



MORGAN COUNTY COMMISSION
A G E N D A
August 20, 2019
5:00 PM
150 East Washington Street, Madison, GA

Pledge and Invocation

Agenda Approval

New Business

1. Property to be Declared Surplus
2. Administration Building Roof Replacement
3. Energy Services Contract
4. Purchase of Replacement Fire Truck
5. Commissioner Liaison Reports
6. Public Comments on Agenda Items



MORGAN COUNTY AGENDA REQUEST

Department:

Administration

Presenter(s):

Mark Williams

Meeting Date: mm/dd/yyyy 8/20/2019

Type of Request:

New Business

Wording for the Agenda:

Property to be Declared Surplus

Background/History/Details:

The attached list identifies equipment and property that are no longer utilized or have exceeded their useful life to be declared surplus. The items will be sold or properly disposed. In FY19, the sell of surplus property generated \$78,809.33 in revenue. The sell of seizure items generated \$28,523 in revenue for the Sheriff's Office seizure account.

What action are you seeking from the Board of Commissioners?

Motion to approve the items to be declared surplus and sold/disposed.

If this item requires funding, please describe:

Has this request been considered within the past two years?

No

If so, when?

Is Audio-Visual Equipment Required for this Request?*

No

Backup Provided with Request?

Yes

*** All audio-visual material must be submitted to the County Clerk's Office no later than 48 hours prior to the meeting. It is also your department's responsibility to ensure all third-party audio-visual material is submitted at least 48 hours in advance.**

Approved by Finance

Yes

Approved by Purchasing

Yes

Manager's Approval

Yes

Staff Notes:

PROPERTY TO BE DECLARED SURPLUS AND SOLD

[illegible]



MORGAN COUNTY AGENDA REQUEST

Department:

Administration

Presenter(s):

Mark Williams

Meeting Date: mm/dd/yyyy 8/20/2019

Type of Request:

New Business

Wording for the Agenda:

Administration Building Roof Replacement

Background/History/Details:

In response to our advertised RFP, 6 potential bidders attended a pre-bid meeting. However, only 2 submitted a bid. A summary of the scope of work and bid tabulation is attached. After review by the Project Engineer and our review team, the recommendation is proceed with Alternate 1 and award the contract to Skyline Construction Services, Inc. for \$286,440. This is within the amount budgeted for the roof replacement.

What action are you seeking from the Board of Commissioners?

Motion to contract with Skyline Construction Services for the roof replacement of the Administrative Building for \$286,440.

If this item requires funding, please describe:

Has this request been considered within the past two years?

No

If so, when?

Is Audio-Visual Equipment Required for this Request?*

No

Backup Provided with Request?

Yes

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Approved by Finance

Yes

Approved by Purchasing

Yes

Manager's Approval

Yes

Staff Notes:

**SECTION 01 11 00
SUMMARY OF WORK****PART 1 - GENERAL****1.1 Work Covered by Contract Documents:**

- 1.1.1 Work under this Contract consists of furnishing all labor, materials and equipment necessary to perform the quality roof replacement at Morgan County Admin Building, as shown on Drawing Nos. G-001 through A-503. The work will include, but is not necessarily limited to, the following:
- 1.1.1.1 Replace deteriorated wood plank decking, as specified herein.
 - 1.1.1.2 Remove all existing gutters and downspouts, and discard.
 - 1.1.1.3 Remove all existing bituminous and EPDM flashings, pipe flashings, lead flashing, pitch pans, condensation lines, condensation line supports, and cants, and discard.
 - 1.1.1.4 Remove existing bituminous and EPDM roofing membrane down to existing wood deck and discard.
 - 1.1.1.5 Remove all existing metal flashings including coping, expansion joint covers, and counter flashing, and discard.
 - 1.1.1.6 Remove abandoned rooftop equipment, penetrations, and roof curbs identified on the roof plan and/or the roof, and close the openings in the roof deck, as specified herein.
 - 1.1.1.7 Remove the existing scupper liners and exterior flanges, and discard.
 - 1.1.1.8 Remove existing ladder, and discard.
 - 1.1.1.9 Erect overhead protection above public entrance areas as required.
 - 1.1.1.10 At spans greater than 19'-0" furnish and install new 2x8 wood joist on Roof Area A1 & A2 in order to decrease spacing to 1'-0" on center. 6,000 BF should be included in base bid.
 - 1.1.1.11 Furnish and install new 7"x 7" scupper opening, liners, and exterior flanges as required by plans.
 - 1.1.1.12 Furnish and install new gutter system and downspouts.
 - 1.1.1.13 Furnish and install new insulation, new cover board, and fully adhered Thermoplastic Polyolefine (TPO) replacement roofing system on all roof areas.
 - 1.1.1.14 (Alternate No. 1) Furnish and install new EPDM roofing membrane and 1/4" gypsum fiber separator board on Roof Area A1 and A2 in lieu of TPO roofing membrane with added insulation.
 - 1.1.1.15 (Alternate No. 2) Furnish and install new insulation, new cover board, and fully adhered Polyvinyl Chloride (PVC) replacement roofing system on all roof areas in lieu of TPO roofing membrane.
 - 1.1.1.16 Furnish and install tapered insulation in the form of crickets and saddles as required.
 - 1.1.1.17 Furnish and install one (1) new ladder.
 - 1.1.1.18 Furnish and install new equipment supports.
 - 1.1.1.19 Furnish and install new membrane flashings and preformed pipe flashings.
 - 1.1.1.20 Furnish and install new metal flashings including coping and counter flashings.
 - 1.1.1.21 Furnish and install new non-penetrating supports for communication line conduit.
 - 1.1.1.22 Furnish and install new walkway pads.
 - 1.1.1.23 Furnish and install any miscellaneous items as specified herein.

1.2 Description of the Existing Roof System:

- 1.2.1 Information in this Section is provided only to establish general description the Contractor is responsible for visiting the site and satisfying himself as to the existing conditions, size of roof areas, etc. before submitting the Bid.
- 1.2.2 The roof assembly is composed of the following:



Bid Evaluation
Roof Replacement – Morgan County Admin Building Roof Replacement
REI Project No. 1455.001

July 26, 2019

In summary, this bid evaluation provides our professional opinion and evaluation of the prospective Bidders' ability to perform work according to the drawings and specification of the contract.

Rycars Construction, LLC:

1. Proposes 60 calendar days to complete contract
2. Base Bid: \$331,725.00
3. Deduct Alternate No. 1: \$56,600.00
4. \$33,750 of Unit Prices included in Base Bid
5. 5% Bid Bond Amount included in Bid
6. National Council on Compensation Insurance (NCCI) Experience Modification Factor are higher than Skyline Construction Services
7. Certificate of Liability Insurance meets the requirements of the Contract
8. Have a fair amount of work that is ongoing. Based on our professional opinion, their ability to perform could be questionable
9. Have completed similar work
10. Appear to be financially stable
11. Based on our professional opinion, Raymond Engineering has noticed a decrease in the quality of work within the recent year

Skyline Construction Services, Inc:

1. Proposes 60 calendar days to complete contract
2. Base Bid: \$407,020.00
3. Deduct Alternate No. 1: \$120,580.00
4. \$96,375.00 of Unit Prices included in Base Bid
5. 5% Bid Bond Amount included in Bid
6. National Council on Compensation Insurance (NCCI) Experience Modification Factor are much lower than Rycars Construction, which implies that they conduct safer construction
7. Certificate of Liability Insurance meets the requirements of the Contract
8. Appears to have the compacity to perform work along with current projects in progress
9. Have completed similar work
10. Appear to be financially stable
11. Raymond Engineering has no prior working relationship in order to gauge quality of work



Based on our evaluation and professional opinion, Raymond Engineering would suggest selection of Skyline Construction Services, Inc with the implementation of the Deduct Alternate No. 1 Bid. We feel that Skyline Construction Services is an overall safer contractor, they appear to be better able to meet the needs of the Contract while serving their other projects in progress, their unit prices reflect a truer cost of construction, and their Deduct Alternate No. 1 Bid falls within the County's budgetary constraints.

Please feel free to contact us at if you have additional questions or concerns at 770-483-9592.
Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Jonathan Clark', is written over a light blue horizontal line.

Jonathan Clark, P.E., Assoc. AIA, LEED AP
Staff Engineer



MORGAN COUNTY BOARD OF COMMISSIONERS

Request for Proposals

July 15, 2019

1:00 p.m.

ADMINISTRATIVE BUILDING ROOF REPLACEMENT

COMPANY NAME	DATE/TIME RECEIVED	BASE BID AMOUNT	ALTERNATE 1 BID	ALTERNATE 2 AS BASE BID	UNIT PRICE INCLUDED IN BASE BID
1) Rycars Construction	07/12/19 10:58a.m.	\$331,725.00	Deduct \$56,600 (\$275,125)	\$354,375.00	\$33,750.00
2) Skyline Construction Services	7/15/19 12:05 p.m.	\$407,020.00	Deduct \$120,580.00 (\$286,440)	\$428,520.00	\$96,375.00
3)					
4)					

150 East Washington Street
Madison, Georgia 30650

Office (706) 342-0725
Fax (706) 343-6450



MORGAN COUNTY AGENDA REQUEST

Department:

Administration

Presenter(s):

Mark Williams

Meeting Date: mm/dd/yyyy

8/20/2019

Type of Request:

New Business

Wording for the Agenda:

Energy Services Contract

Background/History/Details:

The Board has previously approved the proposed energy savings project prepared by Schneider Electric and at the last Board meeting approved the financing. For the project to begin the contract with Schneider Electric must be approved and executed. The contract has been reviewed by the County Attorney and slight revisions have been made at his requests.

What action are you seeking from the Board of Commissioners?

Motion to approve the Energy Services Contract with Schneider Electric.

If this item requires funding, please describe:

Has this request been considered within the past two years?

No

If so, when?

Is Audio-Visual Equipment Required for this Request?*

No

Backup Provided with Request?

Yes

*** All audio-visual material must be submitted to the County Clerk's Office no later than 48 hours prior to the meeting. It is also your department's responsibility to ensure all third-party audio-visual material is submitted at least 48 hours in advance.**

Approved by Finance

Yes

Approved by Purchasing

Yes

Manager's Approval

Yes

Staff Notes:

ENERGY SERVICES CONTRACT

This is an Energy Services Contract (this "Contract") by and between Schneider Electric Buildings Americas, Inc. ("ESCO") and Morgan County, GA ("Customer"), dated _____, 20__ (the "Date of Commencement") whereby ESCO agrees to provide and perform the energy conservation measures ("ECMs") set forth in the Contract Documents including the Schedules and Exhibit(s) listed below and incorporated fully herein, subject to the terms and conditions set forth herein:

Schedule A: Scope of Work

Schedule B: Performance Assurance Support Services Agreement

Schedule B: Exhibit A – Performance Assurance Support Services

Schedule C: Performance Guarantee

Schedule D: Measurement & Verification ("M&V") Plan

Schedule E: Customer Responsibilities for Performance Guarantee

Morgan County, GA

**Schneider Electric Buildings
Americas, Inc.**

By _____ (Signature)	By _____ (Signature)
Print Name _____	Print Name _____
Title _____	Title _____

DEFINITIONS

1. "Actual Savings" is defined as the sum of the total savings realized using the procedures for measured of savings as set forth in Schedule D plus all adjustments and non-measured savings.
2. "Annual Savings Guarantee" is the amount of the Actual Savings that is guaranteed by ESCO for a twelve (12) month period beginning on the Savings Guarantee Commencement Date and any subsequent twelve (12) month anniversary thereafter.
3. "Change Order" is defined as a written change to the Project executed by both parties.
4. "Contract Documents" consist of this Contract with the terms and conditions set forth herein, the Schedules identified above, and any mutually agreed upon written modification issued after execution of this Contract as provided in a Change Order. The intent of the Contract Documents is to include all items necessary for the proper execution and completion of the Work by ESCO. The Contract Documents are correlative and complimentary, and ESCO'S performance shall be required only to the extent consistent with the Contract Documents.
5. "Date of Commencement" is the later of the date first written above or the date funding occurs.
6. "Day" as used herein shall mean calendar day unless otherwise specifically designated.
7. "Excess Savings" is the amount of Actual Savings in excess of the Performance Guarantee to date including any savings achieved during construction.

8. "Guarantee Year" is the twelve (12) month period beginning on the Savings Guarantee Commencement Date and each subsequent twelve (12) month anniversary thereafter.
9. "Performance Guarantee" is the sum of the Annual Savings Guarantee for each year of the guarantee term as set forth in Schedule C unless terminated earlier in accordance with the Contract Documents.
10. "Performance Period" is defined as the period beginning on the Savings Guarantee Commencement Date and extending through the time period as defined in the Performance Guarantee.
11. "Project" refers to scope of work, as set forth in Schedule A: Scope of Work, made to facilities of Customer.
12. "Savings Guarantee Commencement Date" means the first day of the first utility billing period following the month in which ESCO delivers to Customer the project warranty letter.
13. "Substantial Completion" refers to and shall mean the date the individual scopes of work are sufficiently implemented in accordance with the Contract Documents that Customer may utilize the Project for the use for which it is intended, and is fully complete except for minor items, adjustments and/or corrections.
14. "Warranty Period" is for one (1) year from the dates set forth in the project warranty letter.
15. "Work" means the services required by the Contract Documents, whether completed or partially completed and, includes all labor, materials, equipment and services provided or to be provided by ESCO to fulfill ESCO'S obligations. The Work may constitute the whole or a part of the Project.

TERMS AND CONDITIONS OF IMPLEMENTATION PORTION OF CONTRACT

ARTICLE 1 – DATE OF COMMENCEMENT AND SUBSTANTIAL COMPLETION

1.1 ESCO projects it will achieve Substantial Completion of the Work within 180 days from Date of Commencement (the “Contract Time”), subject to adjustments of this Contract Time as provided in the Contract Documents.

ARTICLE 2 – CONTRACT PRICE AND PAYMENTS

2.1 The total of all implementation contract payments shall be \$3,769,640 (the “Contract Price”). ESCO shall invoice Customer for construction progress payments which shall be paid to ESCO monthly based on the percentage completion of items delineated on a “Schedule of Values” completed during the prior month. The Schedule of Values will be developed by ESCO and provided to Customer at the beginning of project implementation. The Schedule of Values will be based upon the project cost less the Project Mobilization Payment. If any payment is over ten (10) days late from the due date stated on the invoice, Customer shall pay to ESCO a 1% late penalty per month and ESCO reserves the right to terminate this Contract due to non-payment upon seven (7) days prior written notice.

2.2 Within ten (10) days of the Date of Commencement, Customer shall make payment to ESCO for expenses incurred to date and project mobilization of 10% plus all expenses incurred at this time, including but not limited to engineering, project start-up and mobilization, equipment and material procurement, bonds and other expenses incurred to date (“Project Mobilization Payment”) in the amount of not to exceed 20% of the implementation contract payment total of the Contract Price as provided for on the Project Mobilization Payment invoice attached hereto and made a part hereof.

2.3 For the initial six (6) years beginning at the Savings Guarantee Commencement Date, Customer shall receive the services as described in the Performance Assurance Support Services Agreement at no additional cost. Thereafter, the Performance Assurance Support Services Agreement shall automatically renew for a period of one (1) year, whereby Customer can maintain the current service, upgrade the level of service, or terminate, as provided for in Schedule B.

2.4 Final payment for the Work shall not become due until ESCO has delivered to Customer a complete release of all liens arising out of this Contract covering all labor, materials, and equipment for which a lien could be filed, or a bond satisfactory to Customer to indemnify Customer against such lien.

2.5 The making of final payment shall constitute a waiver of claims by Customer except those arising from (1) liens, claims, security interests or encumbrances arising out of the Contract and which are unsettled, (2) failure of the Work to comply with the requirements of the Contract Documents, or (3) terms of special warranties required by the Contract Documents.

ARTICLE 3 – CUSTOMER

3.1 Except for permits and fees that are explicitly the responsibility of ESCO under the Contract Documents, Customer shall secure and pay for necessary approvals, inspections, easements, assessments and charges required for the use or occupancy of permanent structures or permanent changes in facilities, including, but not limited to inspections for concrete and/or earthen compaction, where applicable.

3.2 If ESCO fails to correct Work that is not in material accordance with the requirements of the Contract Documents within the Warranty Period (“Defective Work”) or repeatedly fails to carry out the Work in accordance with the Contract Documents, Customer shall provide written notice to ESCO detailing any

alleged deficiencies. If the noticed deficiencies are not resolved or if ESCO does not diligently commence to address such deficiencies within thirty (30) days of receipt of the written notice, Customer may order ESCO to stop the Work, or any portion thereof, until the cause for such order has been eliminated. However, the right of Customer to stop the Work shall not give rise to a duty on the part of Customer to exercise this right for the benefit of ESCO or any other person or entity.

3.3 Customer agrees to repair or replace as necessary any defective existing equipment that is intended to be reused.

3.4 Information under Customer's control shall be furnished by Customer with reasonable promptness as requested by ESCO.

3.5 Customer shall notify ESCO in writing of any or all uses or restrictions in usage of all areas of Customer's facility or the location of the Project.

3.6 The foregoing are in addition to any other duties and responsibilities of Customer set forth herein or in any other Contract Documents, including but not limited to those duties and responsibilities set forth in Schedule E.

3.7 It will be the Customers responsibility to have available a Security Escort, Police Officer or some type of Security personnel to accompany workers performing any work in or around un-restrained inmates, prisoners or incarcerated people.

ARTICLE 4 – ESCO

4.1 ESCO shall supervise and direct the Work, using ESCO'S skill and attention. ESCO shall be solely responsible for and have control over means, methods, techniques, sequences and procedures and for coordinating all portions of the Work under the Contract, unless Contract Documents give other specific instructions concerning these matters.

4.2 Unless otherwise provided in the Contract Documents, ESCO shall provide and pay for labor, materials, tools, equipment and machinery necessary for the proper execution and completion of the Work.

4.3 ESCO warrants to Customer for a period of one (1) year from the corresponding dates of each project warranty letter that the materials and equipment manufactured by ESCO will be of good quality and new unless the Contract Documents require or permit otherwise, and further warrants that the Work will conform to the requirements of the Contract Documents and will be free from defects, except for those inherent in the quality of the Work the Contract Documents require or permit. Work, materials, or equipment not conforming to these requirements may be considered defective. ESCO'S warranty excludes remedy for damage or defect caused by abuse, alterations to the Work not executed by or for ESCO, improper or insufficient maintenance, improper operation, or normal wear and tear and normal usage. ESCO shall repair or replace defective material or equipment and re-perform Work to correct any defect within the Warranty Period. ESCO does not warrant products not manufactured by ESCO, but it will pass on to Customer any manufacturer's warranty to the extent permitted. THE FOREGOING WARRANTIES AND REMEDIES ARE EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES AND REMEDIES WHETHER STATUTORY, EXPRESS OR IMPLIED (INCLUDING ALL WARRANTIES OF MERCHANTABILITY AND FITNESS FOR PARTICULAR PURPOSE AND ALL WARRANTIES ARISING FROM COURSE OF DEALING OR USAGE OR TRADE), AND ESCO WILL NOT BE RESPONSIBLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES OF CUSTOMER UNLESS REQUIRED BY APPLICABLE STATE LAW. ESCO'S RESPONSIBILITY IN WARRANTY OR CONTRACT SHALL NOT EXCEED THE CONTRACT PRICE PAID FOR THE SPECIFIC PRODUCT OR SERVICE THAT GIVES RISE TO THE CLAIM EXCLUDING THIRD PARTY CLAIMS FOR PERSONAL INJURY, DEATH OR PROPERTY DAMAGE OR AS MAY BE REQUIRED BY LAW.

4.4 Unless otherwise provided in the Contract Documents, ESCO shall pay sales, consumer, use, and other similar taxes which are legally enacted when bids are received or negotiations concluded, whether or not effective or merely scheduled to go into effect, and shall secure and pay for the building permit and other permits, licenses and inspections necessary for proper execution and completion of the Work.

4.5 ESCO shall comply with and give notices required by laws, ordinances, rules, regulations, and lawful orders of public authorities bearing on performance of the Work.

4.6 ESCO shall keep the premises and surrounding areas free from accumulation of waste materials or rubbish caused by operations under the Contract. At completion of the Work, ESCO shall remove from and about Project waste materials, rubbish, ESCO'S tools, equipment, machinery and surplus material.

4.7 ESCO shall provide Customer access to the Work in preparation and progress wherever located.

4.8 ESCO shall pay all royalties and license fees, shall defend Customer from suits or claims for infringement of patent rights, and shall hold Customer harmless from loss on account thereof.

4.9 Except to the extent of the negligence or willful misconduct of Customer, or its agents, representatives, employees, officers, directors or assigns, ESCO shall indemnify and hold harmless Customer, and agents and employees thereof from and against all third party claims, damages, losses and expenses, including, but not limited to, reasonable attorney's fees, arising out of or resulting from performance of the Work provided that such claim, damage, loss or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (including the Work itself), but only to the extent caused in whole or in part by negligent acts or omissions of ESCO, a Subcontractor, anyone directly or indirectly employed by them or anyone for whose acts they may be liable.

4.10 NOTWITHSTANDING ANYTHING TO THE CONTRARY CONTAINED HEREIN, ESCO SHALL NOT BE LIABLE IN CONTRACT, IN TORT (INCLUDING NEGLIGENCE OR STRICT LIABILITY) OR OTHERWISE FOR ANY SPECIAL, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES WHATSOEVER. CUSTOMER AGREES TO THE FOREGOING TO THE EXTENT PERMITTED BY THE CONSTITUTION AND LAWS OF THE STATE OF GEORGIA. The remedies of Customer set forth herein are exclusive where so stated and the total cumulative liability of ESCO with respect to this Contract or anything done in connection therewith, such as the use of any product covered by or furnished under the Contract, whether in contract, in tort (including negligence or strict liability) or otherwise, shall not exceed the Contract Price for the specific product, equipment, material or service work performed that gives rise to the claim, excluding third party claims for personal injury, death or property damage or as may be required by law.

ARTICLE 5 – DISPUTE RESOLUTION

5.1 To the extent allowed by applicable law, any controversy or claim arising out of or relating to this Contract, or Contract Documents, or any breach thereof, shall be settled by binding arbitration in accordance with the Construction Industry Arbitration Rules of the American Arbitration Association, and judgment upon the award rendered by the arbitrator(s) may be entered in any court having jurisdiction thereof.

5.2 The arbitration proceeding location shall be in the county in which the Project is located.

ARTICLE 6 – SUBCONTRACTS

6.1 A Subcontractor is a person or entity who has a direct contract with ESCO to perform a portion of the Work at the site.

6.2 Unless otherwise stated in the Contract Documents or the bidding requirements ESCO, if requested in writing by Customer, shall furnish in writing to Customer the names of the Subcontractors to whom ESCO

plans to award Work. Contracts between ESCO and Subcontractors shall require each Subcontractor, to the extent of the Work to be performed by the Subcontractor, to be bound to ESCO by the terms of the Contract Documents, and to assume all the obligations and responsibilities which ESCO, by the Contract Documents, assumes toward Customer.

ARTICLE 7 – CHANGES IN THE WORK

7.1 Customer may request changes in Work consisting of additions, deletions or modifications, whereby, the Contract Price, Contract Time and/or Performance Guarantee shall be adjusted accordingly. Such changes in the Work shall be authorized by written Change Order that shall be mutually agreed to and signed by Customer and ESCO. The parties shall negotiate in good faith and use their best efforts to execute any Change Order, and any Change Order must be fully executed in writing by Customer and ESCO prior to any actual changes being implemented.

7.2 The cost or credit to Customer from a change in the Work shall be determined by mutual agreement and, in the absence of a mutual agreement being reached within a reasonable amount of time after the request for such Change Order was made, the cost or credit to Customer shall be decided by the dispute resolution process as provided in the Contract Documents.

7.3 In the event of any suspension or delay due to the acts or omissions of Customer or Customer directives to stop Work for any reason, through no fault of ESCO, the Contract Time for Substantial Completion shall be extended to reflect such period of interruption and the Contract Price shall be equitably adjusted to recover ESCO'S costs of demobilization, delay and remobilization related to such suspension or delay. ESCO agrees it will cooperate with Customer and mitigate such costs to the extent and efforts commercially reasonable. If such suspension or delay continues for more than ninety (90) consecutive days, through no act or fault of ESCO, ESCO may terminate this Contract and recover from Customer payment for Work executed, including reasonable overhead and profit, costs incurred by reason of such termination and damages.

ARTICLE 8 – TIME

8.1 The date of Substantial Completion is the date certified by ESCO in accordance with Article 9.3.

8.2 If ESCO is delayed at any time in progress of the Work by changes ordered in the Work, by labor disputes, fire, unusual delay in deliveries, abnormal adverse weather conditions not reasonably anticipatable, unavoidable casualties or any other causes which are beyond the control of ESCO, then the parties hereto agree to execute a Change Order allowing for a mutually agreeable extension of time for performance of ESCO'S Work to cover such delay.

ARTICLE 9 – PAYMENTS AND COMPLETION

9.1 Payments shall be made as provided in Article 2 of the Contract.

9.2 Payments may be withheld on account of (1) Defective Work not remedied per Article 3.2, (2) failure of ESCO to make payments properly to the Subcontractors or for labor, materials or equipment, or (3) repeated failure to carry out the Work in accordance with the Contract Documents.

9.3 Upon Substantial Completion of each portion of the Work, ESCO will issue a project warranty letter to Customer.

9.4 Final payment shall not become due until ESCO has delivered to Customer a complete release of all liens arising out of this Contract covering all labor, materials, and equipment for which a lien could be filed.

9.5 The making of final payment shall constitute a waiver of claims by Customer except those arising from (1) liens, claims, security interests or encumbrances arising out of the Contract and which are unsettled, (2) failure of the Work to comply with the requirements of the Contract Documents, or (3) terms of special warranties required by the Contract Documents.

ARTICLE 10 – PROTECTION OF PERSONS AND PROPERTY

10.1 ESCO shall be responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the performance of the Contract. ESCO shall take reasonable precautions for safety of, and shall provide reasonable protection to prevent damage, injury or loss to (1) employees on the Work and other persons who may be affected thereby, (2) the Work and materials and equipment to be incorporated therein, and (3) other property at the site or adjacent thereto.

10.2 ESCO shall give notices and comply with applicable laws, ordinances, rules, regulations and lawful orders of public authorities bearing on safety of persons and property and their protection from damage, injury or loss.

10.3 The scope of work or service to be performed by ESCO pursuant to this Contract, and the compensation to be paid to ESCO hereunder for Work or services performed, expressly exclude any Work or service of any nature associated or connected with the identification, abatement, cleanup, control or removal of environmentally hazardous materials beyond what is specifically defined and identified in Schedule A of this Contract. "Hazardous Materials" to include, but not be limited to, asbestos and PCBs discovered in or on the premises. Customer agrees that all duties and obligations in connection with any hazardous materials located in or on the premises, other than those defined in Schedule A, are strictly the responsibility of Customer. Customer warrants and represents to the best of Customer's knowledge there are no hazardous materials in or on the premises which will affect, be affected by, come in contact with, or otherwise impact upon or interfere with the Work to be performed by ESCO pursuant to this Contract.

10.4 Should ESCO become aware or suspect the presence of hazardous materials beyond those to be addressed in Schedule A during performance of its Work under this Contract, ESCO will be authorized to cease Work in the affected area immediately and will promptly notify Customer of the conditions discovered. Should ESCO stop Work because of the discovery or suspicion of hazardous materials, the time for performance of ESCO'S Work or service will be extended to cover the period required for abatement, cleanup, or removal of the hazardous materials. ESCO will not be held responsible for any claims, damages, costs, or expenses of any kind associated with the period during which ESCO has stopped Work as a result of hazardous materials. If appropriate, ESCO will be entitled to an equitable adjustment of the Contract Price for any increased costs or other charges incurred by ESCO in connection with the existence of its rights under this paragraph.

10.5 Customer will be responsible for taking all necessary steps to correct, abate, clean up, or control hazardous materials not addressed by ESCO in Schedule A in accordance with all applicable statutes and regulations. Customer specifically agrees, to the extent allowed by state law, to indemnify and to hold ESCO, its officers, agents and employees harmless from and against any and all claims, demands, damages, or causes of action in any way arising out of the release of hazardous materials into the air, soil, or any water system or water course, or any actions taken in connection with same, or any failure to act.

ARTICLE 11 – INSURANCE AND BONDS

11.1 ESCO shall maintain adequate levels and types of insurance coverage appropriate to its business and profession and as may be required by applicable law and the Contract Documents. Such insurance shall be in companies authorized to do business in the jurisdiction in which the Project is located with an A.M. Best's rating of at least A- VII and as a minimum shall include Workers' Compensation and Employer's Liability at statutory limits, Automobile Liability covering all owned, hired and other non-owned vehicles and Commercial General Liability covering public liability, property damage and completed operations with limits not less than \$2,000,000 per occurrence. Certificates of such insurance shall be provided to Customer prior

to commencement of the Work.

11.2 If required in the Contract Documents, and upon Customer's request and expense, ESCO shall provide payment and performance bonds for 100% of the Contract Price to secure the faithful performance of the Work, compliance with the terms of this Contract and to insure ESCO'S payment obligations to its Subcontractors and suppliers related to the Work. Notwithstanding any provision to the contrary herein, any payment and performance bonds associated with this Contract guarantee only the performance of the installation portion of the Contract, and shall not be construed to guarantee the performance of: (1) any efficiency or energy savings guarantees, (2) any support or maintenance service agreement, or (3) any other guarantees or warranties with terms beyond one (1) year in duration from the completion of the installation portion of the Contract.

ARTICLE 12 – TERMINATION OF THE CONTRACT

12.1 If Customer fails to make payments to ESCO as required in this Contract, through no fault of ESCO, ESCO may, upon seven (7) days written notice to Customer, terminate the Contract and recover from Customer payment for all Work executed and for proven loss with respect to materials, equipment, tools, and machinery, including reasonable overhead, profit and damages applicable to the Project.

12.2 If Customer (1) fails or neglects to maintain Customer responsibilities as set forth in Schedule E, or (2) fails to fulfill any of its other obligations or responsibilities under the Contract Documents, ESCO may, after delivery of written notice and providing Customer seven (7) days to cure, terminate the Contract, including, but not limited to the termination of any obligation of ESCO to provide the Performance Guarantee.

12.3 If ESCO breaches a material provision of this Contract, Customer has provided written notice to ESCO detailing the alleged breach, and within thirty (30) days of receipt of the written notice the alleged breach is either not cured or ESCO has not diligently commenced to cure such breach, Customer may make good such deficiencies and may deduct the cost thereof from the payment then or thereafter due ESCO.

12.4 Termination of any of the Contract Documents shall release ESCO of all remaining obligations under all of the Contract Documents as of the effective date of such termination.

12.5 Any remedies provided for in this Article 12, shall not be exclusive of any additional remedies available to a party pursuant to this Contract, in equity or in the law.

ARTICLE 13 – OTHER CONDITIONS OR PROVISIONS

13.1 If any provision of this Contract is determined to be invalid, illegal, or unenforceable as written, such provision shall be construed consistent with and to the fullest extent permitted under the law, and any such determination shall not affect or impair the validity, legality and enforceability of the remaining provisions.

13.2 Nothing herein shall be deemed to establish a relationship of principal and agent between ESCO and Customer, or any of their respective agents or employees, and this Contract and the Contract Documents may not be construed as creating any form of legal association or arrangement that would impose liability upon one party for the act or failure to act of the other party.

13.3 This Contract shall be governed by the laws of the state where the Project is located.

13.4 As between Customer and ESCO, any applicable statute of limitation shall commence to run and any alleged cause of action shall be deemed to have accrued (1) not later than the date of Substantial Completion for acts or failures to act occurring prior to the relevant date of Substantial Completion, or (2) not later than the date of the relevant act or failure to act by either party for acts or failures to act occurring after the date of Substantial Completion.

13.5 ESCO shall prepare and provide and Customer agrees to participate in press release(s) and business case studies limited to the business relationship with ESCO and Customer's use of ESCO's services. Customer agrees to grant ESCO the right to use Customer's trademarks, for the term contained herein, in connection with press releases, case studies or website marketing, advertisement, promotion, sale, and distribution of ESCO's services. Prior written notice of use shall be provided to Customer by ESCO and Customer's written approval is necessary for any press releases or case studies.

13.6 This Contract sets forth the entire understanding between the parties and supersedes all prior oral or written understandings relating to the subject matter herein. This Contract may not be altered or modified except by a written instrument signed by a duly authorized representative of each party.

SCHEDULE A

SCOPE OF WORK

Customer hereby acknowledges and agrees that the scope of work shall be limited to, and ESCO shall only perform, the following:

1 LIGHTING

FACILITIES

ESCO will be performing lighting retrofits at the following Customer facilities:

- Courthouse
- Aquatic Center
- Public Safety Complex
- Administration Building
- Senior Center

GENERAL SCOPE

The lighting will be upgraded as detailed below, improving overall color rendering and lighting efficacy. Sensor location and type is determined by the space operation and energy savings opportunity.

Schneider Electric will retrofit existing T12, T8, and T5 lighting to low wattage tubular LED lighting. Interior HID fixtures will be upgraded to high-bay LED fixtures, and will exterior HID fixtures and walkway lighting will be upgraded to LED as well. Outdated incandescent and compact fluorescent (CFL) bulbs will be retrofit with LED bulbs where appropriate.

The following describes the proposed retrofits at a high level for each site:

- Retrofit existing T8, T12, and T5 fluorescent fixtures with high efficiency line-voltage LED tubes
**Occupancy sensors will be added in select areas*
- Replace Incandescent bulbs with screw-in LED bulbs
- Replace CFL bulbs with screw-in LED bulbs
- Retrofit or Replace interior Metal Halide HID luminaires with LED luminaires
- Replace exterior HID luminaires with LED luminaires
**Fixture mounted photocells will be included*

SITE SPECIFIC SCOPE

Courthouse

- Retrofit existing 36W LED pendant lights to new LED pendants for consistency throughout space

CLARIFICATIONS

The following items provide additional clarifications to the scope of work:

- Work shall be performed during daytime, evening, weekend, and holiday hours at ESCO discretion, unless otherwise specified in the Scope of Work. ESCO will coordinate the schedule with Customer, in effort to limit disruptions to facility operations.
- Two-stage switching (A/B circuit) multi-light output fluorescent fixtures will be converted to row-by-row switching
- Implementation of Detention Center scope requires that Customer personnel provide access and escorts to lighting areas in which the work is to be performed, and secure passage to and from these areas.
- Work will not be performed in the immediate presence of inmates. Customer will arrange for temporary relocation of inmates in areas where work is to be performed, while said work is being actively performed. ESCO will collaborate with Customer to schedule this work in advance.
-

EXCLUSIONS

The following items are excluded from ESCO's scope of work:

- Hazardous materials testing and abatement not specified in the Scope of Work.
 - a. Replaced lamps and ballasts will be removed by ESCO
- All outdoor field, sports, court, playground and performance lighting
- Changes, repairs, or additions to emergency lighting and battery backup systems except where required by code.
- Existing LED fixtures unless specified in the Scope of Work
- Exit signs as follows:
 - a. Existing LED exit signs
- Abandoned fixtures
- Dimming systems and associated fixtures
- Changes or replacement of support mechanisms and housings of fixtures
- Repair of failed sockets
- Replacement of broken lenses not specified in the Scope of Work
- Fluorescent lamp protective sleeves not specified in the Scope of Work
- Fixture protective covers
- Fluorescent fixture tombstones not specified in the Scope of Work
- Replacing, repairing, or removing switches, switch plates, twist timers, and breakers
- Electrical wiring except that required for ballast replacement in the fixture
- Time clocks associated with existing lighting fixtures not specified in the Scope of Work
- Replacing, repairing, or removing any existing photo-cell sensor used in exterior lighting systems
- General exclusions listed at the end of this schedule

2 BUILDING AUTOMATION SYSTEM

Schneider Electric Building Automation System (BAS) is to be installed at the facilities listed below as specified in this contract. The Schneider Electric BAS will include control and monitoring parameters as outlined below for each facility. The BAS will be controllable from a central workstation located on the customer's WAN/LAN (See Schedule E of contract). The customer's workstation (provided by ESCO) will provide continuous access to the system with a user-friendly graphical Windows interface. An internet browser interface will also be included to provide web capable access to the system for up to 7 simultaneous users, contingent on IT infrastructure and access to the WiFi, VPN, or exposed IP access to the system for browser use – inclusive of ESCO provided tablets. Control zones will be programmed for temperature setup and temperature setback (as stated in Schedule D of contract), along with unoccupied dew point setup monitoring, and optimized schedules. Permanent scheduling, holiday scheduling, and temporary scheduling capabilities for each control zone will be provided.

The proposed BAS will be a Schneider Electric EcoStruxure Buildings Operation (EBO). The system will be fully programmed and engineered using this platform and can operate as a standalone system if needed. In this architecture, the customer will be able to expand the EBO system to a very large and comprehensive enterprise solution.

ESCO will provide site-specific on-site training for BAS operation. This includes, but is not limited to, system architecture, controller and override operation, control drawings, device replacement, product overview and demonstration, logging on and off, system passwords, screen layout, software toolbars and menus, graphic page navigation and use, scheduling (daily, exception, and holiday), and basic troubleshooting.

FACILITIES

ESCO will be installing a centralized Building Automation System at the following Customer facilities.

- Courthouse
- Aquatic Center
- Public Safety Complex

SITE SPECIFIC SCOPE

Aquatic Center

Schneider Electric Building Automation System is to be installed to control the Heating, Ventilation, and Air Conditioning (HVAC) equipment listed below. Communication to the central workstation will be provided through the customer's wide area network.

Electrical kWh monitoring of one primary electrical meter to the building will be provided for monitoring of consumption of the facility per the Measurement and Verification requirements in Schedule D.

Control parameters are as follows:

Admin Area Packaged Unit¹

<i>Control Points</i>	<i>Monitoring Points</i>
▪ Supply Air Fan Command ▪ Supply Air Fan Modulation ▪ Compressor Command (2) ▪ Gas Heating Command ▪ Economizer Damper Position ▪ Relief Air Fan Command ▪ Relief Air Fan Modulation	▪ Supply Air Temperature ▪ Supply Air Fan Feedback ▪ Relief Air Fan Feedback ▪ Supply Air CO2 ▪ Supply Air Static Pressure ▪ Room Relative Humidity ▪ Suction Line Temperature (2)

Admin Area Zone Dampers¹ – Typical of 7

<i>Control Points</i>	<i>Monitoring Points</i>
▪ Damper Position ▪ Supply Air CFM	▪ Space Temperature ▪ Space Temperature Setpoint Adjust ▪ Space Occupancy Override

Building Pressure Control

<i>Control Points</i>	<i>Monitoring Points</i>
▪ Exhaust Air Fan Command ▪ Exhaust Air Fan Modulation	▪ Building Pressure ▪ Exhaust Air Fan Feedback ▪ Chlorine Air Concentration

Pool Pump Control – Typical of 2

<i>Control Points</i>	<i>Monitoring Points</i>
▪ Pump Command ▪ Pump Modulation	▪ Pump Feedback

Pool Dehumidification Unit¹

<i>Control Points</i>	<i>Monitoring Points</i>
▪ Supply Air Fan Command ▪ Supply Air Fan Modulation ▪ Exhaust Air Fan Command ▪ Exhaust Air Fan Modulation ▪ Compressor Command (2) ▪ Compressor Modulation (2) ▪ Gas Heating Command ▪ Gas Heating Modulation ▪ Economizer Damper Position	▪ Space Temperature ▪ Space Setpoint Adjust ▪ Space Occupancy Override ▪ Space Relative Humidity ▪ Supply Air Temperature ▪ Supply Air Fan Feedback ▪ Exhaust Air Fan Feedback ▪ Return Air Relative Humidity ▪ Return Air Temperature ▪ Evaporator Temperature ▪ Pool Water Leaving Temperature ▪ Pool Water Entering Temperature ▪ Suction Line Pressure ▪ Liquid Line Pressure

Miscellaneous Points

<i>Control Points</i>	<i>Monitoring Points</i>
	▪ Outside Air Temperature ▪ Outside Air Relative Humidity ▪ kW Metering²

¹ – Availability of points listed contingent on final mechanical design.

² – Quantity of electrical sub-meters installed may be greater than quantity of primary electric meters being monitored.

Courthouse

Existing Carrier controllers with direct digital control of the existing air handling units will be removed and replaced with a new Schneider Electric BAS. The control parameters below are listed as requirements to the BAS system, and all existing BAS points not listed will be removed. The below design assumes the reuse of existing conduit and wire for end devices, where possible. (see Exclusions for additional details).

Electrical kWh monitoring of one primary electrical meter to the building will be provided for monitoring of consumption of the facility per the Measurement and Verification requirements in Schedule D.

Exhaust fans that exhaust to the exterior of the building and are not process related, that are not currently interlocked with the lighting circuit or controlled via BAS, shall be controlled via occupancy sensor or interlocked with lighting circuit via relay.

Control parameters are as follows:

Chilled Water System¹

<i>Control Points</i>	<i>Monitoring Points</i>
▪ Chiller Enable ▪ Chilled Water Pump Command (2) ▪ Chiller Setpoint	▪ Chilled Water Supply Temperature ▪ Chilled Water Return Temperature ▪ Chilled Water Pump Status (2) ▪ Sump Pump Status

Hot Water System¹

<i>Control Points</i>	<i>Monitoring Points</i>
▪ Boiler Enable (2) ▪ Hot Water Pump Command (2) ▪ Boiler Setpoint (2)	▪ Hot Water Supply Temperature ▪ Hot Water Return Temperature ▪ Hot Water Pump Status (2) ▪ Heat Trace Status

Air Handling Units – Typical of 11

<i>Control Points</i>	<i>Monitoring Points</i>
▪ Supply Air Fan Command ▪ Outside Air Damper Position ▪ Hot Water Valve Position ▪ Chilled Water Valve Position	▪ Space Temperature ▪ Space Temperature Setpoint Adjust ▪ Space Occupancy Override ▪ Supply Air Temperature ▪ Mixed Air Temperature ▪ Room Relative Humidity

Courtroom Air Handling Units – Typical of 2

<i>Control Points</i>	<i>Monitoring Points</i>
▪ Supply Air Fan Command ▪ Outside Air Damper Position ▪ Hot Water Valve Position ▪ Chilled Water Valve Position	▪ Space Temperature ▪ Space Temperature Setpoint Adjust ▪ Space Occupancy Override ▪ Supply Air Temperature ▪ Mixed Air Temperature ▪ Room Relative Humidity ▪ Return Air CO2

Courtroom Pressure Control – Typical of 2

<i>Control Points</i>	<i>Monitoring Points</i>
▪ Exhaust Air Fan Command ▪ Exhaust Air Fan Modulation	▪ Courtroom Pressure ▪ Exhaust Air Fan Feedback

Miscellaneous Points

<i>Control Points</i>	<i>Monitoring Points</i>
	▪ Outside Air Temperature ▪ Outside Air Relative Humidity ▪ kW Metering²

¹ – Availability of points listed contingent on final mechanical design.

² – Quantity of electrical sub-meters installed may be greater than quantity of primary electric meters being monitored.

Public Safety Complex

Existing JCI controllers with direct digital control of the existing air handling units will be removed and replaced with a new Schneider Electric BAS. The control parameters below are listed as requirements to the BAS system, and all existing BAS points not listed will be removed. The below design assumes the reuse of existing conduit and wire for end devices, where possible. (see Exclusions for additional details).

Electrical kWh monitoring of one primary electrical meter to the building will be provided for monitoring of consumption of the facility per the Measurement and Verification requirements in Schedule D.

Exhaust fans that exhaust to the exterior of the building and are not process related, are currently interlocked with lighting circuits and are excluded from BAS.

It will be the Customers responsibility to have available a Security Escort, Police Officer or some type of Security personnel to accompany workers performing any work in or around un-restrained inmates, prisoners or incarcerated people.

Control parameters are as follows:

Admin Area VAV Rooftop Unit

<i>Control Points</i>	<i>Monitoring Points</i>
▪ Supply Air Fan Command ▪ Supply Air Fan Modulation ▪ Compressor Command (4) ▪ Compressor Modulation (2) ▪ Heating Command (4) ▪ Hot Gas Bypass Enable ▪ Economizer Damper Position	▪ Supply Air Temperature ▪ Supply Air Relative Humidity ▪ Supply Air Static Pressure ▪ Supply Air Feedback ▪ Space Relative Humidity

Admin Area VAV Boxes (Damper Only) – Typical of 10

<i>Control Points</i>	<i>Monitoring Points</i>
▪ VAV Damper Position	▪ Space Temperature ▪ Space Temperature Setpoint Adjust ▪ Space Occupancy Override ▪ VAV Box Flow (CFM)

Admin Area VAV Boxes with Reheat – Typical of 8

<i>Control Points</i>	<i>Monitoring Points</i>
▪ VAV Damper Position ▪ Electric Reheat Command (2)	▪ Space Temperature ▪ Space Temperature Setpoint Adjust ▪ Space Occupancy Override ▪ Supply Air Temperature ▪ VAV Box Flow (CFM)

Rooftop Units – Typical of 18

<i>Control Points</i>	<i>Monitoring Points</i>
▪ Supply Air Fan Command ▪ Cooling Command ▪ Heating Command ▪ Economizer Damper Position	▪ Space Temperature ▪ Space Temperature Setpoint Adjust ▪ Space Occupancy Override ▪ Space Relative Humidity ▪ Supply Air Temperature

Energy Recovery Units – Typical of 5

<i>Control Points</i>	<i>Monitoring Points</i>
▪ ERV Unit Enable	▪ Supply Air Temperature ▪ Return Air Temperature ▪ Exhaust Air Temperature

VAV Boxes (RTU-6) – Typical of 4

<i>Control Points</i>	<i>Monitoring Points</i>
VAV Damper Position	- Space Temperature - Space Temperature Setpoint Adjust - Space Occupancy Override - VAV Box Flow (CFM)

Rooftop Unit (RTU-6)

<i>Control Points</i>	<i>Monitoring Points</i>
- Supply Air Fan Command - Supply Air Fan Modulation - Heating Command (2) - Cooling Command (2) - Economizer Damper Position	- Supply Air Temperature - Return Air Temperature - Supply Air Static Pressure - Supply Air Fan Feedback - Space Relative Humidity - Suction Line Temperature (2)

Zone Heating Control (1 Zone of 8 Unit Heaters)

<i>Control Points</i>	<i>Monitoring Points</i>
Zone Heating Enable	- Zone Temperature - Zone Occupancy Override

Jail Fan Monitoring

<i>Control Points</i>	<i>Monitoring Points</i>
	- Exhaust Air Fan Status (6) - Supply Air Fan Status (6)

Miscellaneous Points

<i>Control Points</i>	<i>Monitoring Points</i>
	- Outside Air Temperature - Outside Air Relative Humidity - kW Metering¹

¹ – Quantity of electrical sub-meters installed may be greater than quantity of primary electric meters being monitored.

CLARIFICATIONS

The following items provide additional clarifications to the scope of work:

- Work shall be performed during daytime, evening, weekend, and holiday hours at ESCO discretion, unless otherwise specified in the Scope of Work. ESCO will coordinate the schedule with CUSTOMER, in effort to limit disruptions to facility operations.
- To the best of Schneider Electric's knowledge, the points above represent all that are necessary to effectively operate the indicated systems. If additional points are required to operate the systems specifically indicated above per Schneider Electric's Sequences of Operation, they will be incorporated under this scope of work. If any of the points indicated above are unable to be included within the final system due to physical constraints, erroneous information (including reasonable assumptions proved false), or equipment that is incompatible due to existing design or

condition, such points will be excluded from this scope of work. Points associated with new mechanical equipment (if applicable) are subject to change based on those points available from the equipment ultimately furnished and the points deemed necessary for operation of the system.

- ESCO will reuse select existing equipment for the execution of this contract, and assumes the equipment or devices are in good working order. Should the equipment or devices need repair or replacement, this will be the responsibility of the customer. ESCO will create an EDR (equipment deficiency report) to give customer written notification if such equipment or devices are found. Unless specified in the controls scope or in the mechanical scope, the repair or replacement of non-functional actuators, dampers, and valves are the responsibility of the owner.
- ESCO is not responsible for existing safeties on equipment or any life safety equipment. If ESCO is to replace a starter with a VFD, ESCO will tie-in existing safety circuit into the VFD safety circuit. ESCO will not be responsible for the functionality of the existing safety devices. Pre and post testing of these smoke, fire, and life safety systems will be the responsibility of the customer and the sequence will be provided to ESCO.
- Graphical interface is expected to be the same with exception of newly created scheduled areas and new AHU units for areas listed above. New graphical interface and new pages will mimic the existing style and format.
- ESCO will make the final decision for controller selection, point configurations, and end devices selection based on current standards and engineering practices of ESCO.
- ESCO will not be responsible for any modification or extension of the existing WAN/LAN for execution of this project.
- Matching of paint color or ceiling tile color and pattern will be limited by current commercial availability. Variations in replacement paint color and ceiling tile color due to age, wear, and dirt will be minimized where possible. Similar or complementary tiles will be provided where exact matches are not available. Custom paint colors and custom tiles are excluded.
- Any repair patching of existing walls, sheetrock, plaster, brick, wood, etc due to the removal of existing thermostats (for retrofit with DDC Sensor or new thermostat) will be performed by the owner.
- Conduit will only be used from controller panels to the lower of a finished ceiling or 8' for all low voltage wiring, and will be in compliance with local codes and authorities having jurisdiction.
- Changes to the design intent to include additional operation of system to reduce humidity or include extra conditioning will require adjustments in savings calculations.
- Demolition of the existing BAS will be performed as needed to implement the new DDC system (reuse of enclosures, wire, and end devices will be determined by ESCO), the total demolition will be the responsibility of the owner, unless otherwise stated.
- Costs of providing access, access control, or security escorts not specified in the Scope of Work are excluded.
- Control points on the existing BAS not needed to implement ECMs or functional sequence of operations will not be included in the Schneider Electric BAS unless specified.

EXCLUSIONS

The following items are excluded from ESCO's scope of work:

- Repair of existing HVAC and control equipment beyond the Scope of Work is excluded. ESCO will reuse existing equipment for the execution of this contract, and assumes the equipment or devices are in good working order. Should the equipment or devices need repair or replacement, this will be the responsibility of the customer. ESCO will create an EDR (equipment deficiency report) to give customer written notification if such equipment or devices are found. Unless specified in the controls scope or in the mechanical scope, the repair or replacement of non-functional actuators, dampers, and valves are the responsibility of the owner.
- Addition or control of any window units via the building automation system except where specified in the Scope of Work.
- Control of any self-contained units (units with integral control, not for remote control) via the building automation system. These are typically known as mini-splits, Daikin units, or PTAC
- Air flow testing and balancing on HVAC equipment will not be included as part of the controls work.
- Exhaust fans controlled by occupancy sensors or local switches and exhaust fans that do not exhaust to the exterior of the building will not be integrated with the building automation system.
- Repair of existing HVAC and control equipment not specified in the Scope of Work.
- Where life safety equipment utilizes compressed air (pneumatics), the source of the air, logic, and actuators will not be removed or modified within the execution of the project.
- If equipment/devices controlled by the existing BAS are not listed in the Scope of Work, ESCO is not responsible for their functionality.
- ESCO will not be responsible for controlling the HVAC equipment located in buildings without WAN/LAN network communication. These buildings are excluded from the scope of work.
- ESCO will only control equipment and/or devices shown in the Scope of Work, unless devices are not suitable for automated control. Equipment and devices not in the Scope of Work are excluded.
- General exclusions listed at the end of this schedule.

3 MECHANICAL

FACILITIES

ESCO will be performing mechanical retrofits at the following Customer facilities:

- Courthouse
- Aquatic Center

SITE SPECIFIC SCOPE

Courthouse

This scope of work includes the replacement of two (2) hot water boilers, one (1) air cooled chiller, and the outside air dampers on each Air Handling Unit (AHU). The new boilers will be rated for outdoor operation and will be more efficient. The boilers will be sized to provide redundancy for the hot water plant. The new chiller will be sized to meet the current building loads and will operate more efficiently.

Courthouse – Boiler Replacement

- Disconnect the existing electrical service from existing units
- Demo existing two (2) outdoor hot water boilers, pumps, gas lines to shut off valves, hot water lines to pumps and shut off valves, and equipment pad
- Provide and install two (2) new outdoor rated hot water boilers
- Provide and install new gas line and hot water lines to shut off valves
- Install new equipment pad
- Provide and install two (2) new hot water pumps
- Provide electrical, structural, and test and balance work as required for a functional system on all new mechanical work
- Provide all electrical upgrades as required to complete the mechanical scope of work
- Provide all structural modifications as required to complete the mechanical scope of work
- As-built drawings will be provided in digital (pdf) format

Courthouse – Chiller Replacement

- Disconnect the existing electrical service from existing units
- Demo existing one (1) air-cooled chiller, pumps, water lines to pumps and shut off valves, and equipment pad
- Provide and install one (1) new air-cooled chiller
- Provide and install new water lines to shut off valves
- Install new equipment pad
- Provide and install two (2) new chilled water pumps
- Provide electrical, structural, and test and balance work as required for a functional system on all new mechanical work
- Provide all electrical upgrades as required to complete the mechanical scope of work
- Provide all structural modifications as required to complete the mechanical scope of work
- As-built drawings will be provided in digital (pdf) format

Courthouse – Outside Air Dampers Replacement

- Disconnect the existing electrical service from existing units
- Demo existing thirteen (13) outside air (OSA) control dampers
- Demo existing three (3) exhaust/relief fans
- Provide and install thirteen (13) new OSA dampers
- Repair ductwork as required to install new dampers
- Repair any insulation damaged during installation
- Provide and install three (3) new exhaust/relief fans and two (2) return grilles
- Provide electrical, structural, and test and balance work as required for a functional system on all new mechanical work
- Provide all electrical upgrades as required to complete the mechanical scope of work
- Provide all structural modifications as required to complete the mechanical scope of work
- As-built drawings will be provided in digital (pdf) format

Aquatic Center

This scope of work includes replacing the two existing heat pump split systems with a new packaged unit serving the front lobby and locker rooms at the Aquatic Center. New ductwork and air distribution will be installed. In addition, a new larger pool unit will be installed replacing the existing undersized unit

Aquatic Center – Front Lobby and Locker Room – New Packaged Unit

- Disconnect the existing electrical service from existing unit
- Demo existing two (2) heat pump split systems
- Demo associated duct work, grilles, equipment pads, line sets, condensate lines, and electrical lines
- Provide and install one (1) new packaged unit and new equipment pad
- Provide and install new air distribution, new gas line, condensate lines
- Install enamel coated fence around package unit
- Provide electrical, structural, and test and balance work as required for a functional system on all new mechanical work.
- As-built drawings will be provided in digital (pdf) format

Aquatic Center – Pool – New Pool Unit

- Disconnect the existing electrical service from existing unit
- Demo existing one (1) pool de-humification unit
- Demo existing air distribution and condensate line
- Demo existing (3) abandoned hot water boilers in pool pump room
- Provide and install one (1) new pool de-humidification unit
- Provide and install new duct sock air distribution system
- Provide and install new water connection between unit and pool pump room
- Provide and install new recirculation fan
- Provide new duct smoke detector in return air duct of HVAC unit
- Provide electrical, structural, and test and balance work as required for a functional system on all new mechanical work.
- As-built drawings will be provided in digital (pdf) format

CLARIFICATIONS

The following items provide additional clarifications to the scope of work:

- Several components of this scope of work will require changes to the exterior of buildings to meet current code requirements for outside air intake and ventilation.
- During the construction phase, the pool may have to be closed to the public for 3 to 5 days for safety precautions. Schneider Electric will try to limit this closure as much as possible.

EXCLUSIONS

The following items are excluded from ESCO's scope of work:

- Any ceiling tile or grid replacement deemed necessary by Schneider Electric will be completed with the closest match tile and/or grid locally available and may not be an exact match." Waste disposal other than that required to accomplish the scope of work
- Existing equipment, piping and accessories made obsolete by this scope are to be abandoned in-place unless demolition and removal are indicated to be specifically included in the scope of work
- The cost for equipment and/or utilities to provide temporary services during the construction period are excluded
- Water treatment equipment not specified in the scope of work
- Structural modifications not specified in the scope of work
- Water and air testing and balancing not specifically included in the scope of work is excluded.
- Replacement of ductwork, diffusers, ceiling tile, or ceiling tile grid not specified in the scope of work
- Replacement of piping, electrical systems or components, or other accessories not specified in the scope of work

General exclusions listed at the end of this schedule

4 BUILDING ENVELOPE IMPROVEMENTS

FACILITIES

ESCO will install building envelope improvements at the following Customer facilities:

- Courthouse
- Aquatic Center
- Public Safety Complex

SITE SPECIFIC SCOPE

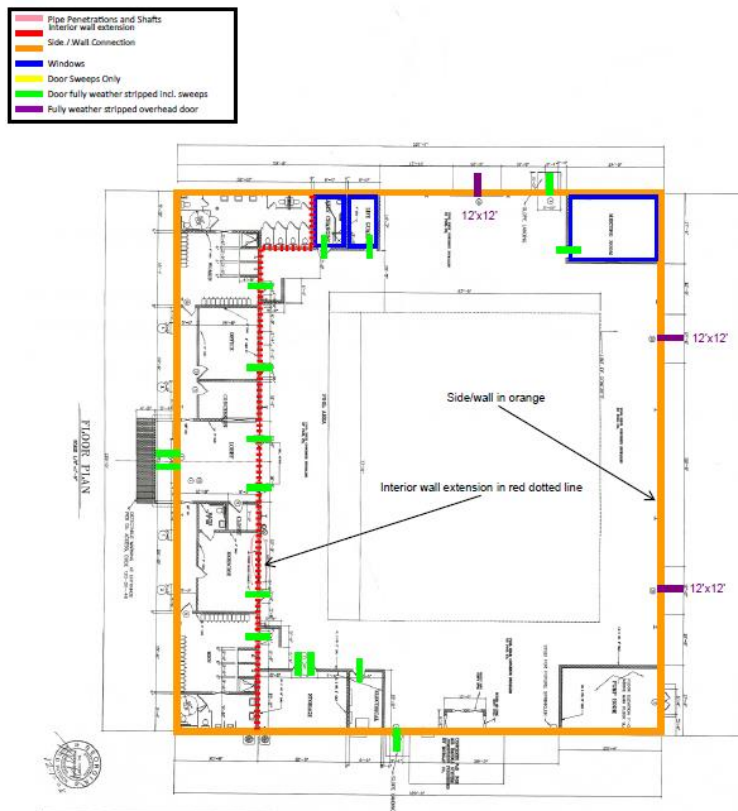
Courthouse

- Replace exterior door weather stripping/sweeps
- Interior doors will be sealed for isolation from conditioned spaces with weather stripping/sweeps
- Seal roof to wall seam along offices and other rooms where gaps exist between exterior wall and roof decking

Aquatic Center

As indicated in the diagram below:

- Replace exterior door weather stripping/sweeps
- Seal overhead doors on three sides
- Interior doors will be sealed for isolation from conditioned spaces with weather stripping/sweeps
- Side wall joint to be sealed with foam
- Interior drop ceiling grid to be caulked to walls
- Insulated wall will be built to separate pool area from front lobby



Public Safety Complex

- Replace exterior door weather stripping/sweeps
- Seal overhead doors on three sides including Fire Station overhead doors and roll up doors
- Interior doors will be sealed for isolation from conditioned spaces with weather stripping/sweeps
- It will be the Customers responsibility to have available a Security Escort, Police Officer or some type of Security personnel to accompany workers performing any work in or around un-restrained inmates, prisoners or incarcerated people.

CLARIFICATIONS

The following items provide additional clarifications to the scope of work:

- Work shall be performed during daytime, evening, weekend, and holiday hours at ESCO discretion, unless otherwise specified in the Scope of Work. ESCO will coordinate the schedule with Customer, in effort to limit disruptions to facility operations.

EXCLUSIONS

The following items are excluded from ESCO's scope of work:

- Repair and/or re-alignment of any doors, hardware or other facility devices are excluded from the scope of work.
- General exclusions listed at the end of this schedule.

5 DOMESTIC WATER

FACILITIES

ESCO will install domestic water improvements at the following Customer facilities:

- Courthouse
- Aquatic Center
- Public Safety Complex

Restroom, kitchen, and locker room water fixtures were evaluated to determine the best and most applicable water retrofit. Fixtures that were already low-flow or had very low usage did not require upgrades and have been excluded. It will be the Customers responsibility to have available a Security Escort, Police Officer or some type of Security personnel to accompany workers performing any work in or around un-restrained inmates, prisoners or incarcerated people.

A summary of the scope of work is as follows:

GENERAL SITE SCOPE

- Retrofit existing high flow water closet flush valves with 1.28 GPF flush valve components
- Retrofit existing high flow urinal flush valves with 0.5 flush valve components
- Retrofit existing high flow lavatory faucets with 0.5 GPM vandal proof aerators
- Replace existing high flow showerheads with 1.5 GPM showerheads
- Install six (6) ice machine refrigeration line heat exchangers
- Retrofit existing high flow kitchen and dish sprayers with 0.6 GPM pressure compensating sprayer
- Retrofit existing high flow prep sink faucets with 1.5 GPM kitchen sink aerator and new foot pedal flow control
- Retrofit existing high flow kitchen faucets with 1.5GPM vandal proof aerators

SITE SPECIFIC SCOPE

Aquatic Center

This scope of work includes installing a 10-lb On-Site Sodium Hypochlorite Generation system at the Aquatic Center to serve the existing pool.

CLARIFICATIONS

The following items provide additional clarifications to the scope of work:

- Work shall be performed during daytime, evening, weekend, and holiday hours at ESCO discretion, unless otherwise specified in the Scope of Work. ESCO will coordinate the schedule with Customer, in effort to limit disruptions to facility operations.
- Existing fixtures and appurtenances to remain in the detention center, this scope of work is to replace the flush valves only.
- Implementation of Detention Center scope requires that Customer personnel provide access and escorts to mechanical/plumbing areas in which the work is to be performed, and secure passage to and from these areas. Work will not be performed in the immediate presence of inmates.
- Work will not be performed in the immediate presence of inmates. Customer will arrange for temporary relocation of inmates in areas where work is to be performed, while said work is being actively performed. ESCO will collaborate with Customer to schedule this work in advance.

EXCLUSIONS

The following items are excluded from ESCO's scope of work:

- Existing low-flow 1.6 gpf tank-type water closets, kitchen sinks, kitchen spray nozzles, and shower heads
- Costs incurred due to lack of access to work or storage areas.
- Floor tile and other floor covering repairs.
- Repair of existing water damaged floors and/or surfaces.
- Wall tile and other wall covering repairs
- Existing low flow fixtures that cannot be retrofitted for improved performance
- Architectural and/or access modifications for Americans with Disabilities Act (ADA) compliance
- Non-water consuming bathroom fixtures such as toilet paper or soap dispensers
- ADA fixture heights for toilet room(s) for single occupant(s) accessed through a private office and not for common use or public use
- Supply piping beyond individual fixture isolation valve or stop
- Clogs in newly installed equipment due to deteriorated piping or debris from the water supply
- Drainage and/or sewer piping
- Water pressure performance issues
- Repair and replacement of supply water riser/isolation valves
- Operation of supply water riser/isolation valves that are required to turn water off to areas where retrofits are scheduled
- Faucet and/or faucet stem leaks not identified in the Scope of Work
- Leaking and/or faulty angle stops
- Hose bib leaks not identified in the Scope of Work
- Repair of existing basins or leaking parts in shower handles, diverter, or tempering valves for showers
- Any fixture or fixture part not specified in the Scope of Work
- Water closet flanges unless specified in the Scope of Work
- Wall mounted carriers for water closets, sinks, and urinals
- Damage to installed equipment if found to be due to fluctuations in system pressure or due to turning off the water supply
- General exclusions listed at the end of this schedule.

GENERAL EXCLUSIONS

This section provides general exclusions that apply to all scopes of work. For additional scope specific exclusions, refer to the exclusions listed in each scope of work section above.

- Costs of providing access, access control, or security escorts not specified in the Scope of Work.
- Additional labor costs due to restriction of allowable work hours, provided however, ESCO is aware that Customer's facilities are used as public facilities and has been provided the current operating schedules. Any additional cost hereunder shall be limited to costs arising from circumstances of which ESCO was not made aware in writing during the development phase, and that are not reasonably anticipated at the time of this Contract.
- Hazardous materials testing and abatement not specified in the Scope of Work.
- Materials and labor associated with modifications to existing systems and equipment not identified in these documents as included in the Scope of Work.
- Testing, adjusting, and balancing of existing systems not identified in these documents as included in the Scope of Work.
- The cost for utilities including natural or propane gas, fuel oil, electricity, potable or non-potable water during the construction period.
- The cost for equipment and/or utilities to provide temporary heating or cooling of facilities during the construction period.
- The cost for equipment and/or utilities to provide temporary housing, occupant space or storage during the construction period.
- Cost escalation of materials as a result of a delay in the construction schedule caused by Customer action or inaction.
- Inspection and permitting fees for agencies (state and/or federal) other than the local authority having jurisdiction.
- Fees, labor, construction or project delays, or any additional project costs resulting from involvement, or cooperation with, third party engineers acting as Customer's agent. Excludes all damage and performance limitations considered Acts of God.

This Performance Assurance Support Services Agreement ("Agreement"), is by and between Schneider Electric Buildings Americas, Inc. ("ESCO"), and Morgan County, GA ("Customer"). To the extent that the terms and conditions in this Agreement conflict with the terms and conditions in the Contract, the terms and conditions of this Agreement shall control. Any capitalized terms used and not defined herein are as defined in the Contract.

**Schneider Electric Buildings
Americas, Inc.**

By	_____	By	_____
	(Signature)		(Signature)
Print Name	_____	Print Name	_____
Title	_____	Title	_____
Date	_____	Date	_____

This Agreement shall commence at the Savings Guarantee Commencement Date and continue for six (6) years (the "Initial Term") and shall automatically renew for additional one (1) year periods thereafter. After the Initial Term, Customer may terminate this Agreement at any time prior to thirty (30) days to the end of the then current term.

B. SERVICE SCOPE AND PAYMENT

After the end of Initial Term, and each subsequent term thereafter, Customer may either (1) continue with the same level of Services as set forth in the previous term, (2) change the Services level by selecting one or more of the options as set forth in Exhibit A, Section 2 of this Agreement, or (3) terminate this Agreement and the Performance Guarantee in accordance with the termination provisions contained herein.

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1. After the Initial Term, the prices set forth in Exhibit A shall be adjusted upwards annually in accordance with the increase in Consumer Price Index ("CPI").
2. After the Initial Term, payment under this Agreement is due within thirty (30) days of the start of that year's term. ESCO reserves the right to add 1.5% per month to any balance due beyond thirty (30) days of invoice date. Customer acknowledges and understands that all charges are exclusive of any applicable federal, state, or local use, excise, sales taxes or similar fees whether charged to or against ESCO or Customer for the Services. Customer may utilize purchase orders for ease of administration and ordering purposes in implementation of this Agreement (to include: specific products or services, scope of work, quantities, price and delivery terms only), however, no pre-printed, additional, inconsistent or different terms contained or referenced in such purchase order shall have any force or effect, it being the intent of the parties that the terms of this Agreement shall apply.

C. ACCESS

Services provided under this Agreement will be performed during normal working hours (normal working hours shall mean 8:00 a.m. to 5:00 p.m., local time, Monday through Friday, excluding ESCO holidays) unless specifically stated otherwise in this Agreement. However, ESCO may have the need to access Customer facilities during non-normal working hours and on holidays in order to identify and troubleshoot energy savings issues. Therefore, Customer will provide and permit ESCO reasonable access to Customer's facility and equipment to the extent necessary for ESCO'S personnel to perform the Services. Customer shall also provide access to key personnel to discuss facility operating requirements. ESCO will use commercially reasonable efforts to minimize any disturbance with Customer's operations while providing the Services. It will be the Customers responsibility to have available a Security Escort, Police Officer or some type of Security personnel to accompany workers performing any work in or around unrestrained inmates, prisoners or incarcerated people.

D. RELATIONSHIP

Customer and ESCO are independent contracting parties. Nothing in this Agreement shall be construed to make either party or any of its employees, the partner, joint venturer, agent, or legal representative of the other for any purpose whatsoever, nor grants either party any authority to assume or create any obligation on behalf of or in the name of the other party. As an independent contractor, the mode, manner, method and means employed by ESCO in the performance of the terms and conditions of this Agreement shall be of ESCO'S selection and under the sole control and direction of ESCO. Under the terms of this Agreement, neither Customer nor any company in which it owns a controlling interest shall be required to furnish ESCO or any of its employees with any benefits, including but not limited to severance benefits, unemployment compensation or worker's compensation.

E. INSURANCE

Customer and ESCO shall each maintain insurance coverage, including without limitation, Workers' Compensation and Employer's Liability at statutory limits, Automobile Liability covering all owned, hired and other non-owned vehicles, and Commercial General Liability covering public liability and property damage with limits generally required for its respective industry and operations with not less than \$1,000,000 minimum coverage per occurrence. Such insurance shall be with reputable and financially responsible carriers authorized to transact business in the state in which the facility is located and the services are being performed with an A.M. Best's rating of at least A- VII.

F. LIMITATION OF LIABILITY

NEITHER PARTY SHALL BE LIABLE TO THE OTHER FOR ANY INDIRECT, INCIDENTAL, SPECIAL, PUNITIVE OR CONSEQUENTIAL DAMAGE OF ANY KIND, INCLUDING WITHOUT LIMITATION, LOSS OF REVENUE OR PROFIT REGARDLESS OF THE FORM OF ACTION OR THEORY OF RECOVERY, EVEN IF THE PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. THE TOTAL

CUMULATIVE LIABILITY OF ESCO WITH RESPECT TO THIS AGREEMENT OR ANYTHING DONE IN CONNECTION THEREWITH, SUCH AS THE USE OF ANY DELIVERABLE FURNISHED HEREUNDER SHALL NOT EXCEED THE PRICE PAID FOR THE SERVICE PERFORMED THAT GIVES RISE TO THE CLAIM ON WHICH SUCH LIABILITY IS BASED. CUSTOMER AGREES TO THE FOREGOING TO THE EXTENT PERMITTED BY THE CONSTITUTION AND LAWS OF THE STATE OF GEORGIA.

G. EXCUSABLE DELAY

Any delay or failure of either party to perform its obligations hereunder (with the exception of payment) shall be excused, and time to perform extended, and shall not be held liable if and to the extent that the delay or failure to perform is caused by an event or occurrence beyond the reasonable control of the party whose performance is interfered with, and without its fault or negligence and which by the exercise of due diligence, said party is unable to prevent.

H. SUCCESSORS

Neither this Agreement nor any rights arising hereunder may be assigned, pledged, transferred or hypothecated by ESCO without the consent of Customer; such consent cannot be unreasonably withheld. No Work performed pursuant to this Agreement may be subcontracted in whole or in part by ESCO without the prior written consent of Customer; such consent cannot be unreasonably withheld.

I. ENTIRE AGREEMENT

This Agreement sets forth the entire understanding between the parties and supersedes all prior oral or written understandings relating to the subject matter herein. This Agreement may not be altered or modified in any way except by written instrument signed by a duly authorized representative of each party.

J. SEVERABILITY

If any provision of this Agreement shall be held to be invalid, illegal, or unenforceable, the validity, legality and enforceability of the remaining provisions shall not be affected or impaired thereby.

K. GOVERNING LAW

This Agreement will be governed, interpreted and construed by, under and in accordance with the laws, statutes and decisions of the state in which the Services are to be performed, without regard to its choice of law provisions. Venue shall be in the federal, state or municipal courts serving the county in which the Services are performed.

SCHEDULE B: EXHIBIT A

PERFORMANCE ASSURANCE SUPPORT SERVICES

SECTION 1 – SERVICES DURING INITIAL TERM

ESCO shall provide the Performance Assurance Support Services (the “Services”) defined below to Customer during the Initial Term as defined in Schedule B.

CONTRACT YEAR 1

Optimization

Schneider Electric will remotely access your energy management system 2 times each year to perform this service. During each session, the system will be inspected and variables will be compared to a pre-approved list to determine if the system is operating correctly. Any findings that contradict the pre-approved list will be corrected. Additionally, Schneider Electric will inspect the system for other areas of malfunction or energy waste and report those findings for Customer review. All findings, corrected or not corrected, will be reported and that report delivered to customer. Schneider Electric will notify Customer if remote access is not available. Customer is responsible for restoring remote access and notifying Schneider Electric. Schneider Electric is not responsible for providing the planned service session if remote access is unavailable.

Training

Schneider Electric will provide 8 hours of On Site training. Customer will schedule training sessions at least 14 days in advance. Schneider Electric and Customer will work to schedule a mutually acceptable date for each visit. Customer will be responsible for providing access to the training location and paying for any fees associated with that location. The training location must include internet and Customer EMS access. Schneider Electric does not impose any restrictions on the number of Customer employees attending training sessions so long as the location will accommodate that number.

Remote System Monitoring & Reporting

Schneider Electric will remotely access your energy management system on a monthly basis. During each session, the system will be inspected and variables will be compared to the contractual agreement. Additionally, Schneider Electric will inspect the system for other areas of malfunction or energy waste and report those findings for Customer review. All findings will be reported and that report delivered to customer electronically. Schneider Electric will notify Customer if remote access is not available. Customer is responsible for restoring remote access and notifying Schneider Electric. Schneider Electric is not responsible for providing the planned service session if remote access is unavailable.

Remote Energy Management, Training & Technical Support

Schneider Electric will provide 39 hours of remote energy management support. This time can be used for any of the following activities including scheduling, system adjustment, on-demand remote energy management system training or technical support. All Remote Support is client initiated and it is the expectation of Schneider Electric that if a client does not remain on the phone for the duration of the time required to accomplish the task, the customer will accept the time, up to the limit of the hours already purchased and not used, that the Schneider Electric representative documents as used for that task. No credit will be given towards future years if all of the 39 hours are not used by the end of the project year. If all of the hours are exhausted at any time before the end of the year, additional hours can be purchased in 10 hour blocks which will remain available for use until the end of the next project year.

Measurement & Verification with Savings Reporting Portal

Schneider Electric will perform the measurement & verification as outlined in the M&V plan and will update the energy savings and performance portal as data is received. This website contains charts and graphs showing the energy savings by month and by meter for the project. Customer will be given web access to the Schneider Electric eSavings website for the contacts specified by Customer. Changes to that contact list can be made at any time. Data can only be updated on this website if utility bills and other necessary information are provided. If bills and other necessary information are not provided, Schneider Electric is not responsible for maintaining updated information in the energy savings and performance portal until the missing data is provided.

On-Site Visit

Schneider Electric will provide On-Site Energy Consulting consisting of 4 site visits in year 1. This service will include a site assessment to determine current conditions and identify areas of improvement. Each site visit will be documented in a report indicating the findings and outlining a plan for further improvement. Customer is responsible for providing access to all mechanical and electrical equipment and any supervision required by Customer. Site visits must be requested 14 days or more prior to the requested date. Schneider Electric and Customer will work to schedule a mutually acceptable date for each visit.

CONTRACT YEAR 2

Optimization

Schneider Electric will remotely access your energy management system 2 times each year to perform this service. During each session, the system will be inspected and variables will be compared to a pre-approved list to determine if the system is operating correctly. Any findings that contradict the pre-approved list will be corrected. Additionally, Schneider Electric will inspect the system for other areas of malfunction or energy waste and report those findings for Customer review. All findings, corrected or not corrected, will be reported and that report delivered to customer. Schneider Electric will notify Customer if remote access is not available. Customer is responsible for restoring remote access and notifying Schneider Electric. Schneider Electric is not responsible for providing the planned service session if remote access is unavailable.

Training

Schneider Electric will provide 8 hours of On Site training. Customer will schedule training sessions at least 14 days in advance. Schneider Electric and Customer will work to schedule a mutually acceptable date for each visit. Customer will be responsible for providing access to the training location and paying for any fees associated with that location. The training location must include internet and Customer EMS access. Schneider Electric does not impose any restrictions on the number of Customer employees attending training sessions so long as the location will accommodate that number.

Remote System Monitoring & Reporting

Schneider Electric will remotely access your energy management system on a monthly basis. During each session, the system will be inspected and variables will be compared to the contractual agreement. Additionally, Schneider Electric will inspect the system for other areas of malfunction or energy waste and report those findings for Customer review. All findings will be reported and that report delivered to customer electronically. Schneider Electric will notify Customer if remote access is not available. Customer is responsible for restoring remote access and notifying Schneider Electric. Schneider Electric is not responsible for providing the planned service session if remote access is unavailable.

Remote Energy Management, Training & Technical Support

Schneider Electric will provide 39 hours of remote energy management support. This time can be used for any of the following activities including scheduling, system adjustment, on-demand remote energy management system training or technical support. All Remote Support is client initiated and it is the expectation of Schneider Electric that if a client does not remain on the phone for the duration of the time required to accomplish the task, the customer will accept the time, up to the limit of the hours already purchased and not used, that the Schneider Electric representative documents as used for that task. No credit will be given towards future years if all of the 39 hours are not used by the end of the project year. If all of the hours are exhausted at any time before the end of the year, additional hours can be purchased in 10 hour blocks which will remain available for use until the end of the next project year.

Measurement & Verification with Savings Reporting Portal

Schneider Electric will perform the measurement & verification as outlined in the M&V plan and will update the energy savings and performance portal as data is received. This website contains charts and graphs showing the energy savings by month and by meter for the project. Customer will be given web access to the Schneider Electric eSavings website for the contacts specified by Customer. Changes to that contact list can be made at any time. Data can only be updated on this website if utility bills and other necessary information are provided. If bills and other necessary information are not provided, Schneider Electric is not responsible for maintaining updated information in the energy savings and performance portal until the missing data is provided.

On-Site Visit

Schneider Electric will provide On-Site Energy Consulting consisting of 2 site visits in year 2. This service will include a site assessment to determine current conditions and identify areas of improvement. Each site visit will be documented in a report indicating the findings and outlining a plan for further improvement. Customer is responsible for providing access to all mechanical and electrical equipment and any supervision required by Customer. Site visits must be requested 14 days or more prior to the requested date. Schneider Electric and Customer will work to schedule a mutually acceptable date for each visit.

CONTRACT YEAR 3-6

Remote System Monitoring & Reporting

Schneider Electric will remotely access your energy management system on a monthly basis. During each session, the system will be inspected and variables will be compared to the contractual agreement. Additionally, Schneider Electric will inspect the system for other areas of malfunction or energy waste and report those findings for Customer review. All findings will be reported and that report delivered to customer. Schneider Electric will notify Customer if remote access is not available Customer is responsible for restoring remote access and notifying Schneider Electric. Schneider Electric is not responsible for providing the planned service session if remote access is unavailable. If all of the hours are exhausted at any time before the end of the year, additional hours can be purchased in 10 hour blocks which will remain available for use until the end of the next project year.

Measurement & Verification with Savings Reporting Portal

Schneider Electric will perform the measurement & verification as outlined in the M&V plan and will update the energy savings and performance portal as data is received. This website contains charts and graphs showing the energy savings by month and by meter for the project. Customer will be given web access to the Schneider Electric eSavings website for the contacts specified by Customer. Changes to that contact list can be made at any time. Data can only be updated on this website if utility bills and other necessary information are provided. If bills and other necessary information are not provided, Schneider Electric is not

responsible for maintaining updated information in the energy savings and performance portal until the missing data is provided.

On-Site Visit

Schneider Electric will provide On-Site Energy Consulting consisting of 2 site visits in years 3 through 6. This service will include a site assessment to determine current conditions and identify areas of improvement. Each site visit will be documented in a report indicating the findings and outlining a plan for further improvement. Customer is responsible for providing access to all mechanical and electrical equipment and any supervision required by Customer. Site visits must be requested 14 days or more prior to the requested date. Schneider Electric and Customer will work to schedule a mutually acceptable date for each visit.

SECTION 2 – SERVICES AFTER INITIAL TERM

After the end of Initial Term and each subsequent term thereafter, Customer may either (1) renew the same level of Service as set forth in the Initial Term or previous term, (2) change the Service level by selecting one or more of the options defined below, or (3) terminate this Agreement and the Savings Guarantee in accordance with the termination provisions contained herein. All prices will be calculated at the time of renewal.

PROPOSED SERVICES: \$21,067

Remote System Monitoring & Reporting

Schneider Electric will remotely access your energy management system on a monthly basis. During each session, the system will be inspected and variables will be compared to the contractual agreement. Additionally, Schneider Electric will inspect the system for other areas of malfunction or energy waste and report those findings for Customer review. All findings will be reported and that report delivered to customer electronically. Schneider Electric will notify Customer if remote access is not available. Customer is responsible for restoring remote access and notifying Schneider Electric. Schneider Electric is not responsible for providing the planned service session if remote access is unavailable.

Remote Energy Management, Training & Technical Support

Schneider Electric will provide 26 hours of remote energy management support. This time can be used for any of the following activities including scheduling, system adjustment, on-demand remote energy management system training or technical support. All Remote Support is client initiated and it is the expectation of Schneider Electric that if a client does not remain on the phone for the duration of the time required to accomplish the task, the customer will accept the time, up to the limit of the hours already purchased and not used, that the Schneider Electric representative documents as used for that task. No credit will be given towards future years if all of the 26 hours are not used by the end of the project year. If all of the hours are exhausted at any time before the end of the year, additional hours can be purchased in 10 hour blocks which will remain available for use until the end of the next project year.

Measurement & Verification with Savings Reporting Portal

Schneider Electric will perform the measurement & verification as outlined in the M&V plan and will update the energy savings and performance portal as data is received. This website contains charts and graphs showing the energy savings by month and by meter for the project. Customer will be given web access to the Schneider Electric eSavings website for the contacts specified by Customer. Changes to that contact list can be made at any time. Data can only be updated on this website if utility bills and other necessary information are provided. If bills and other necessary information are not provided, Schneider Electric is not responsible for maintaining updated information in the energy savings and performance portal until the missing data is provided.

On-Site Visit

Schneider Electric will provide On-Site Energy Consulting consisting of 2 site visits in year 2. This service will include a site assessment to determine current conditions and identify areas of improvement. Each site visit will be documented in a report indicating the findings and outlining a plan for further improvement. Customer is responsible for providing access to all mechanical and electrical equipment and any supervision required by Customer. Site visits must be requested 14 days or more prior to the requested date. Schneider Electric and Customer will work to schedule a mutually acceptable date for each visit.

The available service options may be amended from time to time at the sole discretion of ESCO.

SCHEDULE C PERFORMANCE GUARANTEE

The Performance Guarantee provided by ESCO will be as follows:

Year	Measured Savings	Non-Measured Savings	Annual Guaranteed Savings	Cumulative Guaranteed Savings	Annual Projected Savings*	Cumulative Projected Savings*
1	\$39,266	\$55,543	\$94,809	\$94,809	\$101,016	\$101,016
2	\$40,393	\$57,137	\$97,530	\$192,339	\$103,915	\$204,931
3	\$41,552	\$58,777	\$100,329	\$292,668	\$106,898	\$311,829
4	\$42,745	\$60,464	\$103,209	\$395,877	\$109,965	\$421,794
5	\$43,972	\$62,199	\$106,171	\$502,047	\$113,121	\$534,916
6	\$45,234	\$63,984	\$109,218	\$611,265	\$116,368	\$651,284
7	\$46,532	\$65,821	\$112,352	\$723,617	\$119,708	\$770,992
8	\$47,867	\$67,710	\$115,577	\$839,194	\$123,143	\$894,135
9	\$49,241	\$69,653	\$118,894	\$958,088	\$126,678	\$1,020,813
10	\$50,654	\$71,652	\$122,306	\$1,080,394	\$130,313	\$1,151,126
11	\$52,108	\$73,708	\$125,816	\$1,206,211	\$134,053	\$1,285,179
12	\$53,603	\$75,824	\$129,427	\$1,335,638	\$137,901	\$1,423,080
13	\$55,142	\$78,000	\$133,142	\$1,468,780	\$141,858	\$1,564,938
14	\$56,724	\$80,239	\$136,963	\$1,605,743	\$145,930	\$1,710,868
15	\$58,352	\$82,541	\$140,894	\$1,746,636	\$150,118	\$1,860,986
16	\$60,027	\$84,910	\$144,937	\$1,891,574	\$154,426	\$2,015,412
17	\$61,750	\$87,347	\$149,097	\$2,040,671	\$158,858	\$2,174,271
18	\$63,522	\$89,854	\$153,376	\$2,194,047	\$163,418	\$2,337,688
19	\$65,345	\$92,433	\$157,778	\$2,351,825	\$168,108	\$2,505,796
20	\$67,221	\$95,086	\$162,306	\$2,514,132	\$172,932	\$2,678,728
Total	\$1,041,250	\$1,472,882	\$2,514,132	\$2,514,132	\$2,678,728	\$2,678,728

*Denotes calculated Projected Savings, not Guaranteed Savings.

NOTWITHSTANDING ANYTHING TO THE CONTRARY CONTAINED HEREIN, OR IN ANY CONTRACT DOCUMENT, IN THE EVENT THAT THE PERFORMANCE ASSURANCE SUPPORT SERVICES AGREEMENT IS CANCELED OR TERMINATED BY CUSTOMER FOR ANY REASON, THE PERFORMANCE GUARANTEE SET FORTH IN THIS SCHEDULE C SHALL BE DEEMED TO HAVE BEEN MET AND FULFILLED AS OF THE EFFECTIVE TERMINATION DATE OF THE PERFORMANCE ASSURANCE SUPPORT SERVICES AGREEMENT AND ESCO SHALL HAVE NO FURTHER OBLIGATIONS OR LIABILITIES ASSOCIATED WITH SUCH PERFORMANCE GUARANTEE.

The procedure used to calculate savings is described in Schedule D.

GUARANTEED SAVINGS RECONCILIATION

Customer, if required, will send ESCO all necessary utility or energy data as set forth in Schedule E herein. Within sixty (60) days of receipt of such information for the previous Guarantee Year, ESCO will determine the Actual Savings for such Guarantee Year hereafter defined as "Guaranteed Savings Reconciliation".

In the event the Actual Savings for the corresponding twelve (12) months are less than the Annual Savings Guarantee, ESCO will pay Customer the difference between the Annual Savings Guarantee and the Actual Savings for the corresponding twelve (12) months ("Savings Shortfall"). ESCO will make payments for any Savings Shortfall to Customer within thirty (30) days of that year's Guaranteed Savings Reconciliation.

SCHEDULE D MEASUREMENT & VERIFICATION PLAN

PROJECTED ANNUAL SAVINGS

The Performance Guarantee as established in Schedule C shall consist of savings from multiple scopes of work. The projected savings from each scope of work is presented in the table below.

Facility	Annual Projected Savings		
	Consumption	Demand	Units
Public Safety Complex Electric	517,745	715	kWh, kW
Public Safety Complex Gas	(1,223)	-	CCF
Public Safety Complex Water	694	-	kgal
Courthouse Electric	92,885	(40)	kWh, kW
Courthouse Gas	3,268	-	CCF
Courthouse Water	4	-	kgal
Aquatic Center Electric	4,565	(131)	kWh, kW
Aquatic Center Gas	712	-	CCF
Aquatic Center Water	112	-	kgal
Admin Building	26,987	152	kWh, kW
Senior Center	3,687	15	kWh, kW

The projected savings in the table above are provided for reference only and are not intended to construe a savings guarantee by meter, facility, or energy unit. The savings guarantee is fully defined in Schedule C.

ENERGY, WATER, AND OPERATIONS & MAINTENANCE (O&M) RATE DATA

The cost of energy in any period will be determined by applying the rates as defined below with a 2.87% annual escalation ("Baseline Energy Rates"), or the actual energy rates during the period, at the discretion of ESCO, to the energy used in a given period for each fuel type.

Utility Company:	Madison County Utilities		
Rate Schedule:	GBAL2300&GB3M&GB5M		
Component	Charge	Unit	Description
Usage Charge	\$0.883	per CCF	Applies to all CCF each billing period

Utility Company:	Georgia Power		
Rate Schedule:	PLM		
Component	Charge	Unit	Description
Base Service Charge	\$19.00		Applies each billing period
Energy Charge - Demand Tier 1	\$0.011437	per kWh	Applies to kWh above 200*Billed kW through 400*Billed kW
Energy Charge - Demand Tier 2	\$0.008606	per kWh	Applies to kWh above 400*Billed kW through 600*Billed kW
Energy Charge - Demand Tier 3	\$0.007486	per kWh	Applies to kWh above 600*Billed kW
Energy Charge - Tier 1	\$0.112561	per kWh	Applies to kWh from 200*Billed kW up to 3,000 kWh
Energy Charge - Tier 2	\$0.103091	per kWh	Applies to kWh from 3,000 up to 10,000 kWh
Energy Charge - Tier 3	\$0.088885	per kWh	Applies to kWh from 10,000 up to 200,000 kWh
Energy Charge - Tier 4	\$0.068955	per kWh	Applies to kWh over 200,000
Fuel Cost Recovery June-September	\$0.031718	per kWh	Applies to all kWh during billing months of June-September
Fuel Cost Recovery October-May	\$0.028813	per kWh	Applies to all kWh during billing months of October-May
Environmental Compliance, Nuclear Construction, and Demand Management Charges	23.6241%	per \$	Applies to the sum of all Energy Charges, Demand Charge, and Base Service Charge
Municipal Franchise Fee	2.9989%	per \$	Applies to the sum of all of the above charges
Determination of Billed kW June-	Billed kW for June through September will be the maximum of the current month's kW, 95%		

September:	of the maximum kW occurring the previous June-September, or 60% of the the maximum kW occurring the previous May-October.
Determination of Billed kW May-October:	Billed kW for May through October will be the maximum of 95% of the maximum kW occurring the previous June-September, or 60% of the the maximum kW occurring the previous May-October.

Utility Company:	Georgia Power		
Rate Schedule:	TOU GSD		
Component	Charge	Unit	Description
Base Service Charge	\$209.00		Applies each billing period
Energy Charge - On Peak kWh	\$0.122372	per kWh	Applies to on peak kWh
Energy Charge - Shoulder kWh	\$0.062514	per kWh	Applies to shoulder kWh
Energy Charge - Off Peak kWh	\$0.023541	per kWh	Applies to off peak kWh
Demand Charge - On Peak kW	\$15.660000	per kW	Applies to on peak kW
Demand Charge - Int Peak kW	\$5.230000	per kW	Applies to int peak kW
Demand Charge - Off Peak kW	\$5.230000	per kW	Applies to off peak kW
ECCR, DSMS, MFF, and NCCR Charges	26.622.87%	per \$	Applies to all Energy, Demand, and Base Service Charges
FCR June-September	\$0.031718	per kWh	Applies to the sum of shoulder and off peak kWh
FCR October-May	\$0.028813	per kWh	Applies to on peak kWh
Determination of Billed kW:	Billed kW is the maximum of on peak kW, int peak kW, and off peak kW.		

COMMON ECM ASSUMPTIONS

WEATHER DATA SOURCE

Data for weather compensation adjustments will be actual climate data obtained from the National Weather Service Station at Athens-Ben Epps Airport (AHN). In the event the specified weather station is deactivated, weather data will be collected from the nearest weather station with suitable observations. If the data source becomes unavailable or a superior source is identified, ESCO may select an alternative data source with Customer's approval.

ANNUAL CALENDAR OF EVENTS

Provided below is a table summarizing the annual calendar of events that will be used as a basis in calculations, unless otherwise specified. In the event that there are any changes or deviations to this annual calendar, an appropriate adjustment will be made in accordance with the "Adjustment Schedule" set forth in Schedule E.

Date(s)	Event
1-Jan	New Year's Day
15-Jan	MLK Jr. Day
30-Mar	Good Friday
28-May	Memorial Day
4-Jul	Independence Day

Date(s)	Event
3-Sep	Labor Day
12-Nov	Veteran's Day
22-Nov, 23-Nov	Thanksgiving
24-Dec, 25-Dec	Christmas

BUILDING OCCUPANCY SCHEDULES

Provided below is a table summarizing the building occupancy schedules used within the calculations, unless otherwise specified. In the event that there are any changes or deviations to this occupancy schedule, an appropriate adjustment will be made in accordance with the Adjustment Schedule set forth in Schedule E.

Facility	Day Type	Daily Schedule
Public Safety Complex	All	7am - 6pm
Courthouse	Weekday	7am - 6pm
Courthouse	Saturday	7am - 1pm
Courthouse	Sunday & Holidays	Unoccupied

STANDARDS OF SERVICE AND COMFORT

Provided below is a table summarizing the temperature setpoints used within the calculations, unless otherwise specified. Customer agrees to operate the conditioned spaces in the facilities within the temperature ranges scheduled in the table below. In the event that there are any changes or deviations to these standards of service and comfort, an appropriate adjustment will be made in accordance with the Adjustment Schedule set forth in Schedule E.

	Heating	Cooling
Occupied	70°F	72°F
Unoccupied	60°F	80°F

For the Aquatic Center, the new Pool Unit will run in dehumidification mode to maintain the humidity range below. Should circumstances outside of the control of ESCO create an environment where high humidity causes excessive runtime of the Pool Unit, an appropriate adjustment will be made in accordance with the Adjustment Schedule set forth in Schedule E.

Low	High
50%	60%

MEASUREMENT & VERIFICATION DETAILS

OPTION A – LIGHTING EFFICIENCY AND CONTROLS

- A. Overview of M&V Plan, and Savings Calculation
- B. Energy Savings Calculations
- C. Key Parameter Measurement Strategy
- D. Parameter Estimates
- E. Cost Savings Calculations

A. Overview of M&V Plan, and Savings Calculation

Savings in this section are determined by using an “Option A: Retrofit Isolation – Key Parameter Measurement” approach as described in the International Performance Measurement & Verification Protocol (IPMVP Volume I, EVO 10000-1:2012). The remainder of this section describes the energy savings calculations, key parameter measurements that will be conducted, parameters that will be estimated and those values, and how cost savings will be calculated. The energy and cost savings that are determined using this approach will be the annual savings values used for each year of the Performance Period.

B. Energy Savings Calculations

Provided within this section is an explanation of the calculations that will be used to perform energy savings calculations for this verification method.

Equations and Analysis of Energy Savings

Savings are calculated as the difference in energy usage from the baseline conditions, and the Performance Period conditions.

For energy demand, the demand savings will be determined for each fixture and summed for all fixtures that will be retrofitted using the following formula:

Equation 1 – Energy Demand Savings

$$D_{save} = \sum_{i=1}^n [(E_{Pre} - E_{Post}) \times F \times M]_i$$

Where,

D_{save} = Demand savings

n = Number of fixtures

E_{Pre} = Power usage of the baseline lighting conditions

E_{Post} = Power usage of the Performance Period lighting conditions

F = Demand diversity factor

M = Equivalent months of annual demand savings

For energy consumption, the energy savings will be determined for each fixture and summed for all fixtures that will be retrofitted using the following formula:

Equation 2 – Energy Consumption Savings

$$E_{save} = \sum_{i=1}^n [E_{Pre} \times H_{Pre} - E_{Post} \times H_{Post}]_i$$

Where,

E_{save} = Energy savings
 H_{Pre} = Baseline burn hours
 H_{Post} = Performance Period burn hours

The energy usage of both the baseline and Performance Period lighting conditions are calculated utilizing the same equations. The measured parameters collected during the pre-implementation period will be used to compute the baseline fixture power use. The measured parameters collected during the post-implementation period will be used to compute the Performance Period fixture power use. The equations for a single fixture for both the baseline and Performance Period are shown below using the baseline calculations as an example.

Equation 3 – Fixture Lighting Power Use

$$E_{\text{Fixt,Pre}} = (P \times (1 - B))_{\text{Pre}} \times Q$$

Where,

P = Pre-implementation power draw of light fixture
 Q = Quantity of associated light fixture
 B = Burnout rate of associated light fixture

C. Key Parameter Measurement Strategy

This section outlines the measurements that will be conducted to determine the measured values in the equations provided above in Paragraph B. For this lighting project, the key parameters that will be measured are the power consumption of each fixture type and the burn hours for each occupancy type. Measurement and documentation strategies for each project phase are outlined below.

Pre-Implementation Measurements and Documentation

Power measurements will be taken on a sample set of baseline fixture types to determine the average power use for that fixture type. The minimum sample sizes and precision of results are different depending on the number of fixtures included in the project. The most common fixtures will have a high degree of certainty in the results, while the least common fixtures will have greater uncertainty in order to ensure measurement costs are commensurate with performance risk. Three different classes of measurement requirements are included:

1. Fixture types with less than 20 total fixtures will not be measured. The power shown in the table below will be used in all calculations.
2. Fixture types with 20 – 100 total fixtures will have at least 4 measurements taken. Measurements will continue to be taken until the 90% confidence interval for the true population mean spans no more than 10% above and below the mean of the sample.
3. Fixture types with more than 100 total fixtures will have at least 10 measurements taken. Measurements will continue to be taken until the 95% confidence interval for the true population mean spans no more than 5% above and below the mean of the sample.

The mean of a sample set will be treated as the power consumption for that fixture type for all savings calculations. The table below lists each fixture type to be measured, the estimated power of that fixture type, the total quantity of that fixture type, and the minimum amount to be measured prior to removing the fixtures to implement the retrofit. As stated above, more measurements may be needed if the sampled fixtures have too much variance.

Fixture Code	Estimated Power (W)	Total Fixtures	Minimum Sample
250W MH	288	2	0
23W CFL	23	38	4
4ft 32W 2T8	58	77	4
2ft 32W 2T8	58	18	0
4ft 32W 3T8	86	173	10

4ft 32W 1T8	30	11	0
65W Incandescent	65	45	4
69W CFL	69	2	0
4ft 34W 3T12	118	1	0
4ft 34W 2T12	74	3	0
46W CFL	46	3	0
2ft 34W 2T12	74	1	0
36W LED	36	9	0
8ft 32W 4T8	112	22	4
3ft 25W 1T8	23	2	0
8ft 34W 4T12	148	1	0
60W Incandescent	60	2	0
150W Halogen	150	1	0
12W LED	12	6	0

Post-Implementation Measurements and Documentation

Power measurements will be taken on a sample set of Performance Period fixture types to determine the average power use for that fixture type. The minimum sample sizes and precision of results are different depending on the number of fixtures included in the project. The most common fixtures will have a high degree of certainty in the results, while the least common fixtures will have greater uncertainty in order to ensure measurement costs are commensurate with performance risk. Three different classes of measurement requirements are included:

1. Fixture types with less than 20 total fixtures will not be measured. The power shown in the table below will be used in all calculations.
2. Fixture types with 20 – 100 total fixtures will have at least 4 measurements taken. Measurements will continue to be taken until the 90% confidence interval for the true population mean spans no more than 10% above and below the mean of the sample.
3. Fixture types with more than 100 total fixtures will have at least 10 measurements taken. Measurements will continue to be taken until the 95% confidence interval for the true population mean spans no more than 5% above and below the mean of the sample.

The mean of each sample set will be treated as the power consumption for that fixture type for all savings calculations. The preferred locations for measurements for the new retrofit types will be locations where some previous measurement was taken. The number of post-retrofit samples measured is independent from the number of pre-retrofit samples taken. These measurements are taken to determine the average power use of each fixture type, not the reduction of power use in any specific locations. All measurements will be taken using the same equipment and will be calibrated. The table below lists each fixture type to be measured, the estimated power of that fixture type, the total quantity of that fixture type, and the minimum amount to be measured during the post-implementation period.

Fixture Code	Estimated Power (W)	Total Fixtures	Minimum Sample
20W LED	20	2	0
120W LED Flood	120	2	0
29W TLED	29	32	4
27W TLED	27	35	4
31W TLED	31	168	10
18W TLED	18	18	0
12W 1TLED	12	13	0
12W 2TLED	24	14	0
12W 3TLED	36	11	0
12W 4TLED	48	23	4
36W LED	37	9	0
18W LED	18	46	4
15W LED	15	13	0
11W LED	11	2	0
9W LED	9	4	0
12W LED	12	24	4
24W LED	24	1	0

Performance Period Measurements and Documentation

No additional measurements will be taken during the Performance Period of this M&V strategy.

D. Parameter Estimates

Of the parameters identified under the equations for energy savings in Section B, several of the parameters are estimates, and will not be measured during any period of the project. Of the variables identified, the parameters that will be estimated for this particular ECM and M&V strategy include: burn hours (for fixtures without occupancy sensors), demand diversity factors, and burnout rates. This information is provided for each grouping of fixtures in the table below. Common information that applies to all fixtures groups is included below:

Building	Area	Room Name	Qty	Pre Fixture	Pre Power (W)	Post Fixture	Post Power (W)	Annual Hours
ADMIN BUILDING	EXTERIOR	PARKING LOT	1	250W MH	288	120W LED Flood	120	4380
ADMIN BUILDING	EXTERIOR	PARKING LOT	1	250W MH	288	120W LED Flood	120	4380
ADMIN BUILDING	EXTERIOR	WEST ENTRANCE	2	23W CFL	23	20W LED	20	4380
ADMIN BUILDING	INTERIOR	CERAMIC CRAFTS ROOM	7	4ft 32W 2T8	58	27W TLED	27	2088
ADMIN BUILDING	INTERIOR	DIRECTORS OFFICE	6	2ft 32W 2T8	58	18W TLED	18	2088
ADMIN BUILDING	INTERIOR	KITCHEN DRY STORAGE CLOSET	1	4ft 32W 2T8	58	27W TLED	27	2088
ADMIN BUILDING	INTERIOR	STAFF OFFICE	6	2ft 32W 2T8	58	18W TLED	18	2088
ADMIN BUILDING	INTERIOR	STAFF RESTROOM	1	4ft 32W 2T8	58	27W TLED	27	2088
ADMIN BUILDING	INTERIOR	TRANSIT OFFICE	6	2ft 32W 2T8	58	18W TLED	18	2088
ADMIN BUILDING	INTERIOR - 1ST	ACCOUNTS PAYABLE OFFICE	1	4ft 32W 2T8	58	27W TLED	27	2129
ADMIN BUILDING	INTERIOR - 1ST	AMYS OFFICE	2	4ft 32W 3T8	86	31W TLED	31	2129
ADMIN BUILDING	INTERIOR - 1ST	AMYS OFFICE	1	4ft 32W 1T8	30	12W 1TLED	12	2129
ADMIN BUILDING	INTERIOR - 1ST	APPLICATION OFFICE	2	4ft 32W 2T8	58	27W TLED	27	2129
ADMIN BUILDING	INTERIOR - 1ST	ASHLEY'S OFFICE	1	4ft 32W 2T8	58	27W TLED	27	2129
ADMIN BUILDING	INTERIOR - 1ST	BOARD OF COMMISSIONERS HALLWAY	9	4ft 32W 3T8	86	31W TLED	31	2129
ADMIN BUILDING	INTERIOR - 1ST	BREAK AREA OUTSIDE KITCHENETTE	3	4ft 32W 3T8	86	31W TLED	31	2129
ADMIN BUILDING	INTERIOR - 1ST	CLERK STORAGE ROOM	1	4ft 32W 3T8	86	12W 3TLED	36	2129
ADMIN BUILDING	INTERIOR - 1ST	CLOSET NEXT TO LORI'S OFFICE ACROSS FROM MENS RESTROOM	1	23W CFL	23	18W LED	18	2129
ADMIN BUILDING	INTERIOR - 1ST	COMMISSIONERS CONFERENCE ROOM	2	4ft 32W 3T8	86	31W TLED	31	2129
ADMIN BUILDING	INTERIOR - 1ST	COMMISSIONERS CONFERENCE ROOM	2	65W Incandescent	65	18W LED	18	2129
ADMIN BUILDING	INTERIOR - 1ST	COMMISSIONERS MEETING ROOM	4	4ft 32W 3T8	86	12W 3TLED	36	2129
ADMIN BUILDING	INTERIOR - 1ST	COMMISSIONERS MEETING ROOM	1	23W CFL	23	18W LED	18	2129

ADMIN BUILDING	INTERIOR - 1ST	COMMISSIONERS MEETING ROOM	12	65W Incandescent	65	18W LED	18	2129
ADMIN BUILDING	INTERIOR - 1ST	COMMISSIONERS WORKROOM	1	4ft 32W 3T8	86	31W TLED	31	2129
ADMIN BUILDING	INTERIOR - 1ST	COPY ROOM	1	4ft 32W 3T8	86	12W 3TLED	36	2129
ADMIN BUILDING	INTERIOR - 1ST	COUNTY MANAGERS OFFICE	8	23W CFL	23	18W LED	18	2129
ADMIN BUILDING	INTERIOR - 1ST	COUNTY MANAGERS PRIVATE RESTROOM	1	69W CFL	69	12W 3TLED	36	2129
ADMIN BUILDING	INTERIOR - 1ST	CUSTODIAL CLOSET	1	4ft 34W 3T12	118	31W TLED	31	2129
ADMIN BUILDING	INTERIOR - 1ST	DEBBYS OFFICE	3	4ft 32W 3T8	86	31W TLED	31	2129
ADMIN BUILDING	INTERIOR - 1ST	DEBBYS OFFICE	1	4ft 32W 1T8	30	12W 1TLED	12	2129
ADMIN BUILDING	INTERIOR - 1ST	ELEVATOR MECHANICAL ROOM	1	4ft 34W 2T12	74	12W 2TLED	24	2129
ADMIN BUILDING	INTERIOR - 1ST	EXECUTIVE RESTROOM	1	46W CFL	46	12W 3TLED	36	2129
ADMIN BUILDING	INTERIOR - 1ST	EXECUTIVE RESTROOM	1	23W CFL	23	18W LED	18	2129
ADMIN BUILDING	INTERIOR - 1ST	FILE ROOM	2	4ft 32W 2T8	58	27W TLED	27	2129
ADMIN BUILDING	INTERIOR - 1ST	GUYS OFFICE	2	4ft 32W 3T8	86	31W TLED	31	2129
ADMIN BUILDING	INTERIOR - 1ST	HALLWAY OUTSIDE STAIRWELL	6	4ft 32W 2T8	58	29W TLED	29	2129
ADMIN BUILDING	INTERIOR - 1ST	JANET'S OFFICE	1	2ft 34W 2T12	74	29W TLED	29	2129
ADMIN BUILDING	INTERIOR - 1ST	JANET'S OFFICE	2	4ft 32W 3T8	86	31W TLED	31	2129
ADMIN BUILDING	INTERIOR - 1ST	JUSTINS OFFICE	2	4ft 32W 3T8	86	31W TLED	31	2129
ADMIN BUILDING	INTERIOR - 1ST	JUSTINS OFFICE	1	4ft 32W 1T8	30	12W 1TLED	12	2129
ADMIN BUILDING	INTERIOR - 1ST	KITCHENETTE	1	4ft 32W 3T8	86	31W TLED	31	2129
ADMIN BUILDING	INTERIOR - 1ST	KITCHENETTE OFF TAX ASSESSORS OFFICE	2	4ft 32W 2T8	58	29W TLED	29	2129
ADMIN BUILDING	INTERIOR - 1ST	LADIES RESTROOM	2	4ft 32W 2T8	58	27W TLED	27	2129
ADMIN BUILDING	INTERIOR - 1ST	LADIES RESTROOM	2	46W CFL	46	12W 3TLED	36	2129
ADMIN BUILDING	INTERIOR - 1ST	LESLIE'S OFFICE	3	4ft 32W 2T8	58	27W TLED	27	2129
ADMIN BUILDING	INTERIOR - 1ST	LOBBY	7	23W CFL	23	18W LED	18	2129
ADMIN BUILDING	INTERIOR - 1ST	LORIS OFFICE	3	4ft 32W 3T8	86	31W TLED	31	2129
ADMIN BUILDING	INTERIOR - 1ST	LOWER COURTROOM	9	36W LED	36	36W LED	37	2129
ADMIN BUILDING	INTERIOR - 1ST	MAIN BREAK ROOM	3	4ft 32W 2T8	58	27W TLED	27	2129
ADMIN BUILDING	INTERIOR - 1ST	MARKS OFFICE	3	4ft 32W 2T8	58	29W TLED	29	2129
ADMIN BUILDING	INTERIOR - 1ST	MARYS OFFICE	4	4ft 32W 3T8	86	31W TLED	31	2129
ADMIN BUILDING	INTERIOR - 1ST	MARYS OFFICE	1	4ft 32W 1T8	30	12W 1TLED	12	2129
ADMIN BUILDING	INTERIOR - 1ST	MENS RESTROOM	1	4ft 32W 2T8	58	27W TLED	27	2129
ADMIN BUILDING	INTERIOR - 1ST	MENS RESTROOM	1	69W CFL	69	12W 3TLED	36	2129
ADMIN BUILDING	INTERIOR - 1ST	MENS RESTROOM BY MAIN BREAKROOM	1	4ft 32W 2T8	58	29W TLED	29	2129
ADMIN BUILDING	INTERIOR - 1ST	REBECCA'S OFFICE	1	4ft 32W	86	31W	31	2129

	1ST			3T8		TLED		
ADMIN BUILDING	INTERIOR - 1ST	REBECCA'S OFFICE (TAX COMMISSIONER)	3	4ft 32W 3T8	86	31W TLED	31	2129
ADMIN BUILDING	INTERIOR - 1ST	RECEPTION OFFICE	1	4ft 32W 2T8	58	12W 2TLED	24	2129
ADMIN BUILDING	INTERIOR - 1ST	ROBERTS OFFICE	4	4ft 32W 3T8	86	31W TLED	31	2129
ADMIN BUILDING	INTERIOR - 1ST	ROBERTS OFFICE	1	4ft 32W 1T8	30	12W 1TLED	12	2129
ADMIN BUILDING	INTERIOR - 1ST	SE STAIRWELL	1	4ft 32W 3T8	86	31W TLED	31	2129
ADMIN BUILDING	INTERIOR - 1ST	SE STAIRWELL	1	4ft 32W 3T8	86	31W TLED	31	2129
ADMIN BUILDING	INTERIOR - 1ST	SMALL STORAGE IN TAX COMMISSIONERS OFFICE, ACCROSS FROM JANET'S OFFICE	1	4ft 32W 2T8	58	12W 2TLED	24	2129
ADMIN BUILDING	INTERIOR - 1ST	SOUTH VESTIBULE	2	4ft 32W 2T8	58	29W TLED	29	2129
ADMIN BUILDING	INTERIOR - 1ST	STAIRWELL	1	4ft 32W 3T8	86	31W TLED	31	2129
ADMIN BUILDING	INTERIOR - 1ST	STAIRWELL	1	4ft 32W 3T8	86	31W TLED	31	2129
ADMIN BUILDING	INTERIOR - 1ST	STORAGE GARAGE NORTH	13	8ft 32W 4T8	112	12W 4TLED	48	2129
ADMIN BUILDING	INTERIOR - 1ST	STORAGE GARAGE SOUTH	9	8ft 32W 4T8	112	12W 4TLED	48	2129
ADMIN BUILDING	INTERIOR - 1ST	STORAGE OUTSIDE TAX COMMISSIONERS OFFICE	2	4ft 32W 2T8	58	12W 2TLED	24	2129
ADMIN BUILDING	INTERIOR - 1ST	SUITE 140 TAX COMMISSIONER	9	4ft 32W 2T8	58	27W TLED	27	2129
ADMIN BUILDING	INTERIOR - 1ST	SUITE 140 TAX COMMISSIONER	2	4ft 32W 2T8	58	12W 2TLED	24	2129
ADMIN BUILDING	INTERIOR - 1ST	TAX ASSESSORS RECEPTION OFFICE	4	4ft 32W 2T8	58	29W TLED	29	2129
ADMIN BUILDING	INTERIOR - 1ST	TAX COMMISSIONER COPY ROOM	2	4ft 32W 3T8	86	31W TLED	31	2129
ADMIN BUILDING	INTERIOR - 1ST	TAX COMMISSIONER FILE ROOM OFF COPY ROOM	1	4ft 32W 3T8	86	31W TLED	31	2129
ADMIN BUILDING	INTERIOR - 1ST	TAX COMMISSIONERS WEST HALLWAY	7	4ft 32W 2T8	58	29W TLED	29	2129
ADMIN BUILDING	INTERIOR - 1ST	TAX COMMISSIONERS WEST HALLWAY	4	4ft 32W 3T8	86	31W TLED	31	2129
ADMIN BUILDING	INTERIOR - 1ST	VACANT OFFICE BY GUYS OFFICE	2	4ft 32W 3T8	86	31W TLED	31	2129
ADMIN BUILDING	INTERIOR - 1ST	VACANT OFFICE BY GUYS OFFICE	1	3ft 25W 1T8	23	12W 1TLED	12	2129
ADMIN BUILDING	INTERIOR - 1ST	VAULT ROOM	1	23W CFL	23	18W LED	18	2129
ADMIN BUILDING	INTERIOR - 1ST	VETERANS AFFAIRS	2	4ft 32W 2T8	58	29W TLED	29	2129
ADMIN BUILDING	INTERIOR - 1ST	WOMENS RESTROOM BY MAIN BREAKROOM	2	4ft 32W 2T8	58	29W TLED	29	2129
ADMIN BUILDING	INTERIOR - 2ND	ADAMS OFFICE	2	4ft 32W 3T8	86	31W TLED	31	2129
ADMIN BUILDING	INTERIOR - 2ND	ADAMS OFFICE	1	4ft 32W 1T8	30	12W 1TLED	12	2129
ADMIN BUILDING	INTERIOR - 2ND	AMY'S OFFICE	2	4ft 32W 3T8	86	31W TLED	31	2129
ADMIN BUILDING	INTERIOR - 2ND	AMY'S OFFICE	1	4ft 32W 1T8	30	12W 1TLED	12	2129
ADMIN BUILDING	INTERIOR - 2ND	BUILDING INSPECTORS OFFICE	4	4ft 32W 3T8	86	31W TLED	31	2129
ADMIN BUILDING	INTERIOR - 2ND	BUILDING INSPECTORS OFFICE	2	4ft 32W 1T8	30	12W 1TLED	12	2129
ADMIN BUILDING	INTERIOR - 2ND	BUILDING INSPECTORS OFFICE	5	65W Incandescent	65	18W LED	18	2129

ADMIN BUILDING	INTERIOR - 2ND	CHAIR STORAGE OFF CONFERENCE ROOM	2	4ft 32W 2T8	58	27W TLED	27	2129
ADMIN BUILDING	INTERIOR - 2ND	CHAIR STORAGE OFF OF MAIN CONFERENCE ROOM	1	4ft 32W 3T8	86	31W TLED	31	2129
ADMIN BUILDING	INTERIOR - 2ND	CHUCKS OFFICE	2	4ft 32W 3T8	86	31W TLED	31	2129
ADMIN BUILDING	INTERIOR - 2ND	CHUCKS OFFICE	1	4ft 32W 1T8	30	12W 1TLED	12	2129
ADMIN BUILDING	INTERIOR - 2ND	CONFERENCE ROOM OFF MAIN PLANNING OFFICE	3	4ft 32W 3T8	86	31W TLED	31	2129
ADMIN BUILDING	INTERIOR - 2ND	EAST OPEN OFFICE	12	4ft 32W 3T8	86	31W TLED	31	2129
ADMIN BUILDING	INTERIOR - 2ND	ELECTRICAL ROOM	1	8ft 34W 4T12	148	12W 4TLED	48	2129
ADMIN BUILDING	INTERIOR - 2ND	FILE STORAGE OFF BIG CONFERENCE ROOM	2	4ft 32W 3T8	86	31W TLED	31	2129
ADMIN BUILDING	INTERIOR - 2ND	FILE STORAGE OFF MAIN PLANNING OFFICE	2	4ft 32W 3T8	86	31W TLED	31	2129
ADMIN BUILDING	INTERIOR - 2ND	FURNACE ROOM WITH VENDING MACHINE	2	4ft 32W 3T8	86	31W TLED	31	2129
ADMIN BUILDING	INTERIOR - 2ND	GENERAL STORAGE OFF MAIN CONFERENCE ROOM	1	4ft 32W 3T8	86	31W TLED	31	2129
ADMIN BUILDING	INTERIOR - 2ND	HALLWAY OUTSIDE STAIRWELL	5	4ft 32W 3T8	86	31W TLED	31	2129
ADMIN BUILDING	INTERIOR - 2ND	IT CLOSET	1	4ft 32W 3T8	86	31W TLED	31	2129
ADMIN BUILDING	INTERIOR - 2ND	KITCHENETTE OFF CONFERENCE ROOM	2	4ft 32W 3T8	86	31W TLED	31	2129
ADMIN BUILDING	INTERIOR - 2ND	LARGE FILE STORAGE	4	4ft 32W 3T8	86	31W TLED	31	2129
ADMIN BUILDING	INTERIOR - 2ND	LARGE OPEN OFFICE	31	4ft 32W 3T8	86	31W TLED	31	2129
ADMIN BUILDING	INTERIOR - 2ND	MAIN PLANNING AND DEVELOPMENT OFFICE	13	4ft 32W 3T8	86	31W TLED	31	2129
ADMIN BUILDING	INTERIOR - 2ND	MAIN PLANNING OFFICE GENERAL STORAGE	1	4ft 32W 3T8	86	31W TLED	31	2129
ADMIN BUILDING	INTERIOR - 2ND	MAPPING OFFICE	2	4ft 32W 3T8	86	31W TLED	31	2129
ADMIN BUILDING	INTERIOR - 2ND	MENS RESTROOM	3	4ft 32W 2T8	58	12W 2TLED	24	2129
ADMIN BUILDING	INTERIOR - 2ND	PLANNING COMMISSION CONFERENCE ROOM	16	4ft 32W 3T8	86	31W TLED	31	2129
ADMIN BUILDING	INTERIOR - 2ND	STORAGE CLOSET OFF MAPPING OFFICE	1	4ft 34W 2T12	74	12W 2TLED	24	2129
ADMIN BUILDING	INTERIOR - 2ND	TARA'S OFFICE	2	4ft 32W 3T8	86	31W TLED	31	2129
ADMIN BUILDING	INTERIOR - 2ND	TARA'S OFFICE	1	3ft 25W 1T8	23	12W 1TLED	12	2129
ADMIN BUILDING	INTERIOR - 2ND	VACANT OFFICE	2	4ft 32W 3T8	86	31W TLED	31	2129
ADMIN BUILDING	INTERIOR - 2ND	VACANT OFFICE	1	4ft 32W 1T8	30	12W 1TLED	12	2129
ADMIN BUILDING	INTERIOR - 2ND	WOMENS RESTROOM	3	4ft 32W 2T8	58	12W 2TLED	24	2129
SENIOR CENTER	EXTERIOR	EAST SIDE OVER SUN PORCH	2	60W Incandes cent	60	9W LED	9	4380
SENIOR CENTER	EXTERIOR	WEST ENTRANCE NEAR DUMPSTER	1	150W Halogen	150	24W LED	24	4380
SENIOR CENTER	INTERIOR - 1ST	COMMISSIONERS MEETING ROOM	10	65W Incandes cent	65	12W LED	12	2129
SENIOR CENTER	INTERIOR - 1ST	COUNTY MANAGERS OFFICE	6	23W CFL	23	12W LED	12	2129
SENIOR CENTER	INTERIOR - 1ST	SE STAIRWELL	1	4ft 34W 2T12	74	29W TLED	29	2129

SENIOR CENTER	INTERIOR - 1ST	STAIRWELL	1	4ft 32W 2T8	58	29W TLED	29	2129
SENIOR CENTER	INTERIOR - 2ND	CONFERENCE ROOM OFF MAIN PLANNING OFFICE	8	65W Incandes cent	65	12W LED	12	2129
SENIOR CENTER	EXTERIOR	MAIN ENTRANCE CANOPY	6	23W CFL	23	15W LED	15	4380
SENIOR CENTER	EXTERIOR	SOUTH ENTRANCE	2	23W CFL	23	9W LED	9	4380
SENIOR CENTER	EXTERIOR	SOUTH ENTRANCE CANOPY	6	12W LED	12	15W LED	15	4380
SENIOR CENTER	EXTERIOR	WEST ENTRANCE NEAR DUMPSTER	1	23W CFL	23	15W LED	15	4380
SENIOR CENTER	INTERIOR - 1ST	STORAGE GARAGE SOUTH	2	23W CFL	23	11W LED	11	2129
SENIOR CENTER	INTERIOR - 2ND	CONFERENCE ROOM OFF MAIN PLANNING OFFICE	8	65W Incandes cent	65	18W LED	18	2129

Facility	Burnout Rate	Demand Diversity
Admin	12%	95%
Senior Center	17%	95%

E. Cost Savings Calculations

Provided below are the methods and equations used to determine the cost savings associated with this particular methodology.

Cost Savings are calculated as the difference between the baseline and Performance Period energy costs using the utility rates as defined in Schedule D, Energy, Water, and O&M Rate Data. The applicable marginal utility rates with a 2.87% annual escalation will be applied to the baseline and Performance Period energy use as determined in Paragraph B. Equation 7 will be used to compute the total cost savings for each Guarantee Year.

Facility	\$/kWh	\$/kW
Admin	\$0.047232	\$5.736832
Senior Center	\$0.163936	-

Equation 4 – Total Cost Savings

$$\$_{save} = \sum_{i=1}^n (\$_{Baseline} - \$_{Performance})_i$$

Where,

$\$_{save}$ = Guarantee year cost savings

$\$_{Baseline}$ = Billing period k baseline utility cost for account i

$\$_{Performance}$ = Billing period k performance period utility cost for account i

n = Total number of utility types

OPTION A – DOMESTIC WATER FIXTURES

- A. Overview of M&V Plan, and Savings Calculation
- B. Water Savings Calculations
- C. Key Parameter Measurement Strategy
- D. Parameter Estimates
- E. Cost Savings Calculations

A. Overview of M&V Plan, and Savings Calculation

Savings in this section are determined by using an “Option A: Retrofit Isolation – Key Parameter Measurement” approach as described in the International Performance Measurement & Verification Protocol (IPMVP Volume I, EVO 10000-1:2012). The remainder of this section describes the water savings calculations, key parameter measurements that will be conducted, parameters that will be estimated and those values, and how cost savings will be calculated. The water and cost savings that are determined using this approach will be the annual savings values used for each year of the Performance Period.

B. Water Savings Calculations

Provided within this section is an explanation of the calculations that will be used to perform the water savings calculations for this verification method.

Equations and Analysis of Water Savings

Savings are calculated as the difference in water usage from the baseline conditions, and the Performance Period conditions.

For water consumption, the water savings will be determined for each fixture and summed for all fixtures that will be retrofitted using the following formula:

Equation 1 – Water Consumption Savings

$$W_{save} = \sum_{i=1}^n [(W_{Pre} - W_{Post}) \times Q \times U_{Avg}]_i$$

Where,

W_{save} = Water savings

W_{Pre} = Pre-implementation direct water usage of fixture (measured)

W_{Post} = Post-implementation direct water usage of fixture (measured)

U_{Avg} = Average use rate per fixture, flushes or minutes of use (estimated)

Q = Retrofit quantity

i = Retrofit

Electric and natural gas savings (from domestic hot water heating savings) are calculated as the product of the water savings and the kWh or CCF factor designated for that retrofit, as shown in the table in Paragraph D.

C. Key Parameter Measurement Strategy

This section outlines the measurements that will be conducted to determine the measured values in the equations provided above in Paragraph B. For this water project, the key parameter that will be measured is the water consumption of each fixture type (gallons per flush for toilets/urinals and gallons per minute for sinks/showers). Measurement and documentation strategies for each project phase are outlined below.

Pre-Implementation Measurements and Documentation

Water consumption measurements will be taken on a sample set of each baseline fixture type to determine the average water use for each fixture type. The minimum sample sizes and precision of results are different depending on the number of fixtures included in the project. The most common fixtures will have a high degree of certainty in the results, while the least common fixtures will have greater uncertainty in order to ensure measurement costs are commensurate with performance risk. Three different classes of measurement requirements are included:

1. Fixture types with less than 20 total fixtures will not be measured. The estimated consumption shown in the table below will be used in all calculations.
2. Fixture types with 20 – 100 total fixtures will have at least 4 measurements taken. Measurements will continue to be taken until the 80% confidence interval for the true population mean spans no more than 20% above and below the mean of the sample.
3. Fixture types with more than 100 total fixtures will have at least 10 measurements taken. Measurements will continue to be taken until the 90% confidence interval for the true population mean spans no more than 10% above and below the mean of the sample.

The mean of a sample set will be treated as the water consumption for that fixture type for all savings calculations. The table below lists each fixture type to be measured, the estimated water consumption of that fixture type, the total quantity of that fixture type, and the minimum amount to be measured prior to removing the fixtures to implement the retrofit. As stated above, more measurements may be needed if the sampled fixtures have too much variance.

Fixture Code	Total Fixtures	Minimum Sample	GPF or GPM
1.0 GPF Urinal	6	0	1
1.6 GPF Water Closet	140	10	1.6
2.2 GPM Faucet	26	4	2.2
2.5 GPM Faucet	1	0	2.5
2.5 GPM Shower	8	0	2.5

Post-Implementation Measurements and Documentation

Water consumption measurements will be taken on a sample set of each Performance Period fixture type to determine the average water use for each fixture type. The minimum sample sizes and precision of results are different depending on the number of fixtures included in the project. The most common fixtures will have a high degree of certainty in the results, while the least common fixtures will have greater uncertainty in order to ensure measurement costs are commensurate with performance risk. Three different classes of measurement requirements are included:

1. Fixture types with less than 20 total fixtures will not be measured. The estimated consumption shown in the table below will be used in all calculations.
2. Fixture types with 20 – 100 total fixtures will have at least 4 measurements taken. Measurements will continue to be taken until the 80% confidence interval for the true population mean spans no more than 20% above and below the mean of the sample.
3. Fixture types with more than 100 total fixtures will have at least 10 measurements taken. Measurements will continue to be taken until the 90% confidence interval for the true population mean spans no more than 10% above and below the mean of the sample.

The mean of each sample set will be treated as the water consumption for that fixture type for all savings calculations. The preferred locations for measurements for the new retrofit types will be locations where some previous measurement was taken. The number of post-retrofit samples measured is independent from the number of pre-retrofit samples taken. These measurements are taken to determine the average consumption per use of each fixture type, not the reduction of water use in any specific locations. All measurements will be taken using the same equipment and will be calibrated. The table below lists each fixture type to be measured, the estimated water consumption of that fixture type, the total quantity of that fixture type, and the minimum amount to be measured during the post-implementation period.

Fixture Code	Total Fixtures	Minimum Sample	GPM or GPF
0.125 GPF Urinal	6	0	0.125
1.28 GPF Water Closet	140	10	1.28
0.5 GPM Faucet	26	4	0.5
1.5 GPM Faucet	1	0	1.5
1.5 GPM Shower	8	0	1.5

Performance Period Measurements and Documentation

No additional measurements will be taken during the Performance Period of this M&V strategy.

D. Parameter Estimates

Of the parameters identified under the equations for water savings in Section B, several of the parameters are estimates, and will not be measured during any period of the project. Of the variables identified, the parameters that will be estimated for this particular ECM and M&V strategy include annual uses per fixture (minutes per year for sinks/showers and flushes per year for toilets/urinals).

The table below contains the estimated parameters and all pieces of information needed to define each fixture. The table lists each grouping of fixtures, the retrofit to be performed, the facility, the retrofit fixture quantities, and the estimated average use rate per fixture. The methods used to calculate savings in Paragraph E include the measurements defined in Paragraph C and the fixture details found in the table below.

Building	Location	Pre Fixture	Post Fixture	Qty	Annual Uses (GPM or GPF)
PSC	Lockers - Mens	1.0 GPF Urinal	0.125 GPF Urinal	1	775
PSC	Probation - Mens	1.0 GPF Urinal	0.125 GPF Urinal	3	775
PSC	EMS - Mens	1.0 GPF Urinal	0.125 GPF Urinal	2	775
PSC	EMS - Mens	1.6 GPF Water Closet	1.28 GPF Water Closet	1	2,487
PSC	EMS - Womens	1.6 GPF Water Closet	1.28 GPF Water Closet	1	2,487
PSC	EMS - Unisex	1.6 GPF Water Closet	1.28 GPF Water Closet	1	2,487
PSC	Dietician - Unisex	1.6 GPF Water Closet	1.28 GPF Water Closet	2	2,487
PSC	Warehouse - Unisex	1.6 GPF Water Closet	1.28 GPF Water Closet	1	2,487
PSC	Warehouse - Unisex	1.6 GPF Water Closet	1.28 GPF Water Closet	1	2,487
PSC	EMS - Mens	1.6 GPF Water Closet	1.28 GPF Water Closet	1	2,487
PSC	Main Inmate Housing - Inmate	1.6 GPF Water Closet	1.28 GPF Water Closet	88	2,487
PSC	Disiplinary Segregation - Inmate	1.6 GPF Water Closet	1.28 GPF Water Closet	6	2,487
PSC	Booking - Inmate	1.6 GPF Water Closet	1.28 GPF Water Closet	14	2,487
PSC	Juvenile - Inmate	1.6 GPF Water Closet	1.28 GPF Water Closet	2	2,487
PSC	Medical - Inmate	1.6 GPF Water Closet	1.28 GPF Water Closet	4	2,487
PSC	Staff - Unisex	1.6 GPF Water Closet	1.28 GPF Water Closet	2	2,487
PSC	Guard Shack - Unisex	1.6 GPF Water Closet	1.28 GPF Water Closet	2	2,487
PSC	Parole - Unisex	1.6 GPF Water Closet	1.28 GPF Water Closet	1	2,487
PSC	Lockers - Mens	1.6 GPF Water Closet	1.28 GPF Water Closet	3	2,487
PSC	Lockers - Womens	1.6 GPF Water Closet	1.28 GPF Water Closet	4	2,487
PSC	Probation - Mens	1.6 GPF Water Closet	1.28 GPF Water Closet	2	2,487
PSC	Probation - Womens	1.6 GPF Water Closet	1.28 GPF Water Closet	3	2,487
PSC	Probation - Unisex	1.6 GPF Water Closet	1.28 GPF Water Closet	1	2,487
PSC	Staff - Unisex	2.2 GPM Faucet	0.5 GPM Faucet	2	12,298
PSC	Guard Shack - Unisex	2.2 GPM Faucet	0.5 GPM Faucet	2	12,298
PSC	Parole - Unisex	2.2 GPM Faucet	0.5 GPM Faucet	1	12,298
PSC	Lockers - Mens	2.2 GPM Faucet	0.5 GPM Faucet	2	12,298
PSC	Lockers - Womens	2.2 GPM Faucet	0.5 GPM Faucet	2	12,298
PSC	Probation - Mens	2.2 GPM Faucet	0.5 GPM Faucet	3	12,298
PSC	Probation - Womens	2.2 GPM Faucet	0.5 GPM Faucet	3	12,298
PSC	Probation - Unisex	2.2 GPM Faucet	0.5 GPM Faucet	1	12,298
PSC	EMS - Mens	2.2 GPM Faucet	0.5 GPM Faucet	3	12,298
PSC	EMS - Womens	2.2 GPM Faucet	0.5 GPM Faucet	1	12,298
PSC	EMS - Unisex	2.2 GPM Faucet	0.5 GPM Faucet	1	12,298

PSC	Dietician - Unisex	2.2 GPM Faucet	0.5 GPM Faucet	2	12,298
PSC	Warehouse - Unisex	2.2 GPM Faucet	0.5 GPM Faucet	1	12,298
PSC	Warehouse - Unisex	2.2 GPM Faucet	0.5 GPM Faucet	1	12,298
PSC	Warehouse - Unisex	2.2 GPM Faucet	0.5 GPM Faucet	1	12,298
PSC	Breakroom - Kit	2.5 GPM Faucet	1.5 GPM Faucet	1	12,298
PSC	Lockers - Mens	2.5 GPM Shower	1.5 GPM Shower	1	2,819
PSC	Lockers - Womens	2.5 GPM Shower	1.5 GPM Shower	1	2,819
PSC	EMS - Mens	2.5 GPM Shower	1.5 GPM Shower	2	2,819
PSC	Lockers - Mens	2.5 GPM Shower	1.5 GPM Shower	1	2,819
PSC	Lockers - Womens	2.5 GPM Shower	1.5 GPM Shower	1	2,819
PSC	EMS - Mens	2.5 GPM Shower	1.5 GPM Shower	1	2,819
PSC	EMS - Womens	2.5 GPM Shower	1.5 GPM Shower	1	2,819

A factor of 1.371225 CCF/kGal will be used to calculate gas savings.

Equation 2 – Gas Savings

$$G_{save} = \sum_{i=1}^n [W_{save} * GF]$$

Where,

W_{save} = Water savings

G_{save} = Gas savings

GF = Gas Factor (1.371225 CCF/kGal)

i = Retrofit

E. Cost Savings Calculations

Provided below are the methods and equations used to determine the cost savings associated with this particular methodology.

Cost Savings are calculated as the difference between the baseline and Performance Period water costs. Equation 3 will be used to compute the total cost savings for each Guarantee Year.

Equation 3 – Total Cost Savings

$$\$_{save} = \sum_{i=1}^n (\$_{Baseline} - \$_{Performance})_i$$

Where,

\$__{save} = Guarantee year cost savings

\$__{Baseline} = Billing period k baseline utility cost for account i

\$__{Performance} = Billing period k performance period utility cost for account i

n = Total number of utility types

The rates below with a 2.87% annual escalation rate will be used to calculate cost savings.

Site	\$/kGal	\$/CCF
PSC	\$12.60	\$0.883

OPTION C – WHOLE TERM

- A. Overview of M&V Plan, and Savings Calculation
- B. Energy Savings Calculations
- C. Key Parameters Measurement Strategy
- D. Parameter Estimates
- E. Cost Savings Calculations

A. Overview of M&V Plan, and Savings Calculation

The method of determining energy savings described in this section uses “Option C – Whole Facility (Main Meter Measurement)” as described in the International Measurement and Verification Protocol (IPMVP Volume I, EVO 10000-1:2012). The remainder of this section provides the energy savings calculations, the key parameter measurements that will be conducted, the parameters that will be estimated and those values, and how cost savings will be calculated.

Guaranteed Meters

The following meters will be used to measure actual energy consumption for both the base year and guarantee periods.

Meter Name	Account	Utility Type	Utility Company	Rate	Units
Public Safety Complex Electric	4124701019	Electric	Georgia Power	PLM	kWh, kW
Courthouse Electric	8822551000	Electric	Georgia Power	TOU_GSD	kWh, kW
Aquatic Center Electric*	2223991073	Electric	Georgia Power	PLM	kWh, kW
Aquatic Center Gas*	6074	Gas	Madison City Utilities	GBAL2300&GB3M&GB5M	CCF

*An ongoing baseline adjustment will be applied to both Aquatic Center utility meters to account for high humidity levels during the baseline period. This baseline adjustment, shown in a table below, is weather normalized and may be modified to reflect the actual weather for a given year.

Ongoing Baseline Adjustment - Aquatic Center			
Month	kWh	kW	CCF
January	1,576	17	174
February	3,575	3	353
March	3,950	10	466
April	7,312	18	747
May	11,160	15	983
June	16,066	7	1,177
July	16,939	5	1,256
August	19,106	5	1,266
September	16,580	7	1,207
October	7,695	22	685
November	7,999	20	711
December	3,650	34	339

Building Summary

The following table lists the buildings that were served by guarantee meters during the base year period.

Building Name	Area (ft ²)
Public Safety Complex	125,000
Courthouse	17,400
Aquatic Center	16,200

B. Energy Savings Calculations

Provided within this section is an explanation of the calculations that will be used to perform energy savings calculations for this particular ECM.

Overview of Savings Methodology

Energy savings will be measured by comparing the Performance Period's total energy consumption and demand to the total energy consumption and demand for the same area in the base year period by utilizing energy meter data. Base year energy and demand will be adjusted for differences in weather, facility operation and facility modifications to estimate how much energy would have been used in the guarantee period if the energy conservation measures had not been implemented. The energy saved is the difference between the adjusted base year consumption and the Performance Period consumption. The demand saved is the difference between the adjusted base year demand and the Performance Period demand. This process will be followed for each fuel type involved in the guarantee.

Equations and Analysis of Energy Savings

Savings are calculated as the difference in energy usage from the baseline conditions after adjusting for all necessary changes, and the Performance Period conditions. This is shown in Equation 1 below:

Equation 1 – Energy Consumption Savings

$$E_{save} = E_{Baseline} - E_{Performance}$$

Where,

E_{save} = Energy savings

$E_{Baseline}$ = Adjusted energy usage of facility equipment pre-implementation

$E_{Performance}$ = Energy usage of facility equipment post-implementation

The baseline is that set of parameters that describes both the energy consumed in the base year and the conditions that caused that consumption to occur. This set of parameters includes utility consumption, facility use information, weather data and other information as may be necessary to describe the base year conditions. In addition, the baseline includes certain mathematical values, calculated by a model, that are used to correlate the base year energy consumption with the factors that caused that consumption and is defined by Equation 2 below:

Equation 2 – Baseline Energy Use

$$E_{Baseline} = \sum_{i=1}^n C_D \times T_i + C_H \times HDD_i + C_C \times CDD_i + C_O \times OCC_i + CO_i + CM_i$$

Where,

n = Number of billing periods in year.

$E_{Baseline}$ = Adjusted baseline period consumption

C_D = A constant representing units of consumption per billing period day

T_i = Number of days in billing period

C_H = A constant representing units of consumption per heating degree day

HDD_i = Heating degree days in the current billing period

C_C = A constant representing units of consumption per cooling degree day

CDD_i = Cooling degree days in the current billing period

C_O = A constant representing units of consumption per occupied day

OCC_i = Occupied days in the current billing period

CO_i = Offset for the current billing period

CM_i = Other adjustments for the current billing period

Customer agrees to accept modifications to this baseline that are necessary to account for changes in the facilities and their use which may have occurred prior to the execution of this agreement but come to the attention of ESCO after the execution of this agreement. Typical adjustments are provided in detail in Schedule E.

Demand savings are computed similarly to the consumption savings, as shown by Equation 3 below:

Equation 3 – Peak Demand Savings

$$D_{save} = D_{Baseline} - D_{Performance}$$

Where,

D_{save} = Demand savings

$D_{Baseline}$ = Adjusted energy demand of facility equipment pre-implementation

$D_{Performance}$ = Energy demand of facility equipment post-implementation

Adjusted base year demand is calculated as demonstrated in Equation 4 below:

Equation 4 – Baseline Peak Demand

$$D_{Baseline} = \sum_{i=1}^n D_D + D_H \times \frac{HDD_i}{T_i} + D_C \times \frac{CDD_i}{T_i} + DO_i + DM_i$$

Where,

D_D = A constant representing units of demand per billing period

D_H = A constant representing units of demand per heating degree day per day

D_C = A constant representing units of demand per cooling degree day per day

DO_i = Offset for the current billing period

DM_i = Other adjustments for the current billing period

C. Key Parameters Measurement Strategy

Measurement and documentation strategies for each project phase are outline below.

Pre-Implementation Measurements and Documentation

Customer will provide ESCO with monthly utility bills and all delivery invoices for the accounts included in Paragraph A for a minimum of twenty-four (24) months worth of historical utility data that is to represent a complete span of two years worth of energy usage. Customer will also provide ESCO with monthly utility bills and all delivery invoices for the accounts included in Paragraph A from the end of that twenty-four (24) month data set through the Savings Guarantee Commencement Date within the timelines specified in Schedule E.

ESCO will collect daily high and low temperature data from the weather station defined in Schedule D, Common ECM Assumptions.

Post-Implementation Measurements and Documentation

No short term verification is performed using this method. All post-implementation measurements are conducting during the Performance Period.

Performance Period Measurements and Documentation

Throughout the Performance Period, Customer will provide ESCO with the monthly utility bills and all delivery invoices for the accounts included in Paragraph A within the timelines specified in Schedule E.

ESCO will collect daily high and low temperature data from the weather station defined in Schedule D, Common ECM Assumptions.

D. Parameter Estimates

The parameters defined in the equations outlined in Paragraph B that are estimated are determined through engineering analysis of at least twelve (12) months worth of the pre-implementation measured utility data. This is done to establish the relationship between the weather, billing period length, any other independent factors, and the consumption and demand associated with a particular account. The end result of this analysis is the set of coefficients used in the equations defined in Paragraph B to fully define the baseline for each account. The values will be presented to Customer by ESCO before the Savings Guarantee Commencement Date and will be documented and agreed upon by both parties in the Meter Tuning Summary. Below are definitions of each of the estimated parameters included in Paragraph B;

- The values of CD and DD represent the base load consumption and demand of the utility usage of a particular meter and are equivalent to the weather independent energy usage and demand.
- The values of CH and DH represent the heating consumption and demand of the utility usage of a particular meter and are equivalent to the weather dependent energy usage and demand. They are associated with a consumption and demand heating balance point specific to that account.
- The values of CC and DC represent the cooling consumption and demand of the utility usage of a particular meter and are equivalent to the weather dependent energy usage and demand. They are associated with a consumption and demand cooling balance point specific to that account.
- The billing period values of CO_i and DO_i represent the portion of the energy consumption and demand that cannot be accounted for with the weather independent and weather dependent consumption.

Each of these parameters will be determined based on the relationship of the baseline period energy and demand and the independent factors. During the Performance Period they will be used to estimate the energy use and demand that would have occurred if the project had not been performed. To accomplish this, CO_i and DO_i will be pro-rated to the Performance Period billing periods for each account.

The terms CM_i and DM_i are included in the equations in Paragraph B to account for changes in the Performance Period energy use and demand from the baseline Period energy use and demand on the accounts in Paragraph A for any causes unrelated to the project as defined in Schedule E. The procedures for developing these estimates vary with the specific causes for the adjustments. The requirements for determining these values and any measurements necessary to support these estimates are defined in Schedule E.

E. Cost Savings Calculations

Provided below are the methods and equations used to determine the cost savings associated with this particular methodology.

Cost Savings are calculated as the difference between the baseline and Performance Period energy costs using the utility rates as defined in Schedule D, Energy, Water, and O&M Rate Data. The applicable utility rates will be applied to the baseline and Performance Period energy use for the accounts in Paragraph A. Equation 5 will be used to compute the total cost savings for each Guarantee Year.

Equation 5 – Total Cost Savings

$$\$_{save} = \sum_{i=1}^n \left[\sum_{k=1}^q (\$_{Baseline} - \$_{Performance})_k \right]_i$$

Where,

$\$_{save}$ = Guarantee year cost savings

$\$_{Baseline}$ = Billing period k baseline utility cost for account i

$\$_{Performance}$ = Billing period k performance period utility cost for account i

n = Total number of accounts

q = Total number of billing periods for account i

NON-MEASURED SAVINGS

A. Overview of M&V Plan, and Savings Calculation B. Annual Non-Measured Savings

A. Overview of M&V Plan, and Savings Calculation

The Actual Savings associated with this methodology will be agreed upon as outlined herein and will not be verified by measurements after implementation has occurred. Customer and ESCO agree to accept the annual savings values included in Section B with no additional verification. In the event that verification steps are performed by Customer or ESCO, the annual savings values included in Section B will still be the reported savings and values used for reconciling the guarantee in Schedule C. Section B details the agreed upon savings by measure and by category.

B. Annual Non-Measured Savings

Utility Cost Savings

Once the construction of each of the measures below has reached Substantial Completion, the annual savings in the table below will be prorated monthly for each measure until the Savings Guarantee Commencement Date. The annual savings in the table below for each measure will be claimed for each Guarantee Year after the Savings Guarantee Commencement Date with an annual escalation of 2.87%.

Utility Cost Savings Measure	Cost Savings
PSC Lighting - Gas Savings	-\$4,369
PSC BAS - Gas Savings	\$1,852
PSC Envelope - Gas Savings	\$597
Courthouse Boiler Replacement - Gas Savings	\$1,537
Courthouse Chiller Replacement - Gas Savings	-\$62
Courthouse BAS - Gas Savings	\$1,415
Courthouse Envelope - Gas Savings	\$108
Courthouse Water - Gas Savings	\$48
Courthouse Lighting - Gas Savings	-\$112
Aquatic Center PoolPak - Water Savings	\$1,341
Aquatic Center Water Savings	\$33

Any savings accrued prior to the Savings Guarantee Commencement Date will be considered Excess Savings.

Operation and Maintenance Savings

The annual savings in the table below for each measure will be claimed for each Guarantee Year after the Savings Guarantee Commencement Date with an annual escalation of 2.87%.

Operation and Maintenance Savings Measure	Cost Savings
Lighting	\$8,686
Mechanical	\$4,020
Water	\$7,318
IT Upgrades	\$33,132

SCHEDULE E

CUSTOMER RESPONSIBILITIES FOR PERFORMANCE GUARANTEE

GENERAL RESPONSIBILITIES

Customer acknowledges and agrees that proper maintenance is essential to any energy conservation program. Therefore, Customer agrees to undertake the following responsibilities:

Customer agrees to: (1) provide, or cause its suppliers to provide, periodic utility invoices to ESCO within ten (10) days of receipt, (2) execute all Customer responsibilities as outlined herein, and (3) provide to ESCO reasonable access to all Customer facilities and information necessary for ESCO to perform its responsibilities. Access will include, but is not limited to, the following items:

- All buildings listed within this Contract
- All buildings served by the meters listed within this Contract
- All mechanical equipment rooms in the buildings listed within this Contract
- All temperature control and energy management systems which control part or all of any of the buildings listed within this Contract
- Personnel with responsibility for operating and/or managing any of the buildings listed within this Contract
- Monthly utility invoices and billing history for all of the meters listed within this Contract
- Construction documents, equipment inventories, and other documents that may be helpful in evaluating a cause for adjustment as listed within this Contract
- Any data from meters or sub-meters relevant to M&V associated with this Contract
- It will be the Customers responsibility to have available a Security Escort, Police Officer or some type of Security personnel to accompany workers performing any work in or around un-restrained inmates, prisoners or incarcerated people.

Customer will solely be responsible for providing communications and/or network interface to all buildings for operation and PASS support.

Customer will perform daily facilities monitoring and promptly review any alarm summaries.

Customer will designate a "Primary Operator" of the system. The Primary Operator is defined as the individual who will be trained by ESCO during the installation period and will be responsible for daily operation and maintenance of the equipment and systems necessary to achieve the Performance Guarantee. Customer will notify ESCO within five (5) days after the departure or termination of the Primary Operator. Within ten (10) days of the departure of the current Primary Operator, Customer will designate a new Primary Operator and shall provide ESCO access to train the new Primary Operator. ESCO shall train a new Primary Operator at the sole expense of Customer on a time and materials basis.

MAINTENANCE RESPONSIBILITIES

Customer agrees to use its best efforts to maintain the ECMs in original operating condition ("Original Operating Condition") with allowance for normal wear and tear. If an ECM is operating at any state other than the Original Operating Condition as defined above ("Failed ECM"), Customer agrees to (1) repair or replace the ECM immediately, and (2) contact a PASS representative at 1-800-274-5551 option 4, within 24 hours of such event. ESCO reserves the right to adjust the amount of Performance Guarantee associated with the Failed ECM for the duration of the failure in the Annual Savings Guarantee.

Customer will agree to maintain all parts of the Project site(s) where the ECM(s) reside including but not limited to components, equipment, machinery, energy management systems, structure of the facility(s),

computer hardware, network and IT systems, either existing or newly installed. Customer must comply with the general maintenance requirements specified by equipment manufacturers and the maintenance tasking guidelines included in the operating and maintenance manual. Customer will be responsible to provide to ESCO documentation that proper maintenance has been performed at ESCO'S request within fifteen (15) days of written request.

Notwithstanding anything to the contrary contained herein, all ECM(s) must be maintained in proper working condition in all cases where the performance of said ECM(s) affects or could affect the ability to achieve, measure or verify the Annual Savings Guarantee. Should Customer refuse to perform the required maintenance as required in this Contract, ESCO and Customer shall agree to one of the following means of recourse: (1) ESCO will adjust the Performance Guarantee associated with that ECM pursuant to Schedule E, or (2) ESCO may terminate this Performance Guarantee and any and all obligations and liabilities of ESCO associated therewith upon fifteen (15) days written notice.

ADJUSTMENT RESPONSIBILITIES

In addition to the responsibilities of Customer set forth in this Schedule, Customer also agrees to undertake the responsibilities set forth in the Adjustment Schedule as necessary.

ADJUSTMENT SCHEDULE

Below is the procedure for accounting for non-routine adjustments for any of the utility meters included in Schedule D. A non-routine adjustment is required for any change outside of those explicitly defined in Schedule D that will impact the energy use or the verified savings under this Contract. It is Customer's responsibility to notify ESCO of any changes that may necessitate a non-routine baseline adjustment and to perform the required non-routine baseline adjustment steps identified below at Customer's sole expense.

CUSTOMER REQUIRED NON-ROUTINE BASELINE ADJUSTMENT RESPONSIBILITIES

If the required non-routine baseline adjustment steps are not performed, and the change is greater than the threshold limit, savings will be determined with the Assumed Savings Procedure Adjustment, as defined below. Actual Savings will be determined using the Assumed Savings Procedure Adjustment for all billing periods until the required non-routine baseline adjustment steps have been completed, or until the change which necessitated the non-routine baseline adjustment is no longer in place. If Customer fails to notify ESCO of a change necessitating a non-routine baseline adjustment or fails to provide details of the change, savings will be determined with the Assumed Savings Procedure Adjustment.

If the required non-routine baseline adjustment steps are not performed, and the change is less than the threshold limit, savings will be determined with the "Estimated Savings Procedure Adjustment". Actual Savings will be determined using the Estimated Savings Procedure Adjustment for all billing periods until the required non-routine baseline adjustment steps have been completed, or until the change which necessitated the non-routine baseline adjustment is no longer in place.

1. Addition of New Building or New Energy User

- All utility services to the building or energy user which affect the energy use of any meter included in Schedule D must be sub-metered at Customer's expense.
- Threshold limit: the lesser of 10% of the area served by any affected meter, as defined in Schedule D or 20,000 ft².

2. Addition to Existing Building

- All utility services to the addition which affect the energy use of any meter included in Schedule D must be sub-metered at Customer's expense.
- Threshold limit: the lesser of 10% of the area served by any affected meter, as defined in Schedule D or 20,000 ft².

3. Renovation / Modification to Existing Building or Utility Service

- All utility services for the affected portion of the building must be sub-metered before and after the change until the effect on the energy consumption has been determined at Customer's expense.
- Threshold limit: the lesser of 10% of the area served by any affected meter, as defined in Schedule D or 20,000 ft².

4. Demolition / Abandonment of Existing Building or Utility Service

- All utility services for the affected buildings must be sub-metered before and after the change until the effect on the energy consumption has been determined at Customer's expense.
- Threshold limit: the lesser of 10% of the area served by any affected meter, as defined in Schedule D or 20,000 ft².

5. Re-commissioning of Out of Service Building

- All utility services for the affected buildings must be sub-metered before and after the change until the effect on the energy consumption has been determined at Customer's expense.
- Threshold limit: the lesser of 10% of the area served by any affected meter, as defined in Schedule D or 20,000 ft².

6. Change in Occupancy

- Customer must perform, or cause to be performed, at Customer's expense, a calibrated computer simulation to account for the change. If the impact computed by the simulation is greater than 20% of the projected savings on the meter, the "Assumed Savings Procedure" listed below will be followed. In no event will the adjusted savings be reported as less than the savings achieved in the preceding project year.
- Threshold limit: 5% of the total occupant count in the base year.

7. Change in Schedule

- Customer must perform, or cause to be performed, at Customer's expense, a calibrated computer simulation to account for the change. If the impact computed by the simulation is greater than 20% of the projected savings on the meter, the Assumed Savings Procedure will be followed. In no event will the adjusted savings be reported as less than the savings achieved in the preceding project year.
- Threshold limit: 5% of the total scheduled hours for the meter as defined in Schedule D.

8. Change in Set-points

- Customer must perform, or cause to be performed, at Customer's expense, a calibrated computer simulation to account for the change. If the impact computed by the simulation is greater than 20% of the projected savings on the meter, the Assumed Savings Procedure will be followed. In no event will the adjusted savings be reported as less than the savings achieved in the preceding project year.
- Threshold limit: An average of 0.5° from the set-points defined in Schedule D.

9. Change in Operational Calendar

- Customer must perform, or cause to be performed, at Customer's expense, a calibrated computer simulation to account for the change. If the impact computed by the simulation is greater than 20% of the projected savings on the meter, the Assumed Savings Procedure will be followed. In no event will the adjusted savings be reported as less than the savings achieved in the preceding project year.
- Threshold limit: 5% of the total scheduled hours for the meter as defined in Schedule D.

10. Change in Plug Load

- Customer must perform, or cause to be performed, at Customer's expense, a simulation of energy impact to account for the change. If the computed impact is greater than 20% of the projected savings on the meter, the Assumed Savings Procedure will be followed. In no event will the adjusted savings be reported as less than the savings achieved in the preceding project year.

- Threshold limit: 1% of the base year peak 15-minute average kW for the affected meter.

11. Customer Initiated ECMs

- Customer must develop and execute an M&V plan at Customer's expense, which has been reviewed and approved by ESCO, to evaluate the impact of the change. If the impact determined by the M&V plan is greater than 20% of the projected savings on the meter, the Assumed Savings Procedure will be followed. In no event will the adjusted savings be reported as less than the savings achieved in the preceding project year.
- Threshold limit: 2% of the projected savings on any affected meter.

12. Missing Bills

- Customer is required to provide ESCO with utility bills for meters defined in Schedule D within ten (10) days of receipt of each bill or provide ESCO direct access to retrieve the utility bills electronically. If utility bills are not received by ESCO within sixty (60) days of the end of the service date, the Assumed Savings Procedure will be used.

13. Failure to Operate ECMs According to Operational and Design Intent

- Customer agrees to operate the ECMs according to the Operational and Design Intent of the ECMs. Failure to do so will necessitate a baseline adjustment using the Assumed Savings Procedure.

14. Failure to Perform Project Specific Customer Responsibilities

- Customer agrees to perform the project specific Customer responsibilities as defined in Schedule E. Failure to do so will necessitate a baseline adjustment using the Assumed Savings Procedure.

15. Other Causes

- Any change that impacts the energy use on the meters defined in Schedule D that does not fit into any of the other categories may still require a non-routine baseline adjustment. Customer will notify ESCO before any change is made so that an agreeable adjustment strategy can be determined. If no agreeable adjustment method can be reached, the Assumed Savings Procedure will be used.

ASSUMED SAVINGS PROCEDURE ADJUSTMENT

- If the Actual Savings for the affected meter(s) in the prior Guarantee Year are greater than or equal to the projected savings for the affected meter(s), the Actual Savings from the prior Guarantee Year will be reported while savings are assumed for the affected meter(s).
- If the Actual Savings for the affected meter(s) in the prior Guarantee Year are less than the projected savings for the affected meter(s) and there have been less than twenty-four (24) months since the commencement of the Performance Period, Actual Savings will be reported at the projected savings level while savings are assumed for the affected meter(s).
- If the Actual Savings for the affected meter(s) in the prior Guarantee Year are less than the projected savings for the affected meter(s) and there have been twenty-four (24) months or more since the commencement of the Performance Period, Actual Savings will be reported as the average of the achieved savings over the two (2) most recent Guarantee Year plus half (1/2) of the difference between the projected savings and the average of the achieved savings over the two (2) most recent Guarantee Years.
 - If pursuant to the Assumed Savings Procedure, ESCO makes improvements to the Project beyond the original scope as defined in Schedule A., which results in an increase in the Actual Savings, an M&V plan accounting for those improvements will be executed and the resulting savings will be added to the Actual Savings.

ESTIMATED SAVINGS PROCEDURE ADJUSTMENT

- At ESCO'S sole discretion, ESCO will estimate the impact of the change using computerized building simulations, manual calculations, or other generally accepted estimating procedures and may ignore any changes which fall below the threshold limit.



MORGAN COUNTY AGENDA REQUEST

Department:

Administration

Presenter(s):

Jeff Stone

Meeting Date: mm/dd/yyyy

8/20/2019

Type of Request:

New Business

Wording for the Agenda:

Purchase of Replacement Fire Truck

Background/History/Details:

Chief Stone will present the findings of the truck committee's review of the bids to purchase a replacement fire truck.

What action are you seeking from the Board of Commissioners?

If this item requires funding, please describe:

Has this request been considered within the past two years?

No

If so, when?

Is Audio-Visual Equipment Required for this Request?*

No

Backup Provided with Request?

Yes

*** All audio-visual material must be submitted to the County Clerk's Office no later than 48 hours prior to the meeting. It is also your department's responsibility to ensure all third-party audio-visual material is submitted at least 48 hours in advance.**

Approved by Finance

Yes

Approved by Purchasing

Yes

Manager's Approval

Yes

Staff Notes:

FIRE TRUCK REPLACEMENT REVIEW

Custom													
			Bid Price		Custom					Warranty			
Dealer	Bidder	Manufacture Plant	Custom	Delivery Time	Est. Date (Sept 1st)	Eng	HP	Pump (GPM)	Compartment Space (Cu ft)	Overall	Frame	Body/Structural	Paint
Triton ERV	HME/Ahrens Fox	Michigan	\$ 344,392.00	90	Nov/2019	Cummings L9	330	1250	156	3 yr	20	10	5
FireLine	E-ONE	Florida	\$ 441,413.00	180	Feb-2020	Cummings L9	450	1500	250	3 yr	Lifetime	10	10
Ten-8	Pierce	Wisconsin	\$ 393,933.00	300	July/2020	Cummings L9	380	1250	153	1 yr	50	10	10
Peach State	Spartan	South Dokota	\$ 381,483.00	180	Feb-2020	Cummings L9	380	1500	192	2 yr	Not Listed	10	10

Commercial													
				Commercial						Warranty			
Dealer	Bidder	Manufacture Plant	Commercial	Delivery Time	Est. Date (Sept 1st)	Eng	HP	Pump (GPM)	Compartment Space (Cu ft)	Overall	Frame	Body/Structural	Paint
Triton ERV	HME/Ahrens Fox	Michigan	\$ 321,439.00	90	Nov/2019	Cummings L9	330	1250	156	3 yr	n/a	10	5
FireLine	E-ONE	Florida	\$ 313,447.00	360	sept/2020	Cummings L9	330	1500	250	3yr	n/a	10	10
Ten-8	Pierce	Wisconsin	\$ 288,751.00	300	July/2020	Cummings L9	330	1250	153	1 yr	n/a	10	10
Peach State	Spartan	South Dokota	\$ 305,931.00	330	Aug/2020	Cummings L9	350	1250	192	2 yr	n/a	10	10

Morgan County Replace Fire Truck RFP
GENERAL INSTRUCTIONS

Proposal Format

The proposal shall be prepared simply and shall be straightforward and concise. It should also adhere strictly to the proven capabilities of the Respondent to meet the requirements set forth in the Request for Proposals. A Letter of Interest shall be included in the Proposal. This letter will summarize the Respondent's understanding of the Scope of Work and commitment to perform the work in a timely manner. The letter should name all persons authorized to make representations for the Respondent, including the titles, addresses, and telephone numbers of such persons. An authorized agent of the Respondent must sign the letter. The letter should not exceed two pages in length.

RFP Cost

All costs incurred in the preparation and presentation of responses to the RFP shall be completely absorbed by the respondent. All documents submitted as part of the RFP will become property of Morgan County. Requests for specific material to be returned will be considered.

Binding Offer

Each bid shall constitute a firm offer that is binding for ninety (90) days from the date of the bid opening, unless the bidder takes exception to this provision in writing.

RFP Submission

Companies who wish to respond must submit an original and (4) copies of the proposal in sealed packages marked "Morgan County Fire Engine Purchase". Fax and e-mail responses are not acceptable.

Responses to the RFP will be accepted until 5:00 p.m. (EST) on July 26, 2019.

Responses must be delivered to: Mr. Mark Williams, Procurement Director
 Morgan County Board of Commissioners
 150 E. Washington Street

Madison, Georgia 30650

Requests for extension of this date will not be granted. Any late proposal will not be considered. It is the sole responsibility of the Respondent to ensure that the proposal arrives at the designated location prior to the deadline.

Morgan County reserves the right to reject any and all proposals, to waive any informality or technicality and to accept that proposal which, in the judgement of the proper officials, is in the best interest of Morgan County.

Contact

All questions about this RFQ and submission requirements must be directed in writing to Mr. Mark Williams via email at mwilliams@morgancountyga.gov.

Any unauthorized contact shall not be responded to and may result in the disqualification of the responder's submittal. Answers to questions submitted will be communicated to respondents via email.

RFP Amendments

It is the responsibility of respondents to check the Morgan County website for RFP information and amendments.

Non-Collusion

By submitting a proposal, the respondent represents and warrants that no official or employee of Morgan County has an interest, directly or indirectly in the proposal or in the final contract award. The respondent further understands proposals will be rejected if there is any evidence of collusion with another respondent.

Compliance with Laws

Respondents agree to be bound by applicable Federal, State and Local laws, regulations, and directives.

Qualification & Award Basis

Morgan County reserves the right to accept or reject any and all proposals or any parts of a proposal wherein its judgment, it will be in the best interest of the County; waive any technicalities/informalities in the RFQ document and proposal process; and to qualify and award any or all of this contract in any manner in which Morgan County, acting in the sole and exclusive exercise of its discretion, deems to be in Morgan County's best interest. Cost will not be the sole factor in the selection process. If no acceptable proposal is received Morgan County also reserves the right to re-solicit proposals, at its sole discretion.

References

Submission of a response authorizes Morgan County to make inquiries concerning the respondent and its officers to any persons or firms deemed appropriate by Morgan County.

SERVICES REQUESTED

Background

Morgan County is a local county government located in the State of Georgia. The County serves four cities: Madison (the County seat), Buckhead, Bostwick, and Rutledge. The County operates under a council manager form of government, with the governing Board consisting of five County Commissioners, serving separate districts, and elected to staggered four-year terms. Morgan County operates a combination fire Department. The County maintains 16 stations/substations.

Purpose of Request

Morgan County Board of Commissioners are seeking bids to purchase a fire engine. The specifications below address the specific requirements together with certain details as to finish, material preferences, equipment and appliances with which the successful bidder must conform. The bidder shall bear the responsibility of insuring that the elements contained

within the specifications are sound, safety conscious, and functional. This apparatus shall meet all current guidelines as established for fire apparatus by the Department of Transportation and the National Fire Protection Association.

Specific Requirements

The manufacturer of the apparatus shall have an operating factory adequate and devoted to the manufacture of the vehicle herein specified. The intent of this section is to ensure single source responsibility for all equipment proposed by the bidder.

It is not the intent of these specifications to call for an unusual or experimental vehicle. Such proposals are not acceptable. Therefore, as proof of the ability to manufacture vehicles of the type called for in these specifications, the bidder must be able to show that they have manufactured at least ten vehicles of the “type” specified herein within the last two years. These specifications shall serve as a base specification and are not meant to prevent a manufacturer from exceeding this specification as a part of their normal construction process.

The bidder shall supply a list of ten agencies that have purchased similar vehicles. This list will contain the name, contact number, and purchase date of the vehicle.

Completion Inspection

Once the unit reaches 100% completion Morgan County will be notified and arrangements for an inspection confirmed. This inspection will be completed by three representatives from Morgan County. If this inspection takes place more than 300 miles from Morgan County then transportation will be by air. Lodging and meals shall be included.

Approval Drawings

Drawings shall be returned with the submission and shall depict the apparatus showing views of the right, left, front, rear, and top. This drawing shall list exact compartment

dimensions, wheelbase lengths, over all vehicle length and height, and show where trays, tool boards, and fixed equipment are mounted.

Training

The successful bidder shall provide training for all designated operators upon delivery of the apparatus. This training will be conducted on two consecutive days, once for each shift. This training shall be conducted on site at Morgan County with the actual apparatus purchased.

Warranty

All bidders shall state the length and terms of warranty of the completed apparatus. The listing shall be broken down to include the apparatus body, chassis, paint, electrical and any additional equipment added. A minimum 3-year warranty on bidders manufactured components.

State Delivery Time

The bidder shall state the days required for delivery of the apparatus, in the space provided on the Pricing Sheet.

Mechanical Service

Each bidder shall supply, with their proposal, detailed information on the bidder's ability to perform routine and emergency service on the apparatus after delivery. Detailed information shall be provided on service facilities, personnel, service vehicles, and the type and nature of repair work the bidder is able to provide. Bidder shall state the number of miles from the Purchaser's facility to the nearest fully staffed repair facility operated by the bidder. It is the intent of the Purchaser to assure that parts and service are readily available for the equipment specified. Successful bidder guarantees they can return a call for service within 48 hours. Service capabilities will be one of the criteria for award of this contract.

Minimum Requirements

There are no overall height or length restrictions. However, bidders must provide these measurements.

Cab & Chassis Requirements

- Custom Cab: Aluminum or Stainless Steel, four-door, fully enclosed, minimum 10 inch raised roof from centerline to rear, with electric-over-hydraulic tilt for engine access. Interior should be gray or black.
- Two Wheel Drive
- Engine: Cummins or Caterpillar with minimum 330 HP with Engine Compression Brake.
- Transmission: Allison 5 speed Automatic
- Fuel Tank: Minimum 50 gallon
- Heat/AC: Factory installed sufficient to heat and cool cab
- Batteries: Single battery system – 4 group 31
- Steering: Full power
- Mirrors: Chrome or aluminum heated remote-controlled mirrors with convex
- Tires: Front: Highway steering tread rated at 75 mph with proper load rating. Rear: All season traction rated at 75 mph with proper load rating.
- Wheels: Front/Rear sized appropriately for the specified loading of water/foam, body and equipment. Painted with lug nut covers and axle covers to be included.
- Suspension: Axles/Brakes/Suspension sized appropriately for the specified loading of water/foam, body and equipment. Shock absorbers as appropriate for this application.
- Air Horns: Dual stutter air horns, controlled by foot switches. Switches mounted in the cab floor, one on driver's side, one on officer's side. Air horns to be punched into the front bumper and supplied by the OEM compressor and air storage tank.

- **High Idle:** A high idle system will be installed and controlled via switch mounted in the cab. The system will increase the engine speed to a preset RPM for increased alternator output.
- **Seating:** All seating shall be high back style, gray or black, of a material suited for the application and equipped with three-point belts.
 - Driver seat shall be air ride.
 - 5 seats including the driver and officer. Officer and 3 rear seats shall SCBA seats. SCBA bracket to meet current NFPA standard.
- **Cab Dome Lighting:** LED with Red/White option.
- **Cab Roof Accessories:** Morgan County will provide antennas for mounting during the construction process.
- **Battery Charger:** There shall be a minimum 20 AMP minimum charger installed and connected directly to an auto-eject shoreline plug.
- **Air Inlet/Outlet:** (1) One inlet and (1) one outlet shall be provided in the area of the driver's door.
- **Back-up Alarm:** An electronic back-up alarm shall be supplied. This alarm shall sound a minimum of 97 dB and wired to engage when the transmission of the unit is in reverse.
- **Hand Hold Bars:** There shall be hand hold bars to comply with NFPA standard
- **The front bumper shall be a single piece unit with punch-outs for the electronic siren speaker, the "Q" siren and air horns. Pedestal mounting of the electronic siren speaker or mechanical siren will not be accepted due to sound encroachment in the cab or vibration.**
- **Front Bumper Extension:** It shall be extended minimum 18" with hose well that can accommodate minimum 150' of 1.75" hose and nozzle with securing straps or lid.

Alternate Bid

Bidders must provide an alternate bid to replace custom cab with a 4-door commercial cab. All other provisions for Cab and Chassis remain the same. Commercial chassis can not be a Freightliner.

Apparatus Body Requirements

- These specifications require a Stainless Steel or Aluminum Rescue Style body. All ladders, pike poles shall be mounted in a tunnel inside the body.
- Hard suction may be stored on exterior rack or tray
- The exterior of the body shall be equipped with an extruded aluminum or stainless steel rub rail. Corners shall be covered with a 90 degree piece of material to join intersecting rails.
- Body to have anodized aluminum roll-up compartment doors, satin finish, with integrated drip pan.
- 2 - Hose Bed Dividers
- LED step lighting as required per current NFPA standard.
- Deck Gun piping to top of apparatus in dunnage area.
- Zico wheel chocks and horizontal holder
- Ladder storage in a tunnel compartment accessible from the rear apparatus body. Ladder and accessory storage for 24' extension, 14' roof, 10' folding, and 2-10' pike poles.

Compartments

- Compartments should consist of L1, L2, L3, Rear 1, R1, R2, R3. There shall be a minimum of 159 cubic feet.
- L1, L3, R1, R3 shall all have upper adjustable shelves
- L1, L3, Rear 1, R1, R3 shall have lower pullout tray.
- LED lighting is required and shall be controlled by a door switch or vendor's standard. Lighting inside the compartments shall not interfere with equipment stored in the compartments. The shelving shall not interfere with lighting.

SCBA Air Cylinder Storage

A minimum of four (4) air cylinder storage compartments shall be provided and located in the wheel wells.

Lighting & Emergency Warning Package

- Whelen LED emergency lighting package to meet minimum current NFPA lighting standard.
- One (1) electronic 100 watt siren. Speaker mounted behind front bumper.
- One (1) "Q" siren. Recess mounted into front bumper.

Fire Pump

- The fire pump shall be Hale or Waterous, minimum 1250 GPM single stage.
- The pump must have appropriate pressure relief valve/governor.
- This pump shall meet all NFPA requirements and testing documentation shall accompany on truck delivery.
- Discharges and Intakes
 - Intakes
 - must have dual 6" steamer intakes, 1 driver and 1 officer side, 1-2.5" driver side
 - Discharges
 - 1 1.75" front bumper
 - 1 2.5" driver side
 - 1 2.5" passenger side
 - 1 2.5" or greater passenger side
 - 2 2.5" rear discharges
 - 2 1.75" crosslay
 - 1 3" deck gun discharge
- All gauges and control valves to operate from the left pump panel. All 2.5" discharges to have individual gauges on the left pump panel.
- Tank fill and tank-to-pump valves sized as per minimum NFPA requirements.
- Foam System:
 - Foam System: eductor style piping.

Water Tank/Foam Tank

A water tank shall be included and meet all provisions of the NFPA. These provisions have, but are not limited to, overflow from fill, proper venting, meet minimum flows to fire pump, etc. This tank shall be a poly type of construction and shall have a lifetime warranty. **Water tank size is 1000 gallons/ Foam tank size is 20 gallons minimum.**

Water Tank/Foam Tank Level Indicator

LED Display, indicating tank levels of full, $\frac{3}{4}$, $\frac{1}{2}$, $\frac{1}{4}$, and empty with associated flash patterns to aid the operator. Indicator to be located on the left panel.

Cab & Body Paint/ Rear Body Striping

All surfaces shall be prepped and treated to protect from failures in the painted surface. The use of sealer/primer, base coat and clear coat shall meet current standards for body painting. The cab shall be painted **BLACK OVER RED**. The paint break line is the lower windshield line. The apparatus body shall be **ALL RED**. The rear chevron striping shall be provided in compliance with NFPA. 6" alternating "A" style, RED/Yellow stripes. The County will install lettering after delivery

Evaluation Procedures

An evaluation team will evaluate proposals submitted. Each proposal will be evaluated for full compliance with the RFP instructions to the Respondent and the requirements set forth within the RFP document. Proposals will be evaluated on criteria will include

1. Compliance with specifications detailed in RFP.
2. Warranties included
3. Estimated delivery date
4. Price

BID SUMMARY

Price

Custom cab, rescue body, meeting all requirements in RFP: _____

Alternate Price

Commercial cab, rescue body, meeting all requirements in RFP: _____

NOTE: The above-bid prices shall include all charges, including preparation, delivery, or any other costs.

Delivery and Training

What is our expected delivery date after receipt of Notice to Proceed? _____

How many hours of training will be provided to each employee? _____

Additional Information

Address of your service facility that is closest to Morgan County, Georgia:

What are your payment terms?

Your Company's Name:

EXCEPTIONS TO SPECIFICATIONS

Please list below any exceptions or clarifications to the specifications of this bid. Explain any exceptions in full.

This image shows a single sheet of white paper with horizontal blue or grey ruling lines. The lines are evenly spaced and run across the width of the page. There are approximately 20 lines visible. The paper has a slight shadow on the right side, suggesting it's resting on a surface.
