

CONTRACT FOR PRELIMINARY TECHNICAL ENERGY AUDIT & PROJECT DEVELOPMENT

This Technical Energy Audit Contract (the "Contract") is made and entered into as of _____, between Progressive Energy Solutions, Inc. (ESCO), and _____ Customer.

Progressive Energy Solutions, Inc. is a company with experience and technical and management capabilities to provide for the discovery of energy conservation recommendations and best practice operational strategies. The preliminary energy audit will include a comprehensive report of the facility energy conservation opportunities for electric, gas, and water conservation projects. Additional information will be provided outlining a strategy for the recommended energy conservation projects with a payback/life cycle analysis and preliminary project costs; and

Progressive Energy Solutions, Inc. is submitting a proposal pertaining to the discovery, preliminary engineering calculations, packaging, procurement, and installation, and maintenance at Customer's facilities; and

Customer has selected ESCO to provide the services described herein; and

Customer desires to enter into a Contract to have ESCO perform a Technical Energy Audit to determine the feasibility of providing for installation and implementation of energy and water saving measures at Customer's facilities.

If energy and water saving measures are determined to be feasible, and if the amount of savings can be reasonably sufficient to cover costs as defined by Customer, Progressive Energy Solutions, Inc. will procure, install, implement and maintain such energy saving measures upon receipt of a purchase order from customer.

NOTE: Engineering design fees for major HVAC or electrical project upgrades are not included in this proposal.

Therefore, the parties agree as follows:

1. Preliminary Energy Audit & Project Development

ESCO agrees to perform a Technical Energy Audit in accordance with the Scope of Work described below. ESCO agrees to complete the Technical Energy Audit and present to Customer a final report within 30 calendar days from the execution of this Contract. ESCO shall have a minimum of 21 days to complete the energy audit report from the date of site visit.

Customer agrees to assist the ESCO in performing the Technical Energy Audit in accordance with the Scope of Work described below. Customer agrees to work diligently to provide full and accurate information. ESCO agrees to work diligently to assess validity of information provided and to confirm or correct the information as needed.

A sequential approach to the energy audit is typically used to determine major areas of energy consuming equipment and operational strategies. Adequate dialog between all interested facility personnel is established during the project so that only energy conservation measures (ECMs) that are feasible from an operation and maintenance perspective are evaluated in-depth and incorporated into the final recommendations.

The objective of the audit is to identify projects that have high value to the customer, management input at this juncture helps establish the priorities that form the foundation of the energy audit.

Step 1 - Interview with Key Facility Personnel

During the initial audit, a meeting is scheduled between the auditor and all key operating personnel to kick off the project. The meeting agenda focuses on: audit objectives and scope of work, facility rules and regulations, roles and responsibilities of facility personnel.

In addition to the administrative issues, the discussion during this meeting seeks to establish: operating characteristics of the facility, energy system specifications, operating and maintenance procedures, preliminary areas of investigation, unusual operating constraints, anticipated future expansions and other concerns related to facility operations.

Step 2 – Facility Document Review

During the initial visit and facility personnel meeting, available facility documentation are reviewed. This documentation should include all available architectural and engineering plans, facility operation and maintenance procedures and logs, and utility bills for the previous three years or at least 13 months previous bills. It should be noted that the available plans should represent "as-built" rather than "design" conditions. After a thorough review of the construction and operating documentation, the major energy consuming processes in the facility are further investigated.

Step 3 - Facility Inspection

After the initial meeting, a tour of the facility is conducted to observe the various operations first hand, focusing on the major energy consuming systems identified, including architectural, lighting and power, mechanical, and any

process energy systems. Collection of model numbers and serial numbers of major HVAC equipment along with photos and pertinent documentation are collected for analysis during the building of a computer simulation model.

Where appropriate, field measurements are collected to substantiate operating parameters.

Facility Inspection Criteria

- 1) Interview the facility manager, maintenance staff or others regarding:
 - a) Facility operation, including energy management procedures
 - b) Equipment maintenance problems
 - c) Comfort problems and requirements
 - d) Equipment reliability,
 - e) Projected equipment needs, etc.
 - f) Occupancy and use schedules for the facility and specific equipment.
 - g) Facility improvements, past and planned

- 2) Inspect major energy-using equipment, including:
 - a) Lighting (indoor and outdoor)
 - b) Heating and heat distribution systems
 - c) Cooling systems and related equipment
 - d) Automatic temperature control systems and equipment
 - e) Air distribution systems and equipment
 - f) Outdoor ventilation systems and equipment
 - g) Exhaust systems and equipment
 - h) Hot water systems
 - i) Electric motors, transmission and drive systems
 - j) Special systems (kitchen/dining equipment, swimming pools, laundry equipment, etc.)
 - k) Renewable energy systems
 - l) Other energy using systems
 - m) Water consuming systems (restroom fixtures, water fountains, irrigation systems, etc.)

- 3) Develop a preliminary list of potential energy and water saving measures. Consider the following for each system:
 - a) Comfort and maintenance problems
 - b) Energy use, loads, proper sizing, efficiencies and hours of operation
 - c) Current operating condition
 - d) Remaining useful life
 - e) Feasibility of system replacement
 - f) Hazardous materials and other environmental concerns

- g) Customer's future plans for equipment replacement or building renovations
- h) Facility operation and maintenance procedures that could be affected

Step 4 - Utility Analysis

The utility bill analysis is a detailed review of energy bills from the previous 36 months. This should include all purchased energy, including electricity, natural gas, fuel oil, liquefied petroleum gas (LPG) and purchased steam, as well as any energy generated on site. If possible, energy data is obtained and reviewed prior to visiting the facility to insure that the site visit focuses on the most critical areas. Billing data reviewed includes energy usage, energy demand and utility rate structure. The utility data is normalized for changes in climate and facility operation and used as a baseline to compute projected energy savings for evaluated ECM's.

Establishment Base Year Consumption

- 1) Examine utility bills for the past 3 years and establish base year consumption for electricity, gas, steam, water, etc. in terms of energy units (kWh, kW, ccf, Therms, gallons, or other units used in bills) and in terms of dollars and in terms of dollars per square foot. Describe the process used to determine the base year (averaging, selecting most representative contiguous 12 months, etc.). Consult with facility personnel to account for any anomalous schedule or operating conditions on billings that could skew the base year representation. ESCO will account for periods of time when equipment was broken or malfunctioning (provided by facility personnel) in calculating the base year.
- 2) Estimate loading, usage and/or hours of operation for all major end uses of total facility consumption including, but not limited to:
 - a) Lighting
 - b) Heating
 - c) Cooling
 - d) HVAC motors (fans and pumps)
 - e) Plug loads
 - f) Kitchen equipment
 - g) Other/miscellaneous

Where loading or usage are highly uncertain (including variable loads such as cooling), ESCO will use its best judgment, spot measurements, trending logs, or short-term monitoring.

Step 5 - Identify/Evaluate Feasible ECMs

Typically, an energy audit will uncover both major facility modifications requiring detailed economic analysis and minor operation modifications offering simple and/or quick paybacks. A list of major ECMs is developed for each of the major energy consuming systems (i.e., envelope, HVAC, lighting, power, and process). Based upon a final review of all information and data gathered about the facility, and based on the reactions obtained from the facility personnel at the conclusion of the field survey review, a finalized list of ECMs is developed and reviewed with the facility manager.

Step 6 - Economic Analysis

Data collected during the audit is processed and analyzed back in our offices. Computer energy models are built which closely match field observations and a baseline against which to measure the energy savings potential of ECMs identified. The resulting data is used to calculate the implementation cost, energy savings and simple payback/lifecycle costs where applicable for each of the ECMs being investigated.

Step 7 - Prepare a Report Summarizing Audit Findings

The results of our findings and recommendations are summarized in a final report. The report includes a description of the facilities and their operation, a discussion of all major energy consuming systems, a description of all recommended ECMs with their specific energy impact, implementation costs, benefits and payback/lifecycle costs where applicable. The summary report includes graphical and tabular information derived from a computerized model performed using Department of Energy developed simulation software to model all energy consuming systems. The graphical models present a detailed analysis of each energy consuming system identifying various areas of consumption (i.e., lighting heat, air conditioning, etc.) on a monthly schedule for 12 months.

Graphical representation of proposed energy conservation upgrades of major consuming systems such as HVAC versus existing HVAC consumption profiles are provided for quick decision-making analysis.

Technical Energy Audit Report.

- 1) Overview
 - a) Contact information
 - b) Summary table of recommended energy and water saving measures, with itemization for each measure of design and construction cost, annual maintenance costs, the first year cost avoidance (in dollars and energy units), simple payback and equipment service life

- c) Summary of annual energy use and costs of existing or base year condition
 - d) Calculation of cost savings expected if all recommended measures are implemented. Include total percentage savings.
 - e) Description of the existing facility, mechanical and electrical systems
 - f) Summary description of measures, including estimated costs and savings for each as detailed above
 - g) Discussion of measures considered but not investigated in detail
 - h) Conclusions and recommendations
- 2) Base year energy use
- a) Description and itemization of current billing rates, including schedules.
 - b) Summary of all utility bills
 - c) Base year consumption and description of how established
 - d) End use reconciliation with base year (include discussion of any unusual findings)
- 3) Full description of **each** energy and water saving measure including:
- a) Written description
 - (1) Existing conditions
 - (2) Recommendations. Include discussion of facility operations and maintenance procedures that will be affected by installation/implementation.
 - b) Savings calculations
 - (1) Base year energy use and cost
 - (2) Post-retrofit energy use and cost
 - (3) Annual savings estimates.
 - (4) Description and calculations for any proposed rate changes
 - (5) Operation and maintenance savings, including detailed calculations and description. Ensure that maintenance savings are only applied in the applicable years and only during the lifetime of the particular equipment.
 - (6) Conclusions, observations, caveats
 - c) Cost estimate -- detailed scope of the construction work needed, suitable for cost estimating. Include all anticipated costs associated with installation and implementation.
 - d) Engineering/design costs/documents
 - (1) Contractor/vendor estimates for labor, materials, equipment; include special provisions, overtime, etc., as needed to accomplish the work with minimum disruption to the operations of the facilities.
 - (2) Permit costs
 - (3) Construction management fees

- (4) Environmental costs or benefits (disposal, avoided emissions, handling of hazardous materials, etc.)
- (5) Conclusions, observations, caveats

Step 8 - Review Report Recommendations with Facility Management

A presentation of the final recommendations is presented to facility management to supply them with sufficient data on benefits and costs to make a decision on which ECMs to be implemented.

2. Compensation to ESCO

Except as provided for below, within 30 days after ESCO's submission of the final Technical Audit report, Customer shall compensate ESCO for performance of the Technical Energy Audit by payment to ESCO NOT TO EXCEED \$_____.

Progressive Energy Solutions, Inc.

Customer

by: _____

by: _____

Title: _____

Title: _____