

**STATE OF NORTH CAROLINA
GUARANTEED ENERGY PERFORMANCE CONTRACTING PROGRAM
INVESTMENT GRADE ENERGY AUDIT AGREEMENT**

This Energy Audit Agreement is entered into on _____, 20____, by and between the ***Insert name of State Agency or University (herein after called the "Issuer")*** _____ and _____ (the Energy Service Company herein after called the "**ESCO**"). **Issuer** and the **ESCO** are referred to herein as the "**Parties**".

WHEREAS, the **Issuer** has issued a Request For Proposals ("RFP") to select a Qualified **ESCO** for a guaranteed energy savings contract; and

WHEREAS, the **ESCO** submitted a response to the RFP and participated in a competitive evaluation procedure designed to select a Qualified **ESCO**; and

WHEREAS, the **Issuer** has accepted the **ESCOs** proposal selected the **ESCO** to complete the project; and

WHEREAS, the **Issuer** is responsible for the operation, payment of the utilities, management and maintenance of the buildings and/or facilities as identified in the RFP, Appendix I (collectively referred to herein as "Buildings"); and

WHEREAS, a comprehensive energy use and savings analysis (the "**Investment Grade Energy Audit**") is required to be performed for the Buildings in order to verify the feasibility of entering into an Guaranteed Energy Savings Performance Contract to provide for the installation and implementation of energy conservation measures (ECMs) at the Buildings; and

WHEREAS, if the ECMs are verified 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 Buildings, the Parties have contracted to negotiate a final Energy Services Agreement (ESA) under which the **ESCO** shall design, procure, implement, provide training, commission, offer maintenance services, monitor such energy conservation measures at the Buildings;

NOW THEREFORE, the Parties agree as follows:

**ARTICLE 1
SCOPE OF INVESTMENT GRADE ENERGY AUDIT**

The **ESCO** will perform the **Investment Grade** Energy Audit and prepare a detailed engineering and economic report (***herein after called*** the "Report") which specifically identifies the energy improvements and operational changes which are recommended to be installed or implemented at the Buildings. The Report shall contain detailed projections of energy and cost savings to be obtained at the Buildings 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 Buildings, including accurate marginal cost for each unit of savings at the time the audit is performed; documented material and labor costs that may be actually avoided; adjustments to the baseline to reflect current conditions at the Buildings, 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 in detail the **ESCO's** plan for installing or implementing the measures in the Buildings, including all anticipated costs associated with such installation and implementation.

The **ESCO's required tasks** in performing the Energy Audit and preparing the Report are the following:

A. Collect General Information For Each Building

(This information is to be included in Schedule B of the Report).

The **ESCO** shall collect detailed building information such as: size, age, construction type, condition and general use of each building except as provided below. The **ESCO** shall also collect and summarize building utility cost and consumption data for the most recent 36-month period. If after reasonable inquiry, the **ESCO** can demonstrate that less than 36 months of data is available, the **ESCO** with the written approval of the issuer may collect such data as is available, but in any event not less than 24 months of data. The **ESCO** shall evaluate the impact on utility cost and consumption for any energy measures currently being installed or currently contemplated to be installed by the **Issuer** in the building which will remain separate from the Energy Services Agreement throughout the duration of the ESA.

The **Issuer** shall furnish (or cause its energy suppliers to furnish) all available records and data concerning energy and water usage for the building for the most current 36 month period, if available, including but not necessarily limited to, utility records, occupancy information, descriptions of any changes in the structure of the building 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 description of energy management procedures presently utilized. The **Issuer** shall also furnish a record of any energy related improvements or modifications that have been installed during the past three years, or are currently being installed or are currently contemplated to be installed by **Issuer** in the Building separate from the ESA throughout the duration of that agreement. **Issuer** shall also provide copies of drawings, equipment logs and maintenance work orders to the **ESCO** insofar as this information is readily available. The **issuer** shall make available any FCAP, IES, or other survey reports available for that building.

B. Inventory Existing Systems and Equipment.

(This information is to be included in Schedule B of the Report)

The **ESCO** shall compile an inventory based on a physical inspection of the major electrical and mechanical systems at the building, 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 applicable energy using systems identified in the RFP or during the performance of this audit.

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 **Issuer**).
2. Current operating condition for each system.
3. Remaining useful life of each system, identifying or describing the method used to determine that remaining useful life.
4. Feasible replacement systems.
5. Hazardous materials and other environmental concerns.

The **ESCO** shall use data loggers and/or other measurement and recording devices and conduct interviews with building operation and maintenance staff regarding the building's system operation, occupancy patterns and problems with comfort levels or equipment reliability.

C. Establish Base Year Consumption and Reconcile with End Use Consumption Estimates.
(This information is to be included in Schedule E of the Report)

The **ESCO** shall examine the most recent 36 months of utility bills except as previously noted in Article 1 – Section A and establish Base Year consumption for electricity, fossil fuels and water by averaging; or selecting the most representative contiguous 12 months. The **ESCO** shall consult with building staff and account for any unusual or anomalous utility bills which may skew Base Year consumption from a reasonable representation.

The **ESCO** 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 or usage is highly uncertain The **ESCO** shall employ spot measurement and/or short term monitoring at its discretion, or at the request of **Issuer**. 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 shall also be reconciled to within 5% of the annual Base Year peak. The "miscellaneous" category shall not be more than

10% and each component shall be separately set forth. The purpose of this is to place reasonable limits on potential savings.

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

(The information generated from this list should be included in the appropriate schedules in Vol 1)

The **ESCO** shall:

1. Identify and propose potential ECMs for installation or implementation at the building including cut sheets on proposed equipment. For non-standard ECMs provide information regarding product site installations.
2. Provide an estimate of the cost, savings and life expectancy of each proposed ECM. Prepare a Life Cycle Cost Analysis in accordance with State Construction Office guidelines as directed by the issuer.
3. Specify operations and maintenance procedures of the building which 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 **ESCO** shall provide access to the program and all inputs and assumptions used, if requested by the Issuer.
6. Provide a 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 emissions reductions data for NOX, 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, the **ESCO** 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 Issuer within ninety (90) days of the execution of this Agreement.

E. Select Final Recommended ECMs.

The **ESCO** shall, in consultation with the **Issuer**, recommend specific ECMs from its preliminary compilation for installation and implementation at the Building and or Facility.

F. Cost and Fee Estimates.

(This information is to be included in Schedule A of the Report)

The **ESCO** 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 labor, materials, and equipment. Open book pricing is required. ESCO will fully disclose all costs, including all costs of subcontractors and sub-tier vendors. The ESCO will maintain cost accounting records on authorized work performed showing actual costs for labor and materials, or other basis requiring accounting records. The ESCO will provide access to records and preserve them for a minimum of three years and for five years if any Federal funds are used in the Contract. The retention period runs from the date of payment for the relevant goods or services by the Issuer or from the date of termination of the Contract, whichever is later. Retention time shall be extended when an audit is scheduled or in progress for a period reasonably necessary to complete an audit and/or to complete any administrative and judicial litigation which may ensue. In addition, project cost data must be provided in the format included in Schedule O of the Report ESCO Cost Proposal and Cash Flow Analysis.

The **ESCO** 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 **Issuer** has endeavored to provide the **ESCO** 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 **ESCO** should seek written guidance from the **Issuer**. The **Issuer** reserves the right to reject items claimed as savings which are not in the **Issuer's** utility budget line or which have been claimed contrary to the guidance given in this Agreement or contrary to written guidance given to the **ESCO**. The **Issuer** also reserves the right to reject the **ESCO's** calculations of savings when it determines that there is another more suitable or preferable means of determining or calculating such savings.

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

Escalation rates of 0 % for natural gas¹
Escalation rates of 0 % for electricity
Escalation rates of 0 % for oil
Escalation rates of 0 % for steam
Escalation rates of 0 % for water
Escalation rates of 0 % 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

It should be noted that the base value for each fuel and water unit will not devalue in the event of any rate decrease. The issuer reserves the right to impose ceiling rates for fuel escalations. The following items will not typically be credited as savings derived from a proposed ECM: Issuer's in-house labor cost, Issuer's deferred maintenance cost and offset of future Issuer's capital costs. The ESCO may seek, in writing, permission to include such items from the Issuer on a case-by-case basis. However, the final determination of allowable savings in each case considered shall reside with Issuer.

H. Report Format.

The **ESCO** shall prepare a two volume report as follows:

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

Volume 1 shall include the presentation of information in the following Schedules required for the ESA to the extent the information has been developed during the course of performing this audit. Schedules may be finalized during negotiations, prior to execution of the ESA.

1. **Executive Summary:** Provide an executive summary which describes the buildings, 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 | | ENERGY COST SAVINGS | SIMPLE PAYBACK |
|--------|-----|------------|------------------------|-------------------|
| | | TOTAL COST | | |
| 1. | | | | |
| 2. | | | | |
| 3. | | | | |
| TOTALS | | | | |

2. **Schedules:**

| | |
|------------|---|
| Schedule A | ECMs and equipment to be installed by the ESCO |
| Schedule B | Description of Premises; Pre-Existing Equipment Inventory |
| Schedule C | Energy Saving Guarantee |
| Schedule D | Compensation to the ESCO |
| Schedule E | Baseline Energy Consumption and Methods to Adjust |
| Schedule F | Savings Measurement & Calculation Formulae |
| Schedule G | Construction and Installation Schedule |
| Schedule H | Systems Start-Up and Commissioning; Operating Parameters of Installed Equipment |
| Schedule I | Standards of Comfort |
| Schedule J | The ESCO's Maintenance Responsibilities |
| Schedule K | Issuer's Maintenance Responsibilities |
| Schedule L | Facility Maintenance Checklist |
| Schedule M | The ESCO's Training Responsibilities |

| | |
|------------|--|
| Schedule N | Installment Payment Schedule |
| Schedule O | Proposed Final Project Cost & Proposed Final Project Cash Flow Analysis (See Attachment B at the end of this Agreement) |
| Schedule P | Current and Known Future Capital Projects at the Premises; Methodology to Adjust Baseline for Changes in Building Use or Operating Hours |
| Schedule Q | Insurance and Bonds |
| Schedule R | Warranties (including Equipment) |
| Schedule S | Financing Agreement |

Exhibits (Volume 1)

- Exhibit I (i) Certificate of Acceptance—Technical Audit
- Exhibit II (ii) Certificate of Acceptance—Installed Equipment

Volume 2 shall include all of the information required in Article 1 Section D and the Sections below, and presented in the following format:

1. **Measures Not Evaluated:** Include a discussion of measures not evaluated in detail and the explanation of why a detailed analysis was not performed.
2. **Appendices:** Provide thorough appendices which 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 90 (Ninety) days of the date of selection of ECMs as referenced in Article 1 Section E. The not-to-exceed cost for the completed Energy Audit and Report will be _____. One electronic (single CD or thumb drive) with all information in Microsoft Office Suite products format shall be delivered to the NC Energy Office.

If the results of this Audit, as described in the Report, are not: (a) within ten percent (10%) of the \$_____ guaranteed savings shown in the ESCO's proposal for the Buildings, and (b) within ten percent (10%) of the \$_____ total project cost shown in the ESCO's proposal for the Buildings, then either the **Issuer** or the **ESCO** may elect to not proceed with the project. If this event occurs, the Issuer will not be obligated to pay the Energy Audit and Report Fee. However, if the **Issuer** terminates the project after this Audit and Report are completed and the results are within both of the ten percent (10%) ranges listed above, then the **Issuer** will be required to pay the **ESCO** this Audit and Report Fee, and the results of this Audit and Report shall become the property of the Issuer.

J. Report Review.

The report in its entirety shall be submitted to the State Construction Office for review.

ARTICLE 2 ENERGY SERVICES AGREEMENT (ESA)

Upon the verification of the final Energy Savings under this agreement, the ESCO is obligated to execute an ESA under which the **ESCO** shall design, install and implement energy conservation measures which the **Parties** have agreed to and provide certain training, maintenance and monitoring services as agreed to by both **Parties**. However, nothing in this Agreement should be construed as an obligation on any of the **Parties** to execute such an ESA. The precise terms and provisions of such an ESA shall be set forth in a separate agreement.

ARTICLE 3 **PAYMENT**

Payment to the **ESCO** for services performed in connection with this Agreement shall be made by the **Issuer** only in accordance with the provisions of Article 1 Section I and Article 4 herein.

ARTICLE 4 **TERMINATION**

A. By the ESCO:

The **ESCO** 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) The **ESCO** determines that it cannot guarantee a minimum savings in energy costs through the implementation of an energy performance contracting project at the Buildings and or Facilities; or
- (ii) The **ESCO** determines that even though it can guarantee a savings in energy costs, that amount would be insufficient to cover the costs associated with performing this Audit, installing energy conservation measures and related training, maintenance and monitoring services.

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

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

B. By the Issuer:

The Issuer may terminate this Agreement:

- (i) If the ESCO fails to complete the Energy Audit and deliver the Report to **the Issuer** by the date established in Article 1 I. above; or fails to obtain a written extension of that date from **the Issuer**. Termination under this subsection B (i) shall be effective upon the **ESCO's** receipt of written notification from **the Issuer** that the deadline for submission of the Energy Audit and Report has past. In this event, **the Issuer** shall not be obligated to

pay any amount to the **ESCO** for services performed or expenses incurred by the **ESCO** in performing the Energy Audit and preparing the Report required under this Agreement. The **ESCO** shall provide the **Issuer** with any Audit documents (preliminary notes, reports or analysis) which have been produced or prepared prior to the effective date of the termination. The **ESCO** will return any documents or information that was provided by the **Issuer**.

- (ii) If, prior or subsequent to the completion of the Energy Audit or Report, the **ESCO** notifies the **Issuer** in writing that it is unable to guarantee a sufficient level of savings pursuant to Article 4 A (i) or (ii) above, termination under this subsection B (ii) shall be effective upon **ESCO's** receipt of written notification of termination from the **Issuer**. In this event, the **Issuer** shall not be obligated to pay any amount to the **ESCO** for services performed or expenses incurred by the **ESCO** in performing the Energy Audit and preparation of the Report required under this Agreement. The **ESCO** shall provide the **Issuer** with any Audit documents (preliminary notes, reports or analysis) which have been produced or prepared prior to the effective date of the termination. The **ESCO** will return any documents or information that was provided by the **Issuer**.
- (iii) If, prior or subsequent to the completion of the Energy Audit or Report, the **Issuer** notifies the **ESCO** in writing that it has elected to terminate this Agreement and not enter into an ESA, the **Issuer** shall reimburse the **ESCO** for either the actual expenses incurred or the percent of the Audit and Report completed whichever is greater but shall not exceed the amount stated in Section I, as of the effective date of the termination, the amount being determined as fair and equitable by the **Issuer**. Termination under this subsection B (iii) shall be effective upon the **ESCO** receipt of written notification from the **Issuer**.

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

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

It is clearly understood by both parties hereto that, if the Parties successfully negotiate and execute an ESA, 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 the **ESCO** and the **Issuer** for a guaranteed energy performance contracting project at the Building and or Facilities. 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 **Issuer** and end on _____, unless earlier terminated pursuant to the provisions of Article 4 hereof. Notwithstanding, the **ESCO** 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 **ESCO** 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 **ESCO** agrees that any material or design specified by the **ESCO** or supplied by the **ESCO** pursuant to this Agreement shall not knowingly infringe any patent or copyright, and the **ESCO** shall be solely responsible for securing any necessary licenses required for patented or copyrighted material utilized by the **ESCO** in the performance of the Energy Audit and preparation of the Report.

Section 4. Customer Access to Records

The Issuer 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 the **ESCO** 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 the **ESCO**, 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 the **ESCO** governing staff members and employees. Neither the **ESCO**, its designated subcontractors, nor its personnel shall be considered to be agents or employees of the **Issuer**.

Section 6. Compliance with Applicable Law

In performance of its obligations pursuant to this Agreement, the **ESCO** 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 **ESCO** without the prior written consent of the **Issuer**.

Section 9. Federal Taxpayer Identification Number and Legal Status Disclosure

Under penalty of perjury, the **ESCO** certifies that ____ - _____ is the **ESCO's** correct Federal Taxpayer Identification Number and that the **ESCO** 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 North Carolina. In the event the parties are unable to resolve any dispute relating to this Agreement, all suits, actions, claims and causes of action relating to this Agreement shall be brought in the courts of the State of North Carolina.

Section 11. Agreement

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

Issuer RFP
ESCO RFP response

NOTE: The **Issuer** shall include all required policy provisions, and shall also include the following attachments.

Attachment I - Drug Free Workplace Provisions
Attachment II - Equal Employment Opportunity Clause

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 Issuer: _____

For ESCO: _____

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.

[Signature page follows]

ARTICLE 6
EXECUTION

IN WITNESS WHEREOF, the parties have executed this Agreement this _____ day of _____, 20____.

Issuer _____

ESCO _____

By: _____

By: _____

Title: _____

Title: _____

By: _____

By: _____

Title: _____

Title: _____

By: _____

By: _____