



**State of Oklahoma  
Department of Central Services  
Central Purchasing**

**Notice of Statewide Contract  
Award**

*Official signed contract documents are on file with DCS-Central Purchasing.*

**Contract Title:** State Facilities Behavior Based Energy Conservation Program

**Statewide Contract #:** SW125

**Contract Issuance Date:** January 10, 2014

**Total Number of Vendors:** 1 (For details see: Vendor Information Sheet)

**Contract Period:** January 10, 2014 through January 9, 2015

**Agreement Period:** January 10, 2014 through January 9, 2019

**Authorized Users:** All State Departments, Boards, Commissions, Agencies and Institutions. Counties, Cities, School Districts and Municipalities may avail themselves of this contract.

**Contract Priority:** This Contract is Mandatory.

**Type of Contract:** Firm Fixed Percentage of Savings

**DCS-CP Contact:** Gerald Elrod

Phone: 1 - 405 - 521 - 4058

**Title:** Procurement Specialist

Fax: 1 - 405 - 522 - 1077

Email: gerald.elrod@omes.ok.gov



**State of Oklahoma  
Department of Central Services  
Central Purchasing**

**Awarded Vendors Information**

**Vendor Name:** Engineered Systems & Energy Solutions PC

**Vendor ID#:** 0000315441

**Vendor Address:** Address: 4355 N. Santa Fe Ave

City: Oklahoma City

State: OK

Zip Code: 73118

**Contact Person Name:** Claire Farr

**Phone #:** 1 - 918 - 279 - 6450

**Title:** Project Manager

**Fax #:** 1 - 918 - 994 - 1300

**Email:** [cfarr@es2ok.com](mailto:cfarr@es2ok.com),

**Website:** [www.es2ok.com](http://www.es2ok.com)

**Authorized Location:**  Locations list attached as (*attachment title*)

Address:

City:

State:

Zip Code:

**Contract ID #:** 0-3669

**Delivery:**

**Minimum Order:**

**P/Card Accepted:**  Yes

No

**Other:**

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**Vendor Name:**

**Vendor ID#:**

**Vendor Address:** Address:

City:

State:

Zip Code:

**Contact Person Name:**

**Phone #:** 1 - - -

**Title:**

**Fax #:** 1 - - -

**Email:**

**Website:**

**Authorized Location:**  Locations listing attached as (*attachment title*)

Address:

City:

State:

Zip Code:

**Contract ID #:**

**Delivery:**

**Minimum Order:**

**P/Card Accepted:**  Yes

No

**Other:**



**CONTRACT**  
State of Oklahoma

**Dispatch via Print**

**Vendor ID** 0000315441  
ENGINEERED SYSTEMS & ENERGY SOLUTIONS PC  
4355 N SANTA FE AVE  
OKLAHOMA CITY OK 73118-8518

<b>Contract ID</b> 000000000000000000000000003669		<b>Page</b> 1 of 1	
<b>Contract Dates</b> 01/10/2014 to 01/09/2015	<b>Currency</b> USD	<b>Rate Type</b> CRRNT	<b>Rate Date</b> PO Date
<b>Description:</b> From Req ID - 0900000836		<b>Contract Maximum</b> 0.00	
<b>TYPE: STATEWIDE</b>			

Tax Exempt? Y      Tax Exempt ID:736017987

<b>Line #</b>	<b>Cat CD / Item ID / Item Desc</b>	<b>Minimum Order Qty</b>	<b>Amt</b>	<b>Maximum / Open Qty</b>	<b>Amt</b>
1	81101516 / 1000029229 CONSULTING SRVC: Behavior based consulting services for energy savings	1.00	1.00	0.00	0.00

COMMENTS:

Final = The price is final after adjustments  
Hard = Apply adjustments regardless of other adjustments  
Skip = Skip adjustments if any other adjustments have been applied

<b>Authorized Signature</b>  ORIGINAL SIGNATURE ON FILE IN CENTRAL PURCHASING
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**AGREEMENT** made as of the **10th** day of **January**, in the year **2014**

**BETWEEN** the Owner:           **The State of Oklahoma**  
  **acting through the Office of Management and Enterprise Services,**  
  **Central Purchasing Division**  
  **2401 N. Lincoln Blvd., STE 116**  
  **Oklahoma City, OK 73105**

And the Contractor:           **Engineered Systems & Energy Solutions**  
  **4355 N. Santa Fe Ave.**  
  **Oklahoma City, OK 73115**

On behalf of the Using Agency: **State of Oklahoma**

For the Project:                Solicitation No.: 0900000063  
  Project Name: **State Facilities Energy Conservation Program**  
  Project Location: **Various State Buildings**

The Owner and Contractor agree as follows:

#### **ARTICLE 1. THE CONTRACT DOCUMENTS**

The Contract Documents consist of this Agreement and the Solicitation, as referenced, inclusive of any stated Conditions, Requirements, Provisions, Scope of Work, Plans, Specifications, Addenda and the Contractor's Bid Form as may be contained therein, included as an attachment. The Contract represents the entire and integrated agreement between the parties hereto and supersedes prior negotiations, representations or agreements, either written or oral.

#### **ARTICLE 2. THE WORK OF THIS CONTRACT**

The Contractor shall fully execute the Work described in the Contract Documents, except to the extent specifically indicated in the Contract Documents to be the responsibility of others.

#### **ARTICLE 3. DATE OF COMMENCEMENT AND FINAL COMPLETION**

- 3.1** The date of commencement of the Work shall be the date of the Work Order issued by the Owner and affixed to the State's separate Purchase Order issued to encumber the cost of the Work. The Contract Time shall be measured from the date of Work Order.
- 3.2** The Contractor shall achieve Final Completion of the entire Work not later than **365** days from the date of commencement.
- 3.3** The Contract Period is the Date of Award through one year with the option to renew for up to four (4) additional one-year periods.

#### **ARTICLE 4. CONTRACT SUM AND PAYMENTS**

- 4.1** This is a firm, fixed price contract for indefinite delivery / indefinite quantity for the services specified.
- 4.2** This contract is mandatory for State of Oklahoma agencies.
- 4.3.** This contract shall be made available to all State Departments, Boards, Commissions, Agencies and Institutions. The Oklahoma Statutes state that Counties, School Districts and Municipalities may avail themselves of the contract subject to the approval of the State and of the Contractor.
- 4.4.** The State may extend the term of this contract for 90 day intervals if mutually agreed upon, in writing, by both parties.
- 4.5.** Any services to be furnished under this contract shall be ordered by issuance of written purchase orders, or with State purchase card, by state agencies and authorized entities. There is no limit on the number that may be issued. Delivery of services to multiple destinations will be required. All orders are subject to the terms and conditions of this contract. Any order dated prior to the expiration of this contract shall be performed. In the event of a conflict between a purchase order and this contract, this contract shall have precedence.
- 4.6.** Discounts for prompt payment will not be considered in the evaluation of offers. However, any discount offered will be annotated on the award and may be taken if payment is made within the discount period.

## **ARTICLE 5. OTHER TERMS AND CONDITIONS**

### **5.1 OWNER'S REPRESENTATIVE**

For the purposes of this Contract, the Administrator of xxxxxxx or a designated person shall serve as the Owner's Representative, and serve as the Supervisory Official for the purposes of accepting the work and approving Invoices for Payment. No work will be accepted, nor any payments made without approval by the Owner or the Owner's Representative.

### **5.2 CONTRACT CHANGES**

Contract Changes shall be provided only upon prior written authorization by the Owner, and are subject to the statutory limits set forth in 61 O.S. § 121. Upon request by the Owner's Representative, Contractor shall prepare an itemized cost proposal for the requested contract change and submit to Owner's Representative for review and approval. If accepted by Owner, a Change Order will be processed and returned to Contractor, authorizing the change in the work and providing a notice to proceed.

### **5.3 AUDITS AND RECORDS CLAUSE**

As used in this clause, "records" includes books, documents, accounting procedures and practices, and other data, regardless of type and regardless of whether such items are in written form, in the form of computer data, or in any other form. In accepting any contract with the State, the Contractor agrees any pertinent State or Federal agency will have the right to examine and audit all records relevant to execution and performance of the resultant contract. The Contractor is required to retain all records relative to this contract for the duration of the contract term and for a period of three years following completion and/or termination of the contract. If an audit, litigation, or other action involving such records is started before the end of the three year period, the records are required to be maintained for three years from the date that all issues arising out of the action are resolved or until the end of the three year retention period, whichever is later. Records and receipts of the Contractor's costs pertaining to this Contract shall be kept on a generally recognized accounting basis.

### **5.4 OWNERSHIP OF DOCUMENTS**

All documentation generated as an instrument of service is and shall remain the property of the Owner, including shop drawings, equipment manuals, equipment warranties and as-built drawings. Contractor shall deliver said documents to Owner's Representative or as otherwise stated in the Solicitation upon final completion of the work.

### **5.5 SUCCESSORS AND ASSIGNS**

The Owner and the Contractor each binds themselves, partners, successors, assigns and legal representatives to the other party to this Agreement and to the partners, successors, assigns and legal representatives of such other party with respect to all covenants of this Agreement. The Contractor shall not assign, sublet or otherwise transfer its interest in this Agreement without the written consent of the Owner.

### **5.6 DISPUTES AND CLAIMS**

The Owner and Contractor shall endeavor to resolve claims, disputes and other matters in question between them by participating in good faith in a settlement meeting to obtain a mutual agreement that resolves the claim or dispute. If an agreement cannot be attained, the Contractor may appeal to the Administrator of the Division of Capital Assets Management, by submitting written notice of a protest to the Administrator within twenty-one (21) days of the previous settlement meeting. The Administrator may hear the protest or may assign the Contractor's appeal to an administrative law judge the Division retains. If the appeal is assigned to an administrative law judge, the administrative law judge shall review the protest for legal authority and jurisdiction. If legal authority and jurisdictional requirements are met, the administrative law judge shall conduct an administrative hearing in accordance with the Administrative Procedures Act, 75 O.S. § 309 et seq., and provide findings of fact and conclusions of law to the Administrator. The Administrator shall send written notice to the Contractor of the final decision sustaining or denying the Contractor's appeal. If the Administrator denies Contractor's appeal, the Contractor may appeal pursuant to provisions of 75 O.S., § 309 et seq. of the Administrative Procedures Act.

### **5.7 TERMINATION FOR CAUSE**

**5.7.1.** The Contractor may terminate the Contract for default or other just cause with a 30-day written request and upon written approval from the Central Purchasing Division. The State may terminate the Contract for default or any other just cause upon a 30-day written notification to the Contractor.

**5.7.2.** The State may terminate the Contract immediately, with out a 30-day written notice to the Contractor, when violations are found to be an impediment to the function of an agency and detrimental to its cause, when conditions preclude the 30-day notice, or when the State Purchasing Director determines that an administrative error occurred prior to Contract performance.

**5.7.3.** If the Contract is terminated, the State shall be liable only for payment for products and/or services delivered and accepted.

**5.7. TERMINATION FOR CONVENIENCE**

5.7.1. The State may terminate the Contract, in whole or in part, for convenience if the State Purchasing Director determines that termination is in the State's best interest. The State Purchasing Director shall terminate the Contract by delivering to the Contractor a Notice of Termination for Convenience specifying the terms and effective date of Contract termination. The Contract termination date shall be a minimum of 60 days from the date the Notice of Termination for Convenience is issued by the State Purchasing Director.

5.7.2. If the Contract is terminated, the State shall be liable only for products and / or services delivered and accepted, and for costs and expenses (exclusive of profit) reasonably incurred prior to the date upon which the Notice of Termination for Convenience was received by the Contractor.

**5.8 INSURANCE**

Insurance meeting the minimum limits of coverage listed below shall be maintained in full force by Contractor for the duration of the Contract. Certificates of Insurance shall be furnished naming the Owner as the Certificate Holder prior to acceptance of the Contract or issuance of a Work Order.

General Liability Insurance	\$100,000/\$300,000
Auto – Owned, Hired and Non-Owned	\$100,000/\$300,000
Property Damage (for projects under \$50,000.00)	\$50,000/\$100,000
Builder’s Risk (for projects \$50,000.00 and above)	\$50,000/\$100,000
* Workers Compensation	Statutory

\* Companies exempt from the Workers Compensation Act may substitute DCAM/CAP Form A312D in lieu of a Certificate of Coverage.

The above are minimum limits of insurance coverage. If higher limits or additional insurance provisions are stated in the Bid Solicitation, the requirements of the Solicitation shall be the minimum required.

**5.9 BONDS**

Bonds are not required for this contract.

**5.10 JURISDICTION**

This Agreement shall be governed by the laws of the State of Oklahoma.

The Contractor certifies that it and all proposed subcontractors, whether known or unknown at the time this contract is executed or awarded, are in compliance with 25 O.S. §1313 and participate in the Status Verification System. The Status Verification System is defined in 25 O.S. §1312 and includes but is not limited to the free Employee Verification Program (E-Verify) available at [www.dhs.gov/E-Verify](http://www.dhs.gov/E-Verify).

The Contractor also certifies that they are in compliance with the State of Oklahoma Governor’s Executive Order 2012-01, filed February 6, 2012 and effective July 1, 2012, the use of any tobacco product shall be prohibited on any and all properties owned, leased or contracted for use by the State of Oklahoma, including but not limited to all buildings, land and vehicles owned, leased or contracted for use by agencies or instrumentalities of the State of Oklahoma.

**ATTACHMENTS:**

- A.1 Project Specifications
- A.2 Organizational Management Strategy
- A.3 Pricing Spreadsheet
- A.4 Value Added Service Cost Matrixes
- A.5 IPMVP Standard

Agreed upon and Accepted by:

State of Oklahoma  
Office of Management and Enterprise Services  
Central Purchasing Division

\_\_\_\_\_  
Steve Hagar  
State Purchasing Director

Contractor

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Name/Title

\_\_\_\_\_  
Company

FEI No.: \_\_\_\_\_

## ATTACHMENT 1. PROJECT SPECIFICATIONS

### A.1. INTRODUCTION

#### A.1.1. PROJECT OVERVIEW

The Office of Management and Enterprise Services (OMES) has been directed by the legislature to create the Oklahoma State Facilities Energy Conservation Program (OSFECP). All state facilities shall be subject to the OSFECP, which includes utilization of the solicitation process to contract for the development and implementation of an organizational behavior-based or performance-based energy conservation program. The first phase of the program will involve development and implementation of an organizational behavior-based program. Behavior based programs use an integrated approach to address both behavioral changes of facility occupants and energy users as well as optimization of existing equipment and controls systems. They do not depend on or involve improvements, installation or replacement of lighting, HVAC equipment or computerized controls systems. The emphasis of the program shall be on changing energy attitudes, procedures, habits and routines of building occupants/users. The State intends to hire a single Contractor to develop and implement an organizational behavior-based energy conservation program for all state agencies. It is desired that the actual implementation occur on an agency by agency basis. Each agency will contract directly with the selected Contractor for its specific program and will be billed directly by the Contractor, based on the vendor's cost proposal.

#### A.1.2. STATE FACILITY INFORMATION

The State of Oklahoma's approximately 82.7 million square feet of owned and leased facility space is diverse and is made up of facilities that range from newly constructed to historical buildings constructed in the 1800s. Approximately 77.6% of the facility space is owned by five agencies:

ORGANIZATION	APPROX # OF SF	% OF TOTAL SPACE
Higher Education	49.6 million	60.0%
Department of Corrections	7.1 million	9.0%
University Hospital Authority	3.3 million	4.0%
Department of Transportation	2.0 million	2.4%
Department of Human Services	1.8 million	2.2%
Other State Entities	18.5 million	22.4%

An electronic version of the real property inventory list can be found at:  
<http://www.ok.gov/DCS/documents/RealPropertyAssetReport2012.pdf>

This report lists the facility space each agency owns and leases. Additionally, the estimated utility spend for the state agencies listed in the report is approximately \$129M. This is only an estimate. The actual utility spend for all state agencies has not been confirmed.

Over the course of this multi-year project, the State will almost certainly add new building space to the portfolio and/or vacate currently used facilities. Either event will require adjustments to the energy savings and Contractor fee calculations.

#### **ADDING BUILDING SPACE**

When an agency adds building space, the Contractor and the State Executive Team will mutually agree upon a period of time not to exceed one quarter to serve as a temporary baseline. Once the temporary baseline is established, that building space will be considered within the scope of the program and the associated services. The Contractor will calculate fees based on the temporary baseline until 12 months of utility data has accrued.

#### **REMOVING BUILDING SPACE**

Savings achieved due to facility closure due to recommendations made by the Contractor shall be included in billable savings for a period of three months following the date of closure. Savings achieved due to facility closure due to facility end-of-life or reasons unrelated to savings recommendations shall not be included in billable savings. If a facility is closing due to reasons unrelated to savings recommendations, agencies must provide the Contractor 90 days written notice of facility closure.

### A.2. PROGRAM SPECIFICATIONS



The goal of the program is to be the vehicle state agencies use to meet the objectives and scope of SB1096, Oklahoma State Facilities Energy Conservation Program (OSFECP) and the targeted cumulative energy savings of not less than 20 percent by the year 2020 when compared to the 2012 fiscal year utility expenditures. The organizational behavior-based program will not depend on or involve improvements, installation or replacement of lighting, HVAC equipment or computerized controls systems. Key components of the organizational behavior-based program shall include at a minimum:

#### **A.2.1. INITIAL FEE-FREE PERIOD**

The program will include an initial fee-free period of not less than 12 months during which foundational elements of the program are established and energy savings are generated. During this period the Contractor will gather information pertaining to energy use and benchmark state facilities using 2012 fiscal year utility expenditures. The Contractor will also make assessments of current energy consumption, building occupancy patterns, equipment run times and settings and staff routines and practices in state facilities. Using this information, the Contractor will produce energy conservation measures (ECMs) and procedures to ensure the realized savings during the initial 12 months exceed investment costs.

#### **A.2.2. SELF-FUNDED PROGRAM**

The program shall be fully funded within existing State budgets through savings generated by reducing energy costs. The proposed program shall provide enough savings to pay for itself within the first 12 month fee free period and for each subsequent year of the contract term. The program costs include, but are not limited to, associated vendor fees, State energy manager salaries and travel. The State shall not be required to repay any fees refunded by the Contractor in order to ensure the program maintains the self-funded requirement. Any agency at the end of the initial fee-free period whose initial investment into the program has exceeded the realized energy savings in their "program bank" will have the fee postponed to the next quarter until they have positive savings in their "program bank."

#### **A.2.3. BEHAVIOR-BASED CHANGE PROGRAM**

The program shall include an integrated approach to address both behavioral changes of facility occupants and energy users, as well as optimization of existing equipment and controls systems. The emphasis of the program shall be on changing energy attitudes, procedures, habits and routines of building occupants/users.

#### **A.2.4. FULL-TIME ENERGY MANAGERS (EM)**

In order to ensure sustainability of the program, the State desires the use of full time EMs to manage the organizational behavior-based program. The State desires each agency to employ its own energy managers. The Contractor will assist each agency with determining how many energy managers will be needed based on the amount of facility space the agency owns and the geographical separation between the facilities. The Contractor will use an estimated salary of \$55K for each EM on "Attachment 3: Pricing Spreadsheet" and will assist in hiring and training them on the behavior-based program and the maintaining the utility data in the energy software. Hiring the energy managers will be a collaborative process between the Contractor and each agency. Existing State employees will be hired as energy managers when reasonably possible.

Based on the 2012 Real Property Asset Report listed in the RFP, 25 Energy Managers will sufficiently supplement the existing agency facilities management staff to implement the program across the State's portfolio.

Many of the State's largest agencies have existing Energy Managers who will be tasked with implementing this program. While there exists no database confirming which agencies currently have existing Energy Managers, it was estimated that some agencies may have existing staff capacity. Salaries for existing staff will not be included in program investment costs used to determine a self-funded program.

At least four Energy Managers should be allocated to the program as a whole. These four will assist small agencies with total square footage less than 10,000.

The need for Energy Managers cannot currently be estimated at all for those agencies that only lease space, which accounts for about half of the agencies and 1.9 million square feet. Their participation in the program, and need for Energy Managers, will be completely dependent on their ability to document and control the utility usage for their space.

While it has been estimated there will be a need to hire 25 new Energy Managers, there is not sufficient data available at this time to definitively allocate the Energy Manager positions among the agencies. After the initial one

year fee free period the State may require that additional Energy Managers be hired by the agencies to facilitate the program.

### **TASKS FOR ENERGY MANAGERS**

Energy Managers are on the front line of implementing the base program, and as such their duties will vary widely. It is the goal to provide the Energy Managers with the education and infrastructure to deploy a program that will achieve bold energy reduction goals through a balance of accountability and the flexibility to react to local circumstances. The list below represents a partial, draft list of their responsibilities that will continue to evolve based on discussions between the Contractor and the State Executive Team as well as the needs of the program over time.

### **INITIAL PROGRAM SET UP TASKS**

- Attend 1-day seminar in Oklahoma City or Tulsa
- Compile 24 months of utility bills and enter into the software for the baseline
- Complete an electronic survey provided by the Contractor to document the state of the agency's facilities, such as the type and age of buildings, construction type, and a list of all major building systems.
- Distribute and encourage completion of an electronic survey provided by the Contractor documenting current building occupant attitudes, knowledge, and behavior.
- Analyze survey results and facilities information to confirm the agency's list of ECMs to implement based on the Statewide Energy Conservation Policy.
- Work with agency leadership to confirm any changes to policies or procedures required to facilitate ECM implementation, such as policies governing the scheduling of building use and HVAC set points.
- Work with agency leadership to plan and execute a kick-off and commitment event
- Arrange for any training needed for facilities or custodial staff in order to implement ECMs.
- Select and implement social marketing tactics to encourage building occupant participation.

### **WEEKLY TASKS**

- Implement their individual social marketing plan, reminding building occupants of desired behaviors, recognizing leaders in implementation, and documenting results. For example, this might entail speaking at an all staff meeting to congratulate a specific department for an excellent participation rate in keeping all computers turned off when not in use. As another example, an Energy Manager may procure new signage for an office complex prompting occupants to turn off their lights.
- Complete a brief walk-through evaluation of a portion of the buildings in their portfolio each week based on a survey form distributed by the Contractor. Each Energy Manager will be given a goal for the number of walk-throughs they complete each week as they are hired, because the logistics of these walk-throughs will vary widely based on the composition of their portfolio. The Energy Manager will record walk-through results on an electronic survey-like form to provide themselves, the Contractor, and the State Executive Team with the ability to trend participation and analyze aggregate data.
- The Energy Manager will remind individual building occupants of any ECMs they are not complying with, as well as notify agency or facility-level leadership of any problems with compliance. However, positive feedback should be communicated when possible as well.
- Respond to a very brief electronic survey from the Contractor documenting any new challenges, any specific accomplishments, and the Energy Manager's primary goals for their time the following week. This allows the Contractor to quickly judge the progress of each Energy Manager and reach out early to any whom have encountered a hurdle.
- Interact with building maintenance staff or engineers to ensure all O&M and systems optimization recommendations are being followed.

### **MONTHLY TASKS**

- Participate in an educational webinar hosted by the Contractor.
- Review utility bills and enter into the energy accounting software
- Generate a progress report and send it to agency leadership, the Contractor and State Executive Team. The report will include progress in building occupant participation and energy reduction as well as documentation of any challenges and the Energy Manager's work plan for the following month.

### **TASKS SCHEDULED AS PROGRAM NEEDS DICTATE**

- If facilities within their portfolio fall within the bottom 20% of buildings in the statewide portfolio, the Energy Manager will receive extra support from the Contractor in analyzing their current building systems and management to develop a more detailed improvement plan.
- Energy Managers will compile an annual report every 12 months. The report will include progress in building occupant participation and energy reduction as well as documentation of any challenges.
- Coordinate with the Contractor and any existing agency communications or media relations staff to develop and disseminate any major success stories as appropriate. For example, if a major energy reduction milestone is achieved, the Energy Manager may update a press release template from the Contractor and provide it to agency communications staff for distribution to local media outlets as

appropriate.

- With the Contractor's guidance, ensure that the agency is being billed correctly for utility consumption and is taking advantage of the best utility rate schedule and any rebate or incentive programs available.

#### **A.2.5. ENERGY ACCOUNTING SOFTWARE**

The Contractor will be responsible for incorporating the State provided energy accounting software system that will be used to benchmark state facility's energy use and to measure and report savings. The State desires to use a commercially available energy accounting software package to measure, track and report energy savings. The specific software system will be procured by the State through a separate solicitation. The Contractor should have extensive experience in gathering customer's utility information and have extensive experience in assisting customers with using commercially available energy accounting software systems. The State will ensure accurate utility data entry into energy accounting software.

#### **A.2.6. MEASUREMENT AND VERIFICATION (M&V)**

The program will include an M&V plan that adheres to the IPMVP and includes the use of the software system described in item A.2.5 above. The successful vendor shall also assist the agency energy managers with building energy consumption data bases used to calculate savings in accordance with relative energy standards.

#### **A.2.7. COMMUNICATIONS PROGRAM**

The Contractor shall provide public relations and statewide communications support for the program to ensure effective communication of the energy program success during all stages of implementation.

Additionally, the Contractor should provide support for obtaining initial ENERGY STAR building label recognition for those facilities that are eligible and qualify. This support shall include educating Energy Managers on how to complete the ENERGY STAR certification application. For those agencies that do not have a Professional Engineer on staff to verify the certification application, the Contractor will provide two rounds of review. For any agency that needs more than two rounds of review before their application can be verified, a Value Added Service is available.

#### **A.2.8. ONGOING SUPPORT**

The Contractor will provide free ongoing support beyond the initial term of the program, if the State substantially continues implementation of the program.

#### **A.2.9. UTILITY MANAGEMENT AND OPTIMIZATION**

The Contractor will work with local utilities in implementing energy reduction efforts and to use utility demand side management and energy efficiency programs to further capture energy efficiency potential.

#### **A.2.10. PROGRAM STRUCTURE**

The Contractor will coordinate efforts with the Office of Management and Enterprise Services (OMES) and the participating state agencies to ensure program compliance, meet reporting needs and coordinate savings efforts. Additionally, the Contractor will coordinate through OMES any major risk items that might affect their ability to meet the expectations of the State. They will also explain how they will mitigate, manage and/or minimize the risk encountered. The Contractor will also coordinate with OMES to develop program metrics that will be used to track and measure the program's implementation and success. The Contractor retains ownership of all toolkits, guidance documents, webinar content, and other supporting materials, excluding those records and reports specific to state facility condition and performance (i.e. any data entry into the State-provided software program is the property of the State).

##### **A.2.10.1 BEHAVIOR-BASED CHANGE PROGRAM**

In order to maximize the energy savings within this program, an Occupant Behavior Program and an Operations Behavior Program have been developed, both of which are outlined below. While the Occupant Behavior Program is directed towards the general occupants of each facility and the Operational Behavior Program addresses the tasks and needs of facility maintenance and buildings systems staff, both programs will be grounded in a Statewide Energy Conservation Policy.

##### **A.2.10.2 STATEWIDE ENERGY CONSERVATION POLICY**

The Program will develop a statewide policy of ECMs that includes sections on general and specific energy conservation measures for each type of facility. A single policy dictating Energy Conservation Measures

(ECMs) for the entire state portfolio would miss opportunities at some facilities while creating standards that were unfeasible for others. However, there are certainly commonalities between facilities of each type, such as offices/classrooms, science labs, hospitals, and penitentiaries. This policy will be drafted by the Contractor in Quarter 1 of program implementation. The Contractor will then work with the State Executive team to review, amend, and approve the policy.

While this statewide policy will provide rigorous standards for energy reduction behaviors, some consideration must be given to those facilities with unique space utilization needs or infrastructure gaps that prevent them from implementing all prescribed ECMs. For example, if a facility does not have a Facilities Energy Management System (FEMS) or programmable thermostats, their HVAC scheduling capabilities will be limited. The Contractor will provide Energy Managers with a standardized and transparent process for requesting localized amendments to the policy based on these types of issues. Energy Managers will submit their request for amendments to the Contractor. As part of the Weekly Risk Reports, The Contractor will then provide the State Executive Team a consolidated report on all requested amendments and the Contractor's recommendation to approve or deny each request. Recommendation for approval or denial will be based on 1) verification that it is unfeasible for the agency to implement the policy as written and 2) consideration of the impact of the deviation on the overall savings goals. The State Executive Team will make the final decision to approve or deny each requested amendment.

### **A.2.10.3 OCCUPANT BEHAVIOR PROGRAM**

The Contractor will coach all Energy Managers through a comprehensive program to encourage all occupants of state buildings to each reduce their energy consumption throughout their work day. The program is based on the principles of "Community Based Social Marketing," a methodology derived from the conclusions of social science research regarding the most effective ways to encourage desired behaviors across an entire community, such as a group of agency employees. By relying on tactics proven by psychological and marketing research, the program will spur reductions in energy use without putting Energy Managers in the role of punitive "energy police."

The Contractor will provide each Energy Manager with an Occupant Behavior Toolkit of instructional documents, timelines, and promotional materials specific to the behaviors they are trying to promote within their agency. The toolkit will function as a syllabus and workbook to guide the Energy Managers through the process of planning, educating and encouraging building occupants, as well as evaluating progress. Furthermore, the Contractor will guide the Energy Managers throughout the program via group trainings and individual coaching.

Similarly to the rest of our OSFECF programs, the Occupant Behavior Strategy is divided between Phase 1 covering the first 12 months and Phase 2 covering the rest of the contract.

#### **PHASE 1 (FIRST 12 MONTHS)**

##### **Quarter 1**

The first quarter of the program will primarily be devoted to hiring Energy Managers and establishing the infrastructure required for the program, as outlined in the "Attachment 2: Organizational Management Strategy."

##### **Quarter 2**

- Energy Managers will receive their Occupant Behavior Toolkits and attend the 1-day initial training seminars in Oklahoma City and Tulsa. During the seminar, Energy Managers will be guided through the process of beginning to benchmark their facilities using building descriptions and the initially available utility data. This benchmark will create a comprehensive baseline of building energy performance, and Energy Managers will continue to update their data throughout the program to track their progress. The Contractor believes the following criteria are absolutely necessary for full analysis of state facilities:
  - Energy Intensity (kBtu/sq ft/year)
  - Energy Capital Intensity (\$/sq ft/year)
  - Total Area (sq ft)
  - Occupied Area (sq ft)
  - Total Energy Use (kBtu/year)
  - Energy Star Score (where applicable)
- Energy Managers will distribute an electronic survey to all employees of their agency to establish a baseline of the building occupants' current knowledge of, habits around, and perceived barriers to the desired conservation behaviors. The Contractor will provide Energy Managers the survey system with surveys tailored to the type of facility.
- The Contractor will guide Energy Managers to analyze survey results, select primary conservation behaviors to focus on promoting, and determine goals specific to each facility.
- Energy managers will seek any necessary approvals for policies or changes within their agency.

#### **Quarters 3 and 4**

- Energy Managers will arrange, in consultation with their agency leadership and the contractor, an appropriate kick-off and commitment event or announcement to highlight the beginning of the newly established conservation behaviors.
- Energy Managers will arrange for any training needed by their custodial staff or other stakeholders in order to implement the conservation behaviors.
- Energy Managers will select and implement a slate of social marketing tactics to educate, persuade, and remind building occupants to adopt conservation behaviors. The Occupant Behavior Toolkit will include lists of potential tactics and templates for outreach materials Energy Managers can use to implement such tactics.
- Under the Contractor's guidance, Energy Managers will regularly track their energy reduction progress, submit reports to the Contractor and the State Executive Team, and evaluate and adjust their strategy. Further details on the reporting schedule are outlined in "Attachment 2: Organizational Management Strategy."

#### **PHASE 2 (CONTINUATION OF PROGRAM)**

Phase 2 builds on the structure developed in Phase 1 to steadily increase adoption of the energy conservation behaviors. The Occupant Behavior Strategy is designed as an ongoing cycle of implementing social marketing tactics, tracking progress against energy reduction goals, and evaluating and adjusting the agency's strategy.

- The Contractor will provide regular training opportunities and problem solving coaching as outlined in "Attachment 2: Organizational Management Strategy."
- In consultation with the Contractor, Energy Managers will annually complete a formal evaluation of their progress, strategy, and goals for their Occupant Behavior Strategy, which will result in an action plan for the following year.
- The Contractor's Toolkit, trainings, and coaching will go beyond teaching the actions the Energy Managers need to undertake but to also support the Energy Managers in managing the demands and frustrations of their new role within their agency. While the Energy Manager position will be an exciting opportunity to learn new skills and make a significant impact, it will also be a great challenge to many successful applicants as they will now be acting as an individual agent of change tasked with wrangling a broad audience within a complex bureaucracy. They will be asked to act as engineers, business analysts, educators, and cheerleaders. The Contractor will guide the Energy Manager's expectations and advise them in managing the competing interests of their job to ensure that they are as successful as possible.

#### **A.2.10.4 OPERATIONAL BEHAVIOR PROGRAM**

The Operational Behavior Program is designed to guide the behaviors of facilities operations and maintenance staff. Energy Managers will identify the training needs of their agency staff and the Contractor will carry out seminars / webinars on operational changes to building systems. Continuous benchmarking will keep the Contractor's efforts focused on the buildings performing in the bottom 20% as those with the most energy saving potential.

#### **Quarter 1**

- The first quarter of the program will primarily be devoted to hiring Energy Managers and establishing the infrastructure required for the program, as outlined in "Attachment 2: Organizational Management Strategy."

#### **Quarter 2**

- Every Energy Manager will attend a 1-day seminar in either Oklahoma City or Tulsa for the purpose of training in the Operational Behavior Program, this training is in addition to the training listing in the "Occupant Behavior Program" training above.
- During the seminar, Energy Managers will also learn about the program and resources available to them to improve their current Operational Behavior.
- In the weeks following the seminars, the Contractor will provide guidance to Energy Managers as they:
  - Identify facilities with Facilities Energy Management Systems, as well as the type and condition of the building's HVAC systems.
  - Complete the benchmarking of the facilities.
- The Contractor will provide every Energy Manager with the statewide policy of energy conservation measures that should be implemented at their agency, which will be specific to each facility type. For example, hospitals will work on a different list of conservation measures than correctional facilities.
- Based on their list of energy conservation measures, Energy Managers will determine what additional training their Facilities Maintenance or other staff members need and will coordinate with the Contractor on the most cost effective means of acquiring that training. The topics identified in this process will be

taken into consideration during development of the monthly educational webinars hosted by the Contractor.

- Based on the baselines, the Contractor will identify a group of state facilities performing in the bottom 20% of the state-wide portfolio.
- The Contractor will begin hosting monthly web conferences with Energy Managers on topics critical to their success in reducing energy consumption.

#### **Quarters 3 and 4, and Throughout Phase 2**

- Energy Managers will enter their utility data once a month.
- In Quarter 3, the Contractor will work with the first group of facilities performing in the bottom 20% of the state portfolio. For these facilities, the Contractor will provide customized engineering analysis of how to best optimize the existing building systems utilizing our local staff of industry experts.
- Beginning in Quarter 4 and at the beginning of each quarter thereafter, the Contractor will reevaluate the list of the lowest performing 20% of facilities to ensure that extra analysis is consistently applied to those facilities with the greatest opportunity for savings.
- The Contractor will submit Annual Reports to the State Executive Team each year once 12-months of utility data is available.
- Monthly web conferences with Energy Managers will continue and topics will be selected based on their current needs.

#### **Determining Bottom 20%**

The Energy Usage Intensity (EUI) will be calculated for each facility. The EUI is the total kBTU/sq-ft. The EUI will then be compared to the building's respective Category EUI goal as determined by the program, i.e. Hospital, Commercial Building, Correctional Facility, etc. Secondly, the total available energy dollar savings will be calculated by applying the current energy expenditure per kBTU and multiplying it by the difference of the (EUI actual – EUI goal) and the square footage of the facility. This potential energy savings will be the value that ranks each facility for the bottom 20%.

For example:

Building No. 1: Higher Education, 29,062,500 kBTU in 125,000 SQFT

Actual EUI 232.5 is 50% above the Goal EUI 155

Actual Energy Expenditure is \$363,281.25 or 0.0123 \$/kBTU

Potential Energy Savings is  $(232.5 - 155) \times 0.0123 \times 125,000 = \$119,156.25$

Building No. 2: Hospital, 100,098,000 kBTU in 300,000 SQFT

Actual EUI 333.66 is 34% above the Goal EUI 249

Actual Energy Expenditure is \$1,231,205.40 or 0.0123 \$/kBTU

Potential Energy Savings is  $(333.66 - 249) \times 0.0123 \times 300,000 = \$312,395.40$

In this example, Building 2 would be considered the facility with the most opportunity for savings and thus the better candidate for the "Bottom 20%" classification.

#### **PHASE 2 (CONTINUATION OF PROGRAM)**

Phase 2 builds on the structure developed in Phase 1 to steadily increase adoption of the energy conservation behaviors. Energy Managers will continue to implement the Statewide Energy Conservation Policy while identifying any personnel or training gaps as well as additional opportunities for conservation. The Operations Behavior Strategy is designed to help Energy Managers and the agency facilities maintenance staff continually improve their capabilities to manage their building systems.

#### **A.3 COST PROPOSAL**

- Pricing must be proposed solely in the form of a fixed percentage of savings achieved through program implementation. Each state agency will contract directly with the successful supplier for program implementation. Each agency will be invoiced directly and separately based on savings achieved by the individual state agency.
- Contractor will be paid a fee equal to 20% of the cumulative energy expenditure savings each quarter when compared to the respective quarter of the prior year. i.e. Q1 of 2015 compared to Q1 of 2014. (Except for Initial Fee Free Period of contract, see below.)
- For a given quarter, the Contractor's fee will be determined for each building by calculating the difference in total energy consumption that quarter from the same quarter the prior year. The total energy consumption will be normalized for weather by a method mutually agreed upon by the state and the vendor prior to establishment of the state's baseline. That difference will then be multiplied by the cumulative average cost per unit of energy, using that quarter's current utility rates. The Contractor's fee will equal 20% of this resulting savings figure.

- All energy consumption figures will be converted to a common unit of energy, kBTU. The cumulative (across all types of utilities for the given building) average energy cost includes the entire energy expenditure—all fees, penalties, utility rates, discounts, and taxes.
- The current quarter energy usage will be set as the new baseline to determine energy savings for the following year's fee calculation.
- If total energy used is greater than the previous quarter the Contractor will not be entitled to a fee.
- The Contractor will receive 10% of the amount of any money refunded due to utility billing errors identified through the Contractor's program. For more details see "Utility Billing Errors" below.
- Annual Energy Savings data will be evaluated based on established and agreed upon metrics, adhering to IPMVP.
- Cumulative energy expenditure for calendar year 2012 will be evaluated as part of benchmarking effort during Phase 1 (Q1 and Q2).
- The "Initial Fee-Free Period" will be 365 days from the date the contract is executed. The cumulative energy expenditure for this first program year will be evaluated quarterly to establish total energy savings. The Contractor's fee will be calculated as 20% of total cumulative energy expenditure savings for each building from the 2012 baseline. The fees based on energy savings realized in Quarters 1-3 of Year 1 will be invoiced on the last day of the Fee-Free Period. The fees for savings realized in Quarter 4 of Year 1 will be invoiced at the end of Quarter 1 of Year 2 of the program.
- By the end of Year 5, the Contractor's total base fees shall not exceed 10% of total cumulative energy expenditure savings from the 2012 baseline.
- If an agency is unable to begin services under the contract due to delays on the part of the Contractor (based on the project timeline document), the fee free period will be extended on an individual agency basis to compensate for the delay. The Contractor will have fulfilled its obligation to engage an individual agency if it has contacted the agency director via phone and email using the contact information provided by the state and responded to a request for one in person meeting if such a request was made by the agency. No extension will be given due to delays on behalf of the agency or delays in issuance of a purchase order.
- Energy savings from buildings already engaged in energy efficiency improvements through their own programs will be excluded from the Contractor's fee calculations if they can verify the impact of their program / project in adherence to IPMVP. For more details see "Preexisting Programs" below.

#### **Utility Billing Errors**

A core component of the Contractor's program is the compilation and analysis of an initial 24 months of utility data and monthly updates thereafter. For some facilities, the utility bills have errors or mistakes that result in an over billing from the Utility Company. Throughout this program, the Contractor will be reviewing this compiled energy data in detail to identify any billing errors.

Upon discovery of billing errors, the Contractor will notify the agency of any identified billing mistakes and provide the agency with the analysis to justify a refund. At the agency's discretion the Contractor may also contact the utility directly to request the refund. The Contractor's fee for identifying and documenting the billing error will be 10% of the value of any refund.

#### **Preexisting Programs**

In collaboration with the State Executive Team, the Contractor will offer an opportunity for agencies to account for their energy savings achieved in 2013 and after the start of this program to reduce the overall financial impact of the program. The energy savings achieved after December 31, 2012 will still be calculated against the overall target of 20% reduction in energy use.

The Contractor proposes an IPMVP-based approach to account for energy savings from agencies upgrading their building systems or implementing agency-wide energy efficiency behavioral programs. The burden of proof will be on the agencies to sufficiently document their Energy Conservation Measures (ECMs). Agencies with existing programs, or agencies that have already carried out building systems upgrades, will be required to document their success through the Contractor provided forms. These forms will require project / program descriptions, energy performance data, equipment specifications, and the total energy savings measured in kBTUs. The State Executive Team together with the Contractor will review these applications to approve any energy savings to be excluded from program fee calculations.

#### **Individual Equipment Upgrades**

IPMVP offers a clear methodology to document pre-upgrade and post-upgrade performance. The Contractor will work with individual agencies to review the submitted data and ensure that ECM implementation and documentation met IPMVP standard. M&V options (Option A: Partially Measured Retrofit Isolation and Option B: Retrofit Isolation) offer a clear process for data gathering, calculations and analysis. Buildings with equipment upgrades will continue to be part of the overall statewide behavior based energy efficiency program.

### **Agency Wide Efficiency Programs / Behavior-Based Energy Efficiency Programs**

If a state agency has an existing behavior based energy efficiency program, they will be required to provide a program description and document their success through the Contractor's provided forms. The IPMVP program Option C: Whole Facility analysis will be used to validate energy savings. The Contractor believes that agencies with existing programs should be able to continue implementing their improvements as long as their programs contribute to overall energy savings calculated to meet the requirements of SB 1096. The Agencies will be required to submit monthly energy use data to verify neutral or positive impact on statewide energy efforts. These agencies will also still be required to participate in the overall statewide program and will not be entirely excluded from the program fee calculations.

State Executive Team will be required to take a leading role in reviewing existing programs and past improvements. With the Contractor's close support and collaboration, it will be critical to have a fair and IPMVP-compliant process to account for energy savings generated through these programs and improvements.

### **Supplementary Service Fee**

If a state agency has not completed entry of all utility data into the utility tracking software by the quarterly deadline set by ES2 to send out invoices, a supplementary service fee will be invoiced in lieu of the costs described above. For any facilities missing utility data by the quarterly deadline, a fee of \$0.005 per square foot will be invoiced. This fee will not exceed the organization's greatest quarterly invoice for that facility to date in the program. If the organization has not previously been invoiced for a positive dollar amount for that facility under the standard cost model described above, the fee will remain at \$0.005 per square foot. If the organization has not entered square footage information into the program tracking software, any available information from the State leasing office will be used.

Once the appropriate utility data has been entered into the program tracking software, a correcting invoice will be provided reflecting the cost model described above. The supplementary fee will be credited towards the final invoice amount and if the fee exceeded the final invoice amount, any excess will be credited towards the organization's next invoice. Any credit remaining on a customer's account at the end of the fiscal year will be refunded to the agency in order to ensure the program remains cost-neutral.

## **A.3.1 VALUE ADDED SERVICES**

### **A.3.1.1 Validation of Utility Data Entered**

The Contractor will provide analysis to validate the accuracy of the entered utility data. Upon discovery of data entry errors, the Contractor will notify the agency and work with the necessary individuals within the agency to correct the entered data. The work required to perform this analysis will vary based on the scope and complexity of the facility portfolio (and thus utility meters) to be analyzed.

The fee for this service will be charged on an hourly basis at \$125 per hour.

### **A.3.1.2 Energy Assessments**

An Energy Assessment is a basic energy performance evaluation of a facility, including analysis of utility bills for 36 months, a walk-through inspection by a licensed PE and a report with recommendations. Fees vary based on facility size; refer to "Attachment 3: Value Added Service Cost Matrixes" for details. *Potential energy savings are dependent on implementation of recommended ECM's (Energy Conservation Measures).*

#### Included:

- Analysis of 36 months of utility bills
- Building survey by a licensed PE
- Report with recommended ECM's (Energy Conservation Measures)
- Energy Star certification (if building qualifies)

#### Excluded:

- Financial information (ECM costs, estimated energy savings specific to ECMs)
- Detailed evaluation of equipment
- FEMS evaluation

### **A.3.1.3 Energy Audits**



Energy Audits are carried out in accordance with industry accepted ASHRAE (American Society of Heating, Refrigerating and Air Conditioning Engineers) standard. Levels I and II are provided in this service. Fees vary based on facility size; refer to “Attachment 3: Value Added Service Cost Matrixes” for details. *Potential energy savings are dependent on implementation of recommended ECM's (Energy Conservation Measures).*

*ASHRAE Level I:*

- Analysis of utility bills for 36 months
- Building survey by a licensed PE
- Visual inspection of major systems
- Report with recommended ECM's (Energy Conservation Measures)
  - Recommended ECM's will cover major areas (mechanical, building envelope, lighting, operations, plug loads)
  - Budgetary costs for ECM's
  - Estimated energy savings
- Energy Star certification (if building qualifies)

*Excluded:*

- Detailed financial analysis
- Energy modeling
- Project management
- Detailed specifications for products and technologies to be implemented
- FEMS Evaluation
- Measurements from major systems
- Thermal imaging scan

*ASHRAE Level II:*

- Analysis of utility bills for 36 months
- Energy Star profile verification
- Building survey by a licensed PE
- Sample measurements taken for major systems (mechanical, building envelop, lighting, operations, usage)
- Thermal imaging camera will be utilized
- FEMS evaluation
- Report with recommended ECM's (Energy Conservation Measures)
  - Recommended ECM's will cover major areas (mechanical, building envelop, lighting, operations, plug loads)
  - Budgetary costs for ECM's
  - Estimated energy savings
  - Estimated ROI
- Energy Star certification (if building qualifies)

*Excluded:*

- Detailed financial analysis
- Energy modeling
- Project management
- Detailed specifications for products and technologies to be implemented

**A.3.1.4 Retroactive Commissioning**

Retroactive Commissioning is an evaluation of an existing facility's HVAC systems functionality, including the operation of the Facilities Energy Management System, accuracy of control sensors, and the ability of the systems to meet the requirements of the space. This is a process of documenting and testing existing systems, as well as comparing their current operation and function to the original design of the facility. Fees vary based on facility size; refer to “Attachment 3: Value Added Service Cost Matrixes” for details.

*Included:*

- Planning
  - Set project objectives

- Review current operating requirements
- Identify / Assign responsible parties
- Set up a commissioning team, to include facility maintenance representatives
- Investigation
  - Review existing facility documentation
  - Perform diagnostic monitoring and functioning tests
  - Perform simple repairs
  - Develop Master Plan of Findings
  - Prioritize and select operational improvements
- Implementation
  - Develop Implementation Plan
  - Maintenance staff to implement operational improvements under the Contractor's guidance
  - Verification of results
- Hand-off
  - Develop Final Report
  - Develop Recommissioning and Continuous Commissioning Plans
  - Provide training to maintenance staff on new operational procedures
  - Hold close-out meeting

*Excluded:*

- Major improvements
- Project Management
- Parts and installation if applicable

#### **A.3.1.5 Continuous Commissioning**

Continuous Commissioning (Continuous Cx) is a 12-month process of once-a-month evaluations based on an initial Retroactive Commissioning. Retroactive Commissioning is a pre-requisite necessary to generate the baseline performance profile. Continuous Commissioning includes continuous training for maintenance staff and technical support. Fees vary based on facility size; refer to "Attachment 3: Value Added Service Cost Matrixes" for details. *Estimated savings from improved operations: 5-10% of annual energy use.*

*Pre-requisite:*

Retroactive Commissioning is a pre-requisite service before engaging into long-term Continuous Commissioning

*Included:*

- Review Continuous Commissioning Plan developed during Retroactive Commissioning process
- Twelve 1-month periods
- Monthly meetings with facility maintenance team to review and consult on improvements
- Comprehensive metrics and reporting
- Hand-off
  - Verification of results
  - Development of Final Report
  - Development of Recommissioning and Continuous Commissioning Plans
  - Provide training to maintenance staff on new operational procedures
  - Hold close-out meeting

*Excluded:*

- Major improvements
- Project Management
- Parts and installation if applicable

#### **A.3.1.6 Energy Strategy Development**

Energy Strategy Development (typical of a 2 year plan) consists of technical assistance with creation of energy strategy and continuous support through implementation stages. Fees vary based on facility size; refer to "Attachment 3: Value Added Service Cost Matrixes" for details. *Potential energy savings are dependent on implementation of recommended ECM's (Energy Conservation Measures).*

*Services Included:*

- Review of Energy Assessment or Energy Audit Reports
- Identification of owner objectives and capabilities
- Development of a multi-phased prioritized plan of improvements
- Development of a two-year implementation plan
- Development of comprehensive metrics for project specific EM&V
- Monthly meetings to provide consulting support during the 2-year implementation stage

*Excluded:*

- Project management
- Detailed specifications for products and technologies to be implemented

#### **A.3.1.7 Verification of Application for Energy Star Certification**

Energy Star Certification requires the successful application for certification and the verification of that application by a Licensed Professional Engineer. The verification process includes verifying the E-Star Data Checklist, statement of Energy Performance, and the Indoor Environmental Conditions. The value added service will include a site visit by a licensed engineer and applying for Energy Star Certification on behalf of state agencies.

Verification of Application for Energy Star Certification is offered at a flat rate of \$600 per building.

#### **A.3.1.8 TAB**

Test, Adjust and Balance (TAB) is the standard industry term used for optimizing the performance of HVAC systems. This service will identify areas of energy imbalance within the facility due to the location and zoning of the HVAC systems. This service will provide initial testing with recommendations for further improvements. Fees vary based on facility size; refer to "Attachment 3: Value Added Service Cost Matrixes" for details.

#### **A.3.1.9 Outsourced Energy Managers**

This program is designed to primarily utilize full-time Energy Managers employed by the state. However, where that is not possible, the Contractor will provide Energy Managers on an hourly basis to implement the behavior based program for smaller agencies. For those agencies that choose to take advantage of this option, the Contractor will provide an Energy Manager with the same qualifications and training as the State's internal Energy Managers for the following fees:

\$65 per hour

An hourly service fee will be assessed for work at facilities more than 60 miles from ES2's Tulsa or Oklahoma City offices, which are in zip codes 74146 and 73118 respectively.

- \$15/hour for job sites 60-120 miles away
- \$25/hour for job sites more than 120 miles away

#### **A.3.1.10 Manual Utility Data Entry**

For those agencies that need additional assistance entering their utility data, the Contractor will provide manual data entry as a value added service. In order to take advantage of this service, the agency will compile all of their utility bills and scan and email the files to the Contractor. The Contractor will enter all of the required data, including the specific fees the agency is paying in addition to their cost per unit of energy.

The agency will be charged \$8 per bill, or in other words \$8 per meter per month. For example, in a simple building that has 24 months of bills for each of gas and electricity, their data entry fee would be \$384.

#### **A.3.1.11 Energy Project Management**

An energy project manager is responsible for accomplishing the stated energy project objectives. Key project management responsibilities include creating clear and attainable project objectives, building the project requirements, and managing the constraints of the project management triangle, which are cost, time, and quality.

A project manager is the owner's representative and has to determine and implement the exact needs of the owner, based on knowledge of the overall energy needs of the State. A project manager bridges the gap between the project team and owner. This person must have strong knowledge of the energy conservation measures that are being implemented so that he is capable of discussing any problems with either party. The ability to adapt to the various internal procedures of the contracting party, and to form close links with the contractors, is essential in ensuring that the key issues of cost, time, quality, and above all, client satisfaction, can be realized.

The Contractor's fee for this service will be 4-7% of the total project budget depending on project complexity.

Services include:

- Manage Risk
- Draft Contracts
- Manage Disputes
- Communicate with Owner
- Stay under budget
- Stay on time
- Set Project Milestones
- Procure equipment and materials
- Hire, Fire, and Supervise Sub-Contractors
- Plan and Schedule the work

#### **A.3.1.12 Performance Contracts- IPMVP Review**

If the agency's intent is to exclude savings resulting from the performance contract from the Contractor's fees, then the planning and impact of the performance contract must be documented in accordance with IPMVP standards. All such performance contracts must have an IPMVP plan jointly reviewed and approved by the State Executive Team and the Contractor before any contract may be executed. The Contractor will invest time and expertise in this review process, which is outside the scope of the behavior change program, and thus this will comprise a Value Added Service with a fee dependent on the scope of the project.

This technical review fee will be negotiated on a per project basis, but will range from \$1,000 up to 0.5% of the value of the performance contract.

#### **A.3.1.13 Performance Contracts- Owner's Agent**

Some agencies may need more hands-on help to oversee their performance contract. As the Owner's Agent, the Contractor puts an experienced team of engineers and project managers to work as the agency's representative on these energy projects. During the contract, the Contractor will oversee the project implementation and provide savings measurement and verification to hold the performance contractor accountable for the promised energy savings.

The fee for this service will range from \$10,000 up to 1% of the total performance contract amount.

Our services include:

- Review of the contract proposal
- Design Review
- Independent savings projections before project implementation
- Review of submitted equipment for approval
- Periodic Site Visits during installation of new equipment to review installation practices
- Review contractor energy verification procedures and protocol
- Independent validation of energy savings in accordance with IMPVP requirements, allowing the energy savings of the project to be excluded from the Contractor's primary behavior change program fee calculations

#### **A.3.1.14 Utility Incentive Programs**

As part of the Contractor's core behavior change program for the State of Oklahoma, the Contractor will provide Energy Managers with an introduction to the demand reduction incentive programs available from each utility company. However, some agencies may wish to outsource the work of reviewing incentive options and completing the incentive application documentation. The Contractor will provide this hands-on support as a Value Added Service.

#### **Utility Incentive Programs - Prescriptive**

The Prescriptive approach provides a streamlined process in which incentive values have been predetermined by the Utility Company for each type of equipment upgrade. The application documents are essentially an inventory of the existing equipment and the new equipment.

For this level of support, the Contractor will charge 10% of the value of the incentive the Agency receives from the utility.

#### **Utility Incentive Programs - Custom**

The Custom approach requires much more detailed engineering and energy modeling. The Contractor will assist agencies undertaking projects of this scale seek incentives for such improvements, but the Contractor's fees will be negotiated on a project-by-project basis depending on the engineering and modeling required.

The Contractor will charge \$125 per hour for engineering services.

#### **A.3.1.15 Utility Rate Structure Optimization**

As a Value Added Service, the Contractor will help determine the most beneficial rate structure for agency facilities. This process entails reviewing two or three years of utility data (based on availability), identifying the rate structures available to that particular entity, and analyzing the past energy consumption under several potential new rate structures in order to recommend the most cost-effective option. The Contractor will provide the agency with documents making the case for the rate change and will provide support throughout the process of negotiating with the utility. The work required to perform this analysis will vary based on the scope and complexity of the facility portfolio (and thus utility meters) to be analyzed.

The fee for this service will be charged on an hourly basis at \$125 per hour.

#### **A.3.1.16 Facilities Energy Management Systems**

In order to manage and control complex building systems the Contractor is offering a Facilities Energy Management System (FEMS) as a value added service. Automated Logic's WebCTRL® is an FEMS that offers an intuitive user interface and powerful energy control features. The system can be accessed from anywhere in the world using any internet browser, eliminating the need for special software on the workstation or tablet. Through a browser the user can access all energy management functions including:

- Setting and changing schedules,
- Adjusting set points and other control properties,
- Graphically trending all important building conditions, including energy and comfort,
- Viewing and acknowledging alarms, and
- Running preconfigured and custom reports on energy usage, occupant overrides, tenant billing, and much more.

Developed entirely around proven open standards and web technologies, WebCTRL's server software runs on major platforms, including Windows® and Linux. Major databases supported by the server include MS SQL Express, MS SQL Server, MySQL, PostgreSQL, Oracle and Apache Derby.

FEMS can be priced by using the rates for individual parts and hourly labor or by selecting turnkey services for each piece of equipment. For details, refer to "Attachment 3: Value Added Service Cost Matrixes".

### A.3.1.17 Custom Value-Added Training Sessions

Additional training is available for those organizations that require support outside the scope of the core program. The following prices cover a 1-day training session, and ES2 recommends that each organization provide training to at least two staff members to improve institutional knowledge and guard against staff turnover.

In order to minimize the total cost to the state, this service is priced on a per-person basis and multiple organizations may be grouped into a single session where possible. ES2 will confirm with each organization the details that impact their cost, such as whether they will provide the venue. Given the per person cost, upon registering for such a session the organization commits to paying for their reserved seats.

Total Number of Participants	Cost Per Participant
5 or fewer	\$1500 divided between the number of participants
6-10	\$270
11-15	\$165
16-25	\$120
26-40	\$83
41-60	\$75

Additionally, the following costs will be charged to each organization prorated on a per participant basis.

- If a participating organization cannot provide a conference room at their location, ES2 will secure a venue and pass through the costs with no additional markup.
- A service fee will be assessed for those sessions held more than 60 miles from ES2's Tulsa or Oklahoma City offices, which are in zip codes 74146 and 73118 respectively.
  - \$120 for sessions held 60-120 miles away
  - \$450 for sessions held more than 120 miles away

## ATTACHMENT 2. ORGANIZATIONAL MANAGEMENT STRATEGY

### A.1. INTRODUCTION

Organizing the data and work process for hundreds of state agencies while providing clear communications to the State Executive Team will be critical to the success of this program. The Contractor has developed this Organizational Management Strategy to cost effectively meet OSFECF's goals while ensuring that the State Executive team is consistently aware of the program's progress and risks.

### A.2. COMPONENTS

#### A.2.1. ONGOING COMMUNICATIONS FOR PROGRAM MANAGEMENT

- Weekly conference call with State Executive Team
- Weekly Risk Reports for State Executive Team
- Monthly web conferences with Energy Managers
- Webinars are primarily designed to educate Energy Managers or agency maintenance staff on knowledge and skills critical to energy management but will also disseminate important program updates and next steps.

- Monthly face-to-face meetings with State Executive Team
- Monthly reports from Energy Managers, with individual phone consultations as needed
- Quarterly meetings with State Executive Team to evaluate the Organizational Management Plan
- Annual report

#### **A.2.2. COMMUNICATION OF PROGRAM COMPONENTS AND EXPECTATIONS FOR AGENCY LEADERSHIP**

- Introductory webinar before the Contractor begins enrolling individual agencies
- The Contractor will simultaneously provide agency leadership with a reference guide regarding their role and the next steps to get involved.
- The contract will help solidify expectations of each party
- The Contractor will work with Energy Managers to provide quarterly status reports to agency leaders regarding current and upcoming activities, status towards reduction goals, and any problems that have arisen. The reports will be followed by individual conversations with agency leaders as needed.

#### **A.2.3. Program Launch Schedule**

<b>Quarter 1</b>	<b>Task</b>
Weeks 1-2	State Executive Team compiles list of eligible agencies and agency director contact information.
Weeks 1-3	State Executive Team and the Contractor work together to identify and procure required resources, such as webinar software licenses. At this point further details of the schedule of activities will be confirmed.
Week 2	Governor sends letter to every eligible agency director announcing the launch, the importance of the program, and introductory webinar details.
Week 4	The Contractor hosts a webinar for agency leadership on the basic components of the program, what will be required of them, and the next steps. The webinar will be recorded for those who are unable to attend the live session.
Weeks 5-8	Contract procurement
	<p>For those agencies that own at least a portion of their facilities, The Contractor will begin the contract process. The Contractor will begin by approaching (via phone then an in-person meeting) the approximately 25 agencies that own over 1 million square feet of building space. As those agencies are enrolled, the Contractor will proceed to contract with agencies in order of the magnitude of their owned building space. However, any smaller agency that is eager to begin the process and contacts the Contractor directly will have the opportunity to begin immediately.</p> <p>For those agencies that ONLY lease property, the Contractor will send them a survey to identify the degree to which the agency has control over its energy use and utility bills. As the surveys are returned, the Contractor will work with each agency to determine how they will participate in the program and execute any resulting contracts.</p>
As contracts are executed, Weeks 5-12	Agency determines data acquisition representative (Energy Manager, point of contact (POC)...) )
	The Contractor will work with agency leadership to document the scope of their building portfolio, control of utilities for any leased space, and their existing energy management capacity. For those agencies hiring Energy Managers, the Contractor will provide them with a draft job description and support during the selection process. As Energy Managers are hired the Contractor will establish communications with them individually.

	The Contractor will provide agencies with a guide to the utility data gathering requirements and the agencies will begin compiling data.
<b>Early Quarter 2</b>	All Energy Managers will attend a one-day seminar in Oklahoma City or Tulsa to receive training in Energy Star benchmarking, the Operational Behavior Program, the Occupant Behavior Program, and the skills required to be successful in their new role.

### A.3. TRACKING PROGRAM PARTICIPATION

One of the primary goals of the above communications schedule is to ensure that all stakeholders are adequately informed regarding the progress and rate of participation for the program overall.

- An agency will be identified as potentially not participating fully if the Energy Manager does not submit a monthly report, does not respond to a request for information, does not meet deadlines for implementing specific program components, or is not successfully reducing energy consumption within his or her portfolio.
- The Contractor staff will initially contact the Energy Manager directly to discuss the situation and develop a simple Improvement Plan. If the Energy Manager does not respond within a week, the Contractor will contact agency leadership for support.
- If improvements are not subsequently made or the Energy Manager is uncooperative, the Contractor will approach agency leadership for support in implementing or amending the Improvement Plan.
- The Contractor will provide Weekly Risk Reports to the State Executive Team identifying any agencies for which the Contractor has approached leadership and the status of any Improvement Plans. If within two weeks the initial steps have not been taken to implement the Improvement Plan, the Contractor will ask the State Executive team to intervene.
- The Contractor will provide quarterly Contract Usage Reports to OMES listing the total dollar amounts charged to all political entities within 30 calendar days of completion of the quarter.

#### A.3.1 PROGRAM PARTICIPATION METRICS

The Contractor has developed the following list metrics to track program participation. This list can be adjusted based on the State Executive Team's needs.

<b>Metric</b>	<b>Example</b>
Percent of eligible agencies that have contracted with the Contractor	"57% of eligible agencies have signed contracts." An agency is considered eligible if 1) they own any of their space or 2) once it is determined that the agency controls the utility consumption and expense for at least a portion of their space.
Portion of Energy Manager positions filled	"13 of 24 positions have been filled."  This will be a revolving metric, as the total number of available positions may evolve as the Contractor assesses the needs of agencies that only lease space. Also, the State Executive Team should determine whether this metric should also cover the dedication of existing energy management agency staff to the program.
Percent of agencies that have completed the Facility Operations Survey	79%  This number will only include agencies that should be completing the survey, IE an agency will be considered in this ratio once they have enrolled in the program.
Percent of agencies represented at the 1-day seminars	79%  This number will only include agencies that should be taking this step, IE an agency will be considered in this ratio once they



	have enrolled in the program.
Percent of agencies that have compiled initial baseline data	79%  This number will only include agencies that should be taking this step, IE an agency will be considered in this ratio once they have enrolled in the program.
Percent of agencies whose data has been verified	79%  An agency will be considered in this ratio once they have compiled their initial data.
Percent of agencies who have completed the Building Occupant Survey	89%  This number will only include agencies that should be taking this step at that point.
Percent of agencies who have adopted updated building operations policies based on the Statewide ECM Policy	81%  This number will only include agencies that should be taking this step at that point
Percent of Energy Managers participating in each monthly educational webinar	98%
Percent of agencies who have developed a Social Marketing Plan	67%  This number will only include agencies that should be taking this step at that point.
For each reporting deadline- the percent of agencies or Energy Managers who have sent their report	71%
Percent of Energy Managers meeting their weekly walk through goal	81%
List of bottom 20% of facilities receiving additional support from the Contractor	A list of facilities
List of media hits for the program	A list of media publications
Occupant Behavior Participation	Energy Managers will have some latitude to select the tactics best suited to engage building occupants within their agencies, and so the only state-wide metrics to measure the success of the Occupant Behavior Program will be realized energy reductions. However, as Energy Managers select their tactics they will also begin tracking participation within their personal portfolio in order to evaluate the individual tactics and inform their efforts long term. For example, if an Energy Manager utilizes a "Statement of Energy Conservation" to foster a sense of commitment among the building occupants, they might record the number of signed statements they receive at each

	building in their portfolio to gauge engagement.
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### A.3.1 RISK MANAGEMENT

The Contractor will continuously identify and mitigate risks arising throughout this project. The Contractor has identified eight potential risks to this project as explained in the chart below.

<b>Risk #1</b>	<b>Utility data and building descriptions for benchmarking could be delayed due to the lack of centralized data management</b>
Impact	The Contractor's experience shows that many facilities / agencies lack a single database for building information
Solution	Each department handling utility data will be mandated to share utility bills with the Contractor via the energy accounting software.
Documented Performance	The Contractor has communicated weekly with their contacts within state agencies to address data issues in a timely manner. Concerns were quickly escalated up the management chain if data was not acquired within four weeks.
<b>Risk #2</b>	<b>Building maintenance staff turnover</b>
Impact	New staff may not have sufficient training or experience to utilize Facilities Energy Management Systems and other advanced building performance controls.
Solution	The Contractor will set up continuous training and an evaluation process. Time requirements and costs for additional training will be provided as soon as a need has been identified.
Documented Performance	100% of the Contractor's projects contain contingencies for training new personnel.
<b>Risk #3</b>	<b>Occupants may try to override climate controls or make themselves more "comfortable" by bringing space heaters, fans and other means of improving comfort.</b>
Impact	The Contractor's experience with public and commercial buildings in Oklahoma shows that people actively seek ways to improve their comfort so that they can focus on their job. Industry data supports this premise.
Solution	The Contractor will provide an education and awareness campaign and work with maintenance and management teams to address comfort issues directly by optimizing HVAC systems.
Documented Performance	The Contractor's last three large comprehensive energy strategy projects in the Oklahoma City metro area contained tenant engagement campaigns and improved controllability of comfort settings, both on building level and individual level.
<b>Risk #4</b>	<b>Utility companies may slow down the process of sharing historic resource usage data for state agencies missing / lacking utility data for 2012.</b>
Impact	When a state agency does not have historic utility data, the data will have to be obtained from local utility providers. Local utilities are under obligation to provide the data in a timely manner.
Solution	The Contractor will regularly communicate with utility companies. Weekly Risk Reports will show any need to escalate potential issues to the State Executive Team.
Documented Performance	In all the Contractor's past projects, local utility companies were cooperative. The data was received even if later than desired.
<b>Risk #5</b>	<b>Staff of state agencies responsible for building descriptions and utility data may not fully cooperate with Energy Managers in their effort to collect all of the necessary information.</b>
Impact	In many state agencies, various aspects of building specific information is managed within different departments. Energy Managers will have to communicate with each department in order to obtain the information.
Solution	The Contractor will provide Weekly Risk Reports to quickly identify state agencies not providing full cooperation. The Contractor will communicate with senior officials to ensure cooperation. If still not resolved within two weeks, the issue will be escalated to the State Executive Team for resolution.
Documented Performance	In 100% of the Contractor's past projects, data acquisition decisions were made on senior level, which secured full cooperation.
<b>Risk #6</b>	<b>Maintenance staff may lack training / expertise to optimize performance of their facilities</b>
Impact	Utilization of any existing Facilities Energy Management Systems and advanced building

	system controls offers easy no cost efficiency improvements if maintenance staff has sufficient training and experience working with these technologies.
Solution	The Contractor will identify state facilities managed by maintenance crews with insufficient training and expertise. Based on the gathered information, the contractor will provide the State with a training plan, time frames and costs associated with improving skill sets of said maintenance crew.
Documented Performance	100% of the Contractor's energy solutions projects have maintenance staff training integrated into them.
<b>Risk #7</b>	<b>Non typical facilities like research laboratories, may have energy use and climate control requirements, which could limit potential savings from behavioral changes</b>
Impact	Research laboratories and other non-typical use facilities will have limited behavior based energy savings opportunities due to stringent requirements for climate control, light levels and/or computer use.
Solution	The Contractor has an experienced, expert engineering team that has worked on a number of facilities with non-typical energy use. When addressing energy saving plans for such facilities the Contractor will provide alternative strategies and costs associated with them.
Documented Performance	Two of the Contractor's current projects contain spaces of non-typical use. The Contractor has carried out separate engineering inspections to offer systems enhancement to improve overall efficiency.
<b>Risk #8</b>	<b>Facilities that have already addressed the "low hanging fruit" may have difficulties achieving significant savings based on behavioral changes. For example, multiple facilities managed by DCS have Energy Star scores in the high 90's range and are highly efficient within the current design constraints.</b>
Impact	Facilities that have already addressed "low hanging fruit" energy savings will not be able to contribute proportional savings to the overall objective of a 20% cut in energy use. Improvements to those buildings may require expensive systems updates and/or upgrades.
Solution	The Contractor has significant experience in working with performance-based contractors to address potential needs for total systems upgrade or major renovations.
Documented Performance	Three of the Contractor's current customers with energy solutions projects are considering on-site generation as the next step beyond "low hanging fruit" improvements.

**ATTACHMENT 3. PRICING SPREADSHEET**

Bid 0900000036

Estimated FY12 Util Spend	\$128,000,000
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	Year 1 (2014-15)	Year 2 (2015-16)	Year 3 (2016-17)	Year 4 (2017-18)	Year 5 (2018-19)	TOTAL
Gross Savings	\$7,680,000	\$7,038,720	\$4,837,111	\$4,077,501	\$2,817,900	\$26,451,231
% Saved	6.00%	5.90%	4.30%	3.80%	2.70%	21.48%
Energy Manager salaries (assume \$55K per employee for salary)25 w/ 2.5% increase/yr	\$1,375,000	\$1,409,375	\$1,444,609	\$1,480,725	\$1,517,743	\$7,227,452
Other Costs (Do not include software, it will be purchased by the State)	\$75,000	\$75,000	\$75,000	\$75,000	\$75,000	\$375,000
Proposed Fee (% of Savings)	0.00%	20.00%	20.00%	20.00%	20.00%	14.41%
Projected Cost of Fees (\$):	\$0	\$2,591,808	\$1,077,503	\$853,481	\$767,455	\$5,290,246
Total Invest	\$1,450,000	\$4,076,183	\$2,597,112	\$2,409,205	\$2,360,198	\$12,892,698
Net Save	\$6,230,000	\$2,962,537	\$2,239,999	\$1,668,296	\$457,702	\$13,558,533

**\*NOTE: Projected Cost of Fees for Year 5 includes the fees accrued in Q4 of Year 5, which will not be invoiced until the end of Q1 of Year 6.**

**ATTACHMENT 4: VALUE ADDED SERVICES COST MATRIXES**

**Buildings up to 50,000 Sq Ft**

Up To 50,000 sq ft	Energy Assessment	Energy Audits		Commissioning			TAB	Energy Strategy Development/ Implementation Project Management (2-yr plan)
		ASHRAE Level 1	ASHRAE Level 2	Retro-Cx	Continuous Cx (\$/sq ft/ year)			
					w/ BMS	w/out BMS		
Financial Institution	0.09	0.11	0.14	1.13	0.68	1.13	0.23	0.09
Courthouse	0.08	0.09	0.11	0.94	0.56	0.94	0.19	0.08
Data Center	0.10	0.12	0.15	1.25	0.75	1.25	0.25	0.10
Hospital	0.10	0.12	0.15	1.25	0.75	1.25	0.25	0.10
Hotel	0.08	0.09	0.11	0.94	0.56	0.94	0.19	0.08
Medical Office	0.08	0.09	0.11	0.94	0.56	0.94	0.19	0.08
Office	0.07	0.08	0.11	0.88	0.53	0.88	0.18	0.07
Residence Hall/ Dorm	0.07	0.08	0.11	0.88	0.53	0.88	0.18	0.07
Retail Store	0.06	0.07	0.09	0.75	0.45	0.75	0.15	0.06
Senior Care Facility	0.07	0.08	0.11	0.88	0.53	0.88	0.18	0.07
Warehouse	0.05	0.06	0.08	0.63	0.38	0.63	0.13	0.05

**Buildings 50,001 to 100,000 Sq Ft**

50,001 - 100,000 sq ft	Energy Assessment	Energy Audits		Commissioning			TAB	Energy Strategy Development/ Implementation Project Management (2-yr plan)
		ASHRAE Level 1	ASHRAE Level 2	Retro-Cx	Continuous Cx (\$/sq ft/ year)			
					w/ BMS	w/out BMS		
Financial Institution	0.08	0.09	0.11	0.96	0.57	0.96	0.19	0.08
Courthouse	0.06	0.08	0.10	0.80	0.48	0.80	0.16	0.06
Data Center	0.09	0.10	0.13	1.06	0.64	1.06	0.21	0.09
Hospital	0.09	0.10	0.13	1.06	0.64	1.06	0.21	0.09
Hotel	0.06	0.08	0.10	0.80	0.48	0.80	0.16	0.06
Medical Office	0.06	0.08	0.10	0.80	0.48	0.80	0.16	0.06
Office	0.06	0.07	0.09	0.74	0.45	0.74	0.15	0.06
Residence Hall/ Dorm	0.06	0.07	0.09	0.74	0.45	0.74	0.15	0.06
Retail Store	0.05	0.06	0.08	0.64	0.38	0.64	0.13	0.05
Senior Care Facility	0.06	0.07	0.09	0.74	0.45	0.74	0.15	0.06
Warehouse	0.04	0.05	0.06	0.53	0.32	0.53	0.11	0.04

### Buildings 100,001 to 150,000 Sq Ft

100,001 - 150,000 sq ft	Energy Assessment	Energy Audits		Commissioning			TAB	Energy Strategy Development/ Implementation Project Management (2-yr plan)
		ASHRAE Level 1	ASHRAE Level 2	Retro-Cx	Continuous Cx (\$/sq ft/ year)			
					w/ BMS	w/out BMS		
Financial Institution	0.06	0.08	0.09	0.79	0.47	0.79	0.16	0.06
Courthouse	0.05	0.06	0.08	0.66	0.39	0.66	0.13	0.05
Data Center	0.07	0.08	0.11	0.88	0.53	0.88	0.18	0.07
Hospital	0.07	0.08	0.11	0.88	0.53	0.88	0.18	0.07
Hotel	0.05	0.06	0.08	0.66	0.39	0.66	0.13	0.05
Medical Office	0.05	0.06	0.08	0.66	0.39	0.66	0.13	0.05
Office	0.05	0.06	0.07	0.61	0.37	0.61	0.12	0.05
Residence Hall/ Dorm	0.05	0.06	0.07	0.61	0.37	0.61	0.12	0.05
Retail Store	0.04	0.05	0.06	0.53	0.32	0.53	0.11	0.04
Senior Care Facility	0.05	0.06	0.07	0.61	0.37	0.61	0.12	0.05
Warehouse	0.04	0.04	0.05	0.44	0.26	0.44	0.09	0.04

### Buildings 150,001 Sq Ft & Up

150,001 & up	Energy Assessment	Energy Audits		Commissioning			TAB	Energy Strategy Development/ Implementation Project Management (2-yr plan)
		ASHRAE Level 1	ASHRAE Level 2	Retro-Cx	Continuous Cx (\$/sq ft/ year)			
					w/ BMS	w/out BMS		
Financial Institution	0.05	0.06	0.07	0.62	0.37	0.62	0.12	0.05
Courthouse	0.04	0.05	0.06	0.52	0.31	0.52	0.10	0.04
Data Center	0.06	0.07	0.08	0.69	0.41	0.69	0.14	0.06
Hospital	0.06	0.07	0.08	0.69	0.41	0.69	0.14	0.06
Hotel	0.04	0.05	0.06	0.52	0.31	0.52	0.10	0.04
Medical Office	0.04	0.05	0.06	0.52	0.31	0.52	0.10	0.04
Office	0.04	0.05	0.06	0.48	0.29	0.48	0.10	0.04
Residence Hall/ Dorm	0.04	0.05	0.06	0.48	0.29	0.48	0.10	0.04
Retail Store	0.03	0.04	0.05	0.41	0.25	0.41	0.08	0.03
Senior Care Facility	0.04	0.05	0.06	0.48	0.29	0.48	0.10	0.04
Warehouse	0.03	0.03	0.04	0.34	0.21	0.34	0.07	0.03

**FACILITIES ENERGY MANAGEMENT SYSTEM PRICING**

**Pricing Option 1: Individual parts and hourly labor**

FEMS On-Call Service Rates:	<b>Price per Hour</b>
Engineering	\$ 125
Autocad	\$ 55
Project Manager	\$ 125
Controls Technician	\$ 95
Controls Installer	\$ 75
T&B Technician	\$ 90
Travel Labor	\$ 55

Federal mileage rates (\$0.565 per mile for 2013)

Expenses (Hotel, etc.) = Cost + 10%

Per Diem = \$30 per day

FEMS parts price lists:

Price lists shall be provided upon request via electronic media or online access with web address and login information, including usernames and passwords.

The cost to the State will be the list price multiplied by the following factors:

ALC Price List .315

ALC Lighting .315

**Pricing Option 2: Turnkey Pricing**

Includes: installation, programming, engineering, and material.

Air handling units small (<10Kcfm)	\$3000
Air handling units large (>10Kcfm)	\$8000
Air handling units large (>25Kcfm)	\$10000
Air handling units with return fans	\$12000
Roof top unit to 10 tons (No Water)	\$2500
Roof top unit to 25 tons (No Water)	\$8000
Exhaust Fans (< 1hp)	\$500
Large Exhaust Fans	\$800

Supply / Return Air Fans	\$500
Energy Recovery Units	\$8000
Kitchen Exhaust Fan (Hood)	\$1500
Makeup / OSA Air Units	\$3000
Vav boxes	\$750
Vav boxes/reheat	\$1200
Fan powered terminals	\$900
Fan powered terminals/reheat	\$1500

Dual duct boxes	\$1200
Fan coil units (terminal/wall)	\$800
Fan coil units	\$1500
Blower coil units (>1 hp)	\$1500
Water source heat pumps (geotherm)	\$1500
Split Systems / heat pumps	\$1000
Unit Heaters	\$500
Reheat coils	\$500
Finned tube radiation / convection	\$750
Building Pumps	\$1500
Circulation Pumps	\$800
Chillers	\$12000
Air Cooled Chillers	\$8000
Boilers	\$5000

Cooling towers	\$5000
Plate and frame heat exchangers	\$2500
Steam heat exchanger	\$2500
Humidifiers	\$1200
Airflow Stations	\$5000
Flow Sensors	\$5000
Pressure Transmitters	\$2500
Sump Alarms	\$500
Temperature Sensors	\$100
Electric Meters	\$5000
Software/Frontend Small Project (Less than 50 controllers/systems)	\$2500
Software/Frontend Large Project (More than 50 controllers/systems)	\$7500



## **ATTACHMENT 5. IPMVP STANDARD**

The International Performance Measurement and Verification Protocol is published by Efficiency Valuation Organization (EVO). The standard is available for free download from [ww.evo-world.com](http://ww.evo-world.com), or the Contractor will provide a printed copy upon request.