

AGREEMENT FOR INVESTMENT GRADE AUDIT

This Agreement for an Investment Grade Audit (“Agreement”) is made and entered into this February 22, 2021 by and between Honeywell International Inc. (“ESCO”) and The City of Easthampton, Massachusetts a municipal corporation existing within the Commonwealth of Massachusetts with a usual place of business at 50 Payson, Avenue Easthampton, MA 01027 by and through its duly elected Mayor (“Awarding Authority”) for the purpose of an Investment Grade Energy Audit (IGA) and project development services to identify economically feasible energy and water conservation measures to improve thermal efficiency, conserve energy and water, reduce waste water (collectively “ECM”), and, when specified, generate electrical power at Awarding Authority properties.

This Agreement is entered pursuant to a Request for Qualifications (RFQ) issued by the Awarding Authority dated October 14, 2020, and any changes thereto, and ESCO’s response to said RFQ and any revisions thereto (“Response”) which are incorporated herein. A product of this Agreement shall be an energy audit and report, which, together with all related drawings, plans and revisions (collectively “Energy Audit Report” or “EAR”) shall become the specifications for work, if any, to be performed by the ESCO under a separate energy management services contract (“Contract”) to be negotiated between the Awarding Authority and the ESCO *after* review and acceptance of the final Energy Audit Report by the Awarding Authority

SECTION 1: SERVICES

The ESCO agrees to provide an “IGA” in accordance with Exhibit A entitled “ Scope of Audit” and the terms and conditions of this Agreement (“Services”). The ESCO agrees to assume full responsibility for the IGA, for determining the ECM’s and in identifying all requirements to execute such ECMs.

The Awarding Authority agrees to reasonably assist the ESCO in its performance of the IGA and provide full and accurate information reasonably requested by the ESCO. The ESCO will assess the validity of the information provided and confirm or correct the information as needed.

SECTION 2: PROVISIONS

2.1 Cost of the IGA

If after review of the Energy Audit Report the Awarding Authority negotiates and enters into a Contract with the ESCO, such contract will include provisions providing for payment by the Awarding Authority for the reasonable costs incurred by ESCO in performing this IGA Energy Audit. If, the Awarding Authority does not enter into a Contract with the ESCO after reviewing the Energy Audit, the ESCO shall not be entitled to payment of any nature or kind by the Awarding Authority for its work under this Agreement.

2.2 Terms

- a) All conservation measures recommended in the EAR shall meet all current codes including the State Sanitary Code, Plumbing and Fuel Gas Codes, Fire Prevention Regulations, Massachusetts Electrical Code, State Building Code and any other applicable requirements of federal, state, and local government in effect as of the date of this Agreement. The ESCO will not be expected to resolve any existing code violations but shall strive to report to the Authority if any such violations are found.
- b) In conducting the IGA, the ESCO and its subcontractors, employees, and agents shall secure and maintain in force any permits and licenses required by any local, state or federal law.
- c) In conducting the IGA, the ESCO shall utilize licensed, competent personnel to assure professional and technical accuracy of the IGA.
- d) The ESCO shall not specify equipment that will require additional personnel to be hired by the Authority for operation or maintenance in the IGA. The ESCO, to the extent practicable and consistent with the optimization of conservation measures, shall specify similar or comparable equipment of the same manufacturer at each building and property in order to achieve as much standardization of equipment as possible throughout the Awarding Authority.
- e) The ESCO shall explore and report alternative utility rate options such as peak or master metering, commodity purchases or other more favorable rate possibilities and ascertain any needed capital improvements and costs and determine the economic and operating feasibility.
- f) The Awarding Authority may retain an energy consultant, or other consultants of its choosing, at the expense of the Awarding Authority, to assist the performance of its obligations under this Agreement or review and analysis of the IGA. The ESCO shall work collaboratively with the consultants, if any as directed by the Awarding Authority and shall provide all necessary documentation, in a form satisfactory to the consultant(s) (such as MS Excel) in support of the review of the IGA.
- g) The ESCO shall not engage in unlawful discrimination in employment of persons because of race, color, religious creed, national origin, ancestry, handicap, marital status, veteran status, age, sexual orientation, or sex and shall conform its conduct to local, state and federal laws in this regard.

2.3 Schedule

Within one (1) week of the date of execution of this Agreement, the ESCO shall submit an audit project schedule with the following milestones:

- a) Pre-audit review kickoff meeting date;
- b) Site visit dates;
- c) Preliminary recommendations and optimization presentation; and,
- d) Final audit submittal date.

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: OWNERSHIP AND REUSE OF DOCUMENTS

Unless otherwise agreed to by the Parties, all documents, drawings, calculations, test results, recommendations, technical specifications, renderings, exhibits, models, prints, photographs, or other materials prepared by the ESCO shall be and remain the property of the ESCO.

ESCO's services under this Agreement are provided as is without any warranties whatsoever. ESCO shall have no responsibility to the Awarding Authority or others for any use of the IGA or any other information provided by ESCO unless it is implemented through a subsequently executed Contract with ESCO.

SECTION 5: TERMINATION

The Awarding Authority may terminate this Agreement with or without cause and for any purpose upon ten (10) days written notice to the ESCO at the address set forth below Upon receipt of the termination notice, the ESCO shall stop all work under this Agreement.

The ESCO may terminate this Agreement with or without cause upon thirty (30) days written notice to the Awarding Authority. Upon receipt of the termination notice by the Awarding Authority, the ESCO shall stop all work under this Agreement.

SECTION 6: LIABILITY AND INDEMNIFICATION

The ESCO hereby assumes and is responsible for injury to or death of any person and for property damage to the extent caused by the negligent acts or omissions of the ESCO or any of the ESCO's subcontractors, consultants, agents or the like or anyone or any entity directly or indirectly employed by any one of them whose acts the ESCO may be answerable during the performance of the ESCO's obligations under this Agreement. Such liability shall not extend to injuries, death, or property damage caused solely by the negligent acts or omissions of the Awarding Authority.

The ESCO shall defend, indemnify, and hold harmless ("Indemnify") the Awarding Authority, its elected officials, officers, employees, special employees, and board members (collectively "Indemnified Parties") against all claims, actions, demands, fines, penalties, costs, expenses, damages, losses, obligations, judgments, liabilities and suits involving the Indemnified Parties, including

reasonable attorneys' fees, reasonable experts' fees, and associated court costs ("Liabilities") that arise from or relate to any negligent act or action of the ESCO or its subcontractors, consultants, or agents or anyone or any entity directly or indirectly employed by any one of them whose acts the ESCO may be answerable in the performance of the ESCO's obligations under this Agreement. The foregoing express obligation of Indemnification running to the Awarding Authority shall not be construed to negate or abridge any other obligation of indemnification, contribution or the like running from the ESCO to the Awarding Authority if any action or proceeding is brought against the Awarding Authority out of any occurrence described in this section. The ESCO's obligation shall not be limited on the amount or type of damages, compensation, or benefits payable by or for ESCO or subcontractor under the Worker's Compensation Acts, disability benefit acts or other employee benefit acts.

Notwithstanding anything to the contrary in this Agreement, in no event shall any party to this Agreement liable for indirect, incidental or consequential damages, which result from, arise under or relate to the IGA or services provided under this Agreement.

The ESCO shall, at all times during its performance under the Agreement, maintain in full force and effect adequate commercial general liability insurance and property damage insurance, as well as workmen's compensation and employer's liability insurance pursuant to the State insurance requirements as defined below. Before commencing any work under this Agreement, the ESCO shall file with the Awarding Authority certificates of insurance evidencing the coverage's as specified below. The certificates of insurance shall contain the following express obligation:

COVERAGE LIMITS OF LIABILITY

Standard Workers' Compensation:	Statutory
Employers' Liability:	\$500,000
Bodily Injury:	\$5,000,000 each occurrence (except automobile) \$5,000,000 aggregate
Property Damage:	\$5,000,000 each occurrence (except automobile) \$5,000,000 aggregate
Automobile Bodily Injury:	\$5,000,000 each person \$5,000,000 each occurrence
Automobile Property Damage	\$5,000,000 each occurrence

The Awarding Authority shall be named as an additional insured under the liability and automobile insurance. The general liability insurance policy should contain a broad form general liability endorsement. Should any of the above described policies be cancelled before the expiration date thereof, written notice will be provided to the Awarding Authority by ESCO within thirty (30) days prior to the cancellation of the policy.

SECTION 7: CORI CLEARANCE REQUIREMENTS

In accordance with M.G.L. c.71, §38R, the Awarding Authority may request and obtain all available criminal offender information ("CORI") from the Criminal History Systems Board of any contractor, subcontractor, agent, employee, or consultant of the ESCO who may have direct contact with children. If required by the Awarding Authority, and consistent with the Awarding Authority's CORI policy, upon request by the Awarding Authority the ESCO shall require those individuals subject to a CORI check to comply with the Awarding Authority's CORI procedures.

SECTION 8: EXCUSABLE DELAYS

If ESCO is delayed at any time in the progress of performing its obligations under this Agreement by any act of the Awarding Authority; or by changes ordered or requested by Awarding Authority in the audit services performed pursuant to this Agreement; or by labor disputes, fire, unusual delay in transportation, adverse weather conditions, pandemics, epidemics or other events or occurrences which could not be reasonably anticipated; or unavoidable casualties; or any other problem beyond ESCO's reasonable control (an "Excusable Delay"), then the time for performance of the obligations affected by such Excusable Delay shall be extended by the period of any delay actually incurred as a result thereof.

SECTION 9: MISCELANEOUS PROVISIONS

A. Entire Agreement: This Agreement along with the Attachments listed below constitutes the entire agreement and understanding of the Parties, is an integrated document and supersedes any and all prior agreements and understandings of the Parties, whether oral written or otherwise.

Exhibits:

Exhibit A: Scope of Work

B. No Joint Venture, Partnership or Agency: Nothing contained in this Agreement shall be deemed or construed as creating a joint venture or partnership between any of the Parties hereto. No Party is by virtue of this Agreement authorized as an agent, employee or legal representative of any other Party. No Party shall have any power or authority to bind or commit any other. No Party shall hold itself out as having any authority or relationship in contravention of this section.

C. No Assignment of Rights: This Agreement and the rights of the Parties hereunder may not be assigned (except by operation of law) without the advance written consent of the other party, which consent will not be unreasonably withheld or delayed, and shall be binding upon and shall inure to the benefit of the Parties their heirs, successors and assigns, if any.

D. Waiver or Modification: No modification, amendment or waiver of any of the provisions contained in this Agreement, or any representation, promise or condition in connection with the subject

matter of this Agreement shall be binding upon any Party unless made in writing and signed by such Party or by a duly authorized officer or agent of such Party.

E. Further Assurances: The Parties agree to execute all reasonable documents and perform all reasonable acts necessary or appropriate to effectuate the performance of the terms of this Agreement.

F. The Parties acknowledge that no promise or inducement, which is not contained in this Agreement, has been made to him/her or it, and in executing this Agreement, he/she or it has not relied upon any statement or representation not contained in this Agreement.

G. Reliance on Representations: Each of the Parties agrees that they have relied on the representation and warranty of each and every other Party made in writing in this Agreement and that but for such representations or warranties such Party would not have executed this Agreement.

H. Plain Meaning: Unless specifically defined in this Agreement, all words used in this Agreement shall be given their plain and ordinary meaning.

I. Legal Construction: Each Party has read and understands all portions of this Agreement. The Parties agree that the terms of this Agreement shall not be interpreted in favor of or against any Party as the drafter, but shall be interpreted solely for the purposes of fairly effectuating the express intent of the Parties as detailed in this Agreement.

J. Headings: In interpreting this Agreement headings shall have no meaning and shall be treated as being provided for informational purposes only.

K. Severability: Except for the release provisions, if any term, provision, covenant or condition of this Agreement shall be held by a court of competent jurisdiction to be invalid, void or unenforceable, in whole or in part, such decision shall not effect the validity of any remaining portion of this Agreement and the remaining portion of this Agreement shall stand in full force and effect, and shall in no way be effected, impaired or invalidated.

L. Forum Selection and Jurisdiction: This Agreement shall be governed solely by the laws of the Commonwealth of Massachusetts without giving effect to conflicts of laws principles. The Parties irrevocably and unconditionally consent to the exclusive jurisdiction of the Commonwealth of Massachusetts Superior Court and the venue of Hampshire County, Massachusetts to resolve all disputes, claims or controversies arising out of or relating to this Agreement or any agreement, document or instrument executed and delivered in connection to or with this Agreement or the negotiation, breach, validity, termination or performance of this Agreement and the transactions contemplated hereby. The Parties further irrevocably waive any objection to proceeding based upon lack of personal jurisdiction or to the laying of venue and further irrevocably and unconditionally waive and agree not to make a claim in any court that the action has been brought in an inconvenient forum.

M. Authority to Execute Agreement: Each Party executing this Agreement warrants and represents to the other Parties that he/she or it is an authorized representative of the Party holding valid and legal authority to execute this Agreement and to bind themselves and the entities they represent to the terms of this Agreement.

N. Execution in Multiple Parts/Signatures: To facilitate execution, this Agreement may be executed in two or more counterparts each of which shall be deemed an original but all of which shall constitute one and the same document. A scanned, duplicate or facsimile copy of a signature on this Agreement shall have the same force and effect as if such signature were an original signature.

O. Notices: Any and all notices, consents, demands, requests, approvals, or other communications required or permitted under this Agreement, shall be in writing and delivered by hand or mailed postage prepaid, return receipt requested, by registered or certified mail or by other reputable delivery service, to the Parties at the addresses set forth below. Any such notice or correspondence shall be deemed given when so delivered by hand, if so mailed, when deposited with the U.S. Postal Service or, if sent by private overnight or other delivery service, when deposited with such delivery service.

All notices required hereunder shall be provided in writing at the following addresses:

ESCO:

Honeywell International, Inc.
John Bonavist, Senior Business Consultant
63 Milton Street
Worcester, MA 01606

With a copy to:

Samuel Rosenstein
Assistant General Counsel
1985 Douglas Drive N.
Golden Valley, MN 55422

Easthampton:

City of Easthampton, Massachusetts
Attn: Mayor
Easthampton Municipal Building 50 Payson Avenue
Easthampton, MA. 01027

with a copy to

Bacon Wilson P.C.
Attn: Mark A. Tanner, Esq.
57 Center Street
Northampton, MA 01060

The Parties shall promptly notify each other of any change of their respective addresses set forth above, after which notification such new address shall become the notice address hereunder.

SIGNATURE LINES TO FOLLOW

IN WITNESS WHEREOF, we have hereunto set our hands and seals on the dates indicated below our signatures.

Witness

Eric Schmitt

Witness

City of Easthampton, Massachusetts

Designated by:
Nicole LaChapelle

Nicole LaChapelle, its Duly Elected

Mayor
Date: 2/22/2021

Honeywell International, Inc.

[Signature]

Its:
Date: 2/22/21

[Signature]

Approved as to Form
Office of General Counsel
City Solicitor

EXHIBIT A: SCOPE OF WORK

The purpose of the IGA is to provide an investment-grade audit that quantifies the size, scope, payback, and firm cost for each ECM that may be financed through the Contract. Execution and approval by the Awarding Authority of this Agreement shall serve as a Notice to Proceed.

The approved Investment Grade Audit Report will be used as Attachment X: *Scope of Work*. The Project Proposal is the basis for the Proforma, which will be used in Schedule ____: *Final Project Cost and Project Cash Flow Analysis of the EMS Contract*.

The ESCO shall commence preparation of the Energy Audit in sufficient time to meet the following schedule:

Site visits	As needed and scheduled with Awarding Authority
Draft Energy Audit submitted	
Authority review draft	
Energy Audit submitted	
Energy Audit accepted or rejected	

The deadline for an acceptable Energy Audit shall be no later than **4:00 PM**, on _____, **20__**. After this date, the Awarding Authority may terminate this Agreement upon written notice to ESCO.

1. GENERAL SCOPE

The ESCO will:

- a) Conduct and report on detailed site surveys of all property listed in RFQ Facility Profile, including all utilities identified for conservation measures and all energy and water systems and identify the size, scope, and payback of energy conservation measures by a documented analysis of various conservation opportunities.
- b) Inspect a random sampling of items (e.g. toilets, lamps, or other equipment) in sufficient detail to ensure a statistical level of confidence to guarantee the capital cost and performance of the work. ESCO shall utilize all available resources such as construction documents, equipment manuals, maintenance records, and interviews of persons familiar with each property and its operations.
- c) Examine all utility data to check for accuracy against actual bills and data printouts in order to confirm that baseline data is accurate & complete; document baseline and projected utility data for use in the performance guarantee of the Contract. The accuracy of the baseline consumption, savings projections, and capital budget are of the essence of this Agreement and the subsequent Contract.
- d) Present a thorough description of each recommended conservation measure including, but not limited to, conceptual summary, equipment and material specifications, plans, schematics or detail sketches as appropriate, cost, useful life, savings in utility consumption and expense,

maintenance and operating expenses as applicable, assurances that the original design performance shall be maintained throughout the useful life of the equipment and systems installed, monitoring requirements, impact, if any, of each measure on the buildings, other building systems and occupants, and payback. This information shall be prepared consistent with the RFQ and with Facility Profile.

- e) Summarize any conservation measures that are rejected and state the reasons for rejection. The ESCO shall be prepared to provide backup data, calculations, and other information as requested by the Authority but need not include this detail in the Energy Audit.
- f) Prepare a detailed operational plan showing the sequence of operations for the work to be performed.
- g) Prepare sufficient design, plans, equipment, material and other detail suitable as specifications for work to be performed under the subsequent Contract.

2. GUARANTEED SAVINGS CALCULATIONS

- a) Annual guaranteed energy and cost savings is required for the entire financing term. The guarantee is based on cost savings attributable to all energy saving measures, and must equal or exceed all project costs each year during the contract period. Annual project costs include debt service, ESCO fees, maintenance services, monitoring services, and other services.
- b) Excess savings or annual cost savings beyond the guaranteed minimum savings will be retained by Awarding Authority, and will not be allocated to shortfalls in other years.
- c) The annual savings for all measures must be estimated for each year during the contract period.

3. ALLOWABLE COST AND SAVINGS FACTORS

- a) Allowable payment sources:
 - 1) Energy and water cost savings.
 - 2) Material/commodity savings, including scheduled replacement of parts.
 - 3) Outside labor cost savings, including maintenance contracts. Any savings related to maintenance and operation of the facilities will be limited to those that can be thoroughly documented.
- b) Negotiable payment sources:
 - 1) Offset of Awarding Authority future capital cost
 - 2) Outside incentive funds (utility incentives, grants, etc.)

- 3) Escalation rates for natural gas, electricity, water, and material/commodity cost savings. These are rates used in cash flow projections for project development purposes. *NOTE: Use historical data and/or federal government guidelines on utility escalation rates to ensure reasonableness.*
- 4) Interest rates (municipal tax-exempt rates for public institutions)
- 5) Awarding Authority cash outlay (at Awarding Authority's sole discretion)

4. EXISTING CONDITIONS

The ESCO will document the existing conditions of the facilities, including the following information itemized for each building included in the project:

- A. Building physical condition;
- B. Hours of use or occupancy;
- C. Square footage by facility including area of conditioned space; area of unconditioned space;
- D. Inventory of energy consuming equipment or systems;
- E. Energy consuming equipment operating conditions and loads;
- F. Standards of service and comfort observed (e.g. light levels, ventilation, and temperatures);
- G. Utility company invoices;
- H. Current practices that unnecessarily increase energy use or impact baseline;
- I. Drawings, as available (may include mechanical, plumbing, electrical, building automation and temperature controls, structural, architectural, modifications and remodels);
- J. Operating engineer logs, maintenance work orders, etc., as available;
- K. Records of maintenance expenditures on energy-using equipment, including service contracts;
- L. Description of energy management procedures utilized on the premises;
- M. Description of any energy-related improvements made or currently being implemented;
- N. Description of any changes in the structure of the facility or energy-using or water-using equipment;

O. Description of future plans provided by the City of Easthampton regarding building modifications or equipment modifications and replacements;

P. Original construction submittals and factory data as provided by the City of Easthampton (specifications, pump curves, etc.), as available;

The Awarding Authority agrees to work diligently to furnish the ESCO accurate and complete data and information as available. Where information is not available, the ESCO will make a diligent effort to collect such information through the facility inspection, staff interviews, and utility companies.

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

1. FACILITY INSPECTIONS

A. Interview the facility manager, maintenance staff, and occupants of each building regarding:

- 1) Facility operation, including energy management procedures;
- 2) Equipment maintenance problems;
- 3) Comfort problems and requirements;
- 4) Equipment reliability;
- 5) Projected equipment needs;
- 6) Occupancy and use schedules for the facility and specific equipment; and,
- 7) Facility improvements past and planned.

B. Survey major energy-using equipment, including;

- 1) Lighting (indoor and outdoor);
- 2) Heating and heat distribution systems;
- 3) Cooling systems and related equipment;
- 4) Automatic temperature control systems and equipment;
- 5) Air distribution systems and equipment;
- 6) Outdoor ventilation systems and equipment;

- 7) Exhaust systems and equipment;
- 8) Hot water systems;
- 9) Electric motors, transmission and drive systems, special systems (kitchen/dining equipment, etc.);
- 10) Renewable energy systems;
- 11) Other energy using systems; and,
- 12) Water consuming systems (restroom fixtures, water fountains, irrigation systems, etc.).

C. Perform "late-night" surveys outside of normal business hours or on weekends to confirm building system and occupancy schedules, if deemed necessary.

D. Develop a preliminary list of potential energy and water saving measures, with consideration of the following for each system:

- 1) Comfort and maintenance problems;
- 2) Energy use, loads, proper sizing, efficiencies and hours of operation;
- 3) Current operating condition;
- 4) Remaining useful life;
- 5) Feasibility of system replacement;
- 6) Hazardous materials and other environmental concerns;
- 7) Awarding Authority's future plans for equipment replacement or building renovations;
- 8) Facility operation and maintenance procedures that could be affected; and,

The Awarding Authority will allow the ESCO reasonable access to facility staff to ensure understanding of existing systems and opportunities. The ESCO will work diligently to assess validity of information provided and confirm or correct the information as needed.

2. ESTABLISH BASELINE CONSUMPTION

A. The ESCO will establish base year consumption by examining utility bills for the past three years for electricity, gas, steam, water, etc. Present base year consumption in terms of energy units (kWh, kW, CCF, Therms, gallons, or other units used in bills), in terms of dollars, and in terms of dollars per square foot. Describe the process used to determine the base year (averaging, selecting most representative contiguous 12 months, etc.). Consult

with facility personnel to account for any anomalous schedule or operating conditions on billings that could skew the base year representation. The ESCO will account for periods of time when equipment was broken or malfunctioning in calculating the base year.

B. The ESCO will estimate loading, usage and/or hours of operation for all major end uses of total facility consumption including, but not limited to:

- 1) Lighting
- 2) Heating
- 3) Cooling
- 4) Motors (fans and pumps)
- 5) Plug loads
- 6) Kitchen equipment
- 7) Other major energy and water using equipment.

Where loading or usage are highly uncertain (including variable loads such as cooling), the ESCO will use its best judgment, spot measurements or short-term monitoring. The ESCO should not assume that equipment run hours equal the operating hours of the building(s) or facility staff estimates.

C. The ESCO will reconcile annual end-use estimated consumption with the annual base year consumption. This reconciliation will place reasonable “real-world” limits on potential savings.

D. The ESCO will propose adjustments to the baseline for energy and water saving measures that will be implemented in the future.

3. DEVELOP PRELIMINARY AUDIT ANALYSIS

- A. List all potential opportunities, whether cost-effective or not;
- B. Identify measures that seem likely to be cost effective and therefore warrant detailed analysis. Present ECMs in the order that interactions are considered;
- C. For each measure, prepare a preliminary estimate of energy or water cost savings including description of analysis methodology, supporting calculations and assumptions used to estimate savings.

Present preliminary findings prior to thorough analysis. Describe how the projected project economics meet the Awarding Authority’s terms for completing the Technical Energy Audit and Contract. Discuss assessment of energy use, savings potential, project opportunities, and potential for developing an energy performance contract. Develop a list of recommended measures for further analysis. The Awarding Authority shall have the option to reject calculations of savings, potential savings allowed, or project recommendations.

4. CONDUCT COMPREHENSIVE DETAILED ENERGY AUDIT ANALYSIS

In analyzing the savings and costs for each energy and water measure, the ESCO will:

- A. Follow the engineering principle(s) and methodologies to calculate energy and water savings consistent with ASHRAE or other nationally-recognized authority;
- B. Consider technologies in a comprehensive approach including, but not limited to: lighting systems, heating/ventilating/air conditioning equipment and distribution systems, controls systems, building envelope, motors, kitchen equipment, pools, renewable energy systems, other special equipment, irrigation systems, and water saving devices as requested by the Awarding Authority;
- C. Utilize assumptions, projections, and baselines that best represent the true value of future energy or operational savings, including: accurate marginal costs for each unit of savings at the time the audit is performed; documentation of material and labor cost savings; adjustments to the baseline to reflect current conditions at the facility; and, calculations that account for the interactive effects of the recommended measures;
- D. Use best judgment regarding the employment of instrumentation and recording durations so as to achieve an accurate and faithful characterization of energy use; and,
- E. Develop a preliminary measurement and verification plan for each measure based on the Awarding Authority's preference.

5. PREPARE A DRAFT TECHNICAL ENERGY AUDIT REPORT.

To provide an engineering and economic basis for negotiating a Contract between the Awarding Authority and the ESCO, the report shall include:

A. Overview

- 1) Summary table of recommended energy and water saving measures, with itemization for each measure of total design and construction cost, annual maintenance costs, the first year cost avoidance (in dollars and energy units), simple payback and equipment service life;
- 2) Summary of annual energy and water use by fuel type and costs of existing or base year condition;
- 3) Calculation of cost savings expected if all recommended measures are implemented, and total percentage savings of total facility energy cost;
- 4) Description of the existing facility, mechanical and electrical systems;
- 5) Summary description of measures, including estimated costs and savings for each;
- 6) Discussion of measures considered but not investigated in detail;
- 7) Discussion of utility rebates, school building aid, or other rebate and incentive options; and,

8) Conclusions and recommendations

B. Facility Profile

- 1) Description of facilities;
- 2) Size of each facility;
- 3) Facility use;
- 4) Occupancy schedule;
- 5) Original construction date;
- 6) HVAC system
- 7) Controls; and,
- 8) Other major equipment.

C. Base year energy use

- 1) Description and itemization of current billing rates, including;
 - a) Schedules;
 - b) Energy type;
 - c) Native units (kWh, gals, etc.);
 - d) Average price per unit;
 - e) Marginal price per unit, if applicable;
 - f) Effective date of prices; and,
 - g) Monthly listing for rates that vary.
- 2) Summary of all utility bills for all fuel types and water;
- 3) Base year consumption and description of how established;
- 4) Reconciliation of estimated end use consumption (i.e. lighting, cooling, heating, fans, plug loads, etc) with base year (include discussion of any unusual findings);

D. Full description of each energy and water saving measure including:

- 1) Existing conditions;
- 2) Recommended equipment and how it will function;
- 3) Operation and maintenance procedures affected by installation/implementation;
- 4) The plan for installing or implementing the recommendation;
- 5) Savings calculations
 - a) Base year energy use and cost;
 - b) Post-retrofit energy use and cost;
 - c) Savings estimates including analysis methodology, supporting calculations and assumptions used;
 - d) Annual savings estimates (the cost savings for all energy saving measures must be estimated for each year during the contract period and savings must be achieved each year, not reported as average annual savings over the term of the contract);
 - e) Percent cost-avoidance projected;
 - f) Description and calculations for any proposed rate changes

- g) Explanation of how savings interactions between ECMs is calculated;
- h) Operation and maintenance savings, including detailed calculations and description;
- i) If using computer simulation, include a short description and state key input data. The Awarding Authority will require a hardcopy of printouts and electronic documentation of the analysis conducted; and,
- j) If using manual calculations, formulas, assumptions and key data shall be stated. The Awarding Authority will require a hardcopy of printouts and electronic documentation of the analysis conducted.

6) Cost estimates and avoided costs

The ESCO will provide a detailed scope of the construction work needed, suitable for cost estimating. Include all anticipated costs associated with installation and implementation. Provide specifications for major mechanical components as well as detailed lighting and water fixture counts.

- a) Engineering/design costs;
- b) Contractor/vendor estimates for labor, materials, and equipment; include special provisions, overtime, etc., as needed to accomplish the work with minimum disruption to the operations of the facilities;
- c) Permit costs;
- d) Construction management fees;
- e) Environmental costs or benefits (disposal, avoided emissions, handling of hazardous materials, etc.);
- f) Financing costs; and,
- g) Avoided costs including utility or other rebates, subsidies, and or third-party aid.

7) Other

- a) Estimate of average useful service life of equipment
- b) Preliminary commissioning plan
- c) Impacts that the facility would incur after contract ends. Consider operation and maintenance impacts, staffing impacts, budget impacts, etc.; and,
- d) Compatibility with existing systems.

8) Rebates, subsidies, and Incentives

Provide a detailed discussion of the ESCO's plan to secure on behalf of, or in conjunction with the Awarding Authority, all available rebates, subsidies and third-party aid for each ECM and the over project. Discuss which rebates, subsidies and/or third-party aid the ESCO will guarantee and whether any additional rebates, subsidies and/or third-party aid will accrue to the benefit of the Awarding Authority.

9) Measurement and Verification Plan

Provide a detailed description of the measurement and verification plan (following the Federal Energy Management Measurement and Verification Guidelines) and the approach employed for each ECM to demonstrate realized savings that are sustainable over the useful life of the ECM. The plan shall

include definitions of terminology and the methods and procedures for reconciling the verified saving to the guaranteed savings.

10) Financial Summary

Provide a cash flow analysis listing the annual energy, water, and O&M savings, the annual lease payments, and the annual M&V, maintenance, and other costs, any rebates and/or third-party aid, and the net annual cash flow. List interest rate and applicable energy cost escalation rates.

11) Appendices

Complete appendices that document the data used to prepare the analyses, including a description of how data were collected.

E. Optimize IGA

The ESCO will meet with the Awarding Authority and present the technical and economic findings of the IGA. Such meeting will enable the Awarding Authority to collaborate on optimizing the ECM selection based on its requirements and preferences. Upon completion of the optimization process, the ESCO shall update and revise the IGA to reflect the optimized EMS project, including an updated financial summary as described above.

F. ECM Installation Schedule

For each ECM provide a proposed implementation schedule. Include the following milestones:

- 1) Design completed;
- 2) Permits;
- 3) Submittals (plans and specifications);
- 4) Equipment/Material acquisition;
- 5) Mobilization;
- 6) Installation;
- 7) Clean up;
- 8) Startup/Testing;
- 9) Final inspection
- 10) Post installation submittals; and,

11) Training.

G. Prepare Contract Terms

Using the Department of Energy Resources Model Contract, the ESCO will provide a listing of Contract terms necessary to facilitate Awarding Authority approval, including;

- 1) A list of energy conservation measures. Include a list of services that will be provided as related to each cost;
- 2) Expected term of the Contract.
- 3) Analysis of annual cash flow for the Awarding Authority during the Contract term;
- 4) Description of how the project will be financed including available interest rates and financing terms, based on interest rates likely available to Institution at this time, and based on a 60-day and 90-day lock option.
- 5) Explanation of how the savings will be calculated and adjusted due to weather (such as heating and cooling degree days), occupancy or other factors. Monitoring and verification methods must be consistent with the most recent version of the Federal Energy Management Program (FEMP) Measurement and Verification Guidelines.

Nothing herein obligates the Awarding Authority to enter into the Contract.

