

**ATTACHMENT D
TECHNICAL SUBMITTAL REQUIREMENTS**

1. PROJECT MANAGEMENT

1.0 Project Summary

Summarize the scope of services (design, financial, operations, maintenance, training, etc.) offered by your firm for this project including the added value to the PMA of your firm's services.

Include the following forms in the Project Summary:

Attachment D-1: ECM SUMMARY FORM

Attachment D-2: PROJECTED ANNUAL ENERGY SAVINGS DATA FORM

Attachment D-3: PROJECTED ANNUAL ENERGY SAVINGS DATA FORM IN MMBtus.

Use the following rates to calculate Avoided Emissions:

Emission Rate	Electric (per KWH)	Natural Gas (per MCF)	Steam (per Mlbs)
Nox (kg)	0.000363	0.01530	0.06350
SO2 (kg)	0.000862	0.00061	0.00907
CO2e (MT)	0.000389	0.05462	153.62700

**ECM SUMMARY FORM
(ATTACHMENT D – 1)**

Proposed ECM	Installed Hard Costs¹ \$	Annual Savings \$	Simple Payback (years)
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			
Project Summary			

Optional ECM	Installed Hard Costs¹ \$	Annual Savings \$	Simple Payback (years)
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			

¹The total value of Hard Costs is defined in accordance with standard AIA definitions that include: Labor Costs, Subcontractor Costs, Cost of Materials and Equipment, Temporary Facilities and Related Items, and Miscellaneous Costs such as Permits, Bonds Taxes, Insurance, Mark-ups, Overhead, Profit, etc.

**PROJECTED ANNUAL ENERGY SAVINGS DATA FORM
(ATTACHMENT D-2)**

The projected annual savings for each fuel type **MUST** be completed using the following format. Data should be given in the form of fuel units that appear in the utility bills.

Energy/Water	Proposed Savings Annual	Proposed Savings Total Project Term	Comments
Electric Demand kW			
Electric Energy kWh			
Natural Gas (Mcf)			
Steam (Mlbs)			
Water (Units)			
Other (Specify) (Units)			
Other (Specify) (Units)			
AVOIDED EMISSIONS¹			
NOX			
SO₂			
CO_{2e}			

¹ESCOs are to use the rates indicated in the RFP, under Attachment A 1.0 Project Summary, to calculate Avoided Emissions.

**PROJECTED ANNUAL ENERGY SAVINGS DATA FORM IN MMBTUs
(ATTACHMENT D-3)**

The projected annual energy savings for each fuel type **MUST** be completed using the following format. Data should be given in equivalent MMBTUs. It is preferable to show your calculations.

ENERGY/WATER	Proposed Savings Annual	Proposed Savings Total Project Term	Comments
Electric Energy (MMBTUs)			
Natural Gas (MMBTUs)			
Steam (MMBTUs)			
Other (Specify) (MMBTUs)			
Other (Specify) (MMBTUs)			

2.0 Organization Chart and Project Team Members

Submit an organizational chart that clearly identifies the roles and relationships of all key team members.

2.1 Organization Chart

Submit an organizational chart that clearly identifies the roles and relationships of all key team members and current planned subcontractors. Demonstrate, with narrative and references that team has satisfactorily performed similar work in the past. Notify the Administrator and explain claims of any kind which may be pending against such work.

2.2 Team Member Qualifications

Describe the relevant experience, qualifications and educational background of up to ten (10) individual team members assigned to this project. Demonstrate, with narrative and references that team members and personnel have satisfactorily performed similar work in the past.

2.3 Project Work Plan and Milestones

Describe your proposed management plan for accomplishing the work. Provide a project work plan to include all tasks and activities and along with a sample timeline of milestones necessary to implement all phases of the project.

2.4 Training Provisions

Describe your firm's proposed approach to providing technical training for facility personnel. Indicate the proposed number of personnel to be trained and the type and frequency of training to be provided for the duration of the contract. Indicate how your firm will address any turnover of key facility personnel as it relates to project performance.

2.5 Safety Report

Submit a record of your firm's relevant experience related to safety during construction and operations.

2.6 Annual Report

Submit a copy of your firm's most recent annual report

2.7 Project History And Client References

Provide at least 5 (five) and no more than 10 (ten) energy performance contracting projects (client references) in repayment by and currently under contract with your firm. **Each project must have at least one (1) year of documented savings performance data.** Each client reference shall include the following information:

Project Name and Location

Types of Facility(s) and Use; Number of Building, total Square Footage

Number and Types of ECMs

Project Dollar Amount (installed project costs)

Dollar Value of Projected and Guaranteed Annual Energy Savings and Operational Savings (if applicable)

Construction Start and End Dates

Personnel associated with this project and their specific roles and responsibilities. (limit to those proposed for this project)

Current name, title, telephone and email addresses of an owner(s) representative with whom your firm did business on the project

2.8 Subcontractor Qualifications

Provide background information for each of the identified subcontractors who will be involved on this project. Information should include the following:

Firm's Name, Type Location, Project Contact(s), Federal EIN, Year Firm was Established, Parent Company

Firm History on energy-related or performance based projects, including contract values

Resumes of the principal individuals who will be directly involved in this project

Firm's previous history working with the Respondent (if applicable)

Company Prospectus including a balance sheet and cash flow statement not more than a year old.

3.0 Financial and Business Experience Summary

3.1 Financial Capacity

Provide a narrative that demonstrates the financial capacity to manage all elements of the required work. Submit a copy of the company's (or parent company/guarantor) audited financials for the last two (2) years.

3.2 Credit Rating

Disclose credit rating from each rating agency.

3.3 Approach to Economic Opportunity Plan

The City of Philadelphia's institutional goals for economic opportunity are outlined in Section 4.3.2 of the RFP. In addition to the required forms outlined in that section, provide background information on prior experience and general approach performed under similar economic opportunity programs and provide a narrative with information and a plan to ensure that the Project goals will be met in the construction of the project.

3.4 Disclosure of Conflicts, Claims or other Matters

Disclose any work for another entity which may impair the ability to perform the scope and responsibilities under this RFP. Disclose any outstanding claims or other matters which may impair the ability to perform, whether financial or otherwise.

3.5 Project Guarantees

Describe your firm's ability to meet the terms of the Pennsylvania Guaranteed Energy Savings Act (GESA) mitigate risk on the project performance through performance bonds, parent guarantees, or other means. At a minimum, GESA requires that a written guarantee be provide that project savings will meet or exceed the cost of energy conservation measures and that ESCOs provide a sufficient bond for performance. Guarantees that are above the minimum requirement during the performance of the project provide additional value for the Administrator.

3.6 Options for Project Financing

Describe your firm's ability to provide or arrange financing for this project. Describe the structure of the financing arrangement including projected interest rate, financing term, repayment schedule, equipment ownership, security interest required, the responsibilities/liabilities of each party, and any special terms and conditions that may be associated with the financing of this project. Describe how construction could be financed. Include your firm's bonding references including company name, address, contact person, telephone number and information on your firm's maximum bonding capability. Note that the Administrator is exploring a variety of funding options and this information may not be used.

4.0 Technical Site Assessment

Based upon your preliminary technical energy audit and available information discuss the site conditions, status of building systems, current operating procedures and potential cost-effective energy improvement opportunities. Describe any equipment modifications, installations or replacements at the facilities that you propose to implement and those that warrant further study. Describe any operational changes you would recommend.

4.1 Energy Baseline Calculation Methodology, Procedure for Calculating Energy and Cost Savings, and Measurement and Verification Plan

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

4.2 Project Commissioning

Provide a proposed project-specific Commissioning Plan.

4.3 Equipment Maintenance Plan

Submit a proposed project-specific Maintenance Plan. Include a description of any major changes in operations or maintenance for this project that your company anticipates. Include a description of the types of maintenance services projected for this project. Address how you would approach the role of The Agency personnel in performing maintenance on the new and existing and equipment. Discuss the relationship of maintenance services to the savings guarantee, any required duration of the maintenance agreement and what impact termination of maintenance prior to the end of the contract term would have on the guarantee.

4.4 ESCO's Preliminary Technical Audit Report

This audit is to be conducted by your firm on the project sites identified in Exhibit IV. **At a minimum**, the following information is required:

- Description of preliminary ECMs
Identify the Site and describe the equipment or building fabric to be replaced or modified and the proposed technology to be installed to achieve energy, water or wastewater savings. Include the make and model of any major equipment planned for installation, including controls.
- Construction Cost
Estimated installed capital cost (As identified in with Attachment D-1)
- Expected Useful Life
- Detailed energy and operational cost savings calculations
Include both the unit saved and dollar cost savings (consistent Attachment D-2 and Attachment H)
- Simple Payback in years based on construction cost and annual savings
- Technical data and assumptions used in this analysis
- Methods to develop baseline consumption
- Methods to calculate & document operational cost savings
- M&V Option. Describe the measurement and verification option under the International Performance Measurement & Verification Protocol (A, B, C, or D) that Respondent recommends for the CM and give the details of the approach for option C or D. Provide Respondent's annual fee for conducting measurement and verification for the ECM

5.0 Cost Submittal

Provide a total project Cost Submittal include the following forms:

ESCOs PROPOSED PROJECT COST Attachment D-4

PRELIMINARY ANNUAL CASH FLOW ANALYSIS Attachment D-5

**(ATTACHMENT D-4)
PROPOSED FINAL PROJECT COST FORM FOR BASE CASE PROJECT**

Project Name:

Agency Name:

ESCO Name:

Fee Category	Fees⁽¹⁾ Dollar (\$) Value	Percentage of Hard Costs
Estimated Value of Hard Costs^{(2):}		
Project Service Fees		
Investment Grade Energy Audit		
Design Engineering Fees		
Construction Management		
System Commissioning		
Equipment Initial Training Fees		
Contingency Costs		
Construction Interest		
Project Service Fees Sub Total		
TOTAL FINANCED PROJECT COSTS:		

PROPOSED ANNUAL SERVICE FEES

First Year Annual Service Fees	Fees⁽¹⁾ Dollar (\$) Value	Percentage of Hard Costs
Measurement and Verification		
Maintenance		
Performance Monitoring		
On-going Training Services		
Verification Reports		
TOTAL FIRST YEAR ANNUAL SERVICES		

NOTES:

- 1. Fees should include all mark-ups, overhead, and profit. Figures stated as a range will not be accepted.**
- 2. The total value of Hard Costs is defined in accordance with standard AIA definitions that include: Labor Costs, Subcontractor Costs, Cost of Materials and Equipment, Temporary Facilities and Related Items, and Miscellaneous Costs such as Permits, Bonds Taxes, Insurance, Mark-ups, Overhead and Profit, etc.**

ESCO's proposed interest rate available at the time of submission:

Financial Institution:

Contact person:

17												
18												
19												
20												
Total												

NOTES:

- 1. Includes: Hard costs and project service fees.**
- 2. No payments are made by Administrator during the construction period.**
- 3. DO NOT include in the Financed Project Costs.**