _____

5. Year firm was established _____

6. Name and address of parent company, if applicable _____

7. Former firm name(s), if applicable _____

8. Indicate if your firm is a recognized minority business enterprise ___ Yes ___ No

9. Five Year Summary of Contract Values for Energy Performance Contracting Projects:

2003: \$ _____ (to date) 2002: \$ _____

2001: \$ _____ 2000: \$ _____

1999: \$ _____

NOTE: All questions must be addressed by the ESCO in order for this qualification form to be properly completed. Failure to answer any question, or comply with any directive contained in this form may be used by the Agency as grounds to find them ineligible. If a question or directive does not pertain to your organization in any way, please indicate that fact with the symbol N/A. For additional space attach 8-1/2" x 11" sheets and indicate reference number (i.e., 12a, 12b, etc.) to correspond with each question.

Corporate Background/Historical Data

10a. How many years has your firm been in business under its present business name? ___ Years

10b. Indicate all other names by which your organization has been known and the length of time known by each name.

10c. How many years has your firm been involved in energy-related business? ___ Years

10d. Indicate the number of all energy performance contracting projects implemented by and currently under contract with your firm. Limit your response to ONLY those projects that have been managed directly by the specific branch, division, office or any individual in such branch, division or office that will be specifically assigned to this project. Attach additional sheets as necessary.

10e. Please identify all states in which your firm is legally qualified to do business.

Personnel Information

11a. Please indicate the number of full time personnel employed by your firm and the percent available to work on this project.

11b. Briefly describe the relevant experience, qualifications and educational background for each individual team member assigned to this project using the format provided on the following page. Do not include individual resumes in lieu of this information.

Personnel Information	
Name of project team member:	
Current job title: Job responsibilities: Number of years with ESCO: Primary office location:	
Employment History Company name: Primary job responsibilities: Number of years with firm:	
Educational Background List all academic degrees, certifications, professional affiliations, relevant publications and technical training.	
List all energy performance contracting projects this individual has been involved with during the past five years; include project location, type of facilities, year implemented and dollar value of installed project costs.	
Describe the specific role and responsibilities this individual had for each listed project.	
Provide a detailed description of the role and responsibilities this individual will have for the duration of this project.	
Describe any other relevant technical experience.	
Indicate the total years of relevant energy-related experience for this individual.	

- 11c. Submit an organizational chart that clearly identifies the roles and relationships of all key team members.
- 11d. Please certify that your company does not owe the State of Florida any taxes.
- 11e. Please certify that your company is not currently under suspension or debarment by the State of Florida, any other state, or the federal government.
- 11f. Please identify your firm' s legal counsel for this project. Give the name and address of the primary individual responsible for contract negotiation.

Financial References

- 12a. Please attach a financial statement or annual report for each of the last three years.

- 12b. Please attach the most recent year-ending *Statement of Financial Conditions*, including balance sheet and income statement, dated within twelve months of filing this ESCO Profile Form.
- 12c. Please provide the name, address, and the telephone number of firm(s) that prepared Financial Statements:

Project History

- 13a. Using the following forms, list at least _____ () energy performance contracting projects currently under contract with your firm that are in repayment with at least one full year's worth of saving data. *Limit your response to ONLY those projects that have been managed directly by the specific branch, division, office or any individual in such branch, division or office that will be specifically assigned to this project.* Projects with installed costs of less than \$500,000.00 or single technology projects (e.g. lighting only, controls only, etc.) will not be considered. Attach additional sheets as necessary. Please put an asterisk by those project references involving buildings similar to the building(s) described in the technical appendices. All information is **required**.

Project History	
Project Name and Location	
Type of Facility(s)	
Project Dollar Amount (installed project costs)	
Primary ECMs Installed	
Construction Start Date Completion End Date	
Contract Start & End Dates	
Dollar Value of Projected Annual Energy Savings	
Dollar Value of Guaranteed Annual Energy Savings	
Dollar Value and Type of Annual Operational Cost Savings (if applicable) (e.g., outside maintenance contracts, material savings, etc.)	
Method(s) of Savings Measurement and Verification	
Identify all ESCO personnel associated with this project and their specific role(s) and responsibility(s)	

Project History

Provide current and accurate telephone and facsimile numbers of the owner(s)' representatives with whom your firm did business on this project. You should ensure that all representatives are familiar with this project.

For each project described above, complete the following table:

Annual Energy Savings

Name of Project: _____ Name of ESCO: _____

	Projected		Guaranteed		Achieved		
			Year 1	Year 2	Year 3	Year 4	Year 5
KWH							
KW							
Therms							
Water Gallons							
Other (Specify)							

Annual Energy Savings

Name of Project: _____ Name of ESCO: _____

	Projected		Guaranteed		Achieved		
			Year 1	Year 2	Year 3	Year 4	Year 5
KWH							
KW							
Therms							
Water Gallons							
Other (Specify)							

Authorization

14a. Dated at _____ this _____ day
of _____ 200_____.

Name of Organization: _____

By _____

Title _____

Notary Statement

15a. Mr./Ms. _____ being duly sworn deposes and says that he/she is
the _____ of _____,

Contractor(s), and that answers to the foregoing questions and all statements therein contained
are true and correct.

15b. Subscribed and sworn before me this _____ day of _____ 200_____.

Notary Public _____

My Commission Expires 200_____

Attachment E: ESCO Qualifications and Approach to Project

Please provide answers to each category listed below. Provide your responses on 8-1/2" x 11" sheets of paper and number and title each answer to the corresponding category. A table of contents should be included and all pages in your response to this attachment numbered sequentially. Proposals shall be limited to no more than 30 single-sided pages and font size no smaller than 10 point. Attachment E (the ESCO Profile Form), the *Sample Investment Grade Energy Audit*, *Customer Savings Report*, *Sample Commissioning Plan*, *Sample Measurement and Verification Plan*, *Sample Maintenance Plan*, and *Company Financial Reports* do not count toward the page limit. Proposals will be evaluated in light of the material and substantiating evidence presented in the proposal and not on the basis of what is inferred.

1. General Approach

1.1 Project Summary (not to exceed 2 pages)

Summarize the *Scope of Services* (design, financial, operations, maintenance, training, etc.) that would be offered by your firm for this project. Please include a brief description of your firm's *Approach to Project Management* and the *Specific Benefits* to the Agency.

1.2 Training Provisions

Please describe your firm's capabilities and proposed approach to provide technical training for the Agency's facility personnel. Please describe your firm's involvement in developing training manuals for facility staff and indicate any specific areas of training you may likely recommend for this project. Please describe your firm's approach to implementing and measuring the savings associated with behavior modification strategies.

1.3 Cost of Audit

Estimate the total cost of the investment-grade technical energy audit to the Agency, if no contract is negotiated.

1.4 Energy Baseline Calculation Methodology and Measurement and Verification Plan

Describe the methods used to compute baseline energy use. Describe any computerized modeling programs used by your firm to establish baseline consumption. Please summarize procedures, formulas, and methodologies including any special metering or equipment your firm will use to measure and calculate energy savings for this project. Describe the methods used to adjust the guaranteed level of savings from any material changes that occur due to factors such as weather occupancy, facility use changes, etc. Provide a *project-specific Measurement and Verification Plan*. Indicate any operational cost savings opportunities and how such savings are to be identified, documented, and measured. Describe your firm's proposed approach to treatment of savings achieved during construction and how those savings will be documented and verified.

1.5 ESCO Fee Calculation

Please describe the methods for calculating your firm's fees as a function of the project's energy saving performance. Please describe the specific services your firm will be paid for over the contract term. Describe the method by which you will be paid for those services and how often payments will be made. Describe your firm's overhead, profit, and pricing policies for these types of projects.

1.6 Savings Guarantee Calculations

Please provide a copy of your firm's savings guarantee language and describe your approach to the annual reconciliation of savings. Describe your procedures and schedule for measuring the project's financial performance, and how the guarantee provisions work in the event that project results vary from projections. Describe your firm's methodology for establishing the guarantee of the project's financial performance.

1.7 Sample Customer Savings Report

Please describe your firm's standard billing procedures and attach a *sample Customer Savings Report* from a completed energy performance-contracting project currently in repayment.

1.8 Provision of Financing

Please briefly describe the types of financing arrangements used by your firm for past performance contracting projects. Describe your firm's preferred approach to providing or arranging financing for this project including a description of the source of funds and the potential dollar amounts currently available to your firm to finance these types of projects. Please indicate what representative interest rates may be available, financing terms, and other variable economic factors associated with each method that you are aware of at the time of this submission.

1.9 Investment Grade Technical Energy Audit

Please give a general description of your technical auditing and analysis procedures and any anticipated involvement of the Agency personnel in the provision of technical data and/or other support required or to be requested for the audit phase of this project.

2. Site Specific Approach

2.1 Technical Site Analysis

Based on your preliminary assessment of the Agency's facilities and information provided, please describe any equipment modifications, installations or replacements at the facilities that your company would consider installing as a part of this project. Please discuss site conditions, status of building systems, and needs of the Agency.

2.2 Equipment Maintenance Services

Please describe any major changes in operations or maintenance for the facility that your company foresees based on your site visit and the types of maintenance services likely to be included in this project. Please address how you would approach the role of the Agency's personnel in performing maintenance on existing and new equipment. Please discuss the relationship of maintenance services to the savings guarantee, any required length of the maintenance agreement and what impact termination of maintenance, prior to the end of the contract term, would have on the savings guarantee. Please submit a sample *Maintenance Plan* from a completed project that is similar in size and scope.

2.3 Project Commissioning

Please describe your firm's approach to equipment commissioning. Please provide a sample *Commissioning Plan* from a completed performance contract implemented by your firm.

2.4 Construction Planning

Please describe your firm's proposed approach to scheduling and completion of work required to implement a performance contract in the Agency's facility(s).

Attachment F: List of Facilities



INSTRUCTIONS FOR PREPARATION OF THE FACILITY PROFILE(S)

Instruction Overview for Inclusion in the Request for Proposals

Energy Service Companies will need a description of your facilities to evaluate the opportunity for a successful energy performance contract. It is impractical to supply every technical detail available in the RFP. But you should be prepared to respond to requests for additional data from individual ESCOs. The RFP will contain a brief description of your facilities and a list of any energy retrofit projects you want investigated and evaluated through this project. You should also prepare to provide data from Section VII should it be requested.

Section 1: General Facility Data

(Please use additional pages as required.)

1. Name of Institution:

2. Address of Building:

3. Primary Use:

4. Building Operator: _____ Phone: _____
5. Building Engineer: _____ Phone: _____
6. Building Manager: _____ Phone: _____
7. Year constructed: _____
8. Briefly describe any major changes to building operation or structure during the last four years that significantly affected annual building energy use. What was done? What were the effects on energy use?
9. Describe any major change planned for the next five years that could significantly affect annual energy use. What change? Anticipated effects?

Section 2: Operating Data

1. Please describe the typical hours of operation for your facility. Include the general summer and winter temperature set points for your facility, and if night setback is used, what is your target temperature?

2. Please describe the manufacturer(s), age, type, and condition of the HVAC control system(s) used in the building(s).
3. If you have an operating EMS controlling your building, please list the manufacturer, year installed, and operating conditions.

Section 3: Physical Data

1. Give the total square footage of conditioned space. If the total heated and cooled areas differ in size, please describe their respective sizes.
2. Briefly describe the predominant wall and roof construction. Also describe the type and condition of existing windows.

Section 4: Energy and Water Consumption Data

Please summarize utility consumption and costs over the last three years (3) on the following form templates. If you are buying contract gas, give your monthly price history, if available, on a separate sheet for your cost of gas. Please attach copies of utility rate schedules that apply to your building(s).

Electric Consumption

Name of Facility: _____

Location: _____

Type of Fuel: _____

Name of Utility: _____

Billing Month/Yr.	# Days	Demand KW	# of KWH	Total Cost
January				
February				
March				
April				
May				
June				
July				
August				
September				
October				
November				
December				
TOTALS				

Natural Gas Consumption

Name of Facility: _____

Location: _____

Type of Fuel: _____

Name of Utility: _____

Billing Month/Yr.	# Days	# of Therms	# of CCF	Total Cost
January				
February				
March				
April				
May				
June				
July				
August				
September				
October				
November				
December				
TOTALS				

Water Consumption

Name of Facility: _____

Location: _____

Type of Fuel: _____

Name of Utility: _____

Billing Month/Yr.	# Days	# Gallons	Sewage Charges	Total Cost
January				
February				
March				
April				

Billing Month/Yr.	# Days	# Gallons	Sewage Charges	Total Cost
May				
June				
July				
August				
September				
October				
November				
December				
TOTALS				

Other Consumption

Name of Facility: _____

Location: _____

Type of Fuel: _____

Name of Utility: _____

Billing Month/Yr.	# Days	# of Units (specify)	Other Charges (if applicable)	Total Cost
January				
February				
March				
April				
May				
June				
July				
August				
September				
October				
November				
December				
TOTALS				

Section 5: Energy Systems Data

(Please provide as much of the following information as is available.)

1. Briefly describe the major type(s) of HVAC system(s) serving your building (i.e., terminal reheat, multi-zone, variable air volume, etc.) Indicate the main fuels used to operate the heating and cooling systems.
2. Estimate the percentage of total area lighted by fluorescent ballasts and bulbs, and incandescent bulbs. Estimate the approximate annual hours of operation for each type of lighting. If you have a significant amount of HID lighting, please describe it in similar terms.
3. Briefly describe any laundry or food facility which you operate.
4. Briefly describe any major labs or medical equipment you operate.
5. Describe your domestic water heating, distribution, and control system(s).
6. Please describe any other energy consuming equipment or facilities that contribute significantly to your annual energy consumption (e.g. incinerator, pool, etc.)

Section 6: Improvement Opportunities

1. Briefly describe any serious equipment, operating, or comfort problems in your building(s). Identify any major mechanical, control, or electrical systems scheduled for replacement during the next five years.
2. Briefly list any major energy conservation options identified by a previous analysis of your building.
3. Please describe any building improvements that you would like to investigate during this project.

Section 7: Additional Site Data Provided Upon ESCO Request

(Please use if data is available.)

1. Two sample utility bills (winter and summer) for each fuel type used in the last three years.
2. A more detailed schedule of major mechanical equipment including: age, manufacturer, size, capacity, hours of operation, and areas served.
3. Copies of any previous technical analysis or recommendations of energy conservation opportunities in your building.
4. Detailed documentation related to your energy management system.
5. Current rate schedules for each type of fuel/energy used.



E

EVALUATION FORMS

- **Sample Form for Phase 1 Evaluation -
Written Qualifications**
- **Sample Form for Phase 2 Evaluation -
Client Reference Checks**
- **Sample Form for Phase 3 Evaluation -
Oral Interviews**

Insert Name of Institution
Energy Performance Contracting Project

Sample Form for Phase 1 Evaluation
Written Qualifications

Your Name: _____

ESCO Name: _____

INSTRUCTIONS: Please note the difference between the rankings of "Not Acceptable" and "Unable To Rank." If you feel you do not have the expertise or knowledge to rank a specific criterion, please indicate "No Value" (NV) under "Unable to Rank." This ranking will not penalize the respondent. If a respondent fails to address a specific criterion or is nonresponsive to any criteria, please indicate "Not Acceptable" (0 points). This ranking will be factored into the overall ranking for the responding firm.

PLEASE NOTE: The following criteria can be added to or changed in accordance with your agency's specific needs. It is also recommended that each of the criteria be weighted to reflect its relative importance to your project goals (e.g., a x 3 weighting for most important, x 2 for important, etc.).

Criteria	5 points	4 points	3 points	2 points	1 point	0 points	Unable to Rank (No Value)	Discussion
Experience:								
Level of past experience with similar projects								
Qualifications of key personnel assigned to this project								
Ability to achieve projected energy savings on past projects								
Amount of experience arranging project financing								
Management:								
Overall responsiveness to project goals								
Quality of project summary								

Criteria	5 points	4 points	3 points	2 points	1 point	0 points	Unable to Rank (No Value)	Discussion
Quality of project history documentation								
Quality of sample training description								
Clarity of standard billing procedures & <i>Sample Customer Savings Report</i>								
Approach to construction scheduling								
Attractiveness of sample contract								
Technical:								
Quality of approach projects technical design								
Quality of sample savings measurement and verification plan								
Accuracy and clarity of baseline calculations and quality of computer modeling programs								
Method(s) for determining and making baseline adjustments								
Accuracy and clarity of methods for measuring and documenting energy and other cost savings								
Quality of sample savings measurement and verification report								
Quality of technical audit and analysis procedures								
Understanding of the existing building conditions, systems, operations and schedules								
Quality and attractiveness of approach to project operation and maintenance								

Criteria	5 points	4 points	3 points	2 points	1 point	0 points	Unable to Rank (No Value)	Discussion
Quality of Sample Maintenance Plan								
Quality of approach and project commissioning and Sample Commissioning Plan								
Quality of Sample Investment Grade Technical Energy Audit								
Financial:								
Financial soundness of ESCO								
Estimated audit cost								
Attractiveness of ESCOs proposed fee calculation								
Accuracy and clarity of methods to determine dollar value of energy savings								
Attractiveness of proposed savings guarantee and methods of reconciliation								
Attractiveness of ESCOs preferred approach to project financing								

Insert Name of Institution
Energy Performance Contracting Project

Sample Form for Phase 2 Evaluation
Client Reference Checks

Your Name: _____ ESCO Name: _____

Reference Name And Title: _____ Phone: (____) _____

Project Facility Type/Use: _____ Installed Project Cost: \$ _____

Construction Completion Date: _____

Description of Equipment Installed: _____

The evaluation criteria listed below, corresponds to the interview questions to be used when conducting client reference checks. The ranking system uses the qualities listed below, to evaluate the information provided by the references in response to each of the criterion outlined below. Please be certain that each client reference indicates a specific ranking in response to each of the questions asked. It is extremely important to instruct the client references on the difference between the "Inadequate" and "Unable to Rank" categories. An "Inadequate" ranking is given when the information requested to be provided or asked of the ESCO is insufficient, nonresponsive or of poor quality. An "Inadequate" ranking has a negative impact on point scoring. An "Unable to Rank" scoring, however, has no impact on point scoring and is assigned when the evaluator has insufficient personal knowledge or experience to be able to fairly evaluate the information provided. It is recommended that interviews be conducted by phone. Please do not attempt to interpret client reference responses. The discussion space next to each criterion is provided for you or the reference to elaborate on any problems or instances of outstanding performance as applicable.

PLEASE NOTE: The following criteria can be added to or changed in accordance with your agency's specific needs. It is also recommended that each of the criteria be weighted to reflect its relative importance to your project goals (e.g., a x 3 weighting for most important, x 2 for important etc.).

Criteria	5 points	4 points	3 points	2 points	1 point	0 points	Unable to Rank (No Value)	Discussion
Experience:								
How do you rank your satisfaction with achieved energy savings to-date								
How do you rank the overall competence of ESCOs project staff								

Criteria	5 points	4 points	3 points	2 points	1 point	0 points	Unable to Rank (No Value)	Discussion
How do you rank ESCOs ability to complete project on schedule								
Management:								
How do you rank the frequency and clarity of the ESCOs communication with project personnel								
How do you rank ESCOs responsiveness and cooperation with specific staff requests regarding problems with the project								
How do you rank ESCOs management of subcontractors								
How do you rank ESCOs coordination of construction scheduling with facility staff								
Technical:								
How do you rank the quality of technical design provided by ESCO								
How do you rank the quality of technical training provided by ESCO								
How do you rank ESCOs understanding of your facility's equipment and systems								
How do you rank the comprehensiveness of the retrofits designed and installed by ESCO								
How do you rank the quality of equipment commissioning services								
How do you rank the reliability of equipment performance								
How do you rank the quality of maintenance and monitoring services								

Criteria	5 points	4 points	3 points	2 points	1 point	0 points	Unable to Rank (No Value)	Discussion
How do you rank the quality of project technical documentation performed by ESCO								
How do you rank your satisfaction with ESCOs method of measuring and documenting project savings								
Financial:								
How do you rank ESCOs ability to arrange timely and attractive project financing								
How do you rank your satisfaction with terms of the energy savings guarantee								
How do you rank the reasonableness of project costs and ESCO fees for services								

Please have your client references respond to the following three questions and record their responses in the space provided below. This information is for discussion purposes only and will not be ranked.

1. Why did you select this particular company?

2. If you could change any aspect or provision of your contract with this company, what would that change be?

3. Would you enter into another contract with this company? Why or why not?

Insert Name of Institution
Energy Performance Contracting Project

Sample Form for Phase 3 Evaluation
Oral Interviews

Your Name _____ ESCO Name _____

INSTRUCTIONS: Please note the difference between the rankings of "Not Acceptable" and "Unable To Rank." If you feel you do not have the expertise or knowledge to rank a specific criterion, please indicate "No Value" (NV) under "Unable to Rank." This ranking will not penalize the respondent. If a respondent fails to address a specific criteria or is nonresponsive to any criteria, please indicate "Not Acceptable" (0 points). This ranking will be factored into the overall ranking for the responding firm.

PLEASE NOTE: The following criteria can be added to or changed in accordance with your agency's needs. It is also recommended that each of the criteria be weighted to reflect its relative importance to your project goals (e.g., a x 3 weighting for most important, x 2 for important, etc.).

Criteria	5 points	4 points	3 points	2 points	1 point	0 points	Unable to Rank (No Value)	Discussion
Experience:								
Qualifications and responses of ESCOs technical design personnel								
Qualifications and responses of communications technical personnel								
Adequacy of ESCOs discussion of past project performance								
Management:								
Quality of communication skills of ESCOs representatives								
Quality of approach to project development and construction management								
Quality of approach to the provision of maintenance services								

Criteria	5 points	4 points	3 points	2 points	1 point	0 points	Unable to Rank (No Value)	Discussion
Quality of ESCOs proposed equipment monitoring services and savings reporting								
Technical:								
Understanding of existing building conditions and facility systems								
Technical creativity of ESCOs representatives								
Quality and comprehensiveness of preliminary technical energy measures								
Quality of approach to project commissioning								
Quality and scope of proposed training								
Quality of discussion of project energy savings measurement and verification								
Financial:								
Details of proposed financial arrangement								
Adequacy of methods for measuring the project's financial performance								
Terms of the proposed energy savings guarantee and annual reconciliation								
Quality of utility cost savings projections								
Method for determining ESCOs annual fees								



SAMPLE LETTER OF INVITATION TO ORAL INTERVIEWS

ORAL INTERVIEW INSTRUCTIONS FOR ESCOs

(NOTE: This letter can be reproduced on Agency letterhead.)

Dear (*insert name of ESCO*):

The oral interview format has been chosen to preserve the integrity of each ESCOs specific project proposal. It is anticipated that this competitive format will encourage ESCOs to fully disclose their unique solutions for the facility. The evaluation team should be prepared to present an estimated range of energy and demand savings available in the facility and the basis of the estimates. ESCOs also are asked to estimate the range of gross annual energy and cost savings available in the facility and the basis for their estimates.

Logistics

Oral presentations/interviews will be held on _____, 2____ in the _____ conference room at _____. The exact time of your presentation has been sent to you under separate cover. Should questions still exist as to what time your session is, please contact: _____ at (____) _____.

Please inform _____ by 5:00 p.m. on _____, 2____, if you will have any special requirements regarding presentation media (e.g., slide projectors, overhead projectors, screens, movie or video tape machines, easels, etc.) Also, please let us know the expected number of people in your party so that enough chairs and refreshments can be provided.

Interview Format

General Interview Segment (1 1/2 Hours)

Introductions

Companies will be limited to no more than a 30-minute presentation to overview their qualifications and approach to the proposed project. This should include design, construction, financing, training, O&M services, performance monitoring, and performance enhancement. A detailed description of the responsibilities assigned to each member of the project team over the life of the project is requested. **(The 30-minute time limit will be enforced).**

The remaining hour of this segment will be used to ask specific questions which will include but not be limited to the topics that follow. The company will be asked to respond to direct questions posed by the evaluation team during this portion of the interview process. The company will not be required to prepare formal responses in advance of the interview.

Interview Topics

1. Accuracy of predicted performance on past projects installed or managed by the firm.
2. Ability to complete construction on schedule.
3. Methodology used to calculate project savings, measure performance, and assign dollar values to savings over the term of the contract.
4. Method of project invoicing.
5. Proposed arrangements for equipment service and maintenance provisions over the contract term.
6. Terms of the guarantee offered to insure the project's financial performance.
7. The firm's preferred approach to project financing.
8. Key provisions and flexibility of legal agreement submitted.

Site Specific Segment (1 Hour)

This segment will focus on the firm's technical approach to improving the energy efficiency and reducing energy costs at the facility. In lieu of a formal presentation you will be asked to respond to specific questions which will include but not be limited to the following topics:

1. Technical measures likely to be included in a contract, measures that merit more study, and measures previously proposed which seem likely to be rejected.
2. Site-specific operational and maintenance changes proposed.
3. Estimated range of energy and demand savings available and the basis for those estimates.
4. Estimated range of gross annual energy and cost savings available and the basis for those estimates.
5. Specific methods of equipment and performance monitoring.
6. If you have any questions or require additional information please contact:

Insert name, address, phone and fax numbers.

Sincerely,

Contact Person,
Title



SAMPLE MODEL INVESTMENT GRADE ENERGY AUDIT CONTRACT

Sample Contract

This Energy Audit Agreement is entered into on _____, 200_, by and between the _____ (the "**Customer**") and _____ (the "**Company**"). The Customer and the Company are referred to herein as the "**Parties**".

Whereas, the Customer has issued a Request For Qualifications (RFQ) to identify a Qualified Provider for a guaranteed energy savings contract;

Whereas, the Company submitted a response to the RFQ and participated in a competitive evaluation procedure designed to identify a Qualified Provider;

Whereas, the Customer has selected the Company as a Qualified Provider;

Whereas, the Customer is responsible for the operation, management and maintenance of _____ (the "**Facility**");

Whereas, a comprehensive energy use and savings analysis (the "**Energy Audit**") must be performed at the Facility in order to determine the feasibility of entering into an Energy Performance Contracting Project to provide for the installation and implementation of energy conservation measures (ECMs) at the Facility;

Whereas, if the ECMs are demonstrated to be feasible, and if the amount of energy savings can be reasonably ascertained and guaranteed in an amount sufficient to cover all costs associated with an energy performance contracting project at the Facility, the Parties intend to negotiate an Energy Services Agreement (ESA) under which the Company shall design, procure, implement, provide training, maintain, and monitor such energy conservation measures at the Facility;

Therefore, the Parties agree as follows:

Article 1: Scope of Energy Audit

The Company will perform the Energy Audit and prepare a detailed engineering and economic report (the "Report") which specifically identifies the energy improvements and operational changes which are recommended to be installed or implemented at the Facility. The Report shall contain detailed projections of energy and cost savings to be obtained at the Facility as a result of the installation of the recommended energy conservation measures (ECMs). The savings calculations must utilize assumptions, projections, and baselines which best represent the true value of future energy or operational savings for the Facility, including accurate marginal cost for each unit of savings at the time the audit is performed; documented material and

non-staff labor costs actually avoided; adjustments to the baseline to reflect current conditions at the Facility, compared to the historic base period; calculations which account for the interactive effects of the recommended ECMs; etc. The Report shall clearly describe how utility tariffs were used to calculate savings for all ECMs. The Report shall describe the Company's plan for installing or implementing the measures in the Facility, including all anticipated costs associated with the installation and implementation. The primary purpose of the Report is to provide an engineering and economic basis for negotiating an ESA between the Customer and the Company; however, the Customer shall be under no obligation to negotiate such a contract.

The Company shall perform the following tasks in performing the Energy Audit and preparing the Report:

A. Collect General Facility Information

The Company shall collect general Facility information such as: size, age, construction type, condition, and general use of the Facility. The Company shall also collect and summarize Facility utility cost and consumption data for the most recent 36-month period. Company shall evaluate the impact on utility cost and consumption for any energy measures currently being installed or currently contemplated for installation by the Customer in the Facility which will remain separate from the Energy Services Agreement throughout the duration of the ESA.

Customer shall furnish (or cause its energy suppliers to furnish) all available records and data concerning energy and water usage for the Facility for the most current 36 month period, if available, including: utility records; occupancy information; descriptions of any changes in the structure of the Facility or its heating, cooling, lighting or other systems or energy requirements; descriptions of all major energy and water consuming or energy and water saving equipment used in the Facility; and, descriptions of energy management procedures presently utilized. The Facility also shall furnish a record of any energy-related improvements or modifications that have been installed during the past three (3) years, or are currently being installed, or are currently contemplated for installation by the Customer in the Facility separate from the Energy Service Agreement throughout the duration of that agreement. The Customer also shall provide copies of drawings, equipment logs, and maintenance work orders to the Company insofar as this information is readily available.

B. Inventory Existing Systems and Equipment

Company shall compile an inventory based on a physical inspection of the major electrical and mechanical systems at the Facility, including:

- Cooling systems and related equipment
- Heating and heat distribution systems
- Automatic temperature control systems and equipment
- Air distribution systems and equipment
- Outdoor ventilation systems and equipment
- Kitchen and associated dining room equipment, if applicable
- Exhaust systems and equipment
- Hot water systems
- Electric motors 5 HP and above, transmission and drive systems
- Interior and exterior lighting
- Laundry equipment, if applicable
- Water consumption end uses, such as restroom fixtures, water fountains, irrigation, etc.
- Other major energy using systems, if applicable

The inventory shall address the following considerations:

1. The loads, proper sizing, efficiencies, or hours of operation for each system; (Where measurement costs, facility operating or climatic conditions necessitate, engineering estimates may be used. But, for large fluctuating loads with high potential savings, appropriate measurements are required unless waived by the Customer).
2. Current operating condition for each system
3. Remaining useful life of each system
4. Feasible replacement systems
5. Hazardous materials and other environmental concerns

The Company shall use data loggers and conduct interviews with Facility operation and maintenance staff regarding the Facility's systems operation, occupancy patterns, and problems with comfort levels or equipment reliability.

C. Establish Base Year Consumption and Reconcile with End Use Consumption Estimates

Company shall examine the most recent 36 months of utility bills and establish Base Year consumption for electricity, fossil fuels and water by averaging; or selecting the most representative contiguous 12 months. Company shall consult with Facility staff and account for any unusual or anomalous utility bills that may skew Base Year consumption from a reasonable representation.

Company shall estimate loading, usage and/or hours of operation for all major end uses representing more than 5% in aggregate of total Facility consumption including, but not limited to:

- Water
- Lighting
- Heating
- Cooling
- HVAC motors (fans and pumps)
- Plug load
- Kitchen equipment
- Other equipment
- Miscellaneous

Where loading and/or usage are highly uncertain Company shall employ spot measurement and/or short term monitoring at its discretion, or at the request of the Customer. Reasonable applications of measurement typically include variable loads that are likely candidates for conservation measures, such as cooling equipment. The annual end use estimated consumption shall be reconciled with the annual Base Year consumption to within 5% for electricity (kWh), fossil fuels, and water. The contribution to electric-peak demand for each end use also shall be reconciled to within 5% of the annual Base Year Peak. The "miscellaneous" category shall not be more than 5%. The purpose of this is to place reasonable limits on potential savings.

D. Develop List of Potential Energy Conservation Measures (ECMs)

The Company shall:

1. Identify and propose potential ECMs for installation or implementation at the Facility(s), including cut sheets on proposed equipment.¹ For non-standard ECMs provide information regarding product site installations.
2. Provide a detailed estimate of the cost, savings, and life expectancy of each proposed ECM.
3. Specify Facility(s) operations and maintenance procedures that will be affected by the installation/implementation of the proposed ECMs.
4. Provide analysis methodology, supporting calculations, and assumptions used to derive baselines (e.g. lighting operating hours) and estimate savings. Provide the existing and proposed air and hot water temperatures, amount of outdoor air ventilation (CFMs), lighting, and acoustic levels. Provide copies of the utility tariffs and commodity price histories used in savings calculations. Manual calculations should disclose essential data, assumptions, formulas, etc. so that a reviewer could replicate the calculations based on the data provided.
5. For savings estimates using computer simulations, the Company shall provide access to the program and all inputs and assumptions used, if requested by the Agency.
6. Provide a detailed preliminary-savings measurement and verification plan for each proposed ECM.
7. Provide a detailed preliminary commissioning plan for the proposed ECMs.
8. Provide detailed calculations for any rate-saving proposals.
9. Provide detailed supporting calculations for any proposed maintenance, material, or other operational savings. Describe annual variances in savings from year to year (e.g. lighting, warranties).
10. Estimate any environmental costs or benefits of the proposed ECMs (e.g. disposal costs, avoided emissions, water conservation, etc.). Provide emission reductions data for NO_x, CO₂ and SO₂. Segment emissions data for direct site emissions reductions (e.g. fossil fuels) and indirect emissions reduction data (e.g. electricity/water).
11. For all proposed ECMs, Company shall comply with all applicable state, federal, and local codes and regulations in effect at the time of this analysis.

This list shall be compiled and submitted to the Customer within ___ days (120 days is recommended) of the execution of this Agreement.

E. Select Final Recommended ECMs

Company shall, in consultation with the Customer, recommend specific ECMs from its preliminary compilation for installation and implementation at the Facility.

¹ **(Optional)** ECMs of particular interest to Agency are specified in Attachment A and should be addressed in the Report. The attached list is not intended to be exhaustive nor limit the Company's evaluation and development of a comprehensive list of potential ECMs.

F. Cost and Fee Estimates

Company shall provide detailed estimates of costs associated with the installation, implementation and commissioning of each of the ECMs proposed in the Audit including breakouts for non-staff labor, materials, and equipment. In addition, project cost data must be provided in the format included in *Attachment B: ESCO Cost Proposal and Cash Flow Analysis*.

Company shall also provide estimates of monthly costs associated with sustaining the project performance including breakouts for maintenance fees, monitoring fees, and training fees.

G. Savings Estimates

The Customer has endeavored to provide the Company with sufficient general and specific guidance in this Article 1 to develop the savings estimates for the Report. In the event that questions arise as to the calculation of savings or whether certain items will be allowed as savings, the Company should seek written guidance from the Customer. The Customer reserves the right to reject items claimed as savings which are not in the Customer's utility budget line or which have been claimed contrary to the guidance given in this agreement or contrary to written guidance given to Company. The Customer also reserves the right to reject Company calculations of savings when it determines that there is another more suitable or preferable means of determining or calculating such savings.

For the purposes completing the Cash Flow Analysis in Attachment B, the following items will be allowed as savings or in the development of savings:

Escalation rates of _____% for natural gas²
Escalation rates of _____% for electricity
Escalation rates of _____% for oil
Escalation rates of _____% for steam
Escalation rates of _____% for water
Escalation rates of _____% for other fuel type (specify)
Escalation rates of _____% for operation and maintenance cost savings
Escalation rates of _____% for material/commodity cost savings
Escalation rates of _____% for allowable labor savings

The following items will not typically be credited as savings derived from a proposed ECM. The Company may seek exemptions from the Customer on a case-by-case basis. However, the final determination of allowable savings in each case considered shall reside with the Customer.

Customer in-house labor cost
Customer deferred maintenance cost
Offset of future Customer capital cost

H. Report Format

The Company shall prepare a two-volume report as follows:

Each volume should be submitted using 8 ½ " x 11" sheets of paper and a font size no smaller than 10 point. The pages in each volume should be numbered sequentially, include a Table of Contents and be tabbed with the visible titles of corresponding Schedules (Volume 1) or Sections (Volume 2).

² It should be noted that the base rate value for each fuel and water unit will not devalue in the event of any rate decrease. The customer reserves the right to impose ceiling rates for fuel escalations.

Volume 1 of 2 shall include the presentation of information in the following Schedules required for the Energy Services Agreement (ESA), to the extent the information has been developed during the course of performing the audit. Preliminary information and incomplete schedules will be finalized during audit negotiations, prior to execution of the ESA.

Schedules

- Schedule A Equipment to be Installed
- Schedule B Energy Savings Guaranty
- Schedule C Compensation to Company
- Schedule D Premises
- Schedule E Calculation of Baseline/Benchmarks
- Schedule F Financing Agreement
- Schedule G Company Maintenance Responsibilities
- Schedule H Agency Maintenance Responsibilities
- Schedule I ECMs Operating Parameters/Standards of Comfort and Service
- Schedule J Company Training Responsibilities
- Schedule K Project Installation Schedule
- Schedule L Current and Known Future Capital Projects at the Premises
- Schedule M Pre-Installation Equipment Inventory
- Schedule N Methods of Savings Measurement and Verification
- Schedule O Equipment Systems Startup and Commissioning of ECMs
- Schedule P Alternative Dispute Resolution (ADR)
- Schedule Q Insurance and Bonds
- Schedule R Warranties
- Schedule S Proposed Final Project Cost and Proposed Final Project Cash Flow Analysis

- Attachment A Sample Construction Process language
- Exhibit I Performance Bond/Construction Bond
- Exhibit II (i) Certification of Acceptance--Energy Audit Report
- Exhibit II (ii) Certification of Acceptance—Energy Conservation Measures
- Exhibit III Equipment Warranties

Volume 2 of 2 shall include all of the information required in Section D and the sections below, and should be presented in the following format:

1. Executive Summary

Provide an executive summary that describes the Facility(s), measures evaluated, analysis methodology, results and a summary table presenting the cost and savings estimates for each recommended measure. Include a summary of the recommended measures and costs using the table format provided below.

	ECM	Total Cost	Energy Cost Savings	Simple Payback
1.				
2.				
3.				
Totals				

2. Measures Not Evaluated

Include a discussion of measures not evaluated in detail and the explanation of why a detailed analysis was not performed.

3. Baselines

Provide a summary of all utility bills, consumption baselines and how they were established, and end use reconciliation with respect to the baselines (including a discussion of any unusual characteristics and findings).

4. ECM Summaries

Provide detailed descriptions for each ECM including analysis method, supporting calculations (may be submitted in appendices), results, proposed equipment and implementation issues. Provide a financial analysis for each proposed ECM (See Section F).

5. Cost and Savings Estimates

Conclusions, observations, and caveats regarding the cost and savings estimates.

6. Appendices

Provide thorough appendices that document the data relied upon to prepare the analysis and how that data was collected.

I. Submission of the Report

The Report shall be completed within ____ days (*120 days is recommended*) of the date of execution of this Energy Audit Agreement. The cost for the completed Energy Audit and Report will be _____.

Article 2: Energy Services Agreement (ESA)

The Parties intend to negotiate an ESA under which the Company shall design, install, and implement energy conservation measures which the Parties have agreed to and provide certain training, maintenance, and monitoring services. However, nothing in this Agreement should be construed as an obligation on any of the Parties to execute such an ESA. The terms and provisions of such an ESA shall be set forth in a separate agreement.

Article 3: Payment

Payment to Company for services performed in connection with the *Energy Audit Agreement* shall be made by Customer only in accordance with the provisions of Article 4, herein.

Article 4: Termination

A. By Contractor:

Company may terminate this Agreement prior to the completion of the Energy Audit and Report or subsequent to the scheduled completion of the Energy Audit and Report if:

- (i) it determines that it cannot guarantee a minimum amount of savings in energy costs through the implementation of an energy performance contracting project at the Facility; or
- (ii) it determines that even though it can guarantee a minimum amount of savings in energy costs, that the amount would be insufficient to cover the costs associated with performing the Audit, installing energy conservation measures and related training, maintenance and monitoring services over the specified contract term of ____ years..

In the event Company terminates the Agreement pursuant to Section 4 A (i) or (ii) the Customer shall not be obligated to pay any amount to Company for services performed or expenses incurred by Company in performing the Energy Audit and Report required under this Agreement. Company shall provide the Facility with any Audit documents (preliminary notes, reports, or analysis) which have been produced or prepared prior to the effective date of the termination. Company will return any documents or information that was provided by the Customer.

Termination under this section shall be effective upon Customer ' s receipt of written notification from the Company stating the reason for the termination and all documents which support termination pursuant to 4 A (i) or 4 A (ii) herein.

B. By Customer:

Customer may terminate this Agreement:

- (i) If the Company fails to complete the Energy Audit and deliver the Report to the Customer by the date established in Article 1 H. above; or fails to obtain a written extension of that date from the Customer. Termination under this subsection B (i) shall be effective upon Company' s receipt of written notification from the Customer that the deadline for submission of the Energy Audit and Report has passed. In this event, the Customer shall not be obligated to pay any amount to Company for services performed or expenses incurred by the Company in performing the Energy Audit and preparing the Report required under this Agreement. Company shall provide the Facility with any Audit documents (preliminary notes, reports, or analysis) which have been produced or prepared prior to the effective date of the termination. Company will return any documents or information that was provided by the Customer.
- (ii) If, prior or subsequent to the completion of the Energy Audit or Report, the Company notifies the Customer in writing that it is unable to guarantee a sufficient level of savings pursuant to subsection 4 A (i) or (ii) above. Termination under this subsection B (ii) shall be effective upon Company' s receipt of written notification of termination from the Customer. In this event, the Customer shall not be obligated to pay any amount to Company for services performed or expenses incurred by Company in performing the Energy Audit and preparation of the Report required under this Agreement. Company shall provide the Facility with any Audit documents (preliminary notes, reports, or analysis) which have been produced or prepared prior to the effective date of the termination. Company will return any documents or information that was provided by the Customer.
- (iii) If, prior or subsequent to the completion of the Energy Audit or Report, the Customer notifies the Company in writing that it has elected to terminate this Agreement and not enter into an ESA, the Customer shall reimburse the Company for either the actual expenses incurred or percent of the Audit and Report completed as of the effective date of the termination, the amount being determined as fair and equitable by the Customer. Termination under this subsection B (iii) shall be effective upon Company' s receipt of written notification from the Customer.

Company agrees to provide the Customer with any records of expenses incurred and any preliminary notes, reports or analyses that have been produced or prepared prior to the effective date of the termination. Such documentation shall be used by the Customer to determine the extent of work completed by Company prior to termination and shall become the property of the Customer.

If after completion and acceptance of the Energy Audit, the Customer does not enter into an ESA with the Company within _____ days (*60 days is recommended*) after written acceptance of the Energy Audit, the Customer agrees to reimburse the Company for the cost of the Energy Audit as detailed herein. Termination under this subsection B (iii) shall be effective upon Company' s receipt of written notification from the Customer. The Energy Audit and Report will become the property of the Customer.

It is clearly understood by both parties hereto that, if the Parties successfully negotiate and execute an Energy Services Agreement, no payment shall be due for the Energy Audit or Report under the terms of this Agreement. This Agreement shall automatically terminate upon the execution of an ESA by Company and the Customer for an energy performance contracting project at the Facility. It is further understood that provisions for payment for the Energy Audit shall be incorporated into the ESA.

Article 5: Standard Terms and Conditions

Section 1. Agreement Term

The Agreement term shall commence on the date the Agreement is executed by the Customer and end on _____, unless earlier terminated pursuant to the provisions of Article 4 hereof. Notwithstanding, Company shall adhere to the deadlines set forth in Article 1 regarding the completion and submittal of the list of ECMs and the Report.

Section 2. Materials, Equipment, and Supplies

The Company shall provide or cause to be provided all facilities, materials, equipment, and supplies necessary to perform the Energy Audit and prepare the Report.

Section 3. Patent and Copyright Responsibility

The Company agrees that any material or design specified by the Company or supplied by the Company pursuant to this Agreement shall not knowingly infringe any patent or copyright, and the Company shall be solely responsible for securing any necessary licenses required for patented or copyrighted material utilized by the Company in the performance of the Energy Audit and preparation of the Report.

Section 4. Customer Access to Records

The Customer shall have the right, throughout the term of this Agreement and for a minimum of _____ years following completion of the Agreement, to inspect, audit and obtain copies of all books, records, and supporting documents which Company is required to maintain according to the terms of this Agreement.

Section 5. Personnel

All personnel necessary for the effective performance of the Energy Audit shall be employed by Company, and its designated subcontractors shall be qualified to perform the services required under this Agreement, and shall in all respects be subject to the rules and regulations of Company governing staff members and employees. Neither Company, its designated subcontractors, nor its personnel shall be considered to be agents or employees of the Customer.

Section 6. Compliance with Applicable Law

In performance of its obligations pursuant to this Agreement, Company shall comply with all applicable provisions of federal, state, and local law. All limits or standards set forth in this Agreement to be observed in the performance required under this Agreement are minimum requirements, and shall not affect the application of more restrictive federal, state, or local standards applied to the performance of the Agreement.

Section 7. Waivers

No right of either party hereto shall be deemed to have been waived by non-exercise thereof, or otherwise, unless such waiver is reduced to writing and executed by the party entitled to exercise such right.

Section 8. Assignment

This Agreement may not be assigned by the Company without the prior written consent of the Customer.

Section 9. Federal Taxpayer Identification Number and Legal Status Disclosure

Under penalty of perjury, the Company certifies that ___-_____ is the Company' s correct Federal Taxpayer Identification Number and that the Company is doing business as a Corporation.

Section 10. Governing Law

This Agreement shall be governed by and construed only in accordance with the laws of the State of Florida.

Section 11. Agreement

The following documents are incorporated in, and made a part of, this Agreement:

- Attachment A - Facility's Recommended ECMs (Optional)
- Attachment B – ESCO Cost Proposal and Project Cash Flow Analysis

NOTE: Customer should include all required policy provisions, and may wish to also include the following attachments.

- Attachment I - Drug Free Workplace Provisions
- Attachment II - Equal Employment Opportunity Clause
- Attachment III - Certification of Capacity to Contract
- Attachment IV- Americans With Disabilities Act
- Attachment V- Certifications

Section 12. Project Management

All necessary and ordinary communications, submittals, approvals, requests, and notices related to Project work shall be issued or received by:

For Customer: _____

For Company: _____

Section 13. Amendments

This Agreement and Attachments referenced in Section 11 herein constitute the entire Agreement between the Parties. No amendment hereof shall be effective until and unless reduced to writing and executed by the Parties.

Article 6: Execution

IN WITNESS WHEREOF, the parties have executed this Agreement this _____ day of _____, 200_.

Customer _____

Company _____

By: _____

By: _____

Title: _____

Title: _____

By: _____

By: _____

Title: _____

Title: _____

By: _____

By: _____

Attachment A

Facility Recommended ECMs (Optional)

Attachment B

ESCO Cost Proposal

**Cost Proposal
Energy Performance Contract**

Customer Name: _____ ESCO Name: _____

Total Financed Project Costs: \$ _____

Estimated Value of Hard Costs¹: \$ _____

Category of Service Fees	Estimated Percentage (%) of Hard Costs	Dollar (\$) Value of Service Fees
Project Service Fees		
Investment Grade Energy Audit		
Design Engineering Fees		
Construction Management		
System Commissioning		
Equipment Initial Training Fees		
Contingency Costs		
Construction Interest		
Totals		
Annual Service Fees		
Measurement and Verification		
Maintenance		
Performance Monitoring		
On-going Training Services		
Totals		

¹The total value of *Hard Costs* is defined in accordance with standard AIA definitions that include:

Labor costs, subcontractor costs, cost of materials and equipment, temporary facilities and related items, and miscellaneous costs such as permits, bonds, taxes, insurance, mark-ups, overhead and profit, etc.

NOTE: Percentages should include all mark-ups, overhead, and profit. Figures stated as a range (e.g. 2%-5%) will not be accepted.

ESCOs proposed interest rate available at the time of submission: _____

Financial Institution: _____ Address: _____

Contact Person: _____ Title: _____ Phone #: _____

ESCOs Annual Project Cash Flow Analysis Energy Performance Contracting Project

Financed Project Costs: _____
 Finance Term: _____
 Annual Interest Rate*: _____
 Construction Months: _____
 Annual Payment: _____

Escalation Rate by Savings Category*
 Electric: _____
 Natural Gas: _____
 Steam: _____
 Water: _____

Operations & Maintenance costs: _____
 Other (specify): _____
 Escalation Rate for Annual Fees*: _____

***Information to be provided by Customer**

Yr.	Electric Cost Savings	Natural Gas Cost Savings	Steam Cost Savings	Water Cost Savings	Other (Please Specify)	Operational Cost Savings	Total Cost Savings	Maintenance Monitoring, M&V & Training Fees	Guaranteed Cost Savings	Financing Payment	Net Savings
1											
2											
3											
4											
5											
6											
7											
8											
9											
10											
Total											



SAMPLE ENERGY SERVICES AGREEMENT (ESA)

Draft Energy Services Agreement

This Energy Services Agreement, referred to herein as "Agreement" or "ESA", dated as of _____, 200__, by and between the _____ with primary offices located at _____, Florida, referred to herein as the "**CUSTOMER**" and _____, with primary offices located at _____, _____, referred to hereafter as the "**COMPANY**" for the purpose of providing energy conservation measures (ECMs), consisting of services, systems and facilities designed to reduce energy consumption and costs in buildings owned and operated by the **CUSTOMER** which are referred to herein as the "Premises." The **CUSTOMER** and the **COMPANY** are also referred to herein as the "Party" or "Parties" as appropriate.

Recitals

WHEREAS, the **COMPANY** was selected by the **CUSTOMER** as a qualified provider to provide professional services which will result in decreased energy consumption and costs, and which services may include but are not limited to the following: energy use analyses, the design and delivery of ECMs which consist of systems and devices to be installed and maintained on the Premises, guaranteed energy savings, the training of designated **CUSTOMER** employees, and the maintenance and monitoring of the ECMs as provided herein and measurement, verification and reporting of energy savings; and

WHEREAS, under separate agreement with the **CUSTOMER**, the **COMPANY** has performed a comprehensive Energy Audit and has prepared an Energy Audit Report which has been approved and accepted by the **CUSTOMER** as evidenced by the Energy Audit Report and **CUSTOMER's** Acceptance Certification as set forth in Exhibit II (i); and

WHEREAS, the **COMPANY** has agreed to guarantee a level of energy savings to be achieved as the result of the professional services to be provided under this Agreement; and

NOW, THEREFORE, in consideration of the mutual promises and covenants contained herein, and intending to be legally bound hereby, the **CUSTOMER** and the **COMPANY** hereby covenant and agree as follows:

Article 1: The Company's Rights and Responsibilities

1.1 Independent Company Status

The **COMPANY** is an independent Company and in providing its services under this Agreement, shall not represent to any third party that its authority is greater than that granted to it under the terms of this Agreement.

1.2 Legal Responsibility

The **COMPANY** shall perform or cause to be performed the Work and all other services required by this Agreement. The **COMPANY** shall assure that all of the Work is accomplished in a workmanlike manner and that all services which require the exercise of professional skills or judgment shall be accomplished by professionals qualified and competent in the applicable discipline and appropriately licensed in the State of Florida, if required by law. All Project Documents that are required to be prepared by the **COMPANY** shall be in accord with all applicable codes, standards, and regulations and shall be prepared by qualified personnel. Where required by Florida law, Project Documents shall bear the stamp or seal of architects or engineers licensed in the State of Florida. The **COMPANY** shall remain responsible for all services performed, whether by the **COMPANY** or its subcontractors or others on its behalf, throughout the term of this Agreement.

If the **COMPANY** fails to comply with the foregoing standards, the **COMPANY** shall perform again, at its own expense, any and all Work required to be re-performed as a direct or indirect result of such failure. Any review, approval, acceptance or payment for any and all of the **COMPANY's** performance by the **CUSTOMER** shall not relieve the **COMPANY** of its responsibility for the services performed. This provision in no way limits the **CUSTOMER'S** rights against the **COMPANY** either under this Agreement in law or in equity.

1.3 Insurance

The **COMPANY** shall purchase, maintain, and provide evidence of insurance coverage of the types, in the amounts and for the periods specified in Schedule Q (***Insurance and Bonds***).

On the date described in paragraph 5.1 hereof, the **CUSTOMER** shall be responsible for providing insurance coverage on the ECMs.

The **COMPANY** may not commence performance of the Work or other services under this Agreement until all required insurance is obtained and evidence of it is received and approved by the **CUSTOMER** as described in paragraph 2.1, but the failure of the **CUSTOMER** to obtain such evidence from the **COMPANY** before permitting the **COMPANY** to commence the Work shall not be deemed to be a waiver by the **CUSTOMER**, and the **COMPANY** shall remain under a continuing obligation to obtain and maintain the required coverage and to supply evidence of coverage in accordance with Schedule Q (***Insurance and Bonds***).

The **COMPANY's** failure to obtain or keep such insurance in force shall constitute an Event of Default under this Agreement within the meaning of Article 11, and in addition to the remedies provided therein, the **CUSTOMER** reserves the right to stop the Work until evidence of the requisite coverage is provided. The **COMPANY** shall require all subcontractors performing any portion of the Work to carry the insurance required in Schedule Q (***Insurance and Bonds***) and the **COMPANY** may, at its option, provide the coverage for any or all subcontractors, and, if so, the evidence of insurance submitted shall so stipulate. The **COMPANY** and each of its subcontractors agree that each insurer shall waive its rights of subrogation against the **CUSTOMER**.

The **COMPANY** shall timely renew the required insurance as necessary to keep such coverage in effect for the periods specified in Schedule Q (***Insurance and Bonds***) and shall supply the **CUSTOMER**, not less than thirty (30) days prior to any expiration or renewal dates for such insurance policies, with evidence of all required insurance including updated replacement Certificates of Insurance and amendatory riders or

endorsements that clearly evidence the continuation of all coverage in the same manner, limits of protection, and scope of coverage, as was provided by the Certificates of Insurance, amendatory riders or endorsements originally supplied.

The **COMPANY** expressly understands and agrees that any insurance protection furnished by the **COMPANY** hereunder shall in no way limit its responsibility to indemnify and save harmless the **CUSTOMER** under the provisions of this Agreement.

1.4 Performance and Labor and Material Payment Bonds

The **COMPANY** shall, as soon as practicable following the execution date set forth in Article 15 hereof, and prior to commencing the Work, deliver to the **CUSTOMER** a Performance Bond and a Labor and Material Payment Bond securing its obligations to be performed under this Agreement until the Acceptance of the Work by the **CUSTOMER**. Each bond shall be in the amount set forth in Schedule Q (*Insurance and Bonds*) hereof.

1.5 Cooperation with the Customer' s Consultants (Optional)

The **CUSTOMER** reserves the right to designate authorized representatives or to retain consultants at its expense, including an Architect/Engineer, to act on its behalf with respect to administering the performance required under this Agreement throughout its term. The **CUSTOMER** and its representatives and consultants shall at all times have access to the Work. The **COMPANY** agrees to cooperate with any representative of, or consultant retained by, the **CUSTOMER**.

1.6 Joint and Several Liability

Each and every obligation or undertaking herein to be fulfilled or performed by the **COMPANY** shall be the joint and several obligation of the **COMPANY** and its successors or assigns.

1.7 Miscellaneous

Other rights and responsibilities of the **COMPANY** are set forth throughout this Agreement and in the Project Documents described in paragraph 3.5 hereof and are included under other titles, articles, sections and headings for convenience. It is the responsibility of the **COMPANY** to familiarize itself with all provisions of this Agreement and the Project Documents in order to understand fully the entirety of its rights and responsibilities hereunder.

Article 2: The Customer' s Rights and Responsibilities

2.1 Project Administration

The **CUSTOMER** shall be primarily responsible for the administration and monitoring of the performance of the Work by the **COMPANY**. The **CUSTOMER** personnel designated in paragraph 10.9 shall be the principal point of contact between the **CUSTOMER** and the **COMPANY** relative to the performance required under this Agreement.

2.2 Responsibilities of the Customer

Tasks to be performed by the **CUSTOMER** in the administration and coordination of this Agreement include, but are not limited to the following areas:

- (i) Review and approve required insurance coverage and bonds within ten (10) business days following receipt of such documents by the **CUSTOMER** to ensure compliance with the terms of this Agreement;

- (ii) Review and approve the ECM Submittals required under 2.3 hereof within ____ () business days after receipt by the **CUSTOMER** of such ECM submittals to ensure:
 - (a) That the design and installation of the ECMs is adequately described and illustrated;
 - (b) That the design and installation of the ECMs is consistent with current and known future capital projects at the Premises as defined in Schedule L (***Current and Known Future Capital Projects at the Premises***); and
- (iii) Review and approve all submittals required under paragraphs 2.3 and 3.5 herein, in accordance with the timeframes set forth in Schedule K (***Project Installation Schedule***).
- (iv) Attend project meetings.

2.3 ECMs Submittals

ECMs submittals shall provide sufficient detail to allow the **CUSTOMER** to complete the reviews described in paragraph 2.2, and shall include:

- (i) Date and revision dates.
- (ii) Project Number and Title.
- (iii) Names, as applicable, of the Customer representatives, subcontractor, sub-subcontractor, supplier, manufacturer or detailer.
- (iv) Identification of product or material.
- (v) Relation to adjacent structure or material.
- (vi) Field Dimensions, clearly identified.
- (vii) Specification page and number.
- (viii) Specified standards, such as ASTM or ANSI.
- (ix) Identification of previously approved deviation from Project documents.
- (x) Stamp or seal of the preparer of the ECMs submittal, and the Company's certification that it has reviewed and approved the submittal as to its accuracy and compliance with the provisions of this Agreement.
- (xi) Drawings, plans, specifications, shop drawings, product data, and where appropriate or reasonably required, product samples.

At the request of the **CUSTOMER**, and where appropriate or reasonably required, the **COMPANY** shall provide on-site "mock-ups" and demonstrations of the ECMs at the Premises which shall also be construed as ECM submittals under the provisions of this paragraph.

Within () business days of receipt of the submittals, the **CUSTOMER** shall complete its review of the submittals and provide written approval of the submittal or if the submittal has not been approved, written explanation as to the reason therefor. The **COMPANY** shall submit a revised submittal within ten (10) business days to the **CUSTOMER** for review and approval and the **CUSTOMER** shall have ten (10) business days from receipt thereof to complete its review of the revised submittal. The **COMPANY** shall be responsible for any delays caused by rejection of incomplete or inadequate submittals. The **COMPANY** may not commence any of the Work which requires the submittals without written approval by the **CUSTOMER**.

The **COMPANY's** responsibility for errors, omissions, deviation from existing conditions, or deviation from the Project Documents in submittals is not relieved by the **CUSTOMER'S** review and approval thereof.

2.4 Drawings, Specifications and Surveys Provided by the Customer

- (a) The **CUSTOMER** will make available for review by the **COMPANY**, any of its working drawings and specifications concerning the Premises which are available to the **CUSTOMER** and which are reasonably necessary for the execution of the Work.
- (b) The **CUSTOMER** shall provide the **COMPANY** with such surveys as it may have describing the physical characteristics, legal limitations, and utility locations for the site of the Work.
- (c) The **CUSTOMER** will make available for review by the **COMPANY** such working drawings, specifications, surveys and "As-Built" drawings concerning the Premises which are available and which relate to work being performed by other Companies at the Premises;
- (d) All drawings, specifications, surveys and copies thereof furnished by the **CUSTOMER** are and shall remain **CUSTOMER** property. All "As-Built" drawings prepared under this Agreement, are and shall remain **CUSTOMER** property. With the exception of one set of such drawings, specifications, surveys and "As-Built" drawings for each party hereto, such drawings, specifications, surveys, and "As-Built" drawings are to be returned or suitably accounted for to the **CUSTOMER** on request at the completion of the Work.

2.5 Ownership, Dissemination and Publication of Documents

The drawings, specifications, reports, renderings, models, electronic media, and all such other documents to be prepared and furnished by the **COMPANY** pursuant to this Agreement, shall be the property of the **CUSTOMER** and the **CUSTOMER** shall have a license to use any copyrighted material contained in such documents. All documents listed above may be issued for informational purposes by the **CUSTOMER** without additional compensation to the **COMPANY**.

2.6 Interpretation of Agreement

The **CUSTOMER** shall have the authority to determine questions of fact that arise in relation to the interpretation of this Agreement and the **COMPANY'S** performance hereunder. However, such determinations are subject to the Alternative Dispute Resolution procedures as described in Schedule P (**Alternative Dispute Resolution Procedures**). Unless the Parties agree otherwise, or the Work cannot be continued without a resolution of the question of fact, such determinations and Alternative Dispute Resolution procedures shall not be cause for delay of the Work. The **COMPANY** shall proceed diligently with the performance of this Agreement and in accordance with the **CUSTOMER'S** decision whether or not the **COMPANY** or anyone else has an active claim pending. Continuation of the Work shall not be construed as a waiver of any rights accruing to the **COMPANY**.

Article 3: The Energy Conservation Project (The "Project")

3.1 Project Defined

The **COMPANY** shall design, procure, fabricate, and install the energy conservation measures specified in Schedule A (**Equipment to be Installed**) and provide training, commissioning, maintenance and monitoring, and all other services specified in this Agreement and the Project Documents set forth in paragraph 3.5 at the Premises described in Schedule D (**Premises**).

3.2 Energy Audit Report

The Energy Audit Report prepared by the **COMPANY** and accepted by the **CUSTOMER** contains specific recommendations and documentation concerning the energy conservation measures, systems, and services to be provided at the Premises and is incorporated herein by reference. Notwithstanding, the provisions of this Agreement, the Schedules and Project Documents referenced in paragraph 3.5 shall govern in the event of any inconsistencies between the Energy Audit Report and the provisions of this Agreement.

3.3 Annual Energy Savings Guaranty

The **COMPANY** has formulated and guaranteed the level of energy and operating cost savings as provided for in Schedule B (**Energy Savings Guaranty**), which will be achieved each year as a result of the performance by **COMPANY** of the services specified in this Agreement utilizing the Methods of Savings Measurement and Verification set forth in Schedule N (**Methods of Savings Measurement Verification**).

3.4 Annual Review and Reimbursement

Energy savings achieved at the Premises shall be reported, reconciled and verified pursuant to the provisions of Schedule N (**Methods of Savings Measurement Verification**). If said annual review, reconciliation, and verification of energy savings discloses that the **COMPANY** has failed to achieve the annual guaranteed energy savings and operating cost savings set forth in Schedule B (**Energy Savings Guaranty**), the **COMPANY** will pay the **CUSTOMER** or the **CUSTOMER'S** designee, as may be directed by the **CUSTOMER**, the difference between the annual amount guaranteed and the amount of actual annual energy and operating cost savings achieved at the Premises. The **COMPANY** shall remit such payments to the **CUSTOMER** within thirty (30) days of written demand therefore by the **CUSTOMER**. When the total energy savings in any one year during the guarantee period exceed the Energy Savings Guarantee as set forth in Schedule B (**Energy Savings Guaranty**) and are in addition to those monies due the **COMPANY** for compensation for services as set forth in Schedule C (**Compensation to Company**), such excess savings shall first be applied to reimburse **COMPANY** for any payment **COMPANY** made to **CUSTOMER** to meet **COMPANY'S** guarantee for previous years in which the energy savings fell short of **COMPANY'S** Energy Savings Guarantee under the terms as set forth in Schedule B (**Energy Savings Guaranty**). No excess savings will be credited to satisfy performance guarantees in future years of the contract.

3.5 Project Documents

The Project Documents include:

- The executed ESA
- The Energy Audit Report
- **COMPANY** Submittals specified in paragraph 2.3.
- Certificates of Insurance
- Executed Performance Bond and Labor and Material Payment Bond
- Drawings, Specifications and Surveys furnished by the **CUSTOMER** in accordance with paragraph 2.4.

The Project Documents also include the following Schedules that are incorporated herein and made a part of this ESA when approved by the **CUSTOMER** and **COMPANY**:

Schedule A	Equipment to be Installed
Schedule B	Energy Savings Guaranty
Schedule C	Compensation to Company
Schedule D	Premises

Schedule E	Calculation of Baseline/Benchmarks
Schedule F	Financing Agreement
Schedule G	Company Maintenance Responsibilities
Schedule H	Customer Maintenance Responsibilities
Schedule I	ECMs Operating Parameters/Standards of Comfort & Service
Schedule J	Company Training Responsibilities
Schedule K	Project Installation Schedule
Schedule L	Current and Known Future Capital Projects at the Premises
Schedule M	Pre-Installation Equipment Inventory
Schedule N	Methods of Savings Measurement and Verification
Schedule O	Systems Startup and Commissioning of ECMs
Schedule P	Alternative Dispute Resolution
Schedule Q	Insurance and Bonds
Schedule R	Warranties
Schedule S	Proposed Final Project Cost & Proposed Final Project Cash Flow Analysis

Attachment A	Sample Construction Process language
Exhibit I	Performance Bond/Construction Bond
Exhibit II (i)	Certification of Acceptance--Energy Audit Report
Exhibit II (ii)	Certification of Acceptance—Energy Conservation Measures
Exhibit III	Equipment Warranties

3.5.1 Project Documents Furnished by the Customer; No Warranty

Pursuant to paragraph 2.4(c), the **CUSTOMER** shall make available for the **COMPANY'S** review, inspection, and duplication at **COMPANY'S** expense, such Project Documents as it may possess which relate to any work being performed by other Companies at the Premises under separate contracts with the **CUSTOMER** unrelated to the **COMPANY's** performance of the Work under this Agreement, including but not limited to drawings, specifications, surveys and as-built drawings. The furnishing of such Project Documents by the **CUSTOMER** shall not constitute a warranty as to the accuracy or completeness of such Project Documents.

3.5.2 Review of Project Documents; Notification to the Customer

The **COMPANY** shall carefully review all Project Documents, including all addenda, whether prepared by the **COMPANY**, its subcontractors or furnished by the **CUSTOMER** for errors, inconsistencies, or omissions relative to the performance of the Work. Upon completion of its review of the Project Documents, and prior to commencing the Work, the **COMPANY** shall provide written notice to the **CUSTOMER** that (i) there are no inconsistencies in the Project Documents pertaining to the performance of the Work at the Premises; or, (ii) specifying the nature of any conflicts or inconsistencies noted from the **COMPANY's** review of the Project Documents. All Work to be performed under this Agreement by the **COMPANY** or its subcontractors which the Project Documents indicate is in conflict with the Project Documents or the work of other Companies performing on the Premises shall be brought to the attention of the **CUSTOMER** before the Work is commenced.

3.5.3 Correction of Conflicting Work

In the event that the **COMPANY** fails to properly prepare or review Project Documents or commences the Work without providing notice to the **CUSTOMER** of any conflict it discovers in the Project Documents, the **COMPANY** shall, upon written direction from the **CUSTOMER**, remove all such Work or portion thereof so conflicting, and rebuild it as directed at no additional cost to the **CUSTOMER**, provided that the Project Documents furnished by the **CUSTOMER** have put the

COMPANY on reasonable notice that an inconsistency, error, conflict, or omission existed.

Article 4: Implementation of the Energy Conservation Project (the "Work")

4.1 Description of the Work

The design, procurement, fabrication, installation and commissioning of the ECMs specified in Schedule A (*Equipment to be Installed*) and any training services described in Schedule J (*Company Training Responsibilities*), which are integral to the operation of the ECMs, are referred to in this Agreement as the "Work." The maintenance, monitoring, and savings measurement and verification services detailed in Schedules G (*Company Maintenance Responsibilities*) and N (*Methods of Savings Measurement and Verification*) and any Post-Acceptance Training services detailed in Schedule J (*Company Training Responsibilities*), performance of which does not commence until after the Commencement Date, are not part of the Work.

4.2 Performance of the Work

Construction and equipment installation shall proceed in accordance with the provisions contained in _____ (*See Attachment A, Sample Construction Process Provisions*) and the project installation schedule approved by **CUSTOMER** and attached hereto as Schedule K (*Project Installation Schedule*).

NOTE: It is important that the construction/installation phase of the project be managed in compliance with the Agency's requirements and the appropriate governing statutes. Since construction is just one component of the overall project, a separate construction contract may be desirable and even necessary. The construction contract could 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 or as a separate schedule with references to it throughout the contract sections as necessary. See Attachment A, Sample Construction Process Provisions.

4.3 Systems Startup/Commissioning

The **COMPANY** shall conduct a thorough and systematic performance test of each element and total system of the installed ECMs in accordance with Schedule O (*Systems Startup and Commissioning of ECMs*). The **COMPANY** shall provide advance written notice of at least ten (10) business days to the **CUSTOMER** of the scheduled test(s). The **CUSTOMER** shall have the right to designate representatives to be present at any or all such tests including representatives of the manufacturers of the ECMs. The **COMPANY** shall demonstrate that all ECMs installed comply with the requirements of the Project Documents. The **COMPANY** shall test all components and systems of the installed ECMs. The **COMPANY**, or its subcontractor(s), shall correct or adjust all deficiencies in operation of the ECMs.

Article 5: Commencement Date and Term; Interim Period; Fiscal Funding

5.1 Commencement Date

The Commencement Date shall be the first day of the month after the month in which all schedules are in final form and accepted by the **CUSTOMER** and **COMPANY** shall have

delivered a written Notice to the **CUSTOMER** that (i) it has completed the installation and commissioning and commenced operating all of the energy conservation measures specified in Schedule A (**Equipment to be Installed**); (ii) no Event of Default under Article 11 exists; and, (iii) the Energy Savings Guaranty set forth in Schedule B (**Energy Savings Guaranty**) is in full force and effect; and the **CUSTOMER** has inspected and accepted said installation and operation as evidenced by the Certification of Acceptance as set forth in Exhibit II (ii). Compensation payments due to ESCO for project monitoring, savings measurement and verification, reporting and maintenance services under this Contract as set forth in Schedule C (**Compensation to Company**) shall begin no earlier than _____ days from the Commencement Date as defined herein.

5.2 Term of Contract; Interim Period

Subject to the following sentence, the term of this Agreement shall be _____ years, measured beginning with the Commencement Date. Nonetheless, the Agreement shall be effective and binding upon the parties immediately upon its execution, and the period from contract execution until the Commencement Date shall be known as the "Interim Period". All energy savings achieved during the interim period will be fully credited to the **CUSTOMER** (*may be negotiated*).

5.3 Nonappropriation of Funds

In the event no **CUSTOMER** or other funds or insufficient **CUSTOMER** or other funds are appropriated and budgeted, and funds are otherwise unavailable by any means whatsoever in any fiscal period for which payments are due **COMPANY** under this Agreement, then the **CUSTOMER** will, not less than _____ days prior to end of such applicable fiscal period, in writing, notify the **COMPANY** of such occurrence and this Agreement shall terminate on the last day of the fiscal period for which appropriations were made without penalty or expense to the **CUSTOMER** of any kind whatsoever, except as to the portions of payments herein agreed upon for which the **CUSTOMER** and/or other funds shall have been appropriated and budgeted or are otherwise available.

5.4 Nonsubstitution

In the event of a termination of this Agreement due to the nonappropriation of funds or in the event this Agreement is terminated by **COMPANY** due to a default by the **CUSTOMER**, the **CUSTOMER** agrees, to the extent permitted by Florida law, not to purchase, lease, rent, borrow, seek appropriations for, acquire, or otherwise receive the benefits of any of the same and unique services performed by **COMPANY** under the terms of this Agreement for a period of three-hundred sixty five (365) days following such default by the **CUSTOMER**, or termination of this Agreement due to non-appropriations. (*Optional*)

Article 6: Company Compensation

6.1 Company Compensation for the Work

Payments to the **COMPANY** for the Work shall be made by the **CUSTOMER** in the amounts and in accordance with Schedule C (**Compensation to Company**) hereto. The amount specified as Compensation for the Work is inclusive of all costs and fees to be paid for the Work pursuant to this Agreement including any training services provided prior to acceptance of the project by **CUSTOMER** and as provided for in Schedule J (**Company Training Responsibilities**).

6.2 Maintenance, Monitoring, Savings Measurement and Verification and any Post-Acceptance Training Fees

Payment to the **COMPANY** for maintenance, monitoring, savings measurement, verification and reporting, and Post-Acceptance Training services performed after the Commencement Date shall be made by the **CUSTOMER** pursuant to and in accordance with Schedule C (*Compensation to Company*).

Article 7: Acceptance

7.1 Acceptance of the Work

Acceptance of the Work shall occur when the **COMPANY's** performance of the entire scope of the Work is complete, in accordance with the Project Documents so that the **CUSTOMER** can utilize the installed ECMs for their intended use and the Energy Savings Guaranty provided by **COMPANY** under paragraph 3.3 and Schedule B (*Energy Savings Guaranty*) becomes effective and the **CUSTOMER** has inspected and accepted said installation and operation as evidenced by the Certification of Acceptance as set forth in Exhibit II (ii).

7.2 Required Acceptance Submittals by the Company

The **COMPANY** shall submit the following documents to the **CUSTOMER** with its notice of Final Completion:

- (a) All Project Record Documents as described in paragraph 3.5;
- (b) All releases of liens arising out of this Agreement, or receipts in full in lieu thereof, which were not previously delivered, and an affidavit that so far as the **COMPANY** has knowledge or information, the releases and receipts include all labor and material for which a lien could be filed. The **COMPANY** shall submit lien waivers, sworn statements, guarantees, full releases, or other evidence reasonably satisfactory to the **CUSTOMER** that there are no liens, claims, or stop notices pending, filed, or threatened against the **CUSTOMER**, the **COMPANY**, the Work or the ECMs whatsoever. The **COMPANY** may, if any subcontractor refuses to furnish a release or receipt in full, furnish a bond satisfactory to the **CUSTOMER** to indemnify the **CUSTOMER** against any lien. If any lien remains unsatisfied after the **COMPANY** has received payment due for the Work, the **COMPANY** shall refund to the **CUSTOMER** all moneys that the **CUSTOMER** may be compelled to pay in discharging the lien, including all costs and reasonable attorney fees;
- (c) Certificates of inspection for all ECMs which require local government inspection;
- (d) Asbestos abatement compliance records, if applicable;

Any retainage amounts will be paid at the completion of and acceptance by **CUSTOMER** of final punch list items.

Article 8: The Energy Conservation Measures

8.1 ECM Warranties

The **COMPANY** warrants that all ECMs designed, procured, fabricated, and installed pursuant to this Agreement are new, in good and proper working condition and are of merchantable quality and fit for the particular purposes of enabling the **CUSTOMER** to reduce energy consumption and operating cost. The **COMPANY** further warrants that the ECMs are protected by appropriate written warranties covering all parts and equipment performance for the periods specified in Schedule R (*Warranties*). The **COMPANY** shall deliver to the **CUSTOMER** for inspection and approval all such written warranties and shall pursue rights and remedies against the manufacturer and each prior seller of the ECMs under the warranties in the event of equipment malfunction, improper or defective function, or defects in parts, workmanship, or performance. The **COMPANY** shall be

responsible for managing all warranty activity during the warranty periods set forth in Schedule R (**Warranties**) and shall notify the **CUSTOMER** whenever defects in equipment, parts or performance occur which give rise to such rights and remedies and those rights and remedies are exercised by the **COMPANY**. The cost of any damage, loss or claims by any person arising out of the use or operation of the ECMs or damage to the ECMs and their performance, including damage to other property and equipment of the **CUSTOMER** or the Premises, due to the **COMPANY's** failure to exercise its warranty rights shall be borne solely by the **COMPANY**.

All warranties shall be transferable and extend to the **CUSTOMER**. The warranties shall specify that only new, and not reconditioned, parts may be used and installed when repair is necessitated by malfunction. The **COMPANY** warrants that all workmanship, materials, and equipment used in conjunction with the ECMs will be in conformance with the Project Documents and free from defects for the period, commencing with the date of the beneficial use of each ECM to the **CUSTOMER** and continuing for the period set forth in Schedule R (**Warranties**).

8.2 Correction of Warranted Work

- (a) Commencing with the date of beneficial use of each ECM to the **CUSTOMER** and continuing for the warranty periods set forth in Schedule R (**Warranties**) for each ECM, or within such longer period of time as may be prescribed by law or by the terms of any applicable special warranty required by the Project Documents, the **COMPANY** shall correct or replace all faulty, defective or nonconforming Work in accordance with the timeframes set forth in 8.2(c). After receipt of written notice from the **CUSTOMER** to correct such fault or defect, whether it was observed before or after acceptance of the Work, the **COMPANY** will correct the Work unless the **CUSTOMER** has given the **COMPANY** a written waiver of the specific fault or defect. Notice may be given by telephone in the event of an emergency situation. The **COMPANY** shall bear all costs of replacing or correcting such faulty, defective or nonconforming Work.
- (b) The **COMPANY** shall, at its own expense, remove from the Premises all portions of defective and nonconforming Work which **COMPANY** is obligated to replace or correct under this paragraph 8.2 unless removal has been waived in writing by the **CUSTOMER**.
- (c) If the **COMPANY** fails to correct faulty, defective or nonconforming Work as provided in this Section within twenty-four (24) hours after notice, in the case of emergency conditions, or within five (5) business days in other cases after the **COMPANY's** receipt of written notice from the **CUSTOMER** of such faulty, defective or nonconforming Work, the **CUSTOMER** may correct such work at the **COMPANY's** expense including costs incurred due to the removal of faulty, defective or nonconforming and removal and storage of equipment or materials left at the Premises by the **COMPANY**.
- (d) If the **COMPANY** does not pay the cost incurred by the **CUSTOMER** for such repair, removal and storage within ten (10) days of written demand therefor, the **CUSTOMER** may upon ten (10) additional days' written notice, sell any material and equipment not removed by the **COMPANY** at auction or at private sale and shall account for the net proceeds thereof, after deducting all the costs that should have been borne by the **COMPANY**. If such proceeds of sale do not cover all costs which the **COMPANY** should have borne, the difference shall be charged to the **COMPANY**. If the payments then or thereafter due the **COMPANY** are not sufficient to cover such amount, the **COMPANY** shall pay the difference to the **CUSTOMER**.

- (e) The **COMPANY** shall bear the cost of repairing or replacing all work of other Companies destroyed or damaged by such removal or correction.
- (f) Nothing contained in this Section shall be construed to establish a period of limitation with respect to any other obligation which the **COMPANY** might have under the Project Documents. The establishment of the time period set forth in paragraph 8.2(a) above, relates only to the specific obligation of the **COMPANY** to correct the Work and has no relationship to the time within which its obligation to comply with the Project Documents may be sought to be enforced, nor to the time within which proceedings may be commenced to establish the **COMPANY's** liability with respect to its obligations other than to specifically correct the Work. Notwithstanding the provisions of this paragraph 8.2, the **COMPANY** shall, on demand made by the **CUSTOMER**, at any time within the ten (10) year period following Acceptance, promptly repair or replace all defective or non-conforming work resulting from fraudulent misrepresentation, fraudulent concealment or gross negligence by the **COMPANY** or its subcontractors in the performance of the Work.

8.3 Location and Access

The **CUSTOMER** shall provide sufficient space at the Premises for the installation and operation of the ECMs for the term of this Agreement, including access to office space with a telephone line, if necessary to allow the **COMPANY** to perform required maintenance, monitoring, and training services. The **CUSTOMER** shall provide access to the Premises for the **COMPANY** and its employees or subcontractors to install, adjust, inspect, maintain, and repair the ECMs in accordance with the terms of this Agreement during regular business hours, or such other reasonable hours as may be requested by the **COMPANY** and acceptable to the **CUSTOMER**. The **COMPANY's** access to correct any emergency condition shall not be unreasonably restricted by the **CUSTOMER**.

8.4 Company Maintenance and Monitoring Responsibilities for ECMs

The **COMPANY** shall be responsible for providing the maintenance, monitoring, repairs, and adjustments to the ECMs as set forth in Schedule G (**Company Maintenance Responsibilities**). All replacements of and alterations or additions to the ECMs shall become part of the ECMs and shall become the property of the **CUSTOMER**. Any replacements of and alterations or additions made by the **COMPANY** to the **CUSTOMER's** pre-existing equipment, or equipment acquired by the **CUSTOMER** during the term of this Agreement, shall become part of said equipment and be owned by the **CUSTOMER**. The **COMPANY** shall be compensated for such maintenance and monitoring services pursuant to Schedule C (**Compensation to Company**) hereof. In the event of the **COMPANY's** failure to provide maintenance, service, repairs and adjustments to the ECMs, as provided in Schedule G (**Company Maintenance Responsibilities**) or if an Event of Default exists pursuant to Article 11, the **CUSTOMER** may withhold fees due to the **COMPANY** for such services until such repairs or adjustments are completed or such Event of Default is cured. The **CUSTOMER** shall notify the **COMPANY** in writing when any payments are so withheld. The withholding of fees by the **CUSTOMER** under this paragraph 8.4 shall not release the **COMPANY** from its obligation to provide the Energy Savings Guaranty pursuant to paragraph 3.3 and Schedule B (**Energy Savings Guaranty**) hereof.

8.5 Customer Operating and ECMs Maintenance Responsibilities

The **CUSTOMER** shall be responsible for providing the maintenance, monitoring, service, repairs and adjustments to the ECMs as set forth in Schedule H (**Customer Maintenance Responsibilities**). Except as set forth in Schedule H (**Customer Maintenance Responsibilities**), the **CUSTOMER** shall not move, modify, remove,

adjust, alter or change in any material way the ECMs, or any part thereof, during the term of this Agreement, without prior written direction or approval of the **COMPANY**, except in the event of an occurrence reasonably deemed by the **CUSTOMER** or the **COMPANY** to constitute a bona fide emergency. The **CUSTOMER** acknowledges that substantial deviations from the operating parameters set forth in the Schedules to the ESA may constitute a material change in accordance with paragraph 9.3 hereof. In addition to the responsibilities set forth in Schedule H (**Customer Maintenance Responsibilities**), the **CUSTOMER** shall use its best efforts to maintain the Premises in good repair and to protect and preserve the ECMs in good repair and condition in accordance with applicable manufacturers' recommendations which shall be provided to the **CUSTOMER** by the **COMPANY** and to maintain the operating conditions of all mechanical systems and energy related systems located at the Premises. The **COMPANY** shall notify the **CUSTOMER** of any improper maintenance or repair as soon as **COMPANY** has notice thereof. The **CUSTOMER** acknowledges that improper repairs or maintenance of the ECMs may constitute a Material Change in accordance with paragraph 9.3, and that the provisions of paragraph 9.5 may be applicable.

8.6 Training by the Company

The **COMPANY** shall conduct the training program described in Schedule J (**Project Installation Schedule**) hereto.

8.7 ECMs Upgrades; Alterations

The **COMPANY** shall have the right, at all times during the term of this Agreement, subject to the **CUSTOMER**' s written approval, to modify or replace any of the ECMs or install additional ECMs and to revise any procedures for the operation of the ECMs or implement other procedures at the Premises provided that: (i) such actions by the **COMPANY** do not result in modifying the standards of comfort and service set forth in Schedule I (**Operating Parameters for ECMs/Standards of Comfort & Service**) without the express written approval of the **CUSTOMER**; (ii) such modifications or additions to, or replacements of the ECMs, and any operational changes, or new procedures are necessary to enable the **COMPANY** to achieve the energy savings guaranteed by the **COMPANY** at the Premises and (iii) any costs incurred relative to such modifications, additions or replacements of the ECMs, or operational changes or new procedures shall be the responsibility of the **COMPANY**. All modifications, additions or replacements of the ECMs or revisions to operating or other procedures shall be described in a supplemental Schedule(s) to be provided to the **CUSTOMER** for approval, which shall not be unreasonably withheld, and incorporated into this Agreement provided that any replacement ECM shall be new and have equal or better potential to reduce energy consumption at the Premises than the ECM being replaced. The **COMPANY** shall update any and all software to be used in connection with the ECMs in accordance with the provisions of Schedule G (**Company Maintenance Responsibilities**). All replacements of and alterations or additions to the ECMs shall become part of the ECMs described in Schedule A (**Equipment to be Installed**) and shall become the property of the **CUSTOMER**. The **COMPANY** and the **CUSTOMER** shall determine in accordance with the provisions of paragraph 9.5, what, if any, adjustments to the Baseline/Benchmarks set forth in Schedule E (**Calculation of Baseline/Benchmarks**) are necessary due to upgrades or alterations of the ECMs which are necessary to enable the **COMPANY** to achieve the level of energy savings guaranteed by the **COMPANY**.

8.8 Malfunction and Emergencies

The **CUSTOMER** shall use its best efforts to notify the **COMPANY** or its designee within forty-eight (48) hours after the **CUSTOMER**' s actual knowledge of the occurrence of:

- 8.8.1 Any material malfunction in the operation of the ECMs or any pre-existing energy-related equipment;
- 8.8.2 Any material interruption or alteration of the energy supply to the Premises;
- 8.8.3 Any material alteration or modification in the ECMs or their operation; and
- 8.8.4 Any material alteration, modification or change in the Premises or the use of the Premises.

The **CUSTOMER**' s obligation to use its best efforts to notify the **COMPANY** as soon as reasonably possible shall be deemed satisfied if the **CUSTOMER** reports any said material malfunction, interruption, alteration, modification, or change within forty-eight (48) hours of the **CUSTOMER**' s actual knowledge thereof.

The **COMPANY** and the **CUSTOMER** shall determine in accordance with paragraph 9.5 what, if any, adjustments to the Baseline/Benchmarks set forth in Schedule E (**Calculation of Baseline/Benchmarks**) are necessary due to any of the events described in this paragraph 8.8.

8.8 Responsibility for ECM Malfunction.

Company agrees to compensate the Customer for business expenses, damages to real or personal property, lost profits, lost revenues, resulting from ECM malfunction due solely or in part to nonperformance or error by the **COMPANY**.

8.9 Ownership of Certain Proprietary Property Rights

The **CUSTOMER** shall acquire no ownership interest in any software, formulas, patterns devices, secret inventions or processes, or copyright, patents, and other intellectual and proprietary rights, or similar items of property which are or may become used in connection with the ECMs. The **COMPANY** shall grant to the **CUSTOMER** a perpetual, irrevocable royalty-free license of any and all software or other intellectual property rights necessary for the **CUSTOMER** to continue to operate, maintain, and repair the ECMs in a manner that will maximize energy consumption reductions beyond the expiration of this Agreement.

Article 9: The Premises

9.1 Description of the Premises

The Premises in which the ECMs are to be installed and services are to be provided by the **COMPANY** under this Agreement are described in Schedule D (**Premises**).

9.2 Ownership of Existing Property

The Premises and all equipment and materials existing at the Premises at the time of execution of this Agreement shall remain the property of the **CUSTOMER**.

9.3 Material Change Defined

A Material Change shall include any change in or to the Premises, not covered by Schedule B (**Energy Savings Guaranty**), whether structural, operational or otherwise in nature which reasonably could be expected, in the judgment of the **CUSTOMER** to increase or decrease annual costs of energy usage by at least \$_____.00, in the aggregate, after adjustments for climatic variations. Actions by the **CUSTOMER** which may result in a Material Change which is subject to this paragraph 9.3, include, but are not limited to the following:

9.3.1 Changes in the manner of use of the Premises by the **CUSTOMER**; or

9.3.2 Changes in the hours of operation for the Premises or for any equipment or

energy using systems operating at the Premises; or

- 9.3.3 Permanent changes in the comfort and service parameters set forth in Schedule I (*Operating Parameters for ECMs/Standards of Comfort & Service*); or
- 9.3.4 Changes in the occupancy of the Premises; or
- 9.3.5 Changes in the structure of the Premises; or
- 9.3.6 Changes in the types and quantities of equipment used at the Premises; or
- 9.3.7 Modification, renovation or construction at the Premises; or
- 9.3.8 The **CUSTOMER's** failure to provide maintenance of and repairs to the ECMs pursuant to paragraph 8.5 hereof; or
- 9.3.9 Any significant damage to the Premises or the ECMs caused by fire, flood, or other casualty or any condemnation affecting a significant portion of the Premises; or
- 9.3.10 The permanent or temporary closing of a building at the Premises; or
- 9.3.11 Any other substantially changed condition, other than weather, affecting energy use at the Premises.

9.4 **Reported Material Changes; Notice by Customer**

The **CUSTOMER** shall use its best efforts to deliver to the **COMPANY** a written notice describing all actual or proposed Material Changes in the Premises or in the operations of the Premises no less than thirty (30) days before any actual or proposed Material Change is implemented. Notice to the **COMPANY** of Material Changes which result because of a bona fide emergency or other situation which precludes advance notification shall be deemed sufficient if given by the **CUSTOMER** within forty-eight (48) hours after the event constituting the Material Change occurred or was discovered by the **CUSTOMER** to have occurred.

9.5 **Reported Material Changes; Adjustments to Baseline/Benchmarks**

Any changes in energy usage which occur as the result of a Reported Material Change shall be timely reviewed by the **COMPANY** and the **CUSTOMER** to determine what, if any, adjustments to the Baseline/Benchmarks set forth in Schedule E (*Calculation of Baseline/Benchmarks*) are necessitated by such Material Change(s). The **COMPANY** and the **CUSTOMER** agree that any adjustments made to the Baseline/Benchmarks shall be in accordance with generally accepted engineering principles. Any disputes between the **COMPANY** and the **CUSTOMER** concerning any such adjustment shall be resolved in accordance with the provisions of Schedule P (*Alternative Dispute Resolution Procedures*) hereto.

9.6 **Unreported Material Changes**

Upon and after the Commencement Date and in the absence of any reported Material Change(s) in the Premises or in their operations, if energy savings deviates more than ____ (___%) percent during any month from projected energy savings for that month, after adjustment for changes in climatic conditions, then the **COMPANY** shall timely review such changes to ascertain the cause of such deviation. The **COMPANY** shall report its findings to the **CUSTOMER** in a timely manner. The **COMPANY** and the **CUSTOMER** shall determine what, if any, adjustments to the Baseline/Benchmarks set forth in Schedule E (*Calculation of Baseline/Benchmarks*) are necessary. Any disputes

between the **COMPANY** and the **CUSTOMER** concerning any such adjustment shall be resolved in accordance with the provisions of Schedule P (**Alternative Dispute Resolution Procedures**) hereto.

Article 10: General Terms and Conditions

10.1 Assignment

The **COMPANY** acknowledges that the **CUSTOMER** is induced to enter into this Agreement by, among other things, the professional qualifications of the **COMPANY**. The **COMPANY** agrees that neither this Agreement nor any right or obligation hereunder may be assigned in whole or in part, without the prior written approval of the **CUSTOMER**.

10.1.1 Assignment by Company

The **COMPANY** may, with prior written consent of the **CUSTOMER**, which consent shall not be unreasonably withheld, delegate its duties and its performance under this Agreement, and/or utilize subcontractors, provided that any assignee(s), delegee(s), or subcontractor(s) shall honor the terms of this Agreement. Notwithstanding the provisions of this paragraph, the **COMPANY** shall remain jointly and severally liable with its assignee(s), or transferee(s) to the **CUSTOMER** for all of its obligations under this Agreement.

10.1.2 Assignment by the Customer

The **CUSTOMER** may, transfer or assign this Agreement and its rights and obligations herein to a successor or purchaser of the Premises, or an interest therein, subject to the approval of the **COMPANY** which will not be unreasonably withheld.

10.2 Duty to Indemnify

The **COMPANY** shall defend, indemnify, keep and save harmless the **CUSTOMER** and its agents and employees against all suits, claims, damages, losses and expenses, including attorney' s fees, caused by, growing out of, or incidental to, the wrongful or negligent performance of the Work under this Agreement by the **COMPANY** or its subcontractors to the full extent as allowed by the laws of the State of Florida provided that the **CUSTOMER** shall promptly notify the **COMPANY** of any suits or claims and shall allow **COMPANY**, at its sole expense, to settle or defend and control the defense of any suit based upon such claim or claims. In the event of any such injury (including death) or loss or damage, or claims therefor, the **COMPANY** shall give prompt notice to the **CUSTOMER**. The **COMPANY's** subcontractors shall include the foregoing as parties as to whom indemnification is due under their subcontracts.

10.2.1 Effect of Statutory Limitations

In the event of any claim against the **CUSTOMER** or against any of its officials or employees, in either their personal or official capacities, made by any direct or indirect employee or agent of the **COMPANY** or of any subcontractor, the **COMPANY's** indemnification obligation shall not be affected by any limitation on the amount or type of damages, compensation or benefits payable to said employee or agent contained in any other type of employee benefit act.

10.2.2 Intellectual Property Claims Indemnification

The **COMPANY** shall protect, defend, indemnify, and hold the **CUSTOMER** harmless against and from any and all claims, judgments, amounts paid in settlement, costs and expenses, including reasonable attorneys' fees relating to alleged patent, trademark or copyright infringement, misappropriation of proprietary rights, or trade secrets or similar claims, resulting from actions taken by the **COMPANY** in connection with this Agreement.

10.3 Alternative Dispute Resolution

The provisions for Alternative Dispute Resolution (ADR) attached as Schedule P (*Alternative Dispute Resolution Procedures*) shall govern the resolution of any disputes arising relative to the terms of, or performance required by, this Agreement.

10.4 No Waiver

The failure of **COMPANY** or the **CUSTOMER** to insist upon the strict performance of the terms and conditions hereof shall not constitute or be construed as a waiver or relinquishment of either Party' s right to thereafter enforce the same in accordance with this Agreement in the event of a continuing or subsequent default on the part of the **COMPANY** or the **CUSTOMER**.

10.5 Severability

It is agreed that the illegality or invalidity of any term or clause of this Agreement, shall not affect the validity of the remainder of this Agreement and this Agreement shall remain in full force and effect as if such illegal or invalid term or clause were not contained herein.

10.6 Complete Agreement; Amendments

This Agreement, when executed, together with all Project Documents and Schedules referred to in paragraph 3.5 and any other exhibits or attachments referred to in this Agreement, shall constitute the entire agreement between the Parties and this Agreement may not be amended or modified except by a written agreement signed by the Parties hereto.

10.7 Further Documents

The Parties shall execute and deliver all documents and perform all further acts that may be reasonably necessary to effectuate the provisions of this Agreement.

10.8 Applicable Law

This Agreement and the construction and enforceability thereof shall be interpreted under the laws of the State of Florida.

10.9 Notices

All notices required under this Agreement shall be in writing and shall be deemed properly served if delivered in person to the individual to whom it is addressed or, three (3) days after deposit in the United States mail, if sent postage prepaid by United States registered or certified mail, return receipt requested, as follows:

(a) To the **CUSTOMER**:

(____ copies of all
submittals,
correspondence
and notices)
required under
the ESA)

(b) To the **COMPANY**:

10.10 Termination for Convenience by the Customer

Subsequent to the Acceptance Date, this Agreement may be terminated at the sole discretion of the **CUSTOMER** in accordance with the provisions of this paragraph 10.10.

The **CUSTOMER** shall provide notice of its election to terminate to the **COMPANY** no later than thirty (30) days in advance of the end of the current guaranty period. The termination shall become effective on the last day of said guaranty period. The **COMPANY's** obligation to report, reconcile, and verify the energy savings achieved during the guaranty period proceeding termination remains in full force and effect, as does its obligation, pursuant to paragraph 3.4 of this Agreement, to remit payment to the **CUSTOMER** in the event that the energy savings have not been achieved at the level guaranteed by the **COMPANY**.

The termination of this Agreement by the **CUSTOMER** shall release the **COMPANY** from its obligation to provide maintenance, monitoring and training services after the effective date of termination, as well as its obligation to provide the Energy Savings Guaranty after the termination date. Termination by the **CUSTOMER** shall release it from the obligation to make any payments to the **COMPANY** for maintenance, monitoring, and training services after the termination date, provided, however, that the **CUSTOMER** is responsible for payment for maintenance, monitoring, and training services performed in accordance with the terms of this Agreement prior to the termination date.

Article 11: Events of Default: Remedies; Termination; Right to Offset

11.1 Events of Default by the Customer

Each of the following events or conditions shall constitute an "Event of Default" by the **CUSTOMER** with respect to its obligations under this Agreement:

- (i) Any failure to make payments to the **COMPANY** in accordance with the provisions of Schedule C (***Compensation to Company***) hereof more than thirty (30) days after written notification by **COMPANY** that **CUSTOMER** is delinquent in making such payment, provided that the **COMPANY** is not in default in its performance under the terms of this Agreement;
- (ii) Any representation or warranty furnished by the **CUSTOMER** in this Agreement proves to be false or misleading in any material respect when made;
- (iii) Any other material failure by the **CUSTOMER** to perform or comply with the terms and conditions of this Agreement, including breach of any covenant contained herein except, provided that such failure if corrected or cured within thirty (30) days after written notice to the **CUSTOMER** demanding that such failure to perform be cured shall be deemed cured for purposes of this Agreement.

11.2 Remedies Upon Default by the Customer

If an Event of Default by the **CUSTOMER** described in paragraph 11.1 occurs, the **COMPANY** shall exercise the remedies as provided for in Schedule P (***Alternative Dispute Resolution Procedures***).

11.3 Events of Default by the Company

Each of the following events or conditions shall constitute an "Event of Default" by the **COMPANY** for purposes of this Agreement with respect to obligations of the **COMPANY**:

- (i) The **COMPANY's** failure to furnish and install the ECMs in accordance with the provisions of this Agreement and within the time specified by this Agreement;

- (ii) Failure by the **COMPANY** to pay any amount owing to the **CUSTOMER** due to the **COMPANY's** failure to achieve its Energy Savings Guaranty during any Guaranty Year throughout the term of this Agreement or to perform any obligation under the Energy Savings Guaranty;
- (iii) The standards of comfort and service set forth in Schedule I (***Operating Parameters for ECMs/Standards of Comfort & Service***) are not provided due to failure of the **COMPANY** to properly design, install, maintain, repair, or adjust the ECMs except that such failure if corrected or cured within thirty (30) days after written notice to the **COMPANY** demanding that such failure be cured shall be deemed cured for purposes of this Agreement;
- (iv) Failure to perform its obligations in accordance with the terms of this Agreement, including failure to provide sufficient personnel, equipment or material to ensure the performance required and failure to meet the Project Installation Schedule provided for in Schedule K (***Project Installation Schedule***), due to a reason or circumstance within the **COMPANY's** reasonable control;
- (v) The **COMPANY's** failure to promptly re-perform, within a reasonable time, Work or services that were rejected as defective or nonconforming.
- (vi) The **COMPANY's** discontinuance of the required performance for reasons not beyond the **COMPANY's** reasonable control;
- (vii) Any lien or encumbrance upon the ECMs by any subcontractor, laborer, materialman or other creditor of the **COMPANY**;
- (viii) Any change in ownership or control of the **COMPANY** without the prior approval of the **CUSTOMER**, which shall not be unreasonably withheld;
- (ix) Default under any other agreement the **COMPANY** may presently have or may enter into with the **CUSTOMER** during the term of this Agreement. The **COMPANY** acknowledges and agrees that in the event of a default under this Agreement the **CUSTOMER** may also declare a default under any such other agreements;
- (x) Any material misrepresentation, whether negligent or willful and whether in the inducement or in the performance, made by the **COMPANY** to the **CUSTOMER**;
- (xi) The filing of a bankruptcy petition whether by the **COMPANY** or its creditors against the **COMPANY** which proceeding shall not have been dismissed within sixty (60) days of its filing, or an involuntary assignment for the benefit of creditors or the liquidation or insolvency of the **COMPANY**;
- (xii) Any failure by the **COMPANY** to perform or comply with the terms and conditions of this Agreement, including breach of any covenant contained herein except that such failure, if corrected or cured within thirty (30) days after notice to the **COMPANY** demanding that such failure to perform be cured, shall be deemed cured for purpose of this Agreement.

11.4 Remedies upon Default by the Company

The occurrence of any Event of Default described in paragraph 11.3(viii) or (xi) shall constitute an immediate default. The occurrence of any Event of Default other than an Event of Default described in paragraph 11.3(viii) or (xi) which the **COMPANY** has failed to cure within thirty (30) calendar days after receipt of notice given in accordance with the terms of this Agreement and specifying the Event of Default shall, at the sole option of the

CUSTOMER, permit the **CUSTOMER** to declare the **COMPANY** in default; provided however, that if such Event of Default cannot reasonably be cured within such thirty (30) day period, such Event of Default shall not constitute a default if the **COMPANY** begins to cure such Event of Default within such thirty (30)-day period and diligently pursues the actions necessary to cure such Event of Default so that the Event of Default is cured as soon as reasonably possible. Written notification of the Event of Default, and the intention of the **CUSTOMER** to terminate this Agreement, shall be provided to the **COMPANY** and such decision shall be final and effective upon the **COMPANY's** receipt, as defined herein, of such notice. Upon the giving of such notice as provided herein, the **COMPANY** must discontinue any services, unless otherwise directed in the notice, and deliver all materials accumulated in the performance of this Agreement, whether completed or in process, to the **CUSTOMER**. At such time the **CUSTOMER** make invoke any or all of the following remedies:

- (a) The right to take over and complete the Work, or any part thereof.
- (b) The right to immediately terminate this Agreement as to any or all of the Work or other services yet to be performed by the **COMPANY**;
- (c) The right of specific performance, injunctive relief or any other appropriate equitable remedy;
- (d) The right to money damages;
- (e) The right to withhold all or any part of the **COMPANY's** compensation hereunder; and

If the **CUSTOMER** considers it to be in its best interests, it may elect not to declare default or to terminate this Agreement. The parties acknowledge that this provision is solely for the benefit of the **CUSTOMER** and that if the **CUSTOMER** permits the **COMPANY** to continue to perform the Work and other services despite one or more Events of Default, the **COMPANY** shall in no way be relieved of any of its responsibilities, duties, or obligations under this Agreement nor shall the **CUSTOMER** waive or relinquish any of its rights.

The remedies under the terms of this Agreement are not intended to be exclusive of any other remedies provided, but each and every such remedy shall be cumulative and shall be in addition to any other remedies, existing now or hereafter, at law, in equity or by statute. No delay or omission to exercise any right or power accruing upon any Event of Default shall impair any such right or power nor shall it be construed as a waiver of any Event of Default or acquiescence therein, and every such right and power may be exercised from time to time and as often as may be deemed expedient.

11.5 Right to Offset

Any additional costs incurred by the **CUSTOMER** in the event of termination of this Agreement for default or otherwise resulting from the **COMPANY's** performance or non-performance under this Agreement, including the exercise by the **CUSTOMER** of any of the remedies available to it under paragraph 11.4 hereof, and any credits due to or overpayments made by the **CUSTOMER** may be offset by use of any payment due for the Work or other services completed before the termination for default or before the exercise of any remedies. If such amount offset is insufficient to cover such excess costs, the **COMPANY** shall be liable for and promptly remit to the **CUSTOMER** the difference upon written demand therefor. This right to offset is in addition to and not a limitation of any other remedies available to the **CUSTOMER**.

Article 12: Representations and Warranties

12.1 Each party warrants and represents to the other that:

- (a) It has all requisite power, authority, licenses, permits, and franchises, corporate or otherwise, to execute and deliver this Agreement and perform its obligations hereunder;
- (b) Its execution, delivery, and performance of this Agreement have been duly authorized by, or are in accordance with, its organic instruments, and this Agreement has been duly executed and delivered for it by the signatories so authorized, and it constitutes its legal, valid, and binding obligation;
- (c) Its execution, delivery, and performance of this Agreement will not result in a breach or violation of, or constitute a default under, any agreement, lease or instrument to which it is a party or by which it or its properties may be bound or affected; and
- (d) It has not received any notice, nor to the best of its knowledge is there pending or threatened any notice, of any violation of any applicable laws, ordinances, regulations, rules, decrees, awards, permits or orders which would materially and adversely affect its ability to perform hereunder.

12.2 Representations and Warranties by the Customer

The **CUSTOMER** hereby warrants and represents to the **COMPANY** that:

- (a) It will provide throughout the term of this Agreement (or cause its energy suppliers to furnish) to the **COMPANY**, upon its request, copies of all available records and data concerning energy usage for the Premises including but not limited to the following data: utility records and rate schedules; occupancy information; descriptions of any major changes in the structure or use of the buildings or heating, cooling, lighting or other systems or energy requirements; descriptions of all energy consuming or saving equipment used in the Premises; descriptions of energy management procedures presently utilized; and any prior energy analyses of the Premises. The **CUSTOMER** shall make knowledgeable employees and agents available for consultations and discussions with the **COMPANY** concerning energy usage of the Premises.
- (b) It has not entered into any leases, contracts, or agreements with other persons or entities regarding the leasing of energy efficiency equipment or the provision of energy management services for the Premises or with regard to servicing any of the energy related equipment located in the Premises.

12.3 Representations and Warranties by the Company

The **COMPANY** represents and warrants the following to the **CUSTOMER** (in addition to the other representations and warranties contained in the Project Documents), as an inducement to the **CUSTOMER** to execute this Agreement, which representations and warranties shall survive the execution and delivery of this Agreement and the Final Completion of the Work.

- (a) That it is financially solvent, able to pay its debts as they mature and possessed of sufficient working capital to complete the Work and perform its obligations under this Agreement;
- (b) That it and each of its employees, agents and subcontractors of any tier are competent to perform its obligations under this Agreement;

- (c) That it is able to furnish the plant, tools, materials, supplies, equipment and labor required to complete the Work and perform its obligations hereunder and has sufficient experience and competence to do so;
- (d) That it is authorized to do business in the State of Florida and is properly licensed by all necessary governmental and public and quasi-public authorities having jurisdiction over it and over the Work and the Premises;
- (e) That its execution of this Agreement and its performance thereof is within its duly authorized powers; and
- (f) That its duly authorized representative has visited the Premises, familiarized itself with the local conditions under which the Work is to be performed and correlated its observations with the requirements of the Project Documents.

Article 13: Applicable Laws

13.1 Statutory and Regulatory Requirements

All applicable Federal and State laws and the codes, rules and regulations of all authorities having jurisdiction over the performance of the Project shall apply to this Agreement throughout its term and they will be deemed to be included in this Agreement the same as though written herein in full.

13.2 Company' s Failure to Comply with Statutory and Regulatory Requirements

The **COMPANY**, and its subcontractors shall comply with all laws, rules, regulations, and codes applicable to performance of the Work and the maintenance, monitoring, and training services to be performed pursuant to Article 6. Except where expressly required by applicable laws and regulation, the **CUSTOMER** shall not be responsible for monitoring the **COMPANY's** compliance with any laws or regulations. When the **COMPANY** observes conflicting regulatory requirements, it shall notify the **CUSTOMER** in writing immediately. If the **COMPANY** performs any of the Work or other services required by this Agreement knowing or having reason to know that the Work or such services are contrary to such laws, rules and regulations, the **COMPANY** shall pay all costs arising therefrom.

Article 14: Right to Audit

The **CUSTOMER** shall have the right to have access to and audit all of the **COMPANY's** records, books, correspondence, instructions, drawings, receipts, vouchers, memoranda, and similar data relating to this Agreement. In addition, the **CUSTOMER** or its authorized representative shall have access to the **COMPANY's** facilities and shall be provided adequate and appropriate work space, in order to conduct audits in compliance with this article.

Article 15: Execution

IN WITNESS WHEREOF, the Parties have executed this Energy Services Agreement by their authorized signatures as of this ____ day of _____, 200__.

THE CUSTOMER :

THE COMPANY:

By: _____

By: _____

Title: _____

Title: _____

Schedule P

Sample Alternative Dispute Resolution (ADR) Language

1. All Disputes

In the event any dispute or claim related to construction or the contracts should arise between any of the parties to this Agreement, each party agrees to exercise good faith efforts to resolve the matter fairly, amicably, and in a timely manner. The parties shall consider litigation as a last resort, to be employed only when ADR methods fail. To this end, the parties agree to take affirmative steps to communicate effectively, to keep lines of communication open, and to handle all disputes in a reasonable and businesslike manner, which may include the use of a dispute resolution board.

2. Mediation: Disputes under \$50,000

Each party to any dispute under \$50,000 agrees, upon the request of any other party to the dispute, to submit the matter to mediation. The parties shall first confer informally with one another to attempt to resolve the dispute. The mediator shall be a person the parties agree is unbiased and qualified to understand the dispute and make the determinations that are required.

3. Methods of ADR: Disputes over \$50,000

Each party to any dispute over \$50,000 agrees, upon the request of any other party to the dispute, to submit the matter to ADR, in a form to be determined by agreement of the parties. The parties shall first confer informally with one another to attempt to resolve the dispute. In the event that the assistance of an unbiased neutral is required, the parties shall meet and come to an agreement as to what form the ADR should take and who the unbiased neutral should be. Forms of ADR that may be utilized include, but are not limited to, mediation and mini-trials, but do not include formal arbitration. The unbiased neutral may be a professional mediator, an attorney, an architect, an engineer, a board composed of two (2) or more qualified persons, or any person(s) the parties agreed is unbiased and qualified to understand the dispute and make the determinations that may be required.

4. Authority

When ADR is utilized, regardless of the dollar value of the dispute, each party agrees to have in attendance at their mediation (or whatever method is utilized) a person with actual authority to resolve the dispute.

5. Non-parties

Persons who have a stake in the dispute but who are not parties to this Agreement may be included in the ADR by consent of the parties. When disputes arise between only persons involved in the project who are not parties to this Agreement, the parties agree to encourage and facilitate the use of ADR when possible.

6. Court of Claims

The Company agrees that ADR is a condition precedent to the filing of a Court of Claims action or other administrative proceeding seeking economic recovery from *insert name of party* in an amount greater than \$50,000.

7. Costs of ADR

When ADR is utilized, the parties included in the process agree to equally share the costs of same.

8. Appendices

Any and all written agreements for mediation or other method of ADR must be agreed to by all contractual parties and shall be incorporated into the contract.

CUSTOMER ACCEPTANCE INITIALS: _____ **DATE:** _____

Attachment A

Sample Construction Process Provisions

A.1 Sample Construction Process

A.1.1 Description of the Work

The design, procurement, fabrication, installation and commissioning of the ECMs specified in Schedule A (***Equipment to be Installed***) and the Training services described in Schedule J (***Company Training Responsibilities***), which are integral to the operation of the ECMs, are referred to in this Agreement as the "Work." The maintenance, monitoring, and savings measurement and verification services detailed in Schedules G and O and the any Post-Acceptance Training services detailed in Schedule J (***Company Training Responsibilities***), performance of which does not commence until after the Commencement Date, are not part of the Work.

A.1.2 Supervision of the Work

The **COMPANY** shall supervise and direct the performance of the Work using its best skill, attention, and judgment. The **COMPANY** shall be solely responsible for site safety and for all construction means, methods, techniques, sequences, and procedures and for coordinating all portions of the Work under this Agreement.

A.1.3 Rejection of the Work by the Customer

The **CUSTOMER** may reject any sequences or procedures proposed by the **COMPANY** in connection with the Work which might constitute or create a hazard to the Premises, or to persons or property, or which deviate from the Project Documents or will result in schedule delays or additional costs to the **CUSTOMER**. This provision shall not be construed to mean that Work which is not rejected is therefore approved.

A.1.4 Responsibility for the Work

The **COMPANY** shall not be relieved of its obligations to perform the Work in accordance with the Project Documents by reason of observations or inspections, tests or approvals by any person or entity except as expressly agreed to in writing by an authorized representative of the **CUSTOMER**.

A.1.5 Coordination of the Work

The **COMPANY** shall consult with the personnel designated by the **CUSTOMER** in order to coordinate the Work, including installation of any ECM, and to provide appropriate training in the operation of any ECM. The **COMPANY** shall not permit any act that will interfere with the performance of the **CUSTOMER's** business activities at the Premises without the prior written approval of the **CUSTOMER**. The **COMPANY** may install no ECM that will require the hiring of additional personnel by the **CUSTOMER** without the express permission and written approval of the **CUSTOMER**.

The **COMPANY** shall consult with the **CUSTOMER** regarding the coordination of the Work with any other work being performed by other Companies at the Premises.

A.1.6 Sufficient Workforce

The **COMPANY** shall furnish a competent and adequate staff as necessary for the proper administration, coordination and supervision of the Work; organize the procurement of all materials and equipment so that they will be available at the time they are needed for the

Work; and ensure that an adequate force of skilled workmen are available to complete the Work in accordance with all requirements of this Agreement.

A.1.7 Project Manager

The **COMPANY** shall employ a competent project manager who shall be responsible for the coordination of the Work, and who shall be authorized to commit the **COMPANY** with regard to manpower, schedule, coordination, and cooperation. The project manager shall not have less than two years of documented experience in responsible field supervision for projects of comparable size and complexity. The **COMPANY** shall give the **CUSTOMER** advance written notice if it intends to remove or replace the project manager. In the event the project manager fails to perform its duties under this Agreement the **COMPANY** shall provide a competent replacement.

A.1.8 Harm to Structure of the Premises

The **COMPANY** shall perform the Work under this Agreement and install the ECMs in such a manner so as not to harm the structural integrity of the Premises or their operating systems, except as specifically described in the Project Documents which have been approved by the **CUSTOMER**. The **COMPANY** shall repair and restore to its condition immediately preceding the performance of the Work, any area of damage caused by its performance under this Agreement which has not been so described in the Project Documents and approved by the **CUSTOMER**. The **COMPANY's** failure to complete the repair or restoration required under this paragraph A.1.8 shall constitute an Event of Default under paragraph 11.3 hereof.

A.1.9 Responsibility for Damages

The **COMPANY** shall be responsible for all loss or damage to the Work, the Premises, or to improvements or personal property thereon and the work of other Companies caused by the **COMPANY's** performance of the Work.

A.1.10 Verification of Dimensions and Existing Conditions

The **COMPANY** is responsible for becoming knowledgeable of the conditions of the Premises relating to the performance of the Work and the conditions under which the Work is to be performed, other than concealed conditions which the **COMPANY** should not have reasonably been expected to discover or anticipate. All dimensions and existing conditions have been verified by the **COMPANY** during the energy audit conducted at the Premises by actual measurement and observation. All discrepancies between the requirements of the Project Documents and the existing conditions or dimensions shall be reported to the **CUSTOMER** as soon as they are discovered. Failure to verify and report prior to the commencement of work shall constitute the **COMPANY's** acceptance of existing conditions as fit for the proper execution of the Work under this Agreement, other than concealed conditions which the **COMPANY** should not have reasonably been expected to discover or anticipate.

A.1.11 Changed Conditions

Should the **COMPANY** encounter subsurface or latent physical conditions at the site which differ materially from those indicated in the Project Documents or from those ordinarily encountered and generally recognized as inherent in work of the character provided for in this Agreement, the **COMPANY** shall give written notice to the **CUSTOMER** before any such condition is disturbed or further disturbed. No claim of the **COMPANY** under this provision will be allowed unless the **COMPANY** has given the required notice. The **CUSTOMER** will promptly investigate and, if it is determined that the conditions materially differ from those which **COMPANY** should reasonably have been expected to discover or anticipate, the **CUSTOMER** will approve such changes in the Project Documents as may be necessary. If such changed conditions cause an increase

or decrease in the **COMPANY's** cost or time of performance, the parties may negotiate a mutually acceptable solution.

A.2 The Customer's Right to Carry-Out the Work

In the event that the **COMPANY** neglects or fails to carry out the Work in accordance with this Agreement and the Project Documents, the **CUSTOMER** may correct such deficiencies after giving twenty (20) business days written notice to the **COMPANY** and its surety. This shall be without prejudice to any other remedy the **CUSTOMER** may have. **CUSTOMER** may deduct from the payments to be made to the **COMPANY** for the Work, pursuant to paragraph 6.1 hereof and of Schedule C (*Compensation to Company*), the amount of all costs incurred in correcting deficiencies made necessary by such neglect or failure. If such payments to be made to the **COMPANY** are not sufficient to cover such amount, the **COMPANY** shall be liable in such amount to the **CUSTOMER**.

A.2.1 Emergencies

In case of bona fide emergencies as determined by the **CUSTOMER** involving public health or public safety or to protect against further loss or damage to the **CUSTOMER's** property or to prevent or minimize serious disruption of **CUSTOMER** services or to insure the integrity of **CUSTOMER's** records, the **CUSTOMER** may cause such Work as is necessary to be performed without prior notice to the **COMPANY** or its surety.

A.2.2 Right to Reject or Stop the Work

The **CUSTOMER** may reject any of the Work which does not conform to the Project Documents. If the **COMPANY** fails to correct defective Work or fails to supply labor, materials or equipment in accordance with the Project Documents or to execute the Work in a workmanlike manner, the **CUSTOMER** may order the **COMPANY** to stop the Work, or any portion thereof, until the cause for such order has been eliminated.

A.2.3 Right to Terminate the Company's Performance of the Work

If the **COMPANY** fails or refuses to prosecute the Work with such diligence as to allow completion of the Work substantially in accordance with the Project Installation Schedule, or commits a material breach of any other provision of this Agreement or the Project Documents, and provided that such breach continues for thirty (30) days after written notice to the **COMPANY** demanding that such breach be cured or if cure cannot be effected in such thirty (30) days, **COMPANY's** failure to propose and commence a cure acceptable to the **CUSTOMER** within such thirty (30) days, the **CUSTOMER** may terminate the **COMPANY's** right to proceed with the Work as specified herein. In no event shall the **CUSTOMER** have any obligation to compensate the **COMPANY** for delays arising pursuant to the **COMPANY's** failure or refusal to complete the Work and damages arising in connection therewith.

In such case, the **CUSTOMER** will give the **COMPANY** and its surety written notice of intention to terminate the **COMPANY's** right to complete the Work and the reason therefor and, unless within seven (7) business days the delay or violation shall cease or a cure acceptable to the **CUSTOMER** for correcting the situation is proposed, the **CUSTOMER** may issue a termination notice to such effect for the **COMPANY** and its surety. Thereupon, the surety will be given the opportunity to complete the Work in accordance with the Project Documents. Such completion may include, but not be limited to, the use of a completing **COMPANY**, satisfactory to the **CUSTOMER**, pursuant to a written takeover agreement, the payment of a sum of money required to allow the **CUSTOMER** to complete the Work, or other arrangements agreed to by the **CUSTOMER** and the surety.

If within seven (7) business days following the issuance of the termination notice, the surety fails to notify the **CUSTOMER** that it intends to exercise its right to undertake the

Work, the **CUSTOMER** may take over the Work, exclude the **COMPANY** from the Premises and take possession of all of the **COMPANY's** tools, appliances, equipment and machinery at the Premises and use the same to the full extent they could have been used by the **COMPANY** (without liability for trespass or conversion), incorporate into the Work all materials and equipment stored at the Premises and finish the Work as the **CUSTOMER** may deem expedient.

In the event the **CUSTOMER** terminates the **COMPANY's** right to complete the Work under this paragraph A.2, the **COMPANY** shall not be entitled to receive further payments until a Certificate of Acceptance has been delivered pursuant to Article 7 hereof specifying the amount, if any, payable to the **COMPANY** pursuant to Schedule C (*Compensation to Company*). If the **CUSTOMER's** expenses in completing the Work exceed the **COMPANY's** Compensation for the Work, the **COMPANY** shall pay the difference to the **CUSTOMER** upon demand therefor.

Provided further, that a Certificate of Acceptance directing payment to the **COMPANY** for any portion of the Work be issued only if the notification required pursuant to Article 7 has been delivered by the **COMPANY**. If the **COMPANY** is not able to deliver such notification, the **CUSTOMER** shall not execute and deliver a Certificate of Acceptance and may terminate this Agreement in accordance with the provisions of Article 11 and may pursue any and all remedies provided therein.

A.3 Permits and Approvals

The **COMPANY** shall obtain and pay for all necessary permits and approvals for the design, installation and operation of the ECMs. The **CUSTOMER** shall exercise its best efforts to assist the **COMPANY**. The ECMs and the operation of the ECMs by the **COMPANY** shall at all times conform to all applicable codes. The **CUSTOMER** cannot and will not waive any permits or approvals required from any other governmental bodies.

The **COMPANY** shall furnish copies of each permit or license which is required to perform the Work to the **CUSTOMER** before the **COMPANY** commences the portion of the Work requiring such permit or license.

If the **COMPANY** observes that any of the Project Documents are at variance with permits or licenses granted, or laws, ordinances, codes, rules or regulations of governmental authorities, the **COMPANY** shall promptly notify the **CUSTOMER** in writing and shall make any necessary changes, subject to the approval thereof by the **CUSTOMER** in accordance with the terms of this Agreement. If the **COMPANY** performs any Work which is contrary to any permit or license granted, or any applicable laws, ordinances, codes, rules or regulations, the **COMPANY** shall make changes as required to comply therewith and shall bear all costs arising therefrom without additional compensation from the **CUSTOMER**.

A.4 Royalties and Patents

The **COMPANY** shall pay all royalties and license fees due to third parties in connection with the Work. The approval of any method of construction, invention, appliance, process, article, device, material, or equipment of any kind by the **CUSTOMER** will only be an approval of its adequacy for the Work, and will not be an approval of the use thereof by the **COMPANY** in violation of any Patents or other rights of any third person. The **COMPANY** shall indemnify the **CUSTOMER** against all suits and claims that may be based on an infringement of Patents, trademark or trademark on designs.

A.5 Project Schedule

The **COMPANY** shall consult with the **CUSTOMER** concerning the development of a detailed *Project Installation Schedule* and, recognizing that time is of the essence of this Agreement, shall perform the Work in such manner and with such sufficient equipment and forces to complete the Work in accordance with Schedule K (*Project Installation Schedule*).

A.6 Extensions

Extensions of time will be allowed for delays which affect critical items on the *Project Installation Schedule* arising from unforeseeable causes beyond the control and without the fault or negligence of the **COMPANY**.

A request for an extension of time must be made in writing to the **CUSTOMER** within fifteen (15) calendar days after the cause of delay. In the case of a continuing cause of delay, only one request is necessary. The grant of an extension of time to the **COMPANY** shall not impair or prejudice the rights of the **CUSTOMER** hereunder.

A.7 Compensation for Delay

- (a) Certain risks and uncertainties in connection with the Work are assumed by the **COMPANY** as a part of this Agreement and are included in the **COMPANY** Compensation for the Work. Thus, the **COMPANY**, except as otherwise definitely specified herein, shall bear all loss or damage for hindrances or delays during the progress of any portion of the Work and also all loss or damage arising out of the nature of the work to be done, or from inclement weather, or from any unforeseen and unexpected conditions or circumstances encountered in connection with the Work, and except as otherwise definitely specified in this Agreement, no payment shall be made by the **CUSTOMER** for such loss or damage.
- (b) The **COMPANY** shall be entitled to payment from the **CUSTOMER** only for those actual damages, costs, or expenses which are directly attributable to delays in the performance of the Work which are caused by the **CUSTOMER**.

A.8 Subcontracts and Subcontractors

The **COMPANY** shall have the right to have any of the services to be provided by the **COMPANY** under this Agreement accomplished by subcontractors pursuant to written subcontracts between the **COMPANY** and such subcontractors.

The **COMPANY** shall, upon entering into any agreement with a subcontractor, furnish the **CUSTOMER** with an executed copy thereof. All subcontracts shall be subject to, consistent with, and in conformance with all applicable State and federal laws, rules, regulations, and codes, and shall contain provisions that require all services to be performed in strict accordance with the requirements of this Agreement and shall provide that the subcontractors are subject to all the terms of this Agreement. Provided that such agreements do not prejudice any of the **CUSTOMER's** rights under this Agreement, such agreements may contain different provisions than are provided herein with respect to extensions of schedule, time of completion, payments, guarantees, and matters not affecting the quality of the Work.

The **COMPANY** shall not grant, or allow to exist, any lien or security interest for labor or material or otherwise on the ECMs, the Premises or any other property owned by the **CUSTOMER**.

A.9 Interim Savings; and Utility Rebates

- (a) **Interim Savings**
Interim Savings as defined in Article 4 belong to the **CUSTOMER**.

(b) **Utility Rebates**

Utility rebates secured or obtained due to the installation of the ECMs at the Premises belong to the **CUSTOMER**.

A.10 Hazardous Materials

(a) The **COMPANY** acknowledges that compliance with *the National Emission Standard for Hazardous Air Pollutants* as promulgated by the United States Environmental Protection Agency pursuant to Section 112 of the Clean Air Act is a continuing obligation requiring any and all demolition or renovation activity completed by or on behalf of the **CUSTOMER**, to conform to the standards for such activity as set forth in 40 CFR 61.145. The **COMPANY** shall observe all notification procedures established by the United States and Florida Environmental Protection agencies in the execution of the Work under this Agreement.

(b) The pertinent provisions of the *Hazardous Substances Construction Disclosure Act*, 415 ILCS 70/1, (the "Act") shall apply in the event that the **COMPANY** or any of its subcontractors encounters any hazardous substance or material covered by the Act in the performance of the Work, the existence of which has not previously been disclosed to the **COMPANY** by the **CUSTOMER**. The **COMPANY** shall, before disturbing such materials, immediately notify the **CUSTOMER** of the location thereof. The **COMPANY** shall advise the **CUSTOMER** as to whether it is feasible to re-route the Work as to avoid such materials. If such re-routing is reasonably feasible, the **COMPANY** shall do so without additional compensation hereunder.

If such re-routing or avoidance is not reasonably feasible in the judgment of the **CUSTOMER** and such material must be disturbed or relocated to complete the Work, and if (i) removal or containment of the hazardous substance or material cannot be effectuated without a cessation of the Work; or (ii) applicable law, rule or regulation requires cessation of the Work, or (iii) continuation of the Work exposes any person to a substantial risk, the **COMPANY** may suspend its performance of the Work without penalty until the substance or material is removed or contained by the **CUSTOMER**.

(c) The following options are available to the **CUSTOMER** in the event that undisclosed hazardous materials are encountered in the performance of the Work by the **COMPANY** or its subcontractors:

(i) If feasible, the **CUSTOMER** may direct the **COMPANY** to modify the scope of the Work to eliminate portions of the Work affected by the undisclosed hazardous substance or material.

(ii) The **CUSTOMER** may terminate this Agreement upon payment to the **COMPANY** of the amount due for services or materials and equipment supplied by the **COMPANY** prior to suspension of the Work, including damages caused by the delay. Provided, however, that the **CUSTOMER** shall not be liable for damages or other costs or expenses incurred by the **COMPANY** if the existence of the hazardous substance or material was disclosed to the **COMPANY** by the **CUSTOMER** or, if as a result of the **COMPANY's** review of the Project Documents, including any Asbestos Management Plan developed for the Premises and its investigation of the Premises, the **COMPANY** should reasonably have been expected to discover or anticipate the existence of the hazardous substance or material and the **COMPANY** could have developed the scope of the Work in such a manner as to avoid said hazardous substance or material.

- (d) The **COMPANY** and the **CUSTOMER** agree that any work relating to (i) asbestos, material containing asbestos, or the existence, use, detection, removal, containment or treatment thereof, or (ii) pollutants, hazardous wastes, hazardous materials, contaminants (collectively "Hazardous Materials") or the storage, handling, use, transportation, treatment or the disposal, discharge, leakage, detection removal, or containment thereof which is not specifically provided for in this Agreement, is the responsibility of the **CUSTOMER**. Notwithstanding the foregoing, the **COMPANY** will utilize due diligence in order to determine whether the Work will require the removal of PCB ballasts and whether asbestos is likely to be encountered in the performance of the Work. **COMPANY** shall provide the **CUSTOMER** with an estimate for the cost of removal and disposition of PCB ballasts and asbestos it expects may be encountered in the performance of the Work and shall allow for an amount equal to the estimated cost of removal and disposal in the Guaranteed Savings detailed in Schedule B (*Energy Savings Guaranty*).

If an Asbestos Management Plan has been developed for the Premises, the **CUSTOMER** shall make said plan available for the **COMPANY'S** review and inspection throughout the Interim Period.

A.11 Material and Workmanship

- (a) The **COMPANY** shall ensure that all materials used by the **COMPANY** and its subcontractors and workmanship performed or caused to be performed by the **COMPANY** in connection with the Work meets or exceeds all applicable codes and is performed in a workmanlike manner. Where conflicts exist between applicable codes, the more stringent provision shall apply;
- (b) The **COMPANY** shall ensure that all equipment and materials to be used in the Work for which Underwriters Laboratory labeling services is provided shall be UL labeled;
- (c) The **COMPANY** shall obey the following list of codes where applicable:
- (1) Applicable construction and electrical code;
 - (2) Underwriters Laboratories (UL);
 - (3) Insulated Power Cable Engineers Association (IPCEA);
 - (4) National Electrical Code (NEC);
 - (5) National Electrical Manufacturers Association (NEMA);
 - (6) American National Standards Institute (ANSI); and
 - (7) Institute of Electrical and Electronic Engineers (IEEE).
- (d) The **COMPANY** shall timely advise the **CUSTOMER** in writing of all existing equipment and materials to be replaced at the Premises as part of the Work and the **CUSTOMER** shall within _____ () days designate in writing to the **COMPANY** the equipment and materials which should not be disposed of off-site by the **COMPANY**. The **COMPANY** shall be responsible for the disposal of all equipment and materials removed or replaced through its performance of the Work in accordance with all applicable laws and regulations regarding such disposal, except those items designated by the **CUSTOMER** as nondisposable. The cost of disposal to be performed by the **COMPANY** is included in the **COMPANY** compensation for the Work set forth in Schedule C (*Compensation to Company*).

A.12 Warranty of Materials

The **COMPANY** warrants that all materials and equipment installed as part of the Work will be new unless otherwise specified, and that all work will be of good quality, free from faults and defects, and in conformance with the Project Documents. All work not so conforming to these requirements may be considered defective. If required by the **CUSTOMER**, the **COMPANY**

shall furnish satisfactory evidence as to the kind and quality of materials and equipment. This warranty is not limited by the provisions of paragraph 8.1 below. This warranty of materials, equipment and workmanship is separate from, independent of, and in addition to any other guarantees in this Agreement or any other warranties in this Agreement or required by the Project Documents.

A.13 Responsibility for Materials

The **CUSTOMER** does not assume any responsibility for the availability of any controlled materials or other materials and equipment required for the Work. However, **CUSTOMER** reserves the right to review and approve the quality and standards for all materials. The **COMPANY** shall be responsible for the contracted quality and standards of all materials, components or completed Work furnished by the **COMPANY** pursuant to the terms hereof. Materials, components or completed Work which fails to comply with this Agreement and the Project Documents may be rejected by the **CUSTOMER** and shall be replaced by the **COMPANY** at no cost to the **CUSTOMER**. The **COMPANY** shall remove from the Premises within a reasonable time any materials or components so rejected at the entire expense of the **COMPANY**, after written notice has been delivered by the **CUSTOMER** to the **COMPANY** that such materials or components have been rejected. *(Optional)*

A.14 Inspections

- (a) All materials and equipment and each part of the detail of the Work shall be subject at all times to inspection by the **CUSTOMER** or its designated representatives or consultants, and the **COMPANY** will be held strictly to the true intent of this Agreement and the Project Documents with regard to quality of materials, workmanship, and the diligent execution of the Work.
- (b) The **COMPANY** shall allow the **CUSTOMER** access to all parts of the Work, and shall furnish such information and assistance as is required to make a complete and detailed inspection or inspections.
- (c) All material and equipment installed as part of the Work must be inspected, tested and approved in accordance with the Project Documents and this Agreement prior to its use.
- (d) The **COMPANY** shall, if the **CUSTOMER** requests, remove or uncover such portions of the finished Work as the **CUSTOMER** may direct. After the examination, the **COMPANY** shall restore said portion of the Work to the standard required by this Agreement and the Project Documents. If the Work thus exposed or examined proves acceptable, the expenses of uncovering or removing and the replacing of the parts removed shall be the responsibility of the **CUSTOMER** and such uncovering, removing and replacing shall be deemed to be an excusable event of delay, if a delay in completion is caused thereby. If the Work so exposed or examined has not been performed in accordance with the Project Documents, the expense of uncovering, removing and replacing any portion of the Work necessary to comply with this Agreement and the Project Documents shall be borne by the **COMPANY** and requests for a time extension or claims for delay will not be granted.
- (e) Upon written request by the **COMPANY**, the **CUSTOMER** shall schedule preliminary inspections of the Work as soon as practicable after notification by the **COMPANY** that major ECMs or systems are substantially installed. If such Work is not acceptable to the **CUSTOMER** at the time of such preliminary inspections, the **COMPANY** will be provided written notice as to the particular defects to be remedied before the Work will be accepted. The date such Work is approved by the **CUSTOMER**, shall be the date of beneficial use to the **CUSTOMER** for the applicable ECM, relative to the commencement of the warranty period set forth in Schedule R (*Warranties*) for such ECM.

Notwithstanding the foregoing, the *Certificate of Acceptance* shall not be executed until a final inspection has been performed.

A.15 Project Meetings

The **COMPANY** shall provide for regularly scheduled project meetings in *the Project Installation Schedule*, and shall give timely advance written notice and agenda of such meetings to the **CUSTOMER**. The **COMPANY** shall record minutes and distribute copies of minutes of meetings to the **CUSTOMER** within five (5) business days after each meeting. The **COMPANY** shall schedule additional project meetings if requested by the **CUSTOMER**.

A.16 Assignment of Claims

The **CUSTOMER** shall not be bound by any assignment by the **COMPANY** to third parties of moneys due or to become due or of any other claims it may have under this Agreement except where the **CUSTOMER** consents in writing to be so bound.

A.17 Claims and Disputes

The **COMPANY** shall promptly notify the **CUSTOMER** in writing of any claims or disputes relating to the Work. Failure to notify the **CUSTOMER** in such instances may result in rejection of any such claim.