

THE TOWN OF XYZ (Awarding Authority)

**REQUEST FOR RESPONSES
FOR
ENERGY AND WATER CONSERVATION SERVICES
AT
(FILL IN PROJECT SITE)**

RFR PROJECT # (as listed in The Central Register)

Awarding Authority: The City/Town of XYZ (*Insert name of Awarding Authority*)
Address: (*Fill this in*).

RFR File Name/Title: Energy Management Service Contract for the Town of XYZ.

RFR Contact Person: (*Fill this in*)
Address: (*Fill this in*)
Telephone: (*Fill this in*)
Fax: (*Fill this in*)
Email: (*Fill this in*)

HYPOTHETICAL PROCUREMENT CALENDAR

Submit One (1) original and four (4) copies of sealed written response (personal delivery, mail, or courier).

Facility Tour	Week 3 – 4
Written inquiries due to RFR Contact Person by	Week 5
Answers to all written inquiries mailed to Site Visitors	Week 6
Bidder Responses Due by	3:00p.m. Day, Week 7, 200_
Evaluation period (estimated)	Week 7 – 8
Anticipated Award Date	_____ Day, Week 9

Please Note—This schedule assumes that the RFR is issued in Week 1.

**Request For Responses
For
Energy Management Services
Energy and Water Conservation Services
At
(Insert Name of Awarding Authority)**

Please Note: This document is a **model** Request for Responses (RFR) with provisions that institutions may or may not choose to use in procuring Energy Management Services under Chapter 25A § 11C of the Massachusetts General Laws (<http://www.state.ma.us/legis/laws/mgl/25a%2D11c.htm>). It is the sole responsibility of each institution to consult with legal counsel in preparing both bid and contract documents and to ensure compliance with all applicable federal, state, and local law, rules, regulations, and procurement procedures. **The Massachusetts Division of Energy Resources does not accept any responsibility for any party's use of this sample document, or assure the accuracy or legality of any provisions contained herein.**

I. BACKGROUND

The _____ (**Insert name of Awarding Authority**) (hereinafter the "Awarding Authority") requests responses from qualified Energy Services Companies (hereinafter the "ESCO") for the provision of comprehensive energy and water efficiency services at _____ (**insert name of buildings**) on an Energy Management Services (EMS) Contracting basis (performance based).

M.G.L. c.25A, §11C, and 225 CMR 10.00 authorizes procurement for energy conservation services (ECS) with three significant differences from other state procurements. First, it allows a design-build process that provides continuity in the conceptualization, engineering and design, construction and monitoring of a project. **Second, once an EMS contract is awarded, it allows the project to proceed from design to closeout with no further public bidding.** Third, it is paid for by energy savings guaranteed by the ESCO.

For this RFR, the Awarding Authority is interested in contracting for the full scope of energy and water cost management services, including: a detailed audit, the design, purchase, installation and modification of existing and new equipment that will reduce energy and water consumption associated with the Heating, Ventilation, and Air Conditioning systems, Lighting, Building Envelope, Domestic Hot Water System, and other energy and water using devices. The Awarding Authority is most interested in improvements that will _____ (**list the minimum scope of work, energy conservation measures (ECM), and concerns about compatibility of existing controls with proposed energy management system**). Services are also requested for training, preventive maintenance and operation of the new equipment, as well as for other services or measures that may not reduce consumption per se but which are aimed at cost savings, such as fuel switching, rate changes, power factor correction¹, thermal storage and cogeneration.

¹ A power factor is the ratio of active power to total power.

Currently, the Awarding Authority anticipates that it will finance the project from savings and own all equipment installed as a result of this project. Responses are expected to include any services that the ESCO can provide concerning the purchase, finance and ownership of installed equipment. The Awarding Authority expects that the savings guarantee provided by ESCO pursuant to this RFR will fully offset the project costs. **ESCOs may propose alternative financing and equipment ownership arrangements that are permitted under M.G.L. c. 25A § 11C and 225 C.M.R. 10.00.**

Payments for all services will be indexed to measured reductions in energy and water cost savings and there will be no up-front costs to the Awarding Authority. **Maintenance costs will not be considered in the energy and water cost savings calculations.** ESCOs may wish to enhance their responses by considering participation in any **utility programs**.

The four (4) primary stages of the procurement process are as follows:

STAGE ONE

Division of Capital Asset Management (DCAM) - Contractor Certification Process. *ESCOs are advised that advance certification by Massachusetts Division of Capital Asset Management and Maintenance (“DCAM”) is required pursuant to M.G.L. c. 149 § 44D*

(<http://www.state.ma.us/legis/laws/mgl/149%2D44d.htm>). This certification must be submitted to DCAM at the following address at least six (6) weeks prior to the deadline for responding to this RFR:

Division of Capital Asset Management & Maintenance
Office of Contractor Qualification
One Ashburton Place, 15th Floor
Boston, MA 02108
Tel. (617) 727-4050 x 344 Fax (617) 727-5363

The following DCAM web site contains instructions and application forms for the certification process, however, be sure to obtain and complete the Energy Services Update Statement and Energy Services Addendum: http://www.state.ma.us/cam/forms/fi_contractcert.html

STAGE TWO

Pre-Proposal Conference and Facility Tour (Voluntary)

A Pre-Proposal Conference and Tour of the Facility(s) will be held at _____ (*Location of Building*) on _____ (*Insert date*) at _____ (*Insert time*). The Awarding Authority **recommends** that all potential bidders attend. For more information on the Pre-Proposal Conference and Facility Tour or to reserve a place at the Conference, please contact _____ (*Insert Name of RFR Contact Person*). The Awarding Authority reserves the right to amend this RFR based on questions and issues raised prior to and at the Pre-Proposal Conference. ESCOs represented at the Pre-Proposal Conference will receive any such amendments **in writing, delivered by certified mail.**

STAGE THREE

Submission of Responses. Any ESCO qualified to perform energy management services who wishes to submit a response to this RFR must submit four (4) copies of Attachment A, Form for Response Submission, and a copy of their **DCAM Certificate of Eligibility** as a qualified **Energy Management** vendor and **Update Statement** to:

_____ (*Insert Name of Awarding Authority*)
Attention: _____ (*Insert Name of RFR Contact Person*)
_____ (*Insert Address of Awarding Authority*)

By the Following Deadline:

Date Due: _____ (*Insert Month, Day, and Year*)
Time Due: _____ (*Insert time, such as 3:00pm*)

The Awarding Authority will not consider responses received after the deadline for submission of responses. Telecopied, faxed or e-mailed responses will be rejected as non-responsive.

The ESCO will include the complete set of proposed energy and water improvements, proposed capital costs, timetable for completing engineering and construction work, a detailed description of services to be provided, and an estimate of the energy and water savings, as well as special terms offered by the ESCO in its response to Attachment A: Form for Response Submission. All ESCOs must indicate that all mandatory terms and conditions have been met, including compliance with current Prevailing Wage Laws.²

STAGE FOUR

Selection of Vendor. The Awarding Authority will evaluate all responses based upon the criteria listed in Attachment A of this RFR. To be considered responsive, all responses must first meet minimum evaluation criteria as described in Attachment E. The Awarding Authority reserves the right to waive any minor informality in responses.

Following vendor selection, the ESCO will then sign an Audit Contract for the verification of the proposed conservation strategy. The ESCO will be expected to execute an Energy Services Agreement in substantially the form attached hereto in Attachment E: Response Evaluation Forms. Thus, it is encouraged that all ESCOs review this document and confer with an attorney prior to submitting a response to this RFR. **If an acceptable contract cannot be reached, the Awarding Authority may initiate negotiations with the second ranked ESCO.**

Under the terms of the Audit Agreement (Attachment F), the ESCO will perform a detailed energy and water audit of the _____ (*insert # of buildings*) buildings within (*specify number of days*) days after contract award **OR the ESCO will be given (*specify number of days*) days to validate the results of any existing energy audit.** Based on the results of the audit or validation, the ESCO will then attach, in final form, the scope of services for the Agreement.

If (a) the ESCO's audit has identified estimated savings that are less than 85% of the savings estimated in their response, or (b) the projected value of the net benefit to the Awarding Authority set forth in the ESCO's response decreases by more than 15% from the value to the Awarding Authority identified in the audit, or (c) any purchase option price set forth in the ESCO's audit is greater than 110% of the

² Deviations from the instructions for preparing responses may not necessarily be fatal to the response but may cause the ESCO to lose scoring points if the Selection Committee concludes that searching for answers on which to base the scoring is unreasonably difficult or if the response appears to be little more than a general response without a thorough analysis of the specific challenge at hand.

corresponding purchase option price provided in the ESCO's response, the Awarding Authority reserves the right to refuse reimbursement for the cost of the audit (OR audit validation).

To aid ESCOs in preparing a response, the following documents are attached:

Attachment A: Form for Response Submission

Attachment B: Minimum Contractual Terms

Attachment C: Cash Flow Statement Form

Attachment D: Facility Profile

Attachment E: Response Evaluation Forms

Attachment F: Form of Energy Audit Agreement

Attachment G: Energy Management Services Agreement (EMSA)

II. RFR PROCEDURES

- A. Modification or Withdrawal of Responses Any response may be withdrawn or modified by written request of the ESCO, provided such request is received by the Awarding Authority at the above address prior to _____ (*Insert due date for bidder responses*).
- B. Cost of Response Preparation The Awarding Authority **will not** reimburse ESCOs for any costs incurred in preparing responses to this RFR, including site visits or preliminary engineering analyses.
- C. Public Record To review a copy of responses submitted to the Awarding Authority after the contract has been awarded, submit a written request in compliance with the State's Freedom of Information Act to the RFR Contact Person identified above.

ATTACHMENT A³
Response Form
EMS Contracting for Energy and Water Conservation Services

To: _____

ESCO: _____

Address: _____

City, State, Zip Code: _____

Phone: _____ Fax: _____ E-mail _____

Federal tax id# (SSN for individuals): _____

Organizational structure: Corporation: _____ Partnership: _____ Joint venture: _____
Individual/Proprietorship _____ Other: _____

Ownership: Public stock: _____ Privately owned: _____ Non-profit: _____

Minority and women business enterprise information (check as appropriate):

Minority owned: _____ Women owned: _____ Owned by person with disability: _____

Small Business: _____ SOMWBA Certified: _____

I have read, understand, and agree to comply with the terms and conditions for providing Energy Management Services to the Awarding Authority as stated in the Awarding Authority's Request for Responses. Furthermore, I hereby certify, under penalties of perjury, that this response has been made and submitted in good faith and without collusion or fraud with any other person. As used in this certification, the word "person" shall mean any natural person, business, partnership, corporation, union, committee, club, or other organization, entity, or group of individuals.

Signature

Date

If applicable, fill in the following:

I acknowledge receipt of Addendum No(s). _____, dated _____.

Signature

Date

³ Please use this sheet as the first page of the Response

Contractor Authorized Signature Verification Form

Corporations

1. **Authorization.** Attach a copy of a board of directors corporate resolution that each signatory is authorized to execute contracts and other documents and legally bind the corporation, **AND**
2. **Notarization.** Attach a notarized copy of each signatory's signature.

Partnership, Joint Venture or other non-corporate Entities

1. **Authorization.** Attach documentation for each signatory of authorization to execute contracts and other documents and legally bind the partnership or other non-corporate entity, **AND**
2. **Notarization.** Attach a notarized copy of each signatory's signature.

Individual/Proprietorship

1. **Official Sample of Signature.** Attach a copy of a driver's license, social security card or other acceptable official form or identification containing the authorized signatory's signature, **AND**
2. **Notarization.** Attach a notarized copy of each signatory's signature.

THIS SECTION MAY BE USED FOR NOTARIZATION

PRINT SIGNATORY'S FULL LEGAL NAME:

SIGNATURE: (as it will appear on documents)

(NOTARY) I, _____ as a notary public certify under the pains and penalties of perjury that I witnessed the signature of the aforementioned signatory on behalf of the ESCO, and the individual's identity was verified, on this date:

_____, 20 _____. My commission expires on:

AFFIX CORPORATE SEAL OR NOTARY SEAL HERE:

Affirmative Action Plan Form

IN WITNESS WHEREOF, the ESCO, (pursuant to Executive Orders 227 and 246) certifies under the pains and penalties of perjury, that as an employer, it is committed to non-discrimination in employment and if awarded this contract shall also be committed to procure commodities, services and supplies from certified minority and women-owned business enterprises, businesses owned by individuals with disabilities and businesses owned and controlled by socially or economically disadvantaged individuals, both in the performance of contracts with the Commonwealth of Massachusetts and in the performance of its business generally, as certified by the execution of this certification by an authorized signatory of the bidder as of the last date indicated below.

X _____
(Signature of Authorized Signatory of Bidder)

PRINT NAME: _____
(Print Name of Authorized Signatory of Bidder)

TITLE: _____
(Print Title of Authorized Signatory of Bidder)

DATE: _____

1. Services Provided

- A. 1. Range of Services: Describe the complete range of conservation services being offered to the Awarding Authority by your firm (i.e., auditing, equipment selection and installation, rate monitoring, operation and maintenance strategy, training of facility personnel, disposal of ballasts with PCBs, disposal of lamps with mercury, treatment of CFCs in refrigeration systems, etc.).
2. Local Support: If your firm is not Massachusetts based, identify and describe the organization, experience, and relationship of the firm that will guarantee the local support services necessary for fulfilling the contract terms.
- B. 1. Savings Opportunities: Based on the consumption and facility profile provided in Attachment D, plus the tour of the facility, provide a preliminary assessment of the energy and water cost savings available. List all problems/systems that your proposed modifications will address. State any exceptions to RFR requirements.

For power and/or heating plant improvements, a description of the following elements must be included if they are part of the proposed systems:

- New boiler (type, size and quantity)
- Feed water system (pumps/ DA tank)
- Blow down system(s)
- Condensate pump/tank
- Fuel oil/gas main
- Fuel tanks, etc.
- Combustion air
- New electrical MCC's/transformers
- Emergency power (generator/UPS)
- Co-generation
- Chillers and related systems (ch. wtr. and cond. wtr. pumps)
- Campus steam and condensate distribution piping

In addition, a basis of design describing the level of redundancy and automation to be incorporated into the proposed power and/or heating plant improvements must be provided.

An indication of the level of commissioning that will be provided must also be included.

2. Payback: Please specify both the longest individual and combined paybacks in which ESCO will invest. NOTE: Under M.G.L. 25A §11C and 225 CMR 10.00, energy management services contracts may include terms of ten (10) years or less. Contracts that include cogeneration may have terms of twenty (20) years or less.

3. Measurement and Verification: Please specify for each proposed ECM the expected method of measurement and verification, based on the most recent version of the International Performance Measurement and Verification Protocol (IPMVP), that will be used to measure and verify their performance throughout the contract period. For each ECM where partially measured retrofit isolation¹ is to be used for measurement and verification, identify which parameters are to be measured and to what extent and which parameters are to be stipulated

¹ Determines energy use or demand by isolating the energy use of equipment affected by an ECM from the energy use of the rest of the facility.

- C. Equipment Ownership/Warranties: (a) Please list all equipment that will become property of the Awarding Authority upon installation and upon expiration of the contract. (b) Describe all warranties that will become the property of the Awarding Authority and explain how they will be transferred to the Awarding Authority. (c) Provide Manufacturer’s cut sheets for each proposed equipment installation measure.
- D. Maintenance: The Awarding Authority’s facility staff normally performs routine maintenance on equipment and building systems. State all maintenance functions that you expect facility staff to perform on improvements provided concerning this project. Include the frequency and estimated time necessary to complete each function. Indicate how the terms of your response would change if facility staff does not perform the indicated routine maintenance. The Awarding Authority will not accept any measure that require hiring additional maintenance staff unless previously made aware of such need and agrees to do so in writing. As an alternative, please state specifically how the terms of your response would be affected if your firm were responsible for maintaining all equipment and systems for the entire facility(s). **PLEASE NOTE: Measures that help reduce maintenance costs will be reviewed favorably; however, maintenance cost savings must not be used when establishing expected and guaranteed energy and/or water savings.**
- E. Implementation Schedule: Propose a project implementation schedule, including expected construction schedule from beginning to end, consideration of particular facility concerns such as scheduling and/or special facilities, expected number of workers, project chain of command, etc. Include estimated dates for submittal of preliminary design documents and construction documents including design development drawings, construction drawings, basis of design, outline specifications, and cost estimates.
- F. Training: Provide a description and schedule indicating any training of facility staff to be offered by the ESCO.
- G. Renewable Energy: Evaluate the potential for incorporating renewable energy technologies for this project. ESCO's evaluation shall include but not be limited to:

- | | |
|--------------------------------|--|
| • photovoltaics | • hydroelectric |
| • landfill gas (if applicable) | • low emission advanced biomass conversion |
| • waste to energy | • fuel cells |

2. **Computation of Baseline and Savings**¹

- A. Method of Choice: The method of choice for computing the energy baseline and subsequent energy savings shall comply with the letter and intent of the most recent version of the U.S. Department of Energy, Office of Energy Efficiency and Renewable Energy *International Performance Measurement and Verification Protocol* (“the Protocol”). Acceptance of the Protocol by your firm is a minimum contract term.

¹ Energy baselines and measurements of subsequent energy savings can be calculated in different ways depending on the project size, efficiency measures being evaluated and risk tolerance levels of parties involved. The measurements, whether via system level or whole-building approach, will differ by level, duration, degree of stipulation, and cost.

- B. Exceptions: If your firm desires an exception to the Protocol, the following information must be included: A complete description of your alternative computation method(s); a sample computation from a previous job performed by the firm, with full documentation of methods, assumptions, and input data; and a detailed explanation of why the proposed computation method(s) is/are superior to the Protocol. Please note that if an exception is not granted, your firm's methods and computations must comply with the Protocol. If your firm's ability to accept this project is contingent upon the Awarding Authority's acceptance of a method that does not comply with the Protocol, please note and explain.

3. Firm's Abilities

- A. Facility Audit: The Awarding Authority will require the selected ESCO to conduct a detailed energy and water audit that provides in-depth analysis of the conservation potential at the proposed facility(s). The audit will focus on the proposed energy and water conservation measures. Describe the audit that will be conducted for the building(s). Include information on the comprehensiveness of the audit (which energy systems will be evaluated, what type of options will be considered in the recommendations, etc.), the time that will be required to complete the audit, and the personnel that will be used. Include a copy of a recent audit from a similar project.
- B. Engineering Personnel: Please provide specific information concerning the engineering component of your project team. Include the names and resumes of project team members. Resumes should include each participant's background, specific areas of expertise, and previous experience with projects of this type and size. Include the identity of the prime contractor and any subcontractors, and a description of their respective responsibilities. Please provide a minimum of three (3) project references for the proposed project team members. These project references should be of the same size and type of project as that proposed for the Awarding Authority's properties.
- C. Copy of a Former Contract: Please provide a copy of a contract recently executed by your company, firm, or organization with a similar organization (City, Town, or School Department).

4. Finance Options

Financing for performance contracts is usually provided in a variety of ways:

- A. Loan: The Awarding Authority obtains a loan to cover the cost of all conservation and electrical power generation improvements and equipment related to the performance contract. Energy savings fund debt service over the life of the loan. These savings are guaranteed by the ESCO that must provide security in addition to its corporate guarantee.
- B. Third Party Lease: The Awarding Authority enters into a third party lease for conservation and electrical power generation improvements and equipment. Energy savings fund lease payments over the life of the lease. These savings are guaranteed by the ESCO that must provide security in addition to the corporate guarantee. At the end of the lease, the improvements are conveyed to the Authority. If the lease is tax-exempt, then Internal Revenue Service code requirements must be met; some of which may impact the structure of the ESCO's fee arrangements.

- C. **Turnkey Agreement:** The Awarding Authority and the ESCO enter into a turnkey agreement whereby the ESCO owns the conservation and electrical power generation improvements and equipment related to the performance contract and leases it to the Authority. Energy savings finance lease payments over the life of the lease. These savings are guaranteed by the ESCO that must provide security in addition to the corporate guarantee. At the end of the lease the improvements are conveyed to the Awarding Authority.

Note: Other financing mechanisms may be proposed in the Response provided they are paid out of energy savings and the ESCO guarantees the savings.

The lender or lessor for any financing model shall normally be a regulated financial institution. Exceptions to this requirement are turnkey proposals or equipment leased from the manufacturer or supplier.

The ESCO may identify financing sources or may propose a financing model. Such identification or proposal should be accompanied by a description of the terms and the expected benefits to the EMS agreement. The Selection Committee will weigh the merit and value added to the Awarding Authority by any proposed financing source or financing model.

The ESCO should note if any part of the Response is conditional upon the Awarding Authority utilizing an identified financing source or proposed model, describe any way in which rejection of the financing proposal would change any other part of the Response.

At a minimum, the ESCO must cooperate with the Awarding Authority in obtaining financing. This cooperation may include the provision of backup or supplementary information to support the Awarding Authority's financing application, answering questions orally and in writing to one or more prospective financing entities, and providing adequate disclosures in connection with the due diligence of a financing entity. It is the intent of the Awarding Authority to seek prospective financing while the Technical Audit is being performed and to submit a formal application upon acceptance of the Technical Audit, with revisions if necessary.

At a minimum, the ESCO, on behalf of the Awarding Authority, should apply for conservation incentives or other assistance from local distribution companies (LDC) when such assistance is available. ESCOs should contact representatives at the LDC serving the Awarding Authority prior to submitting the Response in order to ascertain what incentives or other assistance may be available. The Awarding Authority encourages ESCOs to participate in utility conservation programs, however the risk related to obtaining the rebates will not be borne by the Awarding Authority. ESCOs should detail utility rebate opportunities, and their expertise and success in obtaining rebates.

All applications or requests for financing, grants or other assistance made by the ESCO on the Awarding Authority's behalf are subject to review and approval by the Awarding Authority prior to submission.

5. Additional Terms

- A. **Total Savings:** State the projected and guaranteed annual energy and water savings to be generated by your system modifications over the life of the contract (in terms of percentage of budget, energy units, water units, and total dollar value). Assume that savings begin accruing when installation begins. Indicate what portion of your dollar savings figured, if any, is due to non-energy (or non-

water) saving measures, such as rate changes or fuel switches. Specify the Awarding Authority's share of these figures over the proposed contract term.

- B. Capital Investment/Value of Cost Reductions: Specify the total investment that will be made by ESCO to realize these savings. Break out the total investment into two categories: capital investment and supporting investment. Under the capital investment category, identify the estimated costs for equipment that ESCO plans to purchase and for labor/installation. Under the supporting investment category, identify the costs for items such as engineering design, project management, training, maintenance, and any other project related expenses. Specify ESCO's total investment for each proposed energy conservation measure.

Describe the financial terms upon which your response is based. Include your sources of money and costs and risks associated with it; the paybacks and return on investment you require; and the value of tax benefits and other non-energy specific values in determining your profits from this project. If funds are to be raised from a third party or investment pool, please attach the offering memorandum to the limited partnership or investors, or one from a prior, similar arrangement.

- C. Energy Prices: Provide a floor and a corresponding energy price ceiling and indicate the basis for these figures.
- D. Cash Flow Statement: Using the attached form, present a cash flow statement of your proposed savings allocations. Use an energy cost escalation rate of ___ percentage per year and a water cost escalation rate of ___ percentage per year for these calculations.² To provide an equitable basis for evaluating responses, the Awarding Authority has developed and included on the attached forms energy and water baselines against which savings can be measured. These baselines will only be used for comparison; it is not intended to represent the baseline that will be established during contract negotiations. The cash flow statement should clearly indicate expected guaranteed savings allocations for each year of the contract, and be consistent with the consumption formula presented in Part C above. Please specify all assumptions used in constructing the cash flow statement at the bottom of the chart. **Please note that the Awarding Authority will not consider proposals whose guarantee is based solely on an escalation in unit fuel prices in any year of the contract.**

NOTE: ESCOs are not expected to escalate their guaranteed dollar savings in accordance with these baseline escalations. ESCOs will be held contractually to both the annual and total guaranteed dollar savings identified in the cash flow, regardless of any mistaken escalation in guaranteed savings cash flow identified in the spreadsheet.

- E. Utility Rebates: Quantify any available utility rebates. Specifically, provide a utility company contact name, rebate program summary, capital value of rebates, and type of payment plan.
- F. Savings Guarantees: The selected ESCO will be required to provide security for guaranteed energy savings to the Awarding Authority. (Examples of acceptable forms of security include, an Energy Efficiency Bond, escrow account, letter of credit, etc.) Please describe the form of security to be provided. Please describe any additional energy and water savings guarantees.

² Cost escalations are elective and may lead to a risk for the Awarding Authority if, in fact, costs do not escalate. Conversely, not using a cost escalation may lead to risk for the ESCO.

- G. Contract Termination: Please state the proposed contract term. Explain how the equipment ownership will be transferred at the conclusion of the contract. Describe how the value of the equipment will be calculated upon contract expiration. Also, describe any early termination/buyout options offered by your firm.
- H. Tax Benefits: Describe any federal and state tax benefits the ESCO expects to claim concerning its investment.

Supplementary Comments.

Please include any other information that you would like the evaluation committee to consider in its analysis of your response. For example, if there are any provisions or terms in the Energy Services Agreement, which your firm considers unacceptable, please suggest how they might be modified in a manner agreeable to your firm and the Awarding Authority.

ATTACHMENT B

Minimum Contractual Terms

The following represent minimum contractual terms to be included in the final Energy Management Services Agreement. Part I of this section discusses certain required services, and Part II contains the non-negotiable contract terms that must be included in the final Energy Management Services Agreement (EMSA). Energy service companies may propose, in Attachment A, to provide additional services or offer terms that are more attractive. However, no proposal from an ESCO will be considered if these minimum conditions cannot be met by the ESCO.

Part 1: Required Energy Services

- A. **Technical Audit:** The Energy Service Companies' (ESCOs) proposed contract terms must include the performance of a detailed technical energy audit, of acceptable quality to the Awarding Authority. The Technical Audit, prepared under a Technical Audit Agreement (TAA) that is attached as Attachment E, Form for Technical Audit, is a more in-depth and comprehensive economic and physical analysis of conservation measures proposed in response to this RFR. It compares alternatives when requested by the Awarding Authority and further specifies equipment, materials, subcontractors, scheduling, and other details. If a satisfactory TAA is not executed within **30 (*insert number of days*)** days of the award, then the Awarding Authority shall have the right to withdraw the award and make the award to the next ranked ESCO. The Technical Audit is subject to acceptance by the Awarding Authority and together with any revisions becomes the specifications for the improvements of the performance contract known as the Energy Management Services Agreement (EMSA) that is included as Attachment G.

ESCOs should review the EMSA before completing the response in order to understand fully the expectations and requirements and to enable the process to proceed swiftly from selection to award to TAA. An ESCO may propose modifications to the TAA in the response, but consider that the Awarding Authority seeks a comprehensive audit within regulatory requirements and sound business practices and that the Selection Committee will evaluate proposed modifications on the merit and value added to the Awarding Authority. The Awarding Authority will not negotiate the terms of the TAA during the selection process, and ESCOs should accompany any proposed modification with a statement as to how, if at all, rejection of the proposed modification otherwise impacts the response.

If the Awarding Authority decides not to enter into a contract with the ESCO after the audit has been accepted, and if the proposed contract terms presented to the Awarding Authority by the ESCO meet all the conditions set forth in the RFR, in the firm's response to the RFR, the Awarding Authority will pay the fee, if applicable, set forth in the ESCOs response for the audit. However, the Awarding Authority reserves the right to refuse payment of the energy audit fee if (a) the savings identified in the ESCOs response vary more than 15% from the proposed savings identified in the audit, (b) the projected value of the net benefit to the Awarding Authority set forth in the ESCOs response differs by more than ten percent (10%) of the corresponding purchase option price provided in the ESCOs final audit, or (c) any purchased option price set forth in ESCO's audit is greater than one hundred and ten percent (110%) of the corresponding purchase option price provided in the ESCOs response, the Awarding Authority reserves the right to refuse reimbursement for the cost of the audit (OR audit validation).

The audit must include the following:

1. Facility profile of building characteristics and energy and water use. Determination of the total annual cost to operate and maintain the existing energy and water systems in each building.
2. Description of energy and water systems and the power plant.
3. The methodology used for the lighting system component of the audit shall be as follows:
 - a. To ensure consistency in the lighting system component of the audit, the abbreviations for lighting systems shown below should be used.

C	Compact fluorescent	EE	Energy efficient lamp
HW	Hard wired fixture	HO	High output lamp
LV	Low voltage	VHO	Very high output lamp
FIXT	Fixture	STD	Standard Ballast
BX	Biax/Twin tube lamp	NEW	New fixture
R	Reflector	SI	Screw in lamp
T/TW	Tandem wire	PAR/P	Parabolic lens
MV	Mercury vapor lamp	WRAP	Wrap style fixture
MH	Metal halide lamp	T8	T8 Lamp/Elect. ballast
Lens/Rep	Lens replacement	HPS	High pressure sodium lamp
EEMAG	Energy efficient magnetic		

- b. To insure accuracy regarding the type of ballast or lamp type, a percentage of each fixture type must be opened to determine the manufacture and model of number of the ballast, and the number of lamps and lamp type. A random sample of at least 30 fixtures of each type must be opened.
4. Allocation of total energy and water among end uses including:
 - a. Heating
 - b. Air Conditioning
 - c. Domestic Hot Water
 - d. Fans & Pumps
 - e. Lighting, indoor and outdoor
 - f. Equipment
 - g. Standard and any other major water uses (laundry, irrigation, and pool)

Allocation must be reconciled with actual usage. The allocation must be based on at least a bin³ calculation and consider:

- a. Documented hourly occupancy patterns
- b. Heat gain/loss analysis to include:
 - i. shell losses/gains: roofs, walls, glass
 - ii. air flow losses/gains: infiltration, ventilation
- c. Equipment performance

³ An energy estimating technique wherein energy usage for different temperature intervals and time periods is evaluated separately.

Heating and cooling crossover temperatures resulting from the analysis should be noted (these may vary with operating conditions.)

5. List of recommendations. For each of the proposed improvements, the ESCO shall develop costs and annual savings. The savings shall be calculated using the same method described above and shall consider the interactions among measures. The total annual cost to operate and maintain the proposed conservation measures in each building shall be determined.
 6. Exploration of appropriateness of current utility rates and available incentive/rebate programs.
 7. Energy usage for the last two fiscal years (to be provided by the facility).
 8. The audit must be stamped by a Massachusetts Registered Professional Engineer.
 9. ESCO's proposed baseline and proposed annual adjustments. Inventory of all energy using equipment and appliances during base year.
- B. Design Engineer: A Massachusetts registered professional engineer must at least review, approve, and stamp design work done under this contract.
- C. Evaluation of Energy and Water Savings Achieved: Contract terms must include the method utilized for determining actual energy and water savings by the ESCO. Furthermore, some method to account for variations in weather and levels of use must be incorporated (temperature BIN analysis as minimum).
- D. Coordination with Maintenance Staff: The ESCO will be required to work with current operating and maintenance personnel, training and overseeing their work on a pre-planned and programmed basis. The facility maintenance responsibilities will be clearly delineated in the Energy Management Services Agreement. In addition, the ESCO will develop for the maintenance staff a preventive maintenance schedule for all new equipment installed as part of this project. Moreover, **no equipment may be installed that will require the Awarding Authority to hire additional maintenance personnel, unless contract negotiations produce an explicit exemption from this rule for a specific installation** (such as the agreement to include cogeneration as part of the project).
- E. Services: All energy systems in the Awarding Authority's buildings must be considered in this project. These systems include but are not limited to: space heating; domestic hot water; air conditioning; ventilating; pumps and motors; interior and exterior lighting; energy management system; all other water and energy uses, including laundry and irrigation. The Awarding Authority is responsible for determining end-use condition requirements at all times, and must have override capability to deal with emergencies, malfunctions, or extra-ordinary needs. ESCO responses may include maintenance services for all equipment installed for the full length of the contract. At all times, the requirements of the Massachusetts Building Code shall be met.

- F. "As Built" Drawings: The contract must require the ESCO to provide "as built" and record drawings of all existing and modified conditions associated with the project conforming to typical engineering standards. This should include architectural, mechanical, electrical, structural, and control drawings each stamped by a Massachusetts Registered Professional Engineer (P.E.) for the corresponding discipline.
- G. Required Lighting Conditions: Minimum acceptable illumination should be kept for the use intended. Light levels within other space types should be determined using the most current Illuminating Engineering Society guidelines based upon the tasks performed. Please note bench testing and test retrofits may be requested to verify illumination levels. In areas where light levels are specifically mandated by code, light levels must meet these requirements at all times.
- H. Construction Debris: Disposal plans must be documented and appropriate transportation and disposal documents prepared before disposal. Actual disposal must be documented immediately after disposal.
1. Lamp Ballasts Containing PCBs: The ESCO will be responsible for the proper handling and storage of fluorescent lamp and HID fixture ballasts containing or suspected of containing PCBs in accordance with applicable local, state, and federal laws and regulations.
 2. Lamps Containing Mercury: The ESCO will be responsible for the proper handling, storage, and transportation of fluorescent and HID lamps, as necessary, in accordance with applicable local, state and federal laws and regulations.
- I. Lighting Equipment Disposal: All ballasts are suspected to contain PCBs unless they are specifically labeled otherwise. Further inquiry and clarification of PCB ballast storage and disposal can be obtained from the Department of Environmental Protection, One Winter Street, Boston, MA, 02108, (617) 292-5786.
- J. Measurement & Verification: ESCO will use a method for computing the energy baseline and subsequent energy savings which is wholly consistent with the letter and intent of the most recent version of the U.S. Department of Energy, Office of Energy Efficiency and Renewable Energy International Performance Measurement and Verification Protocol ("the Protocol").
- K. Commissioning⁴

Part 2: Required Contractual Language

- A. Trade Names and Patents: The Awarding Authority shall determine whether the material or equipment installed is equal to those specified in the response. In the event an article of any class or materials or equipment specified by the trade name of any particular patentee, manufacturer, or dealer, or by reference to the catalog of any such article or articles or materials is to be substituted, the replacement must be equal in quality, finish and durability and equally as serviceable for the purpose for which it is or they are intended as the originally specified article. The Awarding

⁴ The Awarding Authority may want the inclusion of a "commissioning plan" in this section or leave this open for negotiation. These services may be purchased from an independent consultant and should be included in the project starting in the design phase.

Authority shall make the decision as to whether the materials or equipment offered are equal to those specified, and the decision of the Awarding Authority shall be final.

- B. Patent and Patent Rights: The ESCO shall protect and save the Awarding Authority harmless against all claims, and actions brought against _____ by reason of any actual infringement upon patent rights in any material, process, machine or appliance used by him in the work.
- C. Right-of-way: The necessary rights-of-way for any construction to be done across or in private property will be obtained by _____. The ESCO shall take due and proper precautions against any injury to adjacent structures and shall hold himself strictly within the rights secured to him by _____ in prosecuting the work on private property.
- D. Labor Laws and Ordinances: The ESCO shall obey and abide by all laws of the Commonwealth of Massachusetts relating to the employment of labor and public work and all ordinances and requirements of the Awarding Authority regulating or applying to public improvements.

The ESCO agrees not to discriminate against any employee or applicant for employment, to be employed in the performance of this Agreement, with respect to hire, tenure, terms, conditions or privileges of employment, or any matter directly or indirectly related to employment, because of age, sex, race, color, religion, national origin, or ancestry.

- E. Subcontracting: In the execution of the Agreement, it may be necessary for the ESCO to subcontract part of the work to others; however, the ESCO shall not award any work to any subcontractor without prior written approval of the Awarding Authority which approval shall not be given until the ESCO submits to the Awarding Authority a written statement concerning the proposed award to the subcontractor, which statement shall contain such information as the Awarding Authority may require.

The ESCO shall be fully responsible to the Awarding Authority for the acts and omissions of his subcontractors and of persons either directly or indirectly employed by the ESCO, as he is for the acts and omissions of persons directly employed by him.

Nothing contained in this Agreement shall create any contractual relation between any subcontractor and the Awarding Authority.

The ESCO shall not assign, transfer, convey, or otherwise dispose of this Agreement, or any part hereof, or his right, title or interest in the same or any part thereof, without the prior written consent of the Awarding Authority. The ESCO shall not assign by power-of-attorney, or otherwise, any of the moneys due or to become due and payable under this Agreement, without the prior written consent of the Awarding Authority.

- F. Worker's Compensation Insurance: During the life of this Agreement, the ESCO shall procure and maintain Worker's Compensation Insurance in accordance with the Worker's Compensation Act of the Commonwealth of Massachusetts. This insurance policy shall adequately protect all labor employed by the ESCO during the life of this Agreement and, if required, the ESCO shall provide written evidence to the Awarding Authority that such insurance is in fact in force.

- G. Comprehensive General Liability Insurance: ESCO must carry an appropriate level of insurance for both the construction and operations phases
- H. Indemnification: Prior to the contract execution, the ESCO shall provide the Awarding Authority with Payment and Performance bonds to cover the full Term and value of the energy services agreement during the construction phase
- I. Standards of Service: The ESCO will maintain and operate the equipment in a manner that will provide the standards of service and comfort (i.e.; heating, cooling, hot water, lighting and so forth) described in ____ (*document to be submitted by Awarding Authority*).
- K. Arbitration: (*Include dispute resolution language.*)
- L. Equipment Installation: Within two months of contract execution, the ESCO will begin implementation of preliminary operations and procedures to save energy and/or water at the named properties of the Awarding Authority.
- M. Ultimate Approval: The Awarding Authority retains ultimate approval over scope of work, choice of subcontractor, equipment installed, and end use conditions. No work can proceed without the prior written consent of the Awarding Authority. However, such approval shall not be unreasonably withheld.
- N. Submission and Approval of System Modifications: The Awarding Authority will review all proposed modifications to the building and systems, and must approve of them before commencement of any work. Such approval shall not be unreasonably withheld.
- O. Prevailing Wage Rates: ESCO is required to pay minimum wage rates for all employees involved in providing contract services, as determined by the Division of Occupational Safety⁵. Please note wage rates are valid only for 90 days from date of issue. Further inquiry and clarification of prevailing wage laws can be obtained from the Division of Occupational Safety, 300 Washington Street, 5th Floor, Boston, MA 02108-5223, (617) 727-3492.
- P. Massachusetts Building Code: All work shall meet the minimum standards of ASHRAE and the Massachusetts Building Code.
- Q. Access and Inspection: _____ must have access to inspect both the work conducted at _____ during construction and operations phases, 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.

⁵ The Massachusetts prevailing wage laws require that employees on public works projects, except those who perform strictly supervisory functions, be paid a minimum hourly rate set by the Department of Labor and Workforce Development, Division of Occupational Safety (DOS) (Mass. General Laws c149, s.26).

- R. Post-Contract Guarantee: Prior to contract termination, the ESCO will be obligated to perform a walk-through survey of the facility and to prepare an assessment of the condition of the equipment installed as part of the project. The Awarding Authority retains the right to hire an independent, certified professional engineer to prepare an assessment of the condition of the equipment installed as part of the contract.
- S. Ownership of Documents: All drawings, reports and materials prepared by the ESCO specifically in performance of the Energy Services Agreement shall become the property of the Awarding Authority, and shall be delivered to the Awarding Authority as needed or upon contract termination.
- T. Miscellaneous Certificates: The ESCO will be required to file a Disclosure Statement listing all its public contractors; a Truth in Negotiations Certificate as describe in M.G.L. Chapter 7, section 30I, a Financial Interest Statement as described in M.G.L. 7, section 14A; and a Tax Certificate as described in M.G.L. Chapter 62C, section 49A.
- U. Bonds: The ESCO must provide the Awarding Authority with payment and performance bonds, to cover the full term and value of the Energy Management Services Agreement.
- V. Compliance with Law and Standard Practices: The ESCO shall perform its obligations hereunder in compliance with any and all applicable federal, state, and local laws, rules, and regulations, including applicable licensing requirements, in accordance with sound engineering and safety practices, and in compliance with any and all reasonable rules of the Awarding Authority relative to the Premises. The ESCO shall be responsible for obtaining all governmental permits, consents, and authorizations as may be required to perform its obligations hereunder.

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ATTACHMENT C: Cash Flow Statement

	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6	YEAR 7	YEAR 8	YEAR 9	YEAR 10
Annual Energy and Water Bill**		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
#6 Oil (gals)*										
#2 Oil (gals)										
Natural Gas (ccf)										
Electricity (kWh)										
Water (gals)										
Sewer (gals)										
Total Expected Unit Savings										
#6 Oil (gals)										
#2 Oil (gals)										
Natural Gas (ccf)										
Electricity (kWh)										
Water (ccf)										
Sewer(gals)										
Total Expected \$ Savings										
(% of Budget-\$)										
Awarding Authority Share of Savings (%)										
Awarding Authority Expected \$ Savings										
Total Guaranteed \$ Savings										
(% of Budget)										
Awarding Authority Guaranteed \$ Savings										
Up front Costs to Awarding Authority										
Lease Payment										
Net Guaranteed \$ Savings To Awarding Authority										

Assumptions: First year electricity/ gas/ oil costs based on ___-year average historical use at ___ rates: with a ___percentage annual rate increase.
 First year water costs based on ___-year average use at ___ rates: with a ___percentage annual rate increase.

ATTACHMENT D
Facility Profile
(Provided by the Awarding Authority)

For each building to be addressed by this project list building name, address, square footage, year built, utility rate schedules and previous two year energy and water usage information, building or operational peculiarities, along with a general description of building function and hours of operation and any specific projects that ESCOs should address in their responses.

Include any additional information that will be helpful to ESCOs in evaluating their interest in this project.

*See Appendix G: Facility Data in DOER's manual, *Energy Management Services in Massachusetts* available at www.mass.gov/doer

ATTACHMENT E
Response Evaluation Forms
(Complete for each response received)

FORM 1: MINIMUM EVALUATION CRITERIA

Firm Name: _____ Date: _____

Initials: _____

Instructions: A negative "(No)" response to any question listed below will cause a response to be deemed non-responsive and will not be given further consideration.

A. <u>Responsive Response:</u>	No	Yes
1. DCAM Contractor Certification & Update Statement	<input type="checkbox"/>	<input type="checkbox"/>
2. Attachment A: Response Submission	<input type="checkbox"/>	<input type="checkbox"/>
3. Sample Energy Audit	<input type="checkbox"/>	<input type="checkbox"/>
4. Cash Flow Statement Form (Attachment C)	<input type="checkbox"/>	<input type="checkbox"/>
5. Acceptance of Threshold Requirements (Attachment B: Minimal Contractual Terms)	<input type="checkbox"/>	<input type="checkbox"/>

Responsible Proposer:

1. Firm has the financial and personnel capacity for this job? (other projects, # of personnel, locations?)	<input type="checkbox"/>	<input type="checkbox"/>
2. Personnel assigned to this project are competent? (at least one Massachusetts registered professional engineer)	<input type="checkbox"/>	<input type="checkbox"/>
3. Past projects give satisfactory reference?	<input type="checkbox"/>	<input type="checkbox"/>

Response Evaluation Forms
(Complete for each received response)¹

FORM 2: COMPARATIVE EVALUATION CRITERIA

Firm Name: _____ Date: _____ Initials: _____

Instructions: In this section, rank each category according to the following choices: Highly Advantageous, Advantageous, Not Advantageous, or Unacceptable. An "Unacceptable" response to any of the questions listed below will cause a response to be deemed non-responsive and therefore be eliminated from further consideration.

1. Quality of Past Projects: (from references submitted)

- Unacceptable None of the references was satisfied with the proposer or contract.
- Not Advantageous One or more of the references was satisfied.
- Advantageous All references were satisfied.
- Highly Advantageous All references were satisfied and more than one was enthusiastic.

2. Qualification and Experience of the Project Team:

- Unacceptable The project team does not have a Massachusetts registered professional engineer (PE) in the appropriate category.
- Not Advantageous The project team has a Massachusetts PE, but most of the rest of the team has under 2 years of energy conservation experience.
- Advantageous The project team has a Massachusetts PE, and most of the team has at least 2 years of energy conservation experience.
- Highly Advantageous The project team has a Massachusetts PE, and most of the rest of the team has at least 3 years of energy conservation experience.

3. Ability to Provide Bond Funding:

- Unacceptable The firm does not have sufficient bonding capacity for this contract.
- Not Advantageous The firm has barely sufficient bonding capacity for this contract and would be stretched to cover it if it, simultaneously, had another contract of similar size.
- Advantageous The firm has sufficient bonding capacity to cover this contract comfortably.

4. Minimum Contract Terms:

- Unacceptable Does not meet the minimum acceptable criteria set forth for this project.
- Not Advantageous Meets some criteria set forth for this project.
- Advantageous Meets all criteria set forth for this project.
- Highly Advantageous Meets all criteria and has innovative ideas considered particularly advantageous.

¹ Municipalities may want to consider how to weight this criteria based on your specific circumstances. Using a zero (0) to three (3) scoring makes it relatively easy to allocate points.

5. **Comprehensiveness of the Proposed Services: from Attachment A (Response Form), section 1. A. 1 (Range of Services) and B.1 (Savings Opportunities).**

- Unacceptable Response does not address main areas of interest, does not meet minimum project criteria.
- Not Advantageous Some of the main areas of interest are proposed.
- Advantageous Response appropriately addresses most or all of main areas of interest.
- Highly Advantageous All or most of the main areas of interest and most other areas are proposed.

6. **Explicitness & Comprehensibility of the Methods for Computing Baselines & Savings (as supplied in the sample audit, and from Attachment A (Response Form), sections 2. A.(Method of Choice), B. (Exceptions), and 3. A. (Facility Audit).**

- Unacceptable Neither baseline nor savings calculations are explicit or comprehensible.
- Not Advantageous One of the above may be outstanding, but the other is lacking.
- Advantageous Both of the above are explicit and comprehensible.
- Highly Advantageous Both of the above are outstanding in explicitness and comprehensibility.

7. **Technical Feasibility of Proposed Measures:**

- Unacceptable Most are not technically feasible.
- Not Advantageous Some are not technically feasible.
- Advantageous All are technically feasible.
- Highly Advantageous All are technically feasible and at least one is technically innovative.

8. **Appropriateness of Proposed Measures (as considered by the technical review committee):**

- Unacceptable Most are less than satisfactory.
- Not Advantageous Most are satisfactory.
- Advantageous All are satisfactory.
- Highly Advantageous All are satisfactory and at least one is highly desirable.

9. **Comparison of the Expected Life of Proposed Measures and the Contract Duration:**

- Unacceptable The expected life of most measures is less than the contract duration.
- Not Advantageous The expected life of some measures is less than or equal to the contract duration, and most remaining measures have an expected life of less than four years more than the contract duration.
- Advantageous The expected life of some measures is less than or equal to the contract duration, and most remaining measures have an expected life of seven years greater than the contract duration.
- Highly Advantageous The expected life of some measures is less than or equal to the contract duration, and most remaining measures have an expected life of ten years greater than the contract duration.

10. Projected Maintenance Costs, including Staff Resources:

- Unacceptable The projected maintenance costs of the new systems are considerably more than the proposed energy cost savings.
- Not Advantageous The projected costs are about the same as the proposed savings.
- Advantageous The projected costs are less than the proposed savings.
- Highly Advantageous The projected costs are considerably less than the proposed savings.

11. Proposed Training and Maintenance Procedures:

- Not Advantageous Appears unsatisfactory, incomplete, inappropriate, or not cost-effective.
- Advantageous Appears satisfactory.
- Highly Advantageous Satisfactory and has innovative ideas considered particularly advantageous.

Please note: You may want to weight the importance of each comparative criterion. If doing so, then you must include the respective weighting in your published RFR.

"BEST PRICE" CRITERIA²

The "best" response price will be determined by two factors:

The greatest total financial return to the Awarding Authority over the length of the contract.

The highest protection of the Awarding Authority against risk.

² See information in section IV of *Energy Management Services in Massachusetts: Third-Party Financing Overview* for calculating net-present value for evaluating "best price"

ATTACHMENT F
Form Of Energy Audit Agreement

1. Cover

A. The cover page should provide the following information:

- 1) The words “Energy study for (the facility’s name)”
- 2) Name(s) and address(es) of the building(s) analyzed in the study
- 3) Name of the firm producing study
- 4) Date

2. Table of Contents

Must be complete with page numbers and descriptive title for each section, table, exhibit, attachment, etc. Tables, charts, attachments, and exhibits should be listed separately by number, title and page number.

3. Page Numbers and Revisions

Each page should be numbered and dated. Should revisions be requested, a listing of original pages and replacement pages should be provided. Each revised page should indicate at bottom right corner “Revised--date.”

4. Executive Summary

A short (one or two page) narrative summary of the project, including discussion of the project’s energy savings and financing.

A. The following tables must be included:

- 1) A summary of ECM measures for the project (Table 1);
- 2) A summary of the project cost (Table 2);
- 3) Maintenance services provided by equipment covered, scope, frequency (Table 3);
- 4) A cost savings calculation (Table 4); and
- 5) A payment schedule (Table 5)

B. Suggested language for savings guarantee.

“The ESCO guarantees that in each year of the Term following Substantial Completion, the Customer will realize energy savings of at least _____ kWh (therms, gallons, etc.). At current rates, these energy savings have a value of _____ Dollars (\$_____).”

Technical Audit Agreement

Preamble

This Technical Audit Agreement (“Agreement”) is made and entered into this _____, 20__ by and between _____ (“ESCO”) and _____ (“Awarding Authority”) for the purpose of identifying, analyzing, designing and specifying conservation measures to improve thermal efficiency, conserve energy, conserve water, reduce waste water, and, when specified, generate electrical power at Awarding Authority properties. This Agreement is entered pursuant to a Request for Responses, and any changes thereto, (“RFR”) issued by the Awarding Authority dated _____, 20__ and ESCO’s response to said RFR and any revisions thereto (“Response”), said RFR and Response incorporated herein by reference. A product of this Agreement shall be a Technical Audit which, together with any and all related drawings, plans and revisions shall become the specifications for work to be performed by the ESCO under a separate Energy Management Services Agreement (“Contract”) to be executed *after* the acceptance by the Awarding Authority of the Technical Audit.

1. Price and Terms

A. Agreed Price: As payment for the Technical Audit prepared by the ESCO, the Awarding Authority shall pay ESCO the sum of _____ dollars (\$), (“Agreed Price”), subject to the following conditions:

- 1) The Technical Audit is accepted by the Awarding Authority and not rejected.
- 2) A Contract is executed between the ESCO and the Awarding Authority.

The Awarding Authority reserves the right to reject the Technical Audit if a) utility savings projected in the Technical Audit are less than 85% of the savings projected in the ESCO’s Response to the RFR, b) the capital budget for the conservation measures projected in the Technical Audit is significantly higher than the capital budget projected in the ESCO’s response to the RFR, c) the economic benefit to the Awarding Authority is materially diminished by some combination of lowered projected savings and higher capital budget determined in the Technical Audit as compared to the savings and capital budget projected in the Response to the RFR, or, d) the Awarding Authority, upon review of the Technical Audit, finds it deficient or unacceptable provided ESCO shall have fifteen (15) business days to revise the Technical Audit to the satisfaction of the Authority.

To the extent that materials and supplies are used or incorporated in the performance of this Agreement, the ESCO is considered an exempt purchaser under the Massachusetts Sales Act, Chapter 14 of the Acts of 1966. ESCO shall be responsible for paying all other taxes and tariffs of any sort related to the work performed.

B. Payment Terms: The Awarding Authority shall pay the ESCO the Agreed Price upon closing the financing or lease upon which the Contract is conditional. The Agreed Price shall be part of the Contract Price as described in the Contract.

C. Services Subsequent to Acceptance of Technical Audit: The Agreed Price is the final price for all work related to the Technical Audit, including revisions thereto subsequent to acceptance of the Technical Audit, revisions required during the course of carrying out the work and monitoring as described in the Contract, and revisions resulting from Contract amendments. The Agreed Price may be modified for performing professional services during the term of the Contract that are not otherwise required or that could not have been reasonably anticipated under this Agreement.

D. Agreed Price All Inclusive: The Agreed Price is all inclusive of the ESCO’s costs and expenses and there are no items subject to reimbursement.

E. Agreement Termination: This Agreement is coterminous with the Contract unless otherwise agreed to in writing.

2. Technical Audit Services

A. Time for Performance: Execution and approval by the Authority of this Agreement shall serve as a Notice to Proceed. ESCO shall commence preparation of the Technical Audit in sufficient time to meet the following schedule: *(insert schedule)*

Site visits	As needed and scheduled with Authority
Draft Technical Audit submitted	, 20__
Authority review draft	Within 15 business days of receipt of draft
Technical Audit submitted	Within 15 business days of receipt of review by Authority
Technical Audit accepted or rejected	Within 15 business days of receipt of Technical Audit

The deadline for an acceptable Technical Audit shall be no later than **4:00 PM**, _____, **20__**. After this date, Authority may terminate this Agreement upon written notice to ESCO. All drafts, plans, materials, calculations, specifications and draft Technical Audits shall be retained by the Authority as liquidated damages.

B. Technical Audit Procedures:

- 1) Purpose
 - a) Identify the size, scope and payback of utility conservation measures by a documented analysis of various conservation opportunities as identified in the RFR, the ESCO’s Response to the RFR and as negotiated and listed in Facility Profile
 - b) Prepare sufficient design, plans, equipment, material and other detail suitable for use as specifications for work to be performed under the subsequent Contract, and,
 - c) Document baseline and projected utility data for use in connection with the performance guarantee of the Contract. Utilities shall refer to all energy and water systems and equipment including but not limited to heating, water heating, water, sewer, illumination and controls associated therewith. The accuracy of the baseline consumption, savings projections and capital budget are of the essence of this Agreement and the subsequent Contract.

2) Provisions

- a) All recommended conservation measures shall meet all applicable current codes including the State Sanitary Code (105 CMR 410.000), Plumbing and Fuel Gas Codes (248 CMR 2.00-7.00), Fire Prevention Regulations (527 CMR 1.00-50.00) Massachusetts Electrical Code (527 CMR 12.00), State Building Code (780 CMR) and all other applicable laws, regulations and codes of federal, state, and local town or city government. The ESCO will not be expected to resolve any existing code violations but shall make a best effort to report to the Authority any such violations if found.
- b) ESCO shall furnish appropriate competent personnel consistent with ESCO's Response to the RFR to assure professional and technical accuracy and to obviate a detailed review and checking by the Authority.
- c) ESCO shall conduct and report on detailed site surveys of all Properties listed in Facility Profile. Such surveys shall entail all utilities identified for conservation measures including all energy and water systems. ESCO shall inspect a random sampling of items (e.g. toilets, lamps, or other equipment) in sufficient detail to assure itself of a statistical level of confidence sufficient to undertake and honor the guarantee of the capital costs of the Work and performance of the conservation measures. ESCO shall utilize all available resources such as construction documents, equipment manuals, maintenance records and interviews of persons familiar with each Property and its operation.
- d) ESCO shall examine all utility data presented in the RFR to check for accuracy against actual bills and utility data printouts and to assure all appropriate adjustments as described in the RFR in order to confirm that baseline data is accurate and complete.
- e) ESCO shall conduct a detailed Technical Audit of those conservation items listed with the Properties in Facility Profile together with others, which may surface during the preparation of the Technical Audit.
- f) ESCO shall prepare the Technical Audit pursuant to conventions and instructions described in Facility Profile, Special Instructions and consistent with RFR.
- g) ESCO shall 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, 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 RFR and with Facility Profile.
- h) ESCO shall summarize conservation measures that are rejected and state the reasons for rejection. 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 Technical Audit.

- i) ESCO shall specify “Energy Star” or other comparably rated energy or water efficient products when appropriate. ESCO shall specify products exceeding ASHRAE 90.1 energy requirements for lighting when appropriate.
- j) ESCO shall not specify equipment that will require additional personnel to be hired by the Authority for operation or maintenance. ESCO, to the maximum extent feasible 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 Authority.
- k) 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.
- l) ESCO shall prepare a detailed operational plan showing the sequence of operations for the Work to be performed.

C. Existing Conditions

Document the existing conditions of the facility, including the following information itemized for each building in the facility:

- 1) Building physical condition;
 - a) Hours of use or occupancy;
 - b) Area of conditioned space;
 - c) 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);
and
 - g) Current practices that unnecessarily increase energy use or impact baseline.

3. Energy Conservation Measures (ECM)

A. ECM--Energy Conservation Measure

Provide a narrative description of each proposed cost effective energy conservation measure (ECM) to be installed including:

- 1) The proposed upgrade, replacement, operational change, or maintenance requirement ;
- 2) The interface between the proposed ECM and remaining Authority equipment;
- 3) The impact on remaining Authority equipment (changes in load, run time, etc.);
- 4) Any impact on standards of service and comfort; and
- 5) Complete Table 1 for all measures.
- 6) Describe ECM's analyzed but disqualified under cost effectiveness criteria.

B. General Information

- 1) ECM's should be presented in the order that interactions are considered;
- 2) Energy Management System (EMS) savings must **not** be calculated as a percentage of total energy use. Each process controlled by the EMS should be analyzed separately, and savings associated with that process improvement calculated;
- 3) An ECM summary sheet must be provided for each measure (See Table 2).

4. Energy Savings Proposed

Provide a detailed energy analysis for each ECM proposed, documenting the estimated annual energy savings. Document assumptions on current and proposed equipment operating conditions and energy savings calculations.

A. Computer models

When computer modeling is used, the model and each set of results must be properly documented. Minimum documentation required is:

- 1) Name of the program
- 2) Description of the calculations the program performs
- 3) Table showing the model's calculation of the building's energy consumption for each month of the base year, and actual consumption for those months

5. Facility Support Required

For each ECM proposed, identify any utility interruptions needed and any other facility support that may be required during installation.

6. 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 and Notice of Substantial Completion;
- 10) Post installation submittals; and
- 11) Training.

7. Hazardous Waste Disposal Plan

Provide a descriptive hazardous waste disposal plan for the project.

8. Energy Baseline and Savings Measurement³

The ESCO shall establish and document on a site-specific basis:

- 1) An Energy Baseline, including data, methodology, and variables used to compute it.
- 2) The method it will use to measure energy savings and energy cost savings for each energy type after proposed ECMs have been installed.
- 3) The method it will use to verify installed ECM compliance with requirements of Standards of Service and Comfort (insert information).
- 4) The method of determining energy savings and compliance with Standards of Service and Comfort annually throughout the contract term.

³ Must be based on the most recent version of the International Performance Measurement and Verification Protocol

- 5) If a computer program or programs will be used to establish the baseline, modify the baseline, or measure savings, furnish the name of the program, the name, address, and phone number of the program developer or supplier, and descriptive literature. The Authority may require ESCO to furnish a properly licensed copy of the program(s) to the Authority for its use in administering the contract, at no cost to the Authority.

9. Description of Maintenance Services and Training

Provide a complete description of the maintenance services ESCO will provide, including schedules. Summarize on Table 3. Describe any training being provided.

10. Pricing and Project Financing

ESCO shall complete Tables 4 through 7. This includes a payment schedule with termination value for each year of the contract.

11. Calculations

- 1) All calculations must be complete and easy to follow. Spreadsheet formats must include a description of the assumptions and calculations.
- 2) Units must be indicated and only so many significant digits as the accuracy of the calculation warrants included.
- 3) Weather data source should be described.
- 4) Calculation details and supporting documentation shall be placed in an Appendix.

12. Utility Rebates

The ESCO shall prepare all applications and process all documents necessitated by rebates offered by the utility company. Any savings generated by rebates shall be credited to the facility's utility bills. If utility rebates will be included as part of the energy study recommendations, it may be necessary for the ESCO to develop a system that reports annual savings by meter and/or account number. ESCOs should contact the local utility for further information.

Table 1
Energy Efficiency Measure Summary

Company Name: _____

Building or Facility Name: _____

(Aggregate data from summary sheets)

ECM No.	Energy Conservation Measure (ECM)	Electricity Savings (kWh/yr.)	Peak Demand Reduction (kW)	Fuel Savings (include units)	Energy Cost Savings (\$/yr.)	Estimated Measure Cost (\$) from Table 2	Estimated Life of Measure (years)	Refer to Page(s)
	Totals							

Table 2
Summary Sheet for ECM Number _____

Building: _____

Name of ECM: _____

1. Description (include quantities, types, sizes, locations, etc.)

a) Existing Conditions: _____

b) Proposed Conditions with ECM: _____

2. Net First Year Energy Savings

Fuel Type (electric, gas, oil)	Fuel Units (kWh, Therms, CCF, KW, gallons)	First Year Fuel Savings (kWh, Therms, CCF, KW, gallons)	Unit Cost for the Fuel	Cost Savings
Totals				

3. Cost Estimate Summary of Measure

Materials \$ _____

Labor \$ _____

Contingency \$ _____

Other (Specify) \$ _____

Total \$ _____

- 4. Expected useful life: _____ years.
- 5. The measure interacts with ECM No(s) _____
- 6. The measure impacts ECM No(s) _____
- 7. Impact on standards of service and comfort.

Table 3
Maintenance Services
 (ESCO-installed, existing facility)

Building (if appropriate): _____

MM No.	Equipment	Scope	Frequency	Party Responsible (ESCO/Customer)

**Table 4
Price Formula**

For each item, enter the proposed price as a lump sum and as a percentage of construction cost.

4.1	Energy Study Fee	\$ _____			
4.2	Design Services	\$ _____	OR	_____ %	% of Construction Cost
4.3	Construction/Project/ Management Services	\$ _____	OR	_____ %	% of Construction Cost
4.4	General ESCO Overhead and Profit		Overhead	_____ %	% of Construction Cost
			Profit	_____ %	% of Construction Cost
4.5	Commissioning and Initial Training	\$ _____	OR	_____ %	% of Construction Cost
4.6	Interest During Construction	\$ _____	AT	_____ %	
4.7	Bond Fees	\$ _____	OR	_____ %	% of Construction Cost
4.8	Miscellaneous Fees and Permits	\$ _____	OR	_____ %	% of Construction Cost
4.9	Term Financing Interest Rate			_____ %	% of Principal (APR)
4.10	Monitoring, Verification, and Savings Guarantee	\$ _____	OR	_____ %	% of Energy Savings

Table 5
Project Cost

Installed Measure Cost	_____	From Table 1 Energy Study
Energy Study Cost	_____	From Table 12-1.1
Design Services	_____	From Table 12-1.2
Construction/Project Management Services	_____	From Table 12-1.3
General ESCO Overhead and Profit	_____	From Table 12-1.4
Commissioning and Initial Training	_____	From Table 12-1.5
Interest During Construction	_____	From Table 12-1.6
Bond Fees	_____	From Table 12-1.7
Miscellaneous Fees and Permits	_____	From Table 12-1.8 and 12-1.8.10
Other	_____	Specify
Less Utility Rebate (ESCO must guarantee rebate)	_____	
TOTAL Project	_____	

Table 6
Calculation of Cost Savings

Year	Annual Energy Cost Savings {A}	Total Payments (from Table 74) {B}	Net Savings (C)={A}-{B}
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
Total			

**Table 7
Payment Schedule and Termination Value**

Year	Contract Payments	Total Payments
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
Total		

<u>Year</u>	Termination Value	Total Payments from Above	
		Date	Amount
1			
2			
3			
4			
5			
6			
7			
8			

Notes: Enter the date and amount of each payment. Show additional payments on another sheet if necessary. "Termination Value" is the lump sum payment required to buy out of the contract and receive title to all equipment in each year. If this option is not proposed in any year(s), indicate by "NA."

Energy Study Report Acceptance Form

The undersigned hereby accepts the content and form of the Energy Study Report.

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

[ESCO]

[MUNICIPALITY]

Name _____

Name _____

By _____

By _____

Title _____

Title _____

Date _____

Date _____

[MUNICIPAL AGENCY]

Name _____

By _____

Title _____

Date _____

Approved as to Form:

Office of General Counsel

ATTACHMENT G
Energy Management Services Agreement