CITY OF BUCKEYE

Request for Proposals
RFP No. 2019017

ENERGY SAVING PERFORMANCE CONTRACTING SERVICES

CONTACT PERSON
Tyra Bell
Purchasing Agent
Construction & Contracting Division
tbell@buckeyeaz.gov
(623) 349-6171

SCHEDULE OF EVENTS

Date Issued:	September 19, 2019
Pre Proposal Meeting:	October 3, 2019 at 2:00PM
Last Day for Questions:	October 24, 2019 by 5:00 PM
Due Date & Time:	October 31, 2019 at 1:00 PM

PLEASE NOTE: IF RFP DOCUMENTS WERE DOWNLOADED FROM THE CITY OF BUCKEYE WEBSITE, PROPOSER IS RESPONSIBLE FOR OBTAINING ANY AMENDMENTS EITHER THROUGH UPDATES ON THE WEBSITE, OR BY CONTACTING THE CITY CONTACT PERSON.

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ATTACHMENT A: ESCO Response

ATTACHMENT B: Cost and Pricing
B1: Cost and Pricing Definitions
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ATTACHMENT C: Financing Solicitation Package

EXHIBIT A: Technical Facility Profile

EXHIBIT B: Investment Grade Audit and Project proposal Contract

EXHIBIT C: Model Energy Saving Performance Contract

EXHIBIT D: State Statues on Performance Contracting

EXHIBIT E: Proposed Project Schedule

SECTION I: GENERAL INFORMATION

The City of Buckeye, invites sealed proposals from Energy Services Companies (ESCO) to conduct an investment grade audit of facilities and implement an Energy Savings Performance Contract. The ESCO will identify and implement building improvements to reduce energy and related costs in facilities, such that annual cost savings are applied to annual payments for improvements.

The contracting process has three phases:

- Investment Grade Audit and Project Proposal Phase: A contract for the Investment Grade Audit will be developed with the selected ESCO. This investment grade audit will identify and evaluate cost-saving measures and define the proposed project scope, cost, savings and cash-flow over the proposed financing term. A project proposal will present aggregated measures that can be financed through guaranteed savings.
- Construction/Implementation/Commissioning and Financing Phase: An Energy Savings Performance Contract may be negotiated following the audit. This establishes the project scope and costs, and provides for construction and follow-up services to be provided during the financing term. A separate financing agreement will be developed.
- Post-Construction Guarantee/Monitoring Phase: After construction, the ESCO will offer a variety of services to ensure savings are met, such as a savings guarantee, staff training, follow-up monitoring, and contract maintenance services.

Proposals are to be addressed and delivered to **Buckeye City Hall, Attn: Tyra Bell at 530 East Monroe Avenue, Buckeye, Arizona, 85326 on or before 1 :00 P.M., Local Buckeye, Arizona Time, October 31, 2019,** at which time a representative of the City will announce publicly the names of those firms or individuals submitting proposals. No other public disclosure will be made until after award of the contract.

PRE-PROPOSAL CONFERENCE

A non-mandatory **pre-proposal conference** will be held on **October 3, 2019, 2:00 p.m.**, local Buckeye, Arizona time at Buckeye City Hall, 1st Floor Executive Conference Room, 530 East Monroe Avenue, Buckeye, Arizona 85326. The purpose of this conference will be to clarify the contents of this Request for Proposal in order to prevent any misunderstanding of the City's intention and desires. Any doubt as to the requirements of this Request for Proposal, or any apparent omission or discrepancy should be presented to the City's representative at this conference. The City's representative will then determine the appropriate action. If necessary, the City's representative will issue a written amendment to the Request for Proposal. Oral statements or instructions shall not constitute an amendment to this Request for Proposal. You are not required to send a representative to the pre-proposal conference. However, by not attending the pre-proposal conference, your firm is responsible for obtaining solicitation amendments from the website or by contacting the contracting officer. Further, we will assume that your failure to attend the pre-proposal conference is an indication that you expect us to review your proposal as if you had taken advantage of the pre-proposal conference.

A facility tour will not be held following the pre-proposal meeting; therefore, no subsequent tours or additional access to building will be offered.

END OF SECTION I

SECTION II: PURPOSE OF THE RFP

1. BACKGROUND

The City of Buckeye, invites sealed proposals from Energy Services Companies (ESCO) to conduct an investment grade audit of facilities. and implement an Energy Savings Performance Contract. The ESCO will identify and implement building improvements to reduce energy and related costs in facilities, such that annual cost savings are applied to annual payments for improvements.

The contracting process has three phases:

- Investment Grade Audit and Project Proposal Phase: A contract for the Investment Grade Audit will be developed with the selected ESCO. This investment grade audit will identify and evaluate cost-saving measures and define the proposed project scope, cost, savings and cash-flow over the proposed financing term. A project proposal will present aggregated measures that can be financed through guaranteed savings.
- Construction/Implementation/Commissioning and Financing Phase: An Energy Savings Performance Contract may be negotiated following the audit. This establishes the project scope and costs, and provides for construction and follow-up services to be provided during the financing term. A separate financing agreement will be developed.
- Post-Construction Guarantee/Monitoring Phase: After construction, the ESCO will offer a variety of services to ensure savings are met, such as a savings guarantee, staff training, follow-up monitoring, and contract maintenance services.

2. METHOD OF SELECTION

The intent of the City is to select one ESCO whose proposal is determined to be the most advantageous to the City based on the evaluation factors set forth in this Request for Proposals. The successful ESCO will have demonstrated exceptional qualifications. **Section VI** details the Criteria used for evaluations of submittals. The City reserves the right to reject any or all submissions.

3. NEGOTIATIONS

After a ranking of submittals, the City will offer the highest ranked firm a thirty (30) day exclusive negotiation period. In the event that there is an impasse in the Negotiations, or the City negotiators determine that a contract cannot be achieved, the City reserves the right to go to the next highest ranked firm. This process may continue through those firms on the final list until a contract is successfully negotiated. The City reserves the right to reject all proposals at any time, or to cease negotiations over a contract at any time.

4. AWARD

A contract is formed only upon the approval and written execution of the contract by the City and proposer(s) after negotiation process is complete. The award shall be made to the responsible Proposer whose proposal is determined to be the most advantageous to the City based on the evaluation factors and selection methods set forth in this Request for Proposal. Price, although a consideration, will not be the sole determining factor; however, it will have a significant weight as noted in the evaluation section.

5. COOPERATIVE PURCHASING

This Contract shall be for the use of the City of Buckeye. In addition, specific eligible political subdivisions and nonprofit educational or public health institutions may also participate, at their discretion and with the agreement of the awarded Proposer. In order to participate in this Contract, a political subdivision or nonprofit educational or public health institution must agree to the terms and conditions in the solicitation and the Proposer must be in agreement with the cooperative transaction. Any orders placed to the successful Proposer will be placed by the specific agencies participating in this purchase. Payment for purchases made under this Contract will be the sole responsibility of each participating agency. The City shall not be responsible for any disputes arising out of transactions made by others.

END OF SECTION II

SECTION III: INSTRUCTIONS TO PROPOSERS

1. You must address and deliver your proposal to **City of Buckeye, Construction & Contracting Division, Attn: Tyra Bell, 530 E. Monroe Avenue, Buckeye, Arizona 85326**, on or before the time and date set for closing.

Proposals should be in a sealed envelope marked:

Name of Proposer: _____
Title of Proposal: **Energy Saving Performance Contracting Services**
RFP Number: **RFP No. 2019017**
Due Date and Time: **October 31, 2019, 1:00 P.M., Local Time**

The City of Buckeye is not responsible for the pre-opening, post opening, or failure to open any Proposal not clearly identified.

No telephone, electronic or facsimile proposals will be considered. Late proposals shall be rejected. A proposal shall be deemed late if it is received at the location designated in this Request for Proposal after the time and date set for the proposal opening. The Purchasing Agent's clock is the governing clock. A late bid shall not be opened except as may be necessary for identification purposes. Proposals received after the time and date for closing will be returned to the proposer unopened.

2. Interested firms should submit a proposal packet addressing the specific Request for Proposal criteria. On the Proposal packet, please display the firm name and RFP title. In the Proposal packet, include a one-page cover letter, one (1) copy of the Proposal packet on a flash drive in PDF format, One (1) paper copy marked "original" and One (1) paper copy marked "copy", no later than **October 31, 2019, 1:00 P.M., Local Time.**

3. You may withdraw your proposal at any time prior to the time and date set for closing. Proposals withdrawn after opening but prior to award may be withdrawn in accordance with the City of Buckeye Procurement Code.

4. No department or office at the City has the authority to solicit or receive official proposals other than the City Construction and Contracting Division. All solicitation are performed under the direct supervision of the Manager of Construction & Contracting, City of Buckeye and in complete accordance with City of Buckeye Procurement Code.

5. The City reserves the right to conduct discussions with proposers, to accept revisions of proposals, and to negotiate price changes. During this discussion period, the City will not disclose any information derived from proposals submitted, or from discussions with other proposers. Once an award is made, the solicitation file, and the proposals contained therein, are in the public record and will be disclosed upon request.

6. The award shall be made to the responsible, responsive proposer whose proposal is determined to be the most advantageous to the City based on the evaluation factors set forth

in this Request for Proposals. Price, although a consideration, will not be the sole determining factor. No purchase order is issued with a proposer until a price is successfully negotiated and is approved by the City, as authorized by the City Council.

7. The Arizona Public Records Act limits the City's ability to withhold prequalification and data submitted in each proposal. If a submittal contains any trade secrets that a submitter does not want disclosed to the public or used by the City for any purpose other than evaluation of the submitter's eligibility, each sheet of such information must be marked with the designation "Confidential." The City agrees that if a "Public Records Act" request is made for disclosure of data so classified, it will notify the submitter of such data so that the submitter will have an opportunity to legally challenge the City's obligation to disclose such information. In the event that the submitter has not filed a legal challenge in a court proceeding within ten days of notification of the request for public records, the City will disclose the information requested.

8. Your proposal should be submitted in the format shown in **Section V.** Proposals in any other format will be considered informal and may be rejected. Conditional proposals will not be considered. An individual authorized to extend a formal proposal must sign all proposals. Proposals that are not signed may be rejected.

9. The City reserves the right to reject any or all proposals or any part thereof, or to accept any proposal, or any part thereof, or to withhold the award and to waive or decline to waive irregularities in any proposal when it determines that it is in its best interest to do so. The City also reserves the right to hold all proposals for a period of 60 days after the opening date.

10. Definitions

"May": Indicates something that is not mandatory but permissible/desirable.

"Shall," "Must," "Will": Indicates mandatory requirement. Failure to meet these mandatory requirements will result in rejection of your proposal as nonresponsive.

"Should": Indicates something that is recommended but not mandatory. If the proposer fails to provide recommended information, the City may, at its sole option, ask the proposer to provide the information or evaluate the proposal without the information.

11. Any person, firm, corporation or association submitting a proposal shall be deemed to have read and understood all the terms, conditions, and requirements in the specifications/scope of work.

12. All responses and accompanying documentation will become the property of the City at the time the proposals are opened.

13. All formal inquiries or requests for significant or material clarification or interpretation, or notification to the City of errors or omissions relating to this Request for Proposals must be directed in writing to:

Tyra R. Bell, Purchasing Agent
Construction & Contracting Division

City of Buckeye
530 E. Monroe Ave. Buckeye, Arizona 85326
Tel: 623-349-6171
Email: tbell@buckeyeaz.gov

Inquiries must be submitted on a copy of the Proposer Inquiry Form included in **Section VIII** of this Request for Proposals. All formal inquiries must be submitted no later than **October 24, 2019 at 5:00 p.m. Local Time Buckeye, Arizona.** Failure to submit inquiries by this deadline may result in the inquiry not being answered. Note that the City will answer informal questions orally. The City makes no warranty of any kind as to the correctness of any oral answers and uses this process solely to provide minor clarifications rapidly. Oral statements or instructions shall not constitute an amendment to this Request for Proposals. Proposers shall not rely on any verbal responses from the City. If you have formal questions about any part of this Request for Proposals, which could result in a material issue or a formal amendment to this Request for Proposals, submit your questions on a Proposer Inquiry Form from **Section VIII** of this Request for Proposals.

14. The City shall not reimburse any proposer the cost of responding to a Request for Proposals.

15. The City believes that it can best maintain its reputation for treating service providers and suppliers in a fair, honest, and consistent manner by conducting solicitations in good faith and by granting competitors an equal opportunity to win an award. If you feel that we have fallen short of these goals, you may submit a protest pursuant to the Procurement Code of the City of Buckeye.

END OF SECTION III

SECTION IV: SCOPE OF WORK

1. Investment Grade Audit and Project Development

The Investment Grade Audit will identify potential cost-saving measures, determine the cost and savings of each measure, and present a measurement and verification plan to validate future savings of each measure. A project proposal will present a bundle of measures that can be financed through guaranteed savings over the proposed financing term, including a cash-flow table. Develop and negotiate a contract using the **Investment Grade Audit & Project Development Proposal Contract (EXHIBIT B) and Special Contract Terms and Conditions (SECTION VI)**.

Energy Savings Performance Contract

Through the Energy Savings Performance Contract, the ESCO proceeds to final design, construction, and commissioning of the improvement measures. Following satisfactory completion of the Investment Grade Audit, City will negotiate and develop an Energy Savings Performance Contract **(Attachment E: Energy Savings Performance Contract)** with the ESCO. The contract will define the final agreed upon list of measures, equipment and labor costs and guaranteed cost savings. It will document equipment specifications and warranties. It establishes the schedule and responsibilities of the ESCO and the City. It incorporates current state statutes and directives that directly relate to performance contracting **Attachment G: State Statutes on Energy Savings Performance Contracting**.

Financing Agreement

The ESCO may solicit financing companies on behalf of the City using the Financing Solicitation Package (**Attachment C**), although federal regulations restrict the ESCO's role in advising on financing. Alternatively, City may arrange financing independently. A separate financing agreement will be developed including ESCO payment schedules and lender financing terms and schedules.

Measurement and Verification (M&V)

In order to provide the performance guarantee, the ESCO is under contract to provide annual M&V services. The guarantee is required to cover the cost of this service. The City has the option whether to obtain financing for this portion of contract.

2. ESCO Services

ESCO must have the demonstrated capability in engineering and management to provide a broad range of services. Services may include but are not limited to the following:

<u>Investment Grade Audit and Project Proposal Phase</u>

- technical audit to evaluate costs and savings of a variety of energy and water-saving measures
- project proposal including financial analysis
- benchmarking using Energy Star tools
- measurement and verification plan
- commissioning plan
- utility bill data services to capture credits/errors from utility bill errors
- utility bill rate schedule change recommendations

Construction/Implementation/Commissioning and Financing Phase

- engineering design
- equipment procurement and purchasing
- construction management
- hazardous waste disposal or recycling
- educate about financing
- commissioning

Guarantee/Monitoring Phase

- continuing operations and maintenance for all improvements
- staff training on routine maintenance and operation of systems
- training of occupants
- guarantee of performance and cost savings for the entire term of the contract
- monitoring and verification for measurement and reporting of the performance and savings
- provide for independent review of monitoring & verification (guaranteed savings pay for independent contractor)
- analysis and application for Energy Star Label and/or LEED-EB (Leadership in Energy and Environmental Design for Existing Buildings, by the US Green Building Council)
- monitoring and reporting of emissions reductions
- maintaining long-term, high-efficiency performance of buildings

ESCO must have the technical capability to address a broad range of systems that currently exist in City facilities including, but not limited to:

- Mechanical Systems. Heating, ventilating and air conditioning (HVAC) systems, energy management and control systems, domestic hot water systems, distribution systems, etc.
- Plants. Distribution systems, Pumps, Controls, Conveyance systems, etc.
- Lighting systems. Indoor and outdoor lighting systems, lighting controls, daylighting strategies, etc.
- Renewable Energy Systems: Solar electric (PV), both on and off-grid, other renewables, etc.
- Building envelope systems. Windows, insulation, weatherization, etc.
- Specialty Systems: laundry equipment, kitchen equipment, swimming pool systems, digital controls, etc.
- LEED-EB: LEED-EB strategies to improve operations and maintenance practices
- Water and Sewage Systems. Automatic controls, low-flow faucet aerators, low-flow toilets, pool covers, and irrigation system controls or modifications.

3. **Buildings, Facilities and Approach**

All facilities owned, managed or operated by City at any time during the term of the performance contract will be considered for this work. Specific facilities now operated by City are listed in the **Technical Facility Profile (Exhibit A)**. Additional facilities not yet identified that are under the jurisdiction of the City at any time during the term of the performance contract can be included in the scope of work in a contract amendment.

Work may be conducted in phases where the detailed scope of work can be developed at any time

during the term of the performance contract.

The performance contract can be amended at any time during the initial performance contract term to address other buildings or new projects.

City reserves the right to reduce the scope of work, to conduct the work in phases or to segment work in facilities based on technological improvements.

END OF SECTION IV

SECTION V: EVALUATIONS

MINIMUM QUALIFICATIONS

In order to be considered for evaluation, Contractor shall meet the following minimum qualifications:

1. Proposal submitted on or before the RFP closing date.
2. Proposal is in the format requested below.
3. ESCO is licensed to do business in the State of Arizona. Provide licensure information with your proposal. ESCO shall also be qualified by the United States Department of Energy and/or the State of Arizona.

EVALUATION CRITERIA

Each response will be evaluated based on the Vendor's ability to satisfy the requirements as presented in the Request for Proposal. The successful Vendor must communicate in the response a clear understanding of the requirements, a soundness of approach to satisfying them, and documentation of ample qualifications. In accordance with the City's Procurement Code, award(s) shall be made to the responsible Proposer(s) whose Proposal is determined to be the most advantageous to the City, based upon the evaluation criteria listed below (in their relative order of importance).

1. Program Participation and Compliance – 5%
2. Technical Approach – 5%
3. Management Approach for this Project – 5%
4. Overview of Approach to Energy Savings Performance Contracting – 10%
5. Project History – 10%
6. Financial Soundness and Stability – 10%
7. Site-Specific Approach – 10%
8. Qualifications – 15%
9. Cost and Pricing – 30%

Total possible = 100%

EVALUATION OF PROPOSALS

A team of employees and management professionals will evaluate the proposals. The written proposals will be reviewed based on the evaluation criteria provided above.

INTERVIEWS

ESCOs in the competitive range will be invited for an oral interview. The Proposal scores will be modified based on clarifications to responses provided in the interview.

SELECTION

The Evaluation Team will identify the apparent awardee.

The apparent awardee will be notified of selection; otherwise, the same process will be used with the second-ranked ESCO.

END OF SECTION V

SECTION VI:
FORM OF PROPOSAL / SPECIAL INSTRUCTIONS
CONTRACT DOCUMENTS:

Exhibit B: Investment Grade Audit & Project Development Contract will be used.

Payment for Audit. As given in the **Investment Grade Audit & Project Development Contract (Attachment D)**:

> **Basis and Maximum Amount.** Except as provided for in Subsections below, within 120 days after City's acceptance of the final **Investment Grade Audit and Project Development Contract**, City shall pay to ESCO a sum not to exceed One Hundred Thousand dollars ($100,000) based on a maximum of 400,000 gross square feet at twenty five cents ($0.25) per square foot of audited square-footage, as per **Attachment B, Cost and Pricing**. City shall only pay for square-footage actually audited. Areas deemed by ESCO not to be audited will not be charged to City.
>
> **Payment through Performance Contract.** City shall have no payment obligations under this contract provided that ESCO and City execute an Energy Performance Contract within 120 days, allowing sufficient time for contract negotiation, attorney review, Council approval, after issuance of the **Notice of Acceptance** of the final **Investment Grade Audit and Project Development Contract**, but the fee indicated above shall be incorporated into ESCO's project costs in the Energy Performance Contract and paid through the Energy Performance Contract funding mechanisms.
>
> **Project With Insufficient Savings.** City shall have no payment obligations under this Contract in the event that ESCO's final **Investment Grade Audit and Project Development Contract** does not contain a package of energy and water saving measures which, if implemented and as meeting terms of **Section IV: Scope of Work, (b) Guidelines and Requirements**, will provide the City with cash savings sufficient to fund City's payments of all costs and fees associated with the Energy Performance Contract, including:
>
> 1) the fee associated with the Investment Grade Audit,
>
> 2) all monthly payments on a lease purchase agreement to finance the measures,
>
> 3) any annual fees for monitoring and maintenance incurred by the ESCO. Should the ESCO determine at any time during the Investment Grade Audit that savings cannot be attained to meet these terms, the Investment Grade Audit will be terminated by written notice by the ESCO to City. In this event this Contract shall be cancelled and City shall have no obligation to pay, in whole or in part, the amount specified in this **Section 2**.

Funding sources to support annual payment:

The following payment sources will be considered in the audit:

- Annual energy cost savings
- Annual water and other utility cost savings
- Material/commodity savings, only in years when savings are achieved, including avoided costs such as lamp and ballast replacements, scheduled replacement of parts, etc.

During negotiations, City may consider savings to include maintenance cost savings such as terminated service contracts on equipment and other objective and clearly defined and anticipated cost savings; however, the City will not consider such subjective savings as in-house maintenance personnel savings, since maintenance personnel appropriations are not based on any clearly defined industry standard.

Equity cash outlay:

- At option of City, an equity cash outlay, pending funding approval, may be used to supplement savings

Contract Term. The contract term is up to 25 years provided the average lifetime of the equipment exceeds the contract term, however a lesser term of 2-5 years is typically desired, recognizing that isolated cases might require terms of 15 years to the full 25 years. The ASHRAE Book of Standards (https://www.ashrae.org/technical-resources/standards-and-guidelines) will be used in determining the average useful life of the equipment.

Annual Savings Exceed Annual Costs. Annual savings shall exceed annual payments each and every year while the performance guarantee is in effect. This means that excess savings in other years and interim savings during the construction period will not be allocated to meet shortfalls in any year. Annual payments include debt service, ESCO fees, maintenance services, monitoring services, and other services.

Annual Guaranteed Cost Savings. An annual contractual guarantee will be provided for the first three years of the contract; however, the guarantee shall be made available as a continued option for each subsequent year of the contract term. The City can cancel the guarantee at any time after the required period. The guarantee must provide for the sum of identified cost savings to equal or exceed the amount of the annual payment, where annual payment equals lease plus monitoring & verification fee plus required service, each year while the guarantee is in effect.

Interim Savings during Construction Period. Savings accrued during the construction period will not be allocated to the annual savings of any year. See "Annual Savings Exceed Annual Costs" above.

Excess Savings (beyond the guaranteed amount). Excess savings will be retained by City and will not be allocated to shortfalls in savings in other years. See "Annual Savings Exceed Annual Costs" above.

Use of Stated Cost Markups. The individual cost markups disclosed in the proposal will be used in both the Investment Grade Audit and the Energy Performance Contract, provided the size and scope of the project remain similar. Cost markups presented in the proposal can be negotiated downward.

Open Book Pricing. Open book pricing shall be required, such that the ESCO will fully disclose all costs, including all costs of subcontractors and vendors. ESCO will maintain cost accounting records on authorized work performed under actual costs for labor and material, or other basis requiring accounting records. ESCO will provide access to records and preserve them for a period of three (3) years after final payment. Costs will be evaluated through price analysis to compare costs with reasonable criteria such as established catalog and market prices or historical prices. Stated cost markups will be clearly applied.

Contingency. Any unused contingency cost shall not be retained by the ESCO and shall be applied to the project or refunded to the City at the City's discretion.

Equipment Compatibility or Standardization. All equipment installed that is comparable to similar equipment at the facilities, shall offer compatibility with existing systems, and/or be of the same manufacturer for standardization of equipment City-wide, unless accepted by City.

Annual Appropriations. Annual payment is subject to annual appropriations.

Inflation Rates. Any inflation rates shall be pre-approved by City and shall be based on a recognized industry standard, such as the Consumer Price Index.

Energy Escalation Rates. Where the annual lease-purchase payments are set-up to escalate each year in anticipation of annually escalating energy cost savings, a calculator will be used to determine the maximum value as developed by the US Department of Energy for energy saving performance contracts in its Federal Energy Management Program. The tool is on-line at:

http://www.eere.energy.gov/femp/techassist/softwaretools/softwaretools.html (EERC).

Monitoring and Verification Plan. A monitoring and verification plan will be developed per guidelines in the energy performance contract. Note that a third party should rigorously review this.

Independent Review of Monitoring & Verification. The energy performance contract must provide for a portion of the guaranteed savings for City to contract with an independent monitoring & verification specialist to provide an independent review of the ESCO's monitoring & verification plans and reporting. This is estimated to be 10 percent of the ESCO's monitoring & verification costs.

Data Collection and Reporting by ESCO – Using eProject Builder (ePB)

ESCO shall collect and report project data, on behalf of City and with approval by City, as identified in **Exhibit C: Model Energy Savings Performance Contract - Schedule D: Data Collection and Reporting – Using eProject Builder** and as amended on the LBNL website (http://eprojectbuilder.lbl.gov) and at the specified times.

eProject Builder ("ePB") is a web-based tool managed on behalf of the Department of Energy by The University of California/Lawrence Berkeley National Laboratory (LBNL). ePB enables ESCO and their contracting agencies or other entities to:

(1) Upload and track project-level information;

(2) Generate basic project reporting materials (e.g. task order schedules) that may be mandated by local, state, and/or federal agency requirements; and

(3) Benchmark proposed Energy Savings Performance Contract (ESPC) projects against historical project data.

Based on information provided by the ESCO, the parties agree that the data required to be delivered to LBNL under this clause has commercial value whose disclosure would cause competitive harm to the commercial value or use of the data. LBNL intends to withhold such data from disclosure under 10 C.F.R. 1004.3(e)(2). The use of this data is governed by the provisions of this contract. Unless compelled by a court of competent jurisdiction, there may be no release of this data to the public without the written consent of the Recipient and DOE. Aggregate data that does not identify project-specific metric information may be released as set forth in the contract. Other information required to be delivered under this contract, but not covered under this Commercially Valuable ESPC Project Data clause, shall be delivered in accordance with this contract.

A. SUBMITTAL AND REVIEW

1. Interested companies should submit a qualifications packet addressing the specified Request for Qualifications (SOQ) criteria. On the submittal packet, please display the firm name and RFQ title. In the SOQ packet, include the one page cover letter and **one (1) copy of the SOQ on flash drive, one (1) paper copy clearly marked original and one (1) copy clearly marked copy no later than 1:00 pm, Monday, October 31, 2019** to:

Construction and Contracting Division
Second Floor, City Hall
530 East Monroe Ave.
Buckeye, Arizona 85326
Attention: Tyra Bell

Please note that these materials will not be returned.

Please be advised that **failure** to comply with the following criteria will be grounds for disqualification and will be strictly enforced:

- Receipt of submittal by the specified date and time.
- One (1) flash drive in PDF format, one (1) paper copy marked "original" and one (1) paper copy marked "copy".
- Deposit of submittal in correct location.

All questions regarding this Request for Proposal are to be addressed in writing or by e-mail to:

Tyra Bell
Construction and Contracting Division
530 E Monroe Avenue
Buckeye, Arizona 85326
tbell@buckeyeaz.gov

2. The Arizona Public Records Act limits the City's ability to withhold prequalification and bid data. If a submittal contains any trade secrets that a submitter does not want disclosed to the public or used by the City for any purpose other than evaluation of the submitter's eligibility, each sheet of such information must be marked with the designation "Confidential." The City agrees that if a Public Records request is made for disclosure of data so classified, it will notify the submitter of such data so that the submitter will have an opportunity to legally challenge the City's obligation to disclose such information.

B. REQUEST FOR PROPOSALS CONTENTS

The Proposal shall contain, at a minimum, the following information in the following order:

- **TAB 1: Program Participation and Compliance**
  Firm's commitment to adhere to state statutes, ESCO contract, Investment Grade Audit Contract, Energy Savings Performance Contract, Financing (RFP or in-house), commitment to use and training for eProject Builder (ePB) software.

- **TAB 2: Technical Approach**
  Approach to Investment Grade Audit (include sample from previous contracts), Measurement and Verifications approach, Commissioning Approach, Operations and Maintenance Plan development, Savings Shortfalls in previous contracts and their resolution.

- **TAB 3: Management Approach for this Project**
  Organizational structure, Local Staffing and Support, In-House vs. Subcontracting, Construction Management, City Involvement, Long-Term Servicing, Personnel and Staffing

- **TAB 4: Overview of Approach to Energy Savings Performance Contracting**
  Stand-alone overview to present a concise overview of the company

- **TAB 5: Project History**
  Project History, Company Expertise/Experience in Municipalities including work in recreation centers, water/wastewater facilities, public safety facilities, airports, other municipal facilities not mentioned herein.

- **TAB 6: Financial Soundness and Stability**
  Financial reports for the past 3 years, balance sheets, income statements, statement of cash flow, statement of financial conditions, all from a referenced preparer. Bonding capability/capacity including the company's ability to 100 percent payment and performance bonding, letters from surety.

- **TAB 7: Site Specific Approach**
  Summarize the scope of services (auditing, design, construction, monitoring, operations, maintenance, training, financing, etc.) identified for this project.

- **TAB 8: Qualifications**

NAESCO Accreditation, Other Industry accreditations, Energy Systems in Buildings including Mechanical/Electrical, Building Envelope, Renewables, Water Measures, Specialty Systems, Energy Management Systems, Envelope Measures, Operational Savings Measures.

- **TAB 9: Cost and Pricing**
  Cost for the project shall be submitted on the provided Submittal Proposal form in **Section VII** of this RFP, and enclosed with your proposal. This will establish the percentages and rates for audit costs, markups, and fees for your firm for this project. These values will be applied in any Investment Grade Audit and Project Development Contract or Energy Savings Performance Contract and can be negotiated downward. Cost shall be inclusive of all services related to the Scope of Work.

END OF SECTION VI

SECTION VII: SUBMITTAL PROPOSAL FORM

RFP 201017: ENERGY SAVINGS PERFORMANCE CONTRACTING SERVICES

Company Name _____

Total Cost for the Entire Project in words:

($_____)
Proposed Schedule (TOTAL Number of Calendar Days) to Complete the Entire Project:

_____

OFFER

Company Name:_____
Authorized Representative:_____
Title:_____
Address: _____
Phone Number:_____ Email Address:_____
Fax Number:_____ Website Address:_____

The undersigned proposer declares to have read and fully understand the Request for Proposals and agrees to all of the terms, conditions, and provisions contained therein; and proposes and agrees that if this proposal as submitted is accepted, vendor will contract to perform in accordance with the specifications and proposals. Said price is to include and cover all materials, labor, supervision, overhead, profit, and taxes to complete the job to the City's satisfaction.

Signature of Authorized Representative:_____
Date:_____

SECTION VIII: PROPOSER INQUIRY FORM
(Use for Pre-Proposal Questions, General Clarifications, etc.)

PROJECT NAME: Energy Savings Performance Contracting Services

PROPOSAL NUMBER: RFP# 2019017

INQUIRY DEADLINE: 5:00 P.M., Local Time Buckeye, Arizona, October 31, 2019.

QUESTIONS ON (Check One): _____ ORIGINAL PROPOSAL
_____ AMENDMENT NO.___

SECTION NUMBER:_____

WRITER:_____

FAX NO._____PHONE NO._____

COMPANY:_____

EMAIL:_____

DATE:_____

QUESTIONS:

_____

_____

_____

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SECTION IX: PROPOSAL CERTIFICATION/CONFLICT OF INTEREST CERTIFICATION

City of Buckeye
Construction & Contracting Division
530 Monroe Avenue
Buckeye, Arizona 85326

The undersigned certifies that to the best of his/her knowledge: (**check only one**)

( ) There is no officer or employee of City of Buckeye who has, or whose relative has, a substantial interest in any contract resulting from this request.

( ) The names of any and all public officers or employees of City of Buckeye who have, or whose relative has, a substantial interest in any contract resulting from this request, and the nature of the substantial interest, are included below or as an attachment to this certification. In compliance with **Request for Proposals# 2019017**, for **Energy Saving Performance Contracting Services** in the City of Buckeye and after carefully reviewing all the terms, conditions and requirements contained therein, the undersigned agrees to furnish such good/services in accordance with the specifications/scope of work.

AMENDMENTS: Receipt of the following Amendments is acknowledged, and the provisions are included in this RFP:

Amendment No._____ **Dated**_____
Amendment No._____ **Dated**_____
Amendment No._____ **Dated**_____
Amendment No._____ **Dated**_____

Firm Name: _____

Address: _____

City: _____, **State:** _____ **Zip:** _____

_____
(Signature Required)

_____
(Print name) (Fax#)

_____
(Print title) (Federal Taxpayer ID Number)

_____
(Date)

ATTACHMENT A
TO
RFP#2019017
ENERGY SAVING PERFORMANCE CONTRACTING SERVICES

[ESCO Response]

See following Pages

Attachment A:
ESCO Response to this Request for Proposals

Response to this Request for Proposals

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1.0 Program Participation and Compliance

2.0 Overview of Approach to Energy Savings Performance Contracting

3.0 Project History

4.0 Qualifications

5.0 Financial Soundness and Stability

6.0 Technical Approach

7.0 Management Approach for this Project

8.0 Site-Specific Approach

9.0 Cost And Pricing

ATTACHMENT A

Response to this Request for Proposals

IMPORTANT:

1) Re-state the number and question before your response to each item.
2) Before developing your response, note the requirements stated in Section 8.

1.0 Program Participation and Compliance

This section will not be included in the information made available on the website for Owners to review.

1.1 Compliance with Performance Contracting Requirements

State your firm's commitment to adhere to the following:

1.1.1 State Statutes

1.1.2 ESCO Contract

1.1.3 Investment Grade Audit and Project Development Contract

Using the **Investment Grade Audit and Project Proposal Contract (Attachment F)**, customizing only the project specifics presented in the schedules.

1.1.4 Energy Savings Performance Contract

Using the **Energy Savings Performance Contract (Attachment G)**, customizing only the project specifics.

1.1.5 RFP for Financing

Using the RFP to solicit bids for financing as provided in **Financing Solicitation Package (Attachment H),** provided your firm can offer this service in a non-advisory role (federal regulations restrict ESCO involvement to advise on financing).

Data Collection and Reporting by ESCO – Using eProject Builder (ePB)

ESCO shall collect and report project data, on behalf of Owner and with approval by Owner, as identified in **Energy Savings Performance Contract - Schedule D: Data Collection and Reporting – Using eProject Builder** and as amended on the LBNL website (http://eprojectbuilder.lbl.gov) and at the specified times.

eProject Builder ("ePB") is a web-based tool managed on behalf of the Department of Energy by The University of California/Lawrence Berkeley National Laboratory (LBNL). ePB enables ESCO and their contracting agencies or other entities to:

(1) Upload and track project-level information;

(2) Generate basic project reporting materials (e.g. task order schedules) that may be mandated by local, state, and/or federal agency requirements; and

(3) Benchmark proposed Energy Savings Performance Contract (ESPC) projects against historical project data.

Based on information provided by the ESCO, the parties agree that the data required to be delivered to LBNL under this clause has commercial value whose disclosure would cause competitive harm to the commercial value or use of the data. LBNL intends to withhold such data from disclosure under 10 C.F.R. 1004.3(e)(2). The use of this data is governed by the provisions of this contract. Unless compelled by a court of competent jurisdiction, there may be no release of this data to the public without the written consent of the Recipient and DOE. Aggregate data that does not identify project-specific metric information may be released as set forth in the contract. Other information required to be delivered under this contract, but not covered under this Commercially Valuable ESPC Project Data clause, shall be delivered in accordance with this contract.

2.0 Overview of Approach to Energy Savings Performance Contracting (ESPC)

Provide an overview, maximum of three (3) pages, to present your company as it relates to this project. The purpose of this overview is to provide a good introduction of your firm to the evaluation committee.

3.0 Project History

3.1 Market Sector Involvement

Briefly describe your company's expertise/experience in the market sector and types of facilities related to this RFP.

3.2 Project List

List up to 15 Energy Savings Performance Contracting projects developed and implemented by your firm within the past five years that have completed construction.

If it is relevant to list projects performed outside of the firm, clearly identify the firm with overall responsibility for that project and the project's relevance to this solicitation.

Project Name	Market Sector	City & State	Project Size (Dollars)	Project Size (Square Feet)	Year Completed

3.3 Project Data and References

Using the table below, provide detailed information on up to eight performance contracting projects your firm completed. Only include projects that have at least one year of documented performance data, are currently in repayment, are currently under contract with your firm, and that can be used as references. If desired provide additional project detail, such as a case study, in any format (maximum of an additional two pages for each project). We recognize that the actual performance data of some projects may be confidential information, protected by the customer and subject to confidentiality agreements in project contracts.

Project Data and References	
Project Name	
Facility Type and Use	
Project Size: -Number of Buildings -Total Square Footage	
Types of Measures	
Project Cost: Installed Project Costs	
Project Cost: Financed Amount	
Guaranteed Annual Savings ($)	
Financing/Funding Source	
Project Schedule: -Construction Start and End Dates -Guarantee Period Start and End Dates Describe if project was completed on schedule or delayed	
Measurement and Verification Methods	
Project Personnel: List all ESCO personnel associated with this project (limit to those who may be assigned to a project) and their roles and responsibilities (only list those who may be assigned to a project).	
Contact Information:	

Current phone and email address of owner representatives you worked with.							
Commodity	**Units**	**Guaranteed Annual Savings**	**Achieved Savings Year 1**	**Achieved Savings Year 2**	**Achieved Savings Year 3**	**Achieved Savings Year 4**	**Achieved Savings Year 5**
Electricity	kWh						
Electric Demand	kW						
Natural Gas	Therms						
Fuel Oil	Gal						
Steam							
Fuel Oil	Gal						
Water							
Other							
Material	$						
Maintenance Contracts	$						
Other	$						
TOTAL							

4.0 Qualifications

4.1 History and Focus of Company

Limit your response to no more than one page for this section (Section 3.1).

4.1.1 Structure and Evolution of the Firm.

List any other names for company's business. Provide any other information, only if deemed necessary.

4.1.2 Years in the Energy Business.

State the number of years the company has been involved in the energy-efficiency related business.

4.1.3 Involvement in Performance Contracting.

a) State the number of years the company has offered Energy Savings Performance Contracting services.

b) State the number of project professionals (energy engineers, project managers, etc.) in your firm that are directly involved in the performance contracting and energy efficiency or renewable energy business.

4.1.4 Number of Performance Contracting Projects.

State the number of performance contracting projects completed by the company.

4.2 Industry Accreditations

List any industry accreditations, partnerships, memberships, and pre-qualifications and briefly describe the relevance of each. Note that accreditation

is not a requirement and no firm will be penalized for the lack of industry accreditations, partnerships, memberships and pre-qualifications.

4.3 General Scope of Services

The purpose of this section is to ensure the firm has qualifications to provide the full scope of performance contracting services.

4.3.1 Energy systems in buildings:

Provide a brief discussion (five pages maximum) for this section (Energy Systems in Buildings) to illustrate the company's capability in each area.

4.3.1.1 Mechanical/Electrical Systems

This discussion could include: lighting: indoor and outdoor, heating, ventilation and indoor air quality issues, cooling, control and building automation, fuel switching, central plant, etc.

4.3.1.2 Renewables

4.3.1.3 This discussion could include: daylighting, solar-electric, solar thermal, geothermal, wind, biomass, distributed generation.

4.3.1.4 Water Measures

4.3.1.5 This discussion could include: plumbing fixtures, landscape irrigation, mechanical plant water-saving measures, etc.

4.3.1.6 Specialty Systems or Specific Building Types

4.3.1.7 This discussion could include kitchen or laundry; laboratories, clean rooms; healthcare hospitals, nursing homes, clinics; swimming pools and recreational facilities; computer laboratories, data Centers; correctional facilities.

4.3.1.8 Energy Management Services

This discussion could include: energy management, occupant programs (behavior focus), utility bill auditing and bill payment, benchmarking, LEED for Existing Buildings, etc.

4.3.1.9 Envelope Measures

This discussion could include: walls, windows, roof, infiltration reduction, etc.

4.3.1.10 Operational Savings Measures

This discussion could include eliminated maintenance costs, training programs for staff or occupants, waste measures, etc.

4.3.1.11 Other

4.3.2 Project Development and Implementation

4.3.2.1 Energy auditing (potential measures, savings projections; cost estimates)

4.3.2.2 Baseline development (including future savings adjustment)

4.3.2.3 Project proposal (package of measures with cash flow)

4.3.2.4 System design engineering

4.3.2.5 Equipment and subcontractor procurement and bidding
4.3.2.6 Construction management
4.3.2.7 Commissioning of projects and retro-commissioning of existing buildings
4.3.2.8 Project management
4.3.2.9 Hazardous materials identification and abatement, recycling or disposal (including asbestos)

4.3.3 Core Performance Contracting Services

4.3.3.1 Performance guarantee for every year of the financing term
4.3.3.2 Insurance per contract requirements
4.3.3.3 Equipment warranties
4.3.3.4 Facilitation of financing (including a municipal, tax-exempt lease purchase), to the extent your firm is registered to do so.
4.3.3.5 Measurement and verification of savings
4.3.3.6 Training (facility staff, occupants)

4.3.4 Support Services:

4.3.4.1 Marketing and promotion of the State Program
4.3.4.2 Long-term maintenance services on energy systems
4.3.4.3 Application for an Energy Star Label and LEED certification.
4.3.4.4 Data reporting to Owner and State Program (DOE/LBNL recommendations to be provided) and other reporting as required (emissions reductions, assistance to the Owner with preparing annual reports, etc.)

5.0 Financial Soundness and Stability

5.1 Financial Soundness

Describe the financial soundness and expected stability of the company.

5.1.1 Financial Reports:

Provide financial reports for the last 3 years, including, at a minimum: Balance Sheet, Income Statement, Statement of Cash Flow, and Statement of Financial Conditions. Include the name, address, and telephone number of the preparer.

5.1.2 Bonding

Include responses to the following:

5.1.3 Current bonding rating
5.1.4 Current bonding capacity
5.1.5 Amount or percentage of bonding capacity currently obligated
5.1.6 Current bonding rate
5.1.7 Confirmation that the company is bondable for 100% of a payment bond on a project

5.1.8 Confirmation that the company is bondable for 100% of a performance bond on a project

5.1.9 Letter from a licensed surety as evidence of ability to bond for payment and performance

6.0 Technical Approach

6.1 Investment Grade Audit

6.1.1 Briefly summarize your overall approach to auditing.

6.1.2 Provide a brief overview of your sample Investment Grade Audit. Under separate cover (as directed in the RFQ), provide a sample Investment Grade Audit report for an Energy Savings Performance Contracting project that your firm implemented in a public facility, preferably a municipality similar to Buckeye. Include detailed energy/water savings and economic calculations (excluding equipment cut sheets) and samples of tables and supporting calculations. This is intended to allow reviewers to conduct a reasonable analysis of your company's auditing methodology. Please be judicious regarding the volume of information submitted.

6.1.3 Provide an overview of your ability to analyze utility billing to capture credits, obtain refunds from billing errors and/or recommend rate schedule changes to reduce costs. Provide example(s) of such successful analysis.

6.2 Measurement and Verification

6.2.1 Briefly summarize your overall approach to Measurement and Verification (M&V).

6.2.2 Include a brief overview of your sample M&V plan. As an appendix to your response, provide a sample M&V Plan from a performance contracting project implemented by your company.

6.3 Commissioning

6.3.1 Briefly summarize your overall approach to commissioning.

6.3.2 Provide a brief overview of your sample Commissioning Plan. As an appendix to your response, provide a sample Commissioning Plan from a performance contracting project implemented by your firm.

6.4 Operations & Maintenance Plan

6.4.1 Briefly summarize your approach to Operations and Maintenance.

6.4.2 Include a brief overview of your sample Operations and Maintenance Plan. As an appendix to your response, provide a sample Operations & Maintenance Plan from a performance contracting project implemented by your firm.

6.5 Measurement and Verification Savings Report

6.5.1 Briefly summarize your approach to the M&V report.

6.5.2 Include a brief overview of your sample Measurement and Verification Report. As an appendix to your response, provide a sample Measurement and Verification Savings Report prepared by your firm from a completed performance contracting project currently in repayment.

6.6 Handling of Savings Shortfalls

Address any savings shortfalls that occurred over the past 5 years (up to 10 examples) and describe how they were resolved.

7.0 Management Approach for this Project

7.1 Project Management and Coordination

Limit this section (all of Section 5.1) to 5 pages.

7.1.1 Organizational Structure

Show the organization chart for implementing and managing the project with the core energy team assigned to this project. Show clear lines of communication and responsibility. Describe the transition and responsible parties involved from the sales to auditing phase, auditing to construction phase, construction to follow-up monitoring phase, etc. Also include an organization chart showing the corporate structure with added corporate support for the project.

7.1.2 Local Staffing and Support

List the office location (city and state) for the core energy team for this project. Describe the extent of local staffing and support for the each phase of a typical project. Describe the relevance or importance of local presence with regard to this project.

7.1.3 In-House vs. Subcontractors

Describe the types of services (both professional and construction services) that your company offers in-house and the services to be offered through subcontractors.

Describe how subcontractors are selected. Also comment on your ability to competitively select subcontractors.

7.1.4 Construction Management.

Describe how your firm would work with current building management and maintenance personnel in order to coordinate construction and avoid conflicts with the building's operation and use. Describe your flexibility and/or any limitations regarding possible Owner activities such as: management of additional energy and water projects, monitoring of installation and performance of Contractor projects and integration of other identified capital needs with Contractor projects which may or may not contain energy and water saving opportunities.

7.1.5 Owner Involvement.

Describe how you engage the Owner in decision-making regarding project scope, equipment specifications, ongoing operational and maintenance strategies, etc., and how you incorporate Owner's needs.

7.1.6 Long-term Servicing.

Describe long-term servicing of equipment and systems. State the location of your nearest servicing office.

7.2 Personnel and Staffing

Use the following table to present background on personnel or subcontractors who will be assigned responsibility for a core project task. Also include any added expertise and capability of staff available through other branch offices, subcontracts, etc., that can provide back-up strengths.

Personnel Profile:	Name
Potential Role Base Location	
Current Employment Current job title Company (if subcontractor) Job responsibilities Number of years with ESCO	
Previous Employment Job Title Company name Job responsibilities Number of years with firm	
Academic/Professional Qualifications Degree/discipline: College/university Professional Certifications (PE, CEM, CMVP, etc.) Technical Training Accreditations	
Overall Total years of relevant experience: Other relevant experience or accomplishments:	

Performance Contracting Experience (Past 5 Years) Project #____ Project Name: Project location: Type of facilities: Year implemented: Project Cost (installed cost): Role and responsibilities:	

8.0 Site-Specific Approach

8.1 Types of Services

Summarize the scope of services (auditing, design, construction, monitoring, operations, maintenance, training, financing, etc.) identified for this project.

8.2 Potential Projects

Based on your preliminary assessment of the information provided, describe any equipment modifications, installations or replacements at the facility that your firm would consider installing as a part of this project. Address energy, water and operational opportunities. Also describe any special features, renewable technologies, or advanced technologies that might be applicable. Describe any special features or services associated with your proposed improvements that would add value to Owner. Describe your approach to achieve compatibility (such as open systems) and/or standardization of equipment in the facilities to be addressed.

9.0 Cost And Pricing

Responses to <u>this section only</u> will remain proprietary.

This response will establish the <u>maximum</u> audit costs, markups, and fees for your firm for this project. The maximums will be applied in any Investment Grade Audit and Project Development Contract or Energy Savings Performance Contract and can be negotiated downward.

See definitions and a working spreadsheet in **Attachment D – Cost and Pricing – Definitions and Spreadsheet**.

9.1 Project Cost Breakdown

In the table below, provide your company's proposed Maximum Percentage of Total Project Price for this project, for each category listed. These percentages must be equal to or less than the maximums proposed in the ESCO pre-qualification process.

This format is required and must be completed in its entirety. Use only the categories shown. Ranges are not acceptable.

Clearly describe how incidental and ancillary work will be charged (billed hourly, billed as a markup of equipment and labor costs, etc.). Incidental and ancillary work includes but is not limited to work that is related to ensure jobsite safety and security, jobsite cleanliness and sanitation, limited demolition, and other incidental work that is necessary to enable subcontractors to perform their work in a timely manner.

Project Construction Cost Category	Maximum Percent of Total Project Price	Self-Performed or Subcontracted
Pre-Construction Costs		
Design and other Engineering *Professional architectural and engineering services; Energy modeling*		
Pre-Construction Services *Construction management and project development services*		
Other Pre-Construction Costs *Site visits, Owner meetings, Legal review, Accounting services, etc.*		
Construction Costs		
Trade Subcontractors *Construction contractors subcontracted to ESCO; Lighting, construction, sheet metal, etc.*	N/A until Investment Grade Audit is completed	
Design/Build Subcontracts *Construction and design contractors*	N/A until Investment Grade Audit is completed	
Direct Purchase Equipment *Equipment directly purchased by ESCO*	N/A until Investment Grade Audit is completed	
Construction Management *Construction manager and site superintendent*		
Project Engineering *Design engineer inspections; Engineering analysis*		
General Conditions *Miscellaneous non-staffing costs; Equipment rentals, security fencing, etc.*		

Construction Completion *Commissioning, Training, Construction M&V, O&M Manuals*		
Other Construction Costs *Site visits, Owner meetings, Permits, Insurance, Bonds, Warranty Labor*		

9.2 Profit Markup

In the table below provide the maximum percentage markup that will be applied to direct purchases of equipment, material, and subcontractors for this project. The percentage must be equal to or less than the maximums proposed in the ESCO pre-qualification process. Note that overhead is included in Construction Costs - General Conditions.

	Maximum % Markup
Profit Percent	

If a proposal is from a joint venture partnership, include proposed maximum allowable markups in the schedule format above for each participating company.

9.3 Contingency

Describe your company's typical level of contingency budget for lighting, electrical, mechanical, controls projects, and other projects and how it proposes to apply contingency to cover changes in work scope and subcontractor change orders. Note that all unused contingency funds will revert to the Owner or be applied to additional work scope through a change order approved by the Owner.

9.4 Investment Grade Audit Fee

In the table below, provide the maximum fee to conduct the Investment Grade Audit and Project Development Proposal, on a cost per square foot basis. The fee must be equal to or less than the maximum proposed in the ESCO pre-qualification process. Through this proposed maximum fee your firm acknowledges the responsibility to adhere to and complete the full scope of work as presented in the Attachment F (Investment Grade Audit and Project Development Contract). The City recognizes that an Investment Grade Audit is a significant undertaking; therefore, a zero cost will result in a complete disqualification of your company from this solicitation.

	Proposed Max cost per sf
Investment Grade Audit and Project Proposal	$/sf

9.5 Self-Performed Work Fees

In the table below, provide the position descriptions and hourly rates for labor and services as performed by your company.

The purpose of this is to enable confirmation through open book pricing.

Position Description	Hourly Rate
Position	$xx.xx
Position	$xx.xx
Position	$xx.xx
Position	$xx.xx

9.6 Annual Costs and Fees

9.6.1 Measurement and Verification – Annual Fee

Describe how the post-retrofit Measurement & Verification annual fee is determined.

The Measurement and Verification Services cost is the annual cost for the services necessary after acceptance of the project to annually verify the Energy Performance Contract guarantees. The cost for the guarantee is based upon the M&V option utilized, the risk of savings failure, the field time to measure building performance, and the time to document and present the report.

9.6.2 Warranty

Describe how the warranty cost is determined.

Warranty is the burdened labor cost associated with time anticipated to be expended by ESCO staff in supporting their direct purchase equipment warranties; and/or equipment provided by subcontractors. This warranty cost may also include costs for extended equipment warranties in those cases where the required/specified equipment warranty is longer than the equipment warranty offered by the manufacturer.

9.6.3 Other

Describe any other fees and how they will be determined.

9.7 Equipment/Labor Cost Competition

Describe your company's process to solicit bids on equipment/labor or to ensure price/cost competition and the best value for the Owner.

9.8 Open Book Pricing

Open book pricing is required as stated in **Attachment G: Energy Savings Performance Contract.**

Describe your company's approach to open book pricing and the method for maintaining cost accounting records on authorized work performed under actual costs for labor and material, or other basis requiring accounting records.

9.9 Best Value

Briefly describe how your approach to performance contracting delivers best value for the investment. Describe any utility rebates or other financial incentives or grants you can potentially provide and/or facilitate.

ATTACHMENT B-1: Cost and Pricing - Definitions

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2.0 Pre-Construction Costs Page 2

3.0 Construction Costs Page 3

4.0 Implementation Cost Subtotal Page 6

5.0 Total Project Price Page 6

6.0 Profit Page 6

7.0 Contingency Page 7

8.0 Self-Performed Work Fee Page 7

9.0 Annual Cost Categories Page 7

ATTACHMENT B-1

Project Cost and Pricing – Definitions

1. Investment Grade Audit (IGA) Costs

The Investment Grade Audit (IGA) is an audit that fulfills the obligations outlined in the Investment Grade Audit and Project Proposal Contract. The cost for the IGA is based on cost per square foot and is intended to be the market rate for a technical energy audit.

2. Pre-Construction Costs

Pre-Construction Cost includes all costs, as described below, except for costs contained in the Investment Grade Audit which will be required prior to construction of all measures.

2.1 Design and Other Engineering

Design and other engineering includes all professional architecture and engineering costs required to design and specify projects to be installed as part of the Work. If design work is completed in-house, this includes burdened labor associated with design of measures included in the ESPC. If design work is subcontracted to an A&E firm, this is the quoted cost from the A&E firm plus burdened labor from ESCO energy engineers to oversee and direct A&E design services. Design and other engineering services include applicable code review costs. Any non-billable time or non-engineering supervision of engineers associated with engineers and/or design efforts will be included in the Other Pre-Construction Costs category.

Energy engineering includes all energy modeling, energy savings calculations and any additional energy engineering costs that were not accounted for in TEA costs. Costs include burdened labor, any non-billable time for energy engineers, supervision of energy engineers or other support, training costs for energy engineers shall be included in the Other Pre-Construction Indirect Costs category.

2.2 Pre-Construction Services

Pre-construction services include both construction management as well as project development services. In order to coordinate and bring many complex technical details together and present such proposal to the Owner, ESCOs may employ Business Development Representatives, Project Developers, and/or other resources that act as the key contact between the Owner and the ESCO. This line item includes all burdened labor, commission, and any other direct cost associated with presenting the best information to the Owner in an understandable format.

As an additional level of coordination, ESCOs may utilize a construction manager prior to construction of projects to solicit bids for final construction and also help review designs

to ensure constructability. This cost includes all burdened construction manager costs associated with these efforts, if applicable.

2.3 Other Pre-Construction Costs

Site visits and Owner meetings are necessary before construction to ensure designs and equipment meet customer needs and fit project objectives. Other Pre-construction Costs may include but are not limited to: administrative support, legal review, accounting services, printing, copying, binding, office supplies, business travel, business meals and supervision of project development staff.

3. Construction Costs

All costs in this category are the direct costs from the subcontractors, vendors, and material providers to complete the Work, but shall not include any ESCO profit. The ESCO may add profit to these services but ESCO profit is not to be included in this line item. Profit shall be identified in the overhead and profit line item.

3.1 Trade Subcontractors

Trade subcontractors are construction contractors that are subcontracted directly to the ESCO. These subcontractors are selected by the ESCO from bidding on specifications developed by the ESCO. Such subcontractors may include lighting contractors, sheet metal contractors, piping contractors, electricians, plumbers, carpenters, controls contractors, and other trade contractors as necessary to complete the Work.

3.2 Design-Build Subcontractors

Design-build subcontractors are construction and design contractors that are subcontracted directly to the ESCO. Design-build subcontractors act as their own design agent and finalize the design of the Work Product to be installed. Such subcontractors include lighting contractors that complete their own audit and design; mechanical contractors that coordinate all of their own electrical, sheet metal work, piping and other support work; specialty contractors like pool cover vendors, and other specialty contractors necessary to complete the Work are included in this category. The design-build subcontracts work will be through the ESCO, with the ESCO approving all drawings and specifications prior to construction and with the ESCO taking responsibility for the performance of the design-build subcontractors.

3.3 Direct Purchase Equipment

Any equipment that is directly purchased by the ESCO is included in this category.

3.4 Construction Management

Construction Management includes the burdened labor cost of a construction manager and site superintendent directly supporting the implementation effort required to oversee and coordinate subcontractors on the project.

3.5 Project Engineering

During construction the ESCO's design engineers or contract A&E firm may make periodic inspections of work and support the construction manager with engineering analysis of required field modifications. This cost includes the burdened cost of engineering labor or quoted subcontract A&E services to support the construction manager in this effort.

3.6 General Conditions

General Conditions may be required on larger and longer term projects. General conditions may cover miscellaneous non-staffing costs directly related to the project, such as; job trailer, trailer office equipment, temporary utilities, permanent utility connection fees, barriers/security fencing, scaffolding, equipment rental, site guards, cleaning and trash and recycling dumpsters.

3.7 Construction Completion

3.7.1 Commissioning

At the completion of the construction, the ESCO shall complete pre-functional and post-functional tests of all installed measures to ensure proper operation under load. This work is normally completed by commissioning agents. If this scope is completed by ESCO employees, it includes the burdened cost of commissioning staff. If this scope is outsourced to a commissioning firm, this cost includes the turnkey cost to provide necessary commissioning services.

3.7.2 Construction M&V

At the completion of construction, the ESCO shall complete the measurement and verification of installed equipment to verify post-retrofit energy efficiency and operation. This effort is necessary to ensure systems will meet the guaranteed energy savings and start the M&V Services phase. If completed by ESCO staff, this cost shall include burdened labor of Measurement & Verification Engineers. If completed by external M&V agency, this cost includes the turnkey cost to provide necessary measurement & verification services.

3.7.3 As-Built Plans and O&M Manuals

At the completion of projects, the ESCO is required to provide complete Operation and Maintenance Manuals to the Owner to allow for quick reference to written documents to provide sufficient maintenance to installed equipment. O&M manuals shall include necessary as-built architectural and/or engineering drawings. The cost to prepare most operations and maintenance raw materials should be included in relevant subcontractor costs above. This cost is to combine all subcontractor provided material into single O&M Manuals; print, copy, bind and deliver both printed and electronic copies to the Owner.

3.7.4 Training

Training costs may be provided by subcontractors and as such will be included in their subcontractor bid. However, if the ESCO plans to provide training to the Owner, the burdened labor cost for such training shall be included in this line item. In addition to labor, this line item may include formal classroom training, training videos, online training programs, and other training efforts that include labor and materials required to provide necessary training to the Owner. This line item cannot be a repeat of training provided directly by subcontractors in subcontractor costs. Training labor may be utilized to supervise and coordinate subcontractor training sessions with the Owner.

3.8 Other Construction Costs

Site visits and Owner meetings are necessary at the conclusion of construction to ensure the project has been completed properly before Owner signs final acceptance notification. Such items as administrative support, legal review, accounting services, printing, copying, binding, office supplies, business travel, business meals and supervision of staff are all considered acceptable post-construction indirect costs. Other construction costs may include:

3.8.1 Permits

Construction is completed in various jurisdictions requiring compliance with jurisdictional codes. ESCOs must pay code reviewers to review design drawings; and render decisions on designs meeting code. In addition, the ESCO must apply for and receive any necessary construction permits and licenses to operate based on designs and/or code review. These line items include all costs associated with paying code reviewers and application fees and inspections fees for such permits. This line item does not include design fees or engineering labor to work with code officials or submit permit applications. These labor fees shall be included in the engineering and/or construction management categories listed above.

3.8.2 Insurance

ESCOs may be required to possess various levels of Builder's Risk Insurance, Automobile Liability Insurance, Professional Liability Insurance, and other General Liability Umbrella policies. This line item shall include an average amount of insurance that would be attributed to this project. Worker's Comp Insurance is not included in this line item and shall be included in the appropriate burdened labor cost categories.

3.8.3 Performance & Payment Bonds

All ESCOs are required to bond the performance and payment of all work by a reputable surety approved for such work. The cost of the performance and payment bond shall be included in this category for the anticipated amount of work to be completed without expending contingency funds. If and when

contingency funds are expended, any increase in bond cost must be included with contingency cost expenditure proposals.

3.8.4 Warranty Labor

Warranty labor is the burdened labor cost associated with time anticipated to be expended by ESCO staff in supporting their direct purchase equipment warranties; and/or equipment provided by subcontractors. All actual warranty replacement costs shall be included with the three line-items above and shall not be included in this line item. This item does not include the annual cost of supporting warranties post-construction, which is provided in item 9.1 below.

4. Implementation Cost Subtotal

This is a subtotal of all the implementation cost expended by the ESCO to complete the Work for the Owner. No profit can be included in this subtotal for the ESCO or any close affiliate, parent, or subsidiary entity belonging to the ESCO. The Owner is entitled to audit or request as part of any pay application any and all costs included in any and all cost categories to ensure that all costs can be accounted for within standard Generally Acceptable Accounting Principles (GAAP).

5. Total Project Price

The Total Project Price includes the estimated project cost, profit markup, audit, and contingency. The price is not estimated until the Investment Grade Audit is completed.

6. Profit

The anticipated, but not guaranteed, gross profit associated with the project. Note that overhead is included in Construction Costs - General Conditions.

7. Contingency

The project contingency is the asset of the Agency, and is held in escrow or encumbered, with the project total financed funding. As part of the project's overall budget, it is co-managed by the Agency and Contractor. The intended purpose of the project contingency is to provide funds for unforeseen elements of the scope of work, which may become known only after implementation of the scope of work has begun. The Contractor will identify any unforeseen scope of work items, as well cost impact for those unforeseen scope of work items, to the Agency for review and approval prior to any of the project contingency being spent. Contractor will maintain an on-going record of the project contingency throughout the project. If, once all of the contracted scope of work has been completed or is nearing completion and there are project contingency monies remaining the Contractor will work with the Agency to determine the best use of the remaining funds. One option is for the Agency to consider additional energy conservation or capital improvement measures for implementation utilizing the remaining contingency dollars. Contractor and Agency will work together to review the potential added measures with

the finance company to assure that the potential added measures are acceptable to the finance company.

8. Self-Performed Work Fee

In order to enable confirmation through open book pricing, position descriptions are requested with hourly rates for labor and services as performed by the ESCO.

9. Annual Cost Categories

9.1 Warranty

Warranty is the burdened labor cost associated with time anticipated to be expended by ESCO staff in supporting their direct purchase equipment warranties; and/or equipment provided by subcontractors. This warranty cost may also include costs for extended equipment warranties in those cases where the required/specified equipment warranty is longer than the equipment warranty offered by the manufacturer.

9.2 Measurement and Verification

The Measurement and Verification Services cost is the annual cost for the services necessary after acceptance of the project to annually verify the Energy Performance Contract guarantees. The cost for the guarantee is based upon the M&V option utilized, the risk of savings failure, the field time to measure building performance, and the time to document and present the report.

9.3 Other

Define any Other categories and their significance.

ATTACHMENT B
TO
RFP#2019017
ENERGY SAVING PERFORMANCE CONTRACTING SERVICES

[Cost and Pricing]

See following Pages

ATTACHMENT B-1: Cost and Pricing - Definitions

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5.0 Total Project Price Page 6

6.0 Profit Page 6

7.0 Contingency Page 7

8.0 Self-Performed Work Fee Page 7

9.0 Annual Cost Categories Page 7

ATTACHMENT B-1

Project Cost and Pricing – Definitions

1. Investment Grade Audit (IGA) Costs

The Investment Grade Audit (IGA) is an audit that fulfills the obligations outlined in the Investment Grade Audit and Project Proposal Contract. The cost for the IGA is based on cost per square foot and is intended to be the market rate for a technical energy audit.

2. Pre-Construction Costs

Pre-Construction Cost includes all costs, as described below, except for costs contained in the Investment Grade Audit which will be required prior to construction of all measures.

2.1 Design and Other Engineering

Design and other engineering includes all professional architecture and engineering costs required to design and specify projects to be installed as part of the Work. If design work is completed in-house, this includes burdened labor associated with design of measures included in the ESPC. If design work is subcontracted to an A&E firm, this is the quoted cost from the A&E firm plus burdened labor from ESCO energy engineers to oversee and direct A&E design services. Design and other engineering services include applicable code review costs. Any non-billable time or non-engineering supervision of engineers associated with engineers and/or design efforts will be included in the Other Pre-Construction Costs category.

Energy engineering includes all energy modeling, energy savings calculations and any additional energy engineering costs that were not accounted for in TEA costs. Costs include burdened labor, any non-billable time for energy engineers, supervision of energy engineers or other support, training costs for energy engineers shall be included in the Other Pre-Construction Indirect Costs category.

2.2 Pre-Construction Services

Pre-construction services include both construction management as well as project development services. In order to coordinate and bring many complex technical details together and present such proposal to the Owner, ESCOs may employ Business Development Representatives, Project Developers, and/or other resources that act as the key contact between the Owner and the ESCO. This line item includes all burdened labor, commission, and any other direct cost associated with presenting the best information to the Owner in an understandable format.

As an additional level of coordination, ESCOs may utilize a construction manager prior to construction of projects to solicit bids for final construction and also help review designs

to ensure constructability. This cost includes all burdened construction manager costs associated with these efforts, if applicable.

2.3 Other Pre-Construction Costs

Site visits and Owner meetings are necessary before construction to ensure designs and equipment meet customer needs and fit project objectives. Other Pre-construction Costs may include but are not limited to: administrative support, legal review, accounting services, printing, copying, binding, office supplies, business travel, business meals and supervision of project development staff.

3. Construction Costs

All costs in this category are the direct costs from the subcontractors, vendors, and material providers to complete the Work, but shall not include any ESCO profit. The ESCO may add profit to these services but ESCO profit is not to be included in this line item. Profit shall be identified in the overhead and profit line item.

3.1 Trade Subcontractors

Trade subcontractors are construction contractors that are subcontracted directly to the ESCO. These subcontractors are selected by the ESCO from bidding on specifications developed by the ESCO. Such subcontractors may include lighting contractors, sheet metal contractors, piping contractors, electricians, plumbers, carpenters, controls contractors, and other trade contractors as necessary to complete the Work.

3.2 Design-Build Subcontractors

Design-build subcontractors are construction and design contractors that are subcontracted directly to the ESCO. Design-build subcontractors act as their own design agent and finalize the design of the Work Product to be installed. Such subcontractors include lighting contractors that complete their own audit and design; mechanical contractors that coordinate all of their own electrical, sheet metal work, piping and other support work; specialty contractors like pool cover vendors, and other specialty contractors necessary to complete the Work are included in this category. The design-build subcontracts work will be through the ESCO, with the ESCO approving all drawings and specifications prior to construction and with the ESCO taking responsibility for the performance of the design-build subcontractors.

3.3 Direct Purchase Equipment

Any equipment that is directly purchased by the ESCO is included in this category.

3.4 Construction Management

Construction Management includes the burdened labor cost of a construction manager and site superintendent directly supporting the implementation effort required to oversee and coordinate subcontractors on the project.

3.5 Project Engineering

During construction the ESCO's design engineers or contract A&E firm may make periodic inspections of work and support the construction manager with engineering analysis of required field modifications. This cost includes the burdened cost of engineering labor or quoted subcontract A&E services to support the construction manager in this effort.

3.6 General Conditions

General Conditions may be required on larger and longer term projects. General conditions may cover miscellaneous non-staffing costs directly related to the project, such as; job trailer, trailer office equipment, temporary utilities, permanent utility connection fees, barriers/security fencing, scaffolding, equipment rental, site guards, cleaning and trash and recycling dumpsters.

3.7 Construction Completion

3.7.1 Commissioning

At the completion of the construction, the ESCO shall complete pre-functional and post-functional tests of all installed measures to ensure proper operation under load. This work is normally completed by commissioning agents. If this scope is completed by ESCO employees, it includes the burdened cost of commissioning staff. If this scope is outsourced to a commissioning firm, this cost includes the turnkey cost to provide necessary commissioning services.

3.7.2 Construction M&V

At the completion of construction, the ESCO shall complete the measurement and verification of installed equipment to verify post-retrofit energy efficiency and operation. This effort is necessary to ensure systems will meet the guaranteed energy savings and start the M&V Services phase. If completed by ESCO staff, this cost shall include burdened labor of Measurement & Verification Engineers. If completed by external M&V agency, this cost includes the turnkey cost to provide necessary measurement & verification services.

3.7.3 As-Built Plans and O&M Manuals

At the completion of projects, the ESCO is required to provide complete Operation and Maintenance Manuals to the Owner to allow for quick reference to written documents to provide sufficient maintenance to installed equipment. O&M manuals shall include necessary as-built architectural and/or engineering drawings. The cost to prepare most operations and maintenance raw materials should be included in relevant subcontractor costs above. This cost is to combine all subcontractor provided material into single O&M Manuals; print, copy, bind and deliver both printed and electronic copies to the Owner.

3.7.4 Training

Training costs may be provided by subcontractors and as such will be included in their subcontractor bid. However, if the ESCO plans to provide training to the Owner, the burdened labor cost for such training shall be included in this line item. In addition to labor, this line item may include formal classroom training, training videos, online training programs, and other training efforts that include labor and materials required to provide necessary training to the Owner. This line item cannot be a repeat of training provided directly by subcontractors in subcontractor costs. Training labor may be utilized to supervise and coordinate subcontractor training sessions with the Owner.

3.8 Other Construction Costs

Site visits and Owner meetings are necessary at the conclusion of construction to ensure the project has been completed properly before Owner signs final acceptance notification. Such items as administrative support, legal review, accounting services, printing, copying, binding, office supplies, business travel, business meals and supervision of staff are all considered acceptable post-construction indirect costs. Other construction costs may include:

3.8.1 Permits

Construction is completed in various jurisdictions requiring compliance with jurisdictional codes. ESCOs must pay code reviewers to review design drawings; and render decisions on designs meeting code. In addition, the ESCO must apply for and receive any necessary construction permits and licenses to operate based on designs and/or code review. These line items include all costs associated with paying code reviewers and application fees and inspections fees for such permits. This line item does not include design fees or engineering labor to work with code officials or submit permit applications. These labor fees shall be included in the engineering and/or construction management categories listed above.

3.8.2 Insurance

ESCOs may be required to possess various levels of Builder's Risk Insurance, Automobile Liability Insurance, Professional Liability Insurance, and other General Liability Umbrella policies. This line item shall include an average amount of insurance that would be attributed to this project. Worker's Comp Insurance is not included in this line item and shall be included in the appropriate burdened labor cost categories.

3.8.3 Performance & Payment Bonds

All ESCOs are required to bond the performance and payment of all work by a reputable surety approved for such work. The cost of the performance and payment bond shall be included in this category for the anticipated amount of work to be completed without expending contingency funds. If and when

contingency funds are expended, any increase in bond cost must be included with contingency cost expenditure proposals.

3.8.4 Warranty Labor

Warranty labor is the burdened labor cost associated with time anticipated to be expended by ESCO staff in supporting their direct purchase equipment warranties; and/or equipment provided by subcontractors. All actual warranty replacement costs shall be included with the three line-items above and shall not be included in this line item. This item does not include the annual cost of supporting warranties post-construction, which is provided in item 9.1 below.

4. Implementation Cost Subtotal

This is a subtotal of all the implementation cost expended by the ESCO to complete the Work for the Owner. No profit can be included in this subtotal for the ESCO or any close affiliate, parent, or subsidiary entity belonging to the ESCO. The Owner is entitled to audit or request as part of any pay application any and all costs included in any and all cost categories to ensure that all costs can be accounted for within standard Generally Acceptable Accounting Principles (GAAP).

5. Total Project Price

The Total Project Price includes the estimated project cost, profit markup, audit, and contingency. The price is not estimated until the Investment Grade Audit is completed.

6. Profit

The anticipated, but not guaranteed, gross profit associated with the project. Note that overhead is included in Construction Costs - General Conditions.

7. Contingency

The project contingency is the asset of the Agency, and is held in escrow or encumbered, with the project total financed funding. As part of the project's overall budget, it is co-managed by the Agency and Contractor. The intended purpose of the project contingency is to provide funds for unforeseen elements of the scope of work, which may become known only after implementation of the scope of work has begun. The Contractor will identify any unforeseen scope of work items, as well cost impact for those unforeseen scope of work items, to the Agency for review and approval prior to any of the project contingency being spent. Contractor will maintain an on-going record of the project contingency throughout the project. If, once all of the contracted scope of work has been completed or is nearing completion and there are project contingency monies remaining the Contractor will work with the Agency to determine the best use of the remaining funds. One option is for the Agency to consider additional energy conservation or capital improvement measures for implementation utilizing the remaining contingency dollars. Contractor and Agency will work together to review the potential added measures with

the finance company to assure that the potential added measures are acceptable to the finance company.

8. Self-Performed Work Fee

In order to enable confirmation through open book pricing, position descriptions are requested with hourly rates for labor and services as performed by the ESCO.

9. Annual Cost Categories

9.1 Warranty

Warranty is the burdened labor cost associated with time anticipated to be expended by ESCO staff in supporting their direct purchase equipment warranties; and/or equipment provided by subcontractors. This warranty cost may also include costs for extended equipment warranties in those cases where the required/specified equipment warranty is longer than the equipment warranty offered by the manufacturer.

9.2 Measurement and Verification

The Measurement and Verification Services cost is the annual cost for the services necessary after acceptance of the project to annually verify the Energy Performance Contract guarantees. The cost for the guarantee is based upon the M&V option utilized, the risk of savings failure, the field time to measure building performance, and the time to document and present the report.

9.3 Other

Define any Other categories and their significance.

ESCO Name

Project Name

Schedule of Values

Exhibit	ECM #	ECM Description	Price*
			$ -
			$ -
			$ -
			$ -
			$ -
			$ -
			$ -
			$ -
			$ -
			$ -
			$ -
			$ -
			$ -
			$ -
			$ -
			$ -
			$ -
			$ -
			$ -
			$ -

* Total price for each individual ECM with Profit. Total price of ECM's must equal Project Price Subtotal with Profit on Project Budget Table.

ESCO Name
Project Name

		Project Budget	Fees (1)	Costs (2)	Implement-ation Costs (3)	Profit Markup (4,5)	Project Price	Maximum Percent of Total Project Price (5)	Actual Percent of Total Project Price	Self-Performed by ESCO or Subcontracted	How final value derived
		Pre-Construction Fees and Costs									
		Design and Other Engineering	$ -	$ -	$ -	$ -	$ -		#DIV/0!		
		Pre-Construction Services	$ -	$ -	$ -	$ -	$ -		#DIV/0!		
		Other Pre-Construction Costs	$ -	$ -	$ -	$ -	$ -		#DIV/0!		
		Construction Fees and Costs									
		Trade Subcontractors (Contractor Costs to ESCO)	N/A	$ -	$ -	$ -	$ -	N/A	N/A	N/A	N/A
		Design-Build Subcontractors	N/A	$ -	$ -	$ -	$ -	N/A	N/A	N/A	N/A
		Direct Purchase Equipment	N/A	$ -	$ -	$ -	$ -	N/A	N/A	N/A	N/A
		Construction Management	$ -	$ -	$ -	$ -	$ -		#DIV/0!		
		Project Engineering	$ -	$ -	$ -	$ -	$ -		#DIV/0!		
		General Conditions	$ -	$ -	$ -	$ -	$ -		#DIV/0!		
		Construction Completion	$ -	$ -	$ -	$ -	$ -		#DIV/0!		
		Subtotals	$ -	$ -	$ -	$ -	$ -				
		Other Fees									
		Investment Grade Audit and Project Proposal	$ -				$ -	N/A	N/A		N/A
		Contingency	$ -				$ -		#DIV/0!		
		TOTAL PROJECT PRICE					$ -				

NOTES:

Enter values in appropriate stages of the process, as indicated by highlight colors

Process Step: RFQ to Pre-Qualify ESCOs
Process Step: RFP to Select an ESCO for a Specific Project (maximum percentages may be negotiated downward)
Process Step: Investment Grade Audit

Definitions

See "Cost Category Definitions" tab

(1) Fees include ESCO self-performed work, IGA and contingency. Markups shall not be applied to fees.
ESCO shall provide a list of hourly rates and position descriptions for labor or services provided.
(2) Costs include subcontracted work and direct purchases of equipment, material and supplies installed on the project.
(3) Implementation Costs include no profit
(4) Profit markup is applied to cost only
(5) Lesser percent of Profit and Total Project Price

ATTACHMENT C
TO
RFP#2019017
ENERGY SAVING PERFORMANCE CONTRACTING SERVICES

[Financing Solicitation Package]

See following Pages

Sample Provisions for Lease

Following are elements commonly included in a Tax-Exempt Lease Purchase Agreement. This describes certain terms that apply to municipal lease financing in most states. While this information is intended as a reference source to explain these general terms, it should not be relied upon as a substitute for professional financial and legal advice with respect to construction of a particular lease financing document.

Tax-Exempt Lease Purchase Agreement Standard Terms and Definitions

Characteristics of a Tax-Exempt Lease Purchase Agreement (TELP) – A TELP allows a municipal entity to purchase and acquire certain identified equipment, which will be delivered to the municipal entity either on a specified closing /funding date, or over a stated period of time. Most energy savings performance contracting (ESPC) projects will require that financing is available over a specified installation period. Typically an escrow account or an acquisition account is created by or at the direction of the municipal entity in which an escrow agent or trustee acting on behalf of the investor(s) will hold the funds that are advanced by the investor(s) for the equipment acquisition program. Moneys are then withdrawn from the account at the direction of the municipal entity to pay acquisition costs of the equipment as it is acquired and installed. Moneys in an escrow or acquisition account represent the proceeds of the financing, are invested in qualified investments at the municipal entity's direction, accrue investment earnings for the benefit of the municipality (subject to any arbitrage rebate policy) and typically are pledged as security for the municipal entity's lease payment obligation.

Each tax-exempt lease financing agreement should be carefully structured in light of federal law and applicable state law. The laws of each state are unique in the treatment of a variety of issues that relate to lease financings. A municipal entity considering lease financing should consult closely with public finance professionals and experienced legal counsel to determine the precise application of controlling legal principles to the contemplated lease financing. The index below illustrates and highlights some of the common terms and conditions that are found in a tax-exempt lease purchase agreement for energy savings performance contracting projects.

Index of Standard Terms/Conditions in a Tax-Exempt Lease Purchase Agreement

Abatement – A legal concept whereby the municipal entity reduces its rent proportionately or totally to the extent it does not have use of the financed equipment. For tax-exempt leases, in California and some other states, a municipal entity is not required to make rental payments without use of the financed equipment, permitting a termination of the lease payments. Some leases allow a municipal entity to abate partial payments if use of the equipment is limited. Lenders are likely to protect their interests in leases that contain abatement provisions by requiring the municipal entity to maintain casualty and rental interruption insurance.

Abatement Lease - A type of multi-year tax-exempt lease purchase agreement whereby the municipal entity can commit to make lease payments for the entire lease term unless the leased equipment is not available for use, in which case abatement occurs.

Assignment Provisions – Typically the Lessor may assign its rights to receive lease payments and its security interest in the equipment installed pursuant to the energy services performance contract, but only with the written consent of the municipal entity. Each assignment should specifically mention the municipal entity's rights regarding prepayment.

Bank Qualification – A representation as to whether the municipal entity issuing the obligation reasonably anticipates to issue no more than $10,000,000 of tax-exempt obligations in the calendar year in which the particular lease financing is being funded.

Equipment Delivery and Installation – The municipal entity agrees that it will be solely responsible for the selection and use of the equipment measures and any other associated equipment, programs or services included in the financing. In addition, the municipal entity should agree it is solely responsible for the delivery and installation of the equipment and make representations that prior to acceptance it has examined and accepted the equipment in "where-is and as-is" condition.

Escrow Fund – An escrow account should be incorporated into the tax-exempt lease purchase agreement to provide financing for the costs of the equipment that will not be fully delivered and accepted on the closing/funding date. At closing, the monies shall be fully funded into an escrow account and then moneys are then withdrawn from the escrow or acquisition account at the direction of the municipal entity to pay for the equipment as it is acquired and installed. Moneys in an escrow or acquisition account shall represent the proceeds of the financing, should be invested in qualified investments at the municipal entity's direction, and accrued investment earnings should be for the benefit of the municipality (subject to any

arbitrage rebate policy). These monies will be pledged as security for the municipal entity's lease payment obligation.

Essential Use – This clause or certificate is designed to provide comfort to investors that the nature of the financed equipment is so "essential" to the provision of government services that the municipal entity will not be likely to NOT appropriate funds to make lease payments because the loss of the financed property would adversely affect the operations of the municipal entity.

Fiscal Funding (Non-Appropriation Clause) - State law will dictate whether a municipal entity may enter into multi-year contracts or if a non appropriation provision must be included to avoid treatment of a lease as "debt" for state constitutional and statutory purposes. This clause permits the municipal entity to terminate a tax-exempt lease purchase contract at the end of any appropriation period if funds are not appropriated or otherwise available to make the payments due under the lease contract in the subsequent appropriation period. The provision will typically include a "best efforts" clause in which the municipal entity agrees it will use its "best efforts" to obtain the necessary appropriations to continue the contract.

Indemnification – An indemnification clause stipulates that the municipal entity shall hold the lender harmless from a variety of third-party claims or suits. The municipal entity is often asked to agree to hold the lender harmless against claims by all third parties that arise in connection with the selection, purchase, delivery, installation, possession, use and operation of the financed equipment. In addition, the municipal entity may be asked to hold the lender harmless from any and all claims or proceedings in which the lender is a party as a result of its interests in the contract. State law will often provide limitations on indemnification clauses to be utilized in tax-exempt lease purchase agreements.

Interest Rate Limitations – Depending upon applicable state law, the interest rate borne by a tax-exempt lease purchase agreement should not exceed any applicable usury limitation or otherwise exceed limitations on the maximum interest rate for public obligations. Generally a tax-exempt lease purchase agreement will be written at a fixed rate of interest for the term of the financing. Any leases that are written with variable interest rates should include a clause that defines how the initial interest rate shall be determined along with the relevant index and terms for determining any future interest rate resets.

Introductory Provisions – The *true nature of the agreement* provision states that although the contract may be in the form of a lease, it provides for the purchase of the "leased" property by the municipal entity. The intent of this provision is to make clear that the parties to the contract intend for it to be a conditional sale or lease

purchase contract rather than a true lease, thereby helping to qualify the contact as a tax-exempt obligation

Late Charges - The lender is typically permitted to charge interest on any payment made by the municipal entity that is delinquent. The provision should state the rate at which such interest will be charged, or it may simply state that interest will be charged at the highest rate allowable by state law.

Lease Term – All contracts have a provision that specify the commencement date of the lease term and its duration, renewal, if applicable, and expiration.

Lease Payments/Unconditional Obligation – This provision sets forth the municipal entity's obligation to make periodic lease-purchase payments. A payments provision may include a "no-abatement or set-off payments" clause, also frequently called a "hell-or-high-water" clause. This clearly states the municipal entity's obligation to make the periodic lease payments unconditional, except in the case of non-appropriation.

Legal Title and Security Interest – Title to property subject to a tax-exempt lease purchase agreement may remain with the lender until the municipal entity has completed all the lease payments or may pass to the municipal entity at the inception of the agreement. In some states, state law shall dictate how title is to be passed during the contract. If the municipal entity defaults or exercises the non-appropriation clause, the lender shall have the right to repossess the leased property without recourse to judicial procedure or court action.

If title to the financed equipment is passed at the inception of the contract, the lender typically retains and perfects a security interest in the leased property. The title and security interest provisions usually require the municipal entity to keep the leased property fee of all liens, encumbrances or claims except those of the lender, and if such a lien, encumbrance, or claim arises, to remove it at the expense of the municipal entity as soon as it arises.

If title passes to the municipal entity at the inception of the contract, the provision shall provide that if the municipal entity defaults or exercises the non-appropriations clause, title to the property will automatically revert to the lender free of any right, interest or title of the municipal entity in the property.

Lessee Covenants – Under these covenants the municipal entity acknowledges or represents that "the municipal entity is a political subdivision of the state, the agreement is a legal, valid and binding obligation; that the municipal entity has the authority to enter into the contract; and that the contract has been properly authorized and executed according to all applicable laws and regulations.

Lessee Responsibilities and Warranties

The municipal entity will provide the lender with all financial statements, budgets, evidence of appropriation, and other information that relates to the ability for the municipal entity to undertake and continue its obligations under the contract. The scope of additional representations and warranties included in a tax-exempt lease agreement vary from lender to lender.

Lessee Default and Lessor Remedies in Event of Default - Every contract will differ as to what constitutes an event of default; however, most cover the failure of the municipal entity to make lease payments or other sums or obligations when due under the lease or failure to observe a representation or warranty in the lease or violation of a covenant in the lease. The lender generally has certain remedies that may be exercised when the municipal entity is in default (after the expiration of any applicable periods to cure the default) under the tax-exempt lease purchase agreement. Many of the remedies are authorized under Article 9 of the UCC but may include additional remedies or preclude certain remedies authorized by Article 9. State law will often determine the extent to which remedies may be imposed.

Lessor's Rights upon an Event of Non-appropriation - Upon notice of a municipal entity's intent to not appropriate funds to make the remaining lease payments, there are a number of rights and remedies available to the lender. Although the right to repossession and disposition of the equipment are standard provisions, there are significant differences between lenders as to what will appear in this section of a tax-exempt lease purchase agreement.

Option to Purchase/Prepayment - This clause shall detail the terms under which the municipal entity may prepay the contract and notification requirements.

Quiet Enjoyment Clause: A contractual provision which provides that a municipal entity's use of the financed equipment will not be interrupted by the lender, as long as the municipal entity is not in default under the agreement.

Rental Interruption Insurance - A form of insurance that provides a flow of funds to protect the lender in the event that the leased equipment is not usable and the municipal entity elects to use the abatement provisions of the contract. If the equipment is not usable and, as a result of the lease contract, the municipal entity is not required to make lease payments, insurance proceeds would be used to continue the payment stream unless or until the equipment is restored to a usable condition or the lenders are paid the principal and interest due. However many rental interruption insurance contracts are limited to cover payments for a fixed number of years which period is deemed adequate to restore the equipment to useable condition.

Risk of Loss – The municipal entity shall bear all risk of loss if the equipment is damaged or destroyed.

Tax Covenants - A municipal entity acting as a lessee under a tax-exempt lease purchase agreement must agree to comply with the applicable requirements under the Internal Revenue Code to assure that the lease will not be treated as an "arbitrage bond", including compliance with arbitrage rebate where necessary. Most contracts will include a clause wherein the municipal entity agrees that it will not take any action that could cause the obligation to become taxable and will do all things within its power to protect the tax-exempt nature of the obligation. The inclusion of a gross-up provision is standard in this section.

Triple Net Lease – The typical tax-exempt lease purchase agreement makes the municipal entity responsible for all risks of ownership, including the cost of all maintenance, taxes and insurance on the financed property during the lease term. Lease purchase agreements will differ in presentation of the municipal entity's responsibilities pertaining to maintenance, taxes and insurance.

Warranties and Disclaimer of Warranties – The lender typically shall disclaim all representations or warranties relating to the suitability or performance of the equipment. The municipal entity should work directly with the manufacturer or vendor to make sure it has covered any ongoing service, maintenance or warranty agreements directly with the vendor or manufacturer of the equipment. This provision may repeat the "no set-off or abatement of payments" provision. Unless specifically required under State law, the municipal entity shall not be allowed to delay or reduce any lease payment to the lender for any reason, including failures of the vendor's performance under separate contractual agreements.

FINANCING PROPOSAL LETTER

[Submit on Firm's Letterhead]

[Date]

RE: City of Buckeye

[Lender] is pleased to submit the following financing proposal for City of Buckeye energy and water savings conservation project. This proposal is being submitted in response to your request for proposals dated [Date].

I. Lender Information

Lender Name:	[_____]
Address:	[_____]
Contact:	[_____]
Telephone:	[_____]
Fax:	[_____]
Email:	[_____]
Background:	[Discuss experience in financing state projects and / or performance contracts, with attention given to experience in the state, and what advantages your firm offers.]

II. Financing Structure

Purpose: Finance the energy and water savings conservation projects to be engineered, designed, constructed and commissioned by ESCO for the City of Buckeye.

Structure: Tax-exempt Lease Purchase Agreement subject to annual appropriation of funds

Security: First lien on the equipment
Lessee appropriations

Proceeds: Approximately [$_____] plus capitalized interest for the [_____]month construction period and any issuance costs to be financed.

Term: [_____] months
([____] months of construction
plus [_____]months of amortization period)

Payments: Presented in the following options: Yearly, quarterly, bi-yearly, and monthly options - in arrears.

Prepayment: List prepayment terms / conditions / penalty

Interest Rate: [_____]% (Specify if this a bank-qualified or non-bank qualified rate)

Rate will be held until [_____].

After that date, the rate will be adjusted as follows:
[_____](name and source of index).

> Example: This rate will be held until [_____]. After that date, the rate will float at 75 basis points over the 10 year treasury, constant maturity, as published daily in the Federal Reserve Bulletin Statistical Release H-15.

Closing Costs: $ [_____] (if any)

Escrow Account Terms: Agent name and all costs associated with opening and maintaining the escrow, including any investment management fees, if any. Include a copy of the escrow agreement as part of the response documents.

Payment and Performance Bonds: We [do / do not] require to be named as dual obligee on the payment and performance bonds.

Other Conditions

Of ESCO: [_____]

Credit Approval: The transaction[is / is not] subject to credit approval of the lender. If the financing is not approved, please list requirements and time frame required for approval.

Estimated Closing Date: Within [___] days of the award of the financing.

Other Requirements or conditions:

[_____]
[_____]

Other Information

Please provide any other information that you would like to share regarding your firm's qualifications, references, contacts, etc.

Thank you for the opportunity to provide this proposal. If you have any questions or would like to discuss this proposal in further detail, please let us know.

Sincerely,

By: [_____]

Title: [_____]

Date: [_____]

Signature Sheet

Item: Tax-exempt lease financing for City of Buckeye energy and water conservation projects.
Entity: City of Buckeye

We submit a proposal to furnish the financing for the term of the contract in accordance with the specifications and schedule of supplies. I hereby certify that I (we) do not have any substantial conflict of interest sufficient to influence the bidding process on this bid. A conflict of substantial interest is one, which a reasonable person would think would compromise the open competitive bid process.

Addenda: The undersigned acknowledges receipt of the following addenda:

1. Proposal letter dated [___];
2. **Attachment A: Sample Provisions for Lease**
3. **Attachment D: Overview of Facility Improvement Projects** (List of energy and water savings measures and the associated capital cost)

Legal Name of Person, Firm or Corporation: [_____]
Telephone: [_____] Fax: [_____]
Email: [_____]
Mailing Address: [_____]
City & State: [_____] Zip: [_____]

FEIN Number: [_____]

Please indicate taxes currently registered for in the State of Arizona:
Corporate Income Tax [___]; Sales Tax [___]; Withholding Tax [___]
Compensating Use Tax [___]; None [___]

The undersigned attests this bidder is not in arrears in taxes due the State of Arizona.

Signature: [_____]Date: [_____]
Typed Name of Signature: [_____]
Title: [_____]

If awarded a contract and purchase orders are to be directed to an address other than above, indicate mailing address and telephone number below.

Address: [_____]
City & State [_____] Zip Code [_____]

Telephone [_____] Fax [_____]
Email [_____]

Overview of Facility Improvement Projects

ESCO:	[_____]
Contractual Arrangement:	Energy Savings Performance Contract by and between ESCO and the City of Buckeye
Total Installed Costs:	[$_____], subject to adjustment based upon final analysis by ESCO
Financed Capital:	Approximately [$_____] (Total Installed Costs plus capitalized interest for the [____] month construction period and any financed Issuance Costs
Term:	[____] months ([____] months of construction plus [____] months of amortization period)
Payments:	State desired payment frequency (monthly, quarterly, semi-annual, or annual). Payments shall be in arrears with the first payment to commence after completed project installation; Note to customer: this section will need to state whether payments will be level or "stepped" (unlevel) payments. A project cash flow should be attached to indicate the annual amount that payments may not exceed.
Projects:	Energy and water savings measures including but not limited to: • Item 1 • Item 2 List approximate cost of energy and water savings measures and the location where each measure will be installed.

Anticipated Draw Schedule: [_____]

EXHIBIT A
TO
RFP#2019017
ENERGY SAVING PERFORMANCE CONTRACTING SERVICES

[Technical Facility Profile]

See following Pages

City of Buckeye Facilities

Total Building Space (SQ-FT)	*490,412*	*Address*	*Function*	*Acquired Date*
Airport Well		3000 S. Palo Verde Rd.	Automated Well Site	12/25/1958
Aquatic Center	3,092	207 N. 9th St.	Recreation/Pool	12/25/1993
A-wing	17,500	900 E. Eason St	Leased space for College	1/31/2008
Broadway Lift Station		25270 W. Broadway Rd.	Automated Sewer Lift Station	12/25/1993
Buckeye Area		801 N 1st St	Recreation	7/14/2008
Buckeye Yard Booster Station		615 AZ Eastern Ave.	Automated Potable Water Lift Station	6/23/2010
Central WWTF	1,200	915 S. 7th St.	Wastewater Treatment	12/25/1993
Chamber of Commerce	5,665	508 E. Monroe Ave	Chamber of Commerce	4/17/1979
Charman Building (Police and IT)	9,500	1101 E. Ash	Police/Information Technology	3/8/2007
Church Well		1006 Eason Ave.	Automated Well Site	
City Hall	66,000	530 E. Monroe Ave.	Administration Services	7/2/2015
Community Services Administration	3,744	110 E. Irwin Ave	Comm Svcs Administration	5/20/2016
Earl Edgar Restroom/Concession Stand	870	211 S. Miller Rd.	Recreation	1/19/2005
East Buckeye Park and Ride	504	19580 Palm Ln.	Public Carpool Parking/ Bus Stop	4/1/2009
Events Storage	1,622	106 N. 5th St.	Community Services Events Storage Facility	7/2/2015
Festival Ranch Well 1		26902 W. Potter	Automated Well Site	4/23/2012
Festival Ranch Well 2		20853 N. Desert Vista Blvd	Automated Well Site	4/23/2012
Festival Ranch WRF	4000	18940 W. 287th Ave.	Wastewater Treatment	1/23/2018
Fire Station #1	8,000	404 S. Miller Rd.	Fire/Paramedic Operations	11/29/1972
Fire Station #2	8,295	1911 S. Rainbow Rd.	Fire/Paramedic Operations	4/30/2004
Fire Station #3	15,500	2582 North Verrado Way	Fire/Paramedic Operations	1/13/2009
Fire Station #4	17,465	27360 W. Wagner Complex D	Fire/Paramedic Operations	10/6/2015
Fire Station #5	1,800	30050 W. Tartesso Pkwy.	Fire/Paramedic Operations	12/28/2009
Fire Station #6	1,800	25821 W. Magnolia St.	Fire/Paramedic Operations	6/25/2007
Fire Station 2 Annex (Storage and Office)	3,754	2049 S. Rainbow Rd.	Homeland Security/Storage	4/30/2004
Girl Scout Building	544	207 N. 9th St.	Fraternal	12/25/1993
Global Water Admin	1,275	201 E Coronado St	Water Resources Administration	7/18/1910
Heritage Park	1,120	809 N. 1st St.	Vacant Office Building	2/25/2008
Library	6,370	310 N. 6th St	Reading	12/25/1958
Museum	3,424	116 E. Hwy 85	Town Museum	1/25/2008
NE Pumping Station		20100 W. Yuma Rd.	Automated Sewer Lift Station	11/2/2009
Old Arizona Trailer Facility	135,250	301 E. Centre Ave	Leased space for Economic Development/Manfr	2/18/1969
Police	15,540	100 N. Apache Rd.	Police/Court/Motor Vehicle Division	10/12/2007
Police Annex	6,720	90 N. Apache Rd.	Police	10/12/2007
Police Simms	1,600	90 N. Apache Rd.	Police Training Facility	10/12/2007
PW Administration/Environmental	3,917	23454 W. MC Hwy 85	Admin and Environmental Services	2/26/2016
PW Airport Terminal	1,400	3000 S. Palo Verde Rd.	Aviation Operations	12/25/1958
PW Facilities Office	759	23454 W. MC Hwy 85	Facilities Management	2/26/2016
PW Facilities Warehouse	3,189	23454 W. MC Hwy 85	Facilities Management	2/26/2016
PW Fleet Management	5,450	415 AZ Eastern Ave.	Automotive Maitenance Operations	6/23/2010
PW Sign Shop/Streets Lunchroom	3,364	23454 W. MC Hwy 85	Streets Operations	2/26/2016
PW Streets Office	2,452	23454 W. MC Hwy 85	Streets Administration	2/26/2016
PW Streets Open Storage	11,454	23454 W. MC Hwy 85	Streets Operations	2/26/2016
PW Streets Traffic Signal Shed	900	23454 W. MC Hwy 85	Streets Operations	2/26/2016
PW Streets Warehouse	5,489	23454 W. MC Hwy 85	Streets Operations	2/26/2016
Saide Recreation Center	8,067	1003 E. Eason	Recreation/Teen/Children	12/25/1993
Senior/Community Center	9,400	201 E. Centre	Social Services	11/29/1972
Sky Line Park Gatehouse	356	-112.556641/33.474542	Gate House to Park (Unmanned, Solar Powered)	
Sky Line Park Restrooms	871	-112.559094/33.481958	Restroom for Park (Solar Powered)	
Sundance Booster Station		22900 W. Yuma Rd.	Automated Potable Water Lift Station	1/6/2003
Sundance Crossing	65,023	21699 W. Yuma Rd	Police/Fire/Court/ Library/ Retail	5/3/2013
Sundance Parcel 7 Lift Station		23867 W. Jefferson St.	Automated Sewer Lift Station	11/13/2006
Sundance Park	2,771	22865 Lower Buckeye Rd.	Recreation	5/10/2004
Sundance Well 1		2391 S. Dean Rd.	Automated Well Site	6/18/2008
Sundance Well 2		1939 S. Dean Rd.	Automated Well Site	6/18/2008
Sundance Well 3		22290 W. Durango Rd.	Automated Well Site	3/23/2017
Sundance Well 4		21519 W. Yuma Rd.	Automated Well Site	11/13/2013
Sundance WRF	4000	21760 W. Watkins	Wastewater Treatment	9/10/2007
Tartesso Booster Station		40230 N. 296th Ave.	Automated Potable Water Lift Station	3/17/2008
Tartesso Well 1		40230 N. 296th Ave.	Automated Well Site	3/17/2008
Tartesso Well 2		3017 W. Celebron	Automated Well Site	11/5/2008
Tartesso WRF	4000	31550 W. McDowell Rd.	Wastewater Treatment	6/8/2015
Tract A Well		22625 W. Durango Rd.	Out of Service Well Site	8/21/1992
Water Resources Administration	7,856	21749 W Yuma Rd, Ste 107	Admin/ Utility Billing/ Metering	5/3/2013
Water Resources Administration	5,040	423 AZ Eastern Ave.		6/23/2010
Water Resources Storage	2,500	615 AZ Eastern Ave.	Storage	6/23/2010
Well 12		31877 W. Yuma Rd.	Automated Well Site	3/23/2006
Well 14		1945 Powers Butte Rd.	Automated Well Site	9/2/2011

EXHIBIT B
TO
RFP#2019017
ENERGY SAVING PERFORMANCE CONTRACTING SERVICES

[Investment Grade Audit and Project Proposal Contract]

See following Pages

Investment Grade Audit and Project Proposal Contract

This document is part of a collection of model procurement and contracting documents that represent best practices for state energy offices to launch and administer programs to increase energy efficiency through Energy Savings Performance Contracting. The documents draw from successful programs in various states and are continually updated to incorporate the latest strategies. They can be easily customized to meet the needs of any state energy office or similar City department. These documents are provided as samples for adaptation to the laws and regulations of the user, not as legal advice or opinion.

DESCRIPTION – Investment Grade Audit and Project Proposal Contract:
This Contract for Investment Grade Audit & Project Development is the first of two contracts with the selected ESCO. The ESCO will complete an investment grade Investment Grade Audit that will include an analysis of each proposed project with projected savings and itemized project costs. The ESCO will present a project proposal that includes recommended measures, financing term and projected annual cash-flow analysis. These results form the basis for negotiating a subsequent Energy Savings Performance Contract.

An Investment Grade Audit (IGA) and Project Proposal Contract directs the ESCO to identify, evaluate and present a recommended package of measures with associated efficiency savings and projected costs. Below is an overview of each element of the document.

This is a model document only and does not attempt to identify or address all circumstances or conditions you may encounter or desire. Consult with your legal counsel and procurement staff to adapt it to meet your needs.

AT-A-GLANCE – INVESTMENT GRADE AUDIT AND PROJECT PROPOSAL CONTRACT
Overview **The Big Picture –** What is an investment grade audit and Project Proposal Contract? • A stand-alone contract to identify a package of measures that could be implemented through an energy performance contract in which efficiency savings pay for the cost of the entire project • Intended as the preliminary step that will be followed by a performance contract with the same provider to implement the projects as further negotiated in the performance contract

AT-A-GLANCE – INVESTMENT GRADE AUDIT AND PROJECT PROPOSAL CONTRACT
Cost of Audit • The cost of the audit is based on the square footage to be audited as well as the type of facility and the complexity of the energy-using systems • The cost of the audit contract can be rolled-into the energy performance contract and paid through the guaranteed efficiency savings just like other measures • If the ESCO cannot identify projects that meet the City's pre-established financial guidelines, typically, there will be no cost for the audit **Setting the Guidelines** • The audit contract finalizes guidelines for the project on what is acceptable to the City: maximum financing term, eligible revenue streams, guarantee requirements, etc. • A baseline of energy use is established as a benchmark for determining savings after the retrofits • Maximum markups and fees to be charged by the ESCO are itemized • Measurement and verification standards are presented and a measurement and verification plan is required at this stage as needed. Measurements are best taken at the audit stage • A commissioning plan is also developed. **Identifying Potential Projects** • The ESCO will identify potential projects based on opportunities to achieve efficiency and cost savings and meet the City's needs • An iterative process between the ESCO and the City is critical to establishing the potential projects **Scoping Out a Performance Contracting Project** • A bundle of retrofit measures will be presented in terms of projected annual guaranteed efficiency savings that meet or exceed annual financing payments.

INVESTMENT GRADE AUDIT AND PROJECT PROPOSAL CONTRACT

TABLE OF CONTENTS

Body of Contract

Attachments

Attachment A	Scope of Work
Attachment B	Notice of Acceptance of Investment Grade Audit Report and Project Development Proposal
Attachment C	Savings Measurement and Verification Plan
Attachment D	Cost and Pricing for IGA Development
	D-1 Cost and Pricing Definitions
	D-2 Cost and Pricing Spreadsheet
Attachment E	Sample Audit Workplan Approval Matrix
Attachment F	Review Comments
Attachment G	Energy Savings Performance Contract
Attachment H	Financing Solicitation Package
Attachment I	Left Blank
Attachment J	Deep Energy Retrofit Planning
Exhibit A	RFP for ESCO Solicitation (Pre-qualification Phase; Final Selection Phase)
Exhibit B	ESCO Proposal (Pre-qualification Phase; Final Selection Phase)
Exhibit C	ESCO Base Contract (including maximum markups)

INVESTMENT GRADE AUDIT AND PROJECT PROPOSAL CONTRACT

This Investment Grade Audit & Project Proposal Contract (the "Contract") is made and entered into as of [Date], between [ESCO Name] ("ESCO"), having its principal offices at [ESCO Address], and the City of Buckeye, Arizona, an Arizona Municipal Corporation, hereinafter referred to as "the City", 530 E. Monroe Ave., Buckeye, Arizona 85326.

W I T N E S S E T H

WHEREAS, This Contract was created for use by the City to obtain an Investment Grade Audit of a facility from an energy service company (ESCO).

WHEREAS, Authority exists in the law in ARS 34-105 for the City to enter into this Contract, and funds have been budgeted, appropriated and otherwise made available; a sufficient unencumbered balance thereof remains available for payment; and the required approval, clearance and coordination have been accomplished from and with appropriate agencies.

WHEREAS, ESCO is a company with experience and technical and management capabilities to provide for the discovery, engineering, procurement, installation, financing, savings guarantee, maintenance and measurement and verification of energy, water and operational saving measures at facilities similar in size, function and system type to the City's facilities; and

WHEREAS, ESCO has submitted a response to the City's Request for Proposals (RFP); and

WHEREAS, The City has selected ESCO to provide the services described herein; and

WHEREAS, The City desires to enter into a Contract to have ESCO perform an Investment Grade Audit and Project Development Proposal to determine the feasibility of entering into an **Energy Savings Performance Contract** to provide for installation and implementation of energy, demand, water and operational saving measures at the City's facilities.

WHEREAS, if energy, demand, water and operational saving measures are determined to be feasible, and if the amount of savings can be reasonably sufficient to cover all costs, as defined by the City, associated with an Energy Savings Performance Contracting project, the parties intend to negotiate an Energy Savings Performance Contract under which the ESCO will design, procure, install, implement, maintain, and measure and verify savings from such energy, water and operating saving measures. However, this intent does not commit the City to entering into such Energy Savings Performance Contract.

THEREFORE, the parties agree as follows:

1. Investment Grade Audit and Project Proposal Contract

ESCO agrees to perform an Investment Grade Audit in accordance with the **Scope of Work (Attachment A)**. ESCO agrees to complete the Investment Grade Audit and Project Development Proposal and tender to the City a final report within [Number of Days –120 days recommended depending on size and complexity of facilities and time needed to review the audit] calendar days from the execution of this Contract.

The City agrees to assist the ESCO in performing the Investment Grade Audit in accordance with the **Scope of Work (Attachment A)**, and agrees to work diligently to provide full and accurate information. ESCO agrees to work diligently to assess the validity of information provided and to confirm or correct the information as needed. The parties contemplate that this will be an interactive process and that City will have a reasonable amount of time to review and determine acceptance at the 30%, 90% and 100% stage of completion, before issuing the **Notice of Acceptance of Investment Grade Audit Report and Project Development Proposal (Attachment B)**.

ESCO agrees to offer a project development proposal, for an Energy Savings Performance Contract, with a package of energy, water and operating savings measures and with details as specified in the **Scope of Work (Attachment A)**.

2. Compensation to ESCO

ESCO shall be compensated as follows:

2.1 Payment through Performance Contract.

The City shall have no payment obligations under this Contract provided that ESCO and the City execute an Energy Savings Performance Contract within [Number of Days – 120 days suggested, allowing sufficient time for contract negotiation, attorney review, and City processing] days, after issuance of the **Notice of Acceptance of Investment Grade Audit Report and Project Development Proposal (Attachment B)**, except that the fee indicated in **Compensation to ESCO – Basis and Maximum Amount** (**Section 2.3)** shall be incorporated into ESCO's project costs and paid through the Energy Savings Performance Contract.

2.2 Project With Insufficient Savings.

The City shall have no payment obligations under this Contract in the event that ESCO's final **Investment Grade Audit and Project Development Proposal** does not contain a package of energy, water and operating savings measures which, if implemented and as meeting terms of the **Scope of Work (Attachment A), Guidelines and Requirements**, will provide the the City with cash savings in accordance with ARS 34-105 sufficient to fund the City's payments of all costs and fees associated with the Energy Savings Performance Contract, including 1) the fee associated with the Investment Grade Audit, 2) all monthly payments on a lease purchase agreement to

finance the measures, 3) any annual fees for monitoring and maintenance incurred by the ESCO.

Should the ESCO determine at any time during the Investment Grade Audit that savings cannot be attained to meet these terms, the Investment Grade Audit will be terminated by written notice by ESCO to the City. In this event this Contract shall be cancelled and the City shall have no obligation to pay, in whole or in part, the amount specified in this section, **Compensation to ESCO – Basis and Maximum Amount** (**Section 2.3)**.

2.3 Basis and Maximum Amount.

Except as provided for in **Subsections 2.1 or 2.2** above, within [Number of Days: 120 days recommended] days after the City's **Notice of Acceptance of Investment Grade Audit and Project Development Proposal (Attachment B)**, the City shall pay to ESCO a sum not to exceed One Hundred Ten Thousand dollars and zero cents $100,000.00 based on a maximum of 400,000 gross square feet at twenty five cents per square foot ($0.25) of audited square-footage, as per **Cost and Pricing (Attachment D)**.

The City shall only pay for square-footage actually audited. The cost will be adjusted in the event that audited square footage is changed by either the ESCO or the City. ESCO compensation is subject to acceptance of the audit report after issuance of the **Notice of Acceptance of Investment Grade Audit Report and Project Development Proposal (Attachment D)** and after verification that the project can be financed.

3. Scope of Work

The Investment Grade Audit and Energy Performance Proposal Contract shall be performed as described in **Attachment A: Scope of Work**.

4. Termination

This Contract may be terminated at any time as described below by:

4.1 Termination for Default/Cause

4.1.1 **Default.**

If the ESCO refuses or fails to timely perform any of the provisions of this contract, with such diligence as will ensure its completion within the time specified in this contract, the procurement officer may notify the ESCO in writing of the non-performance, and if not promptly corrected within the time specified, such officer may terminate the ESCO's right to proceed with the contract or such part of the contract as to which there has been delay or a failure to properly perform. The ESCO shall continue performance of the contract to the extent it is not terminated and shall be liable for excess costs incurred in procuring similar goods or contract services.

4.1.2 ESCO's Duties

Notwithstanding termination of the contract and subject to any directions from the procurement officer, the ESCO shall take timely, reasonable and necessary action to protect and preserve property in the possession of the ESCO in which the purchasing the City has an interest.

4.1.3 Compensation

Payment for completed services delivered and accepted by the City shall be at the contract price. The City may withhold amounts due to the ESCO as the procurement officer deems to be necessary to protect the City against loss because of outstanding liens or claims of former lien holders and to reimburse the City for the excess costs incurred in procuring similar goods and contract services.

4.1.4 Excuse for Nonperformance or Delayed Performance

The ESCO shall not be in default by reason of any failure in performance of this contract in accordance with its terms if such failure arises out of acts of God; acts of the public enemy; acts of the State and any municipal entity in its sovereign or contractual capacity; fires; floods; epidemics; quarantine restrictions; strikes or other labor disputes; freight embargoes; or unusually severe weather. Upon request of the ESCO, the procurement officer shall ascertain the facts and extent of such failure, and, if such officer determines that any failure to perform was occasioned by any one or more of the excusable causes, and that, but for the excusable cause, the ESCO's progress and performance would have met the terms of the contract, the delivery schedule shall be revised accordingly, subject to the rights of the City.

4.1.5 Erroneous Termination for Default

If after notice of termination of the ESCO's right to proceed under the provisions of this clause, it is determined for any reason that the ESCO was not in default under the provisions of this clause, or that the delay was excusable, the rights and obligations of the parties shall be the same as if the notice of termination had not been issued pursuant to the termination for convenience clause.

4.2 Termination for Convenience

4.2.1 Termination

The City may, when the interests of the City so require, terminate this contract in whole or in part, for the convenience of the City. The City shall give written notice of the termination to the ESCO specifying the part of the contract terminated and when termination becomes effective. This in no way implies that the purchasing City has breached the contract by exercise of the Termination for Convenience Clause.

4.2.2 ESCO's Obligations

The ESCO shall incur no further obligations in connection with the terminated work and on the date set in the notice of termination the ESCO will stop work to the extent specified. The ESCO shall also terminate outstanding orders and subcontracts as they relate to the terminated work. The ESCO shall settle the liabilities and claims arising out of the termination of subcontracts and orders

connected with the terminated work. The City may direct the ESCO to assign the ESCO's right, title, and interest under terminated orders or subcontracts to the purchasing City. The ESCO must still complete and deliver to the purchasing City the work not terminated by the Notice of Termination and may incur obligations as are necessary to do so.

4.2.3 Compensation

4.2.3a The ESCO shall submit a termination claim specifying the amounts due because of the termination for convenience together with cost or pricing data bearing on such claim. If the ESCO fails to file a termination claim within 90 days from the effective date of termination, the City may pay the ESCO, if at all, an amount set in accordance with subparagraph C of this Section.

4.2.3b The City and the ESCO may agree to a settlement provided the ESCO has filed a termination claim supported by cost or pricing data and that the settlement does not exceed the total contract price plus settlement costs, reduced by payments previously made by the purchasing City, the proceeds of any sales of supplies and manufactured materials made under agreement, and the contract price of the work not terminated.

4.2.3c Absent complete agreement, under subparagraph B of this Section, the City shall pay the ESCO the following amounts, provided the payments agreed to under subparagraph B shall not duplicate payments under this subparagraph:

1. Contract prices for supplies or services accepted under the contract;
2. Costs incurred in preparing to perform the terminated portion of the work plus a fair and reasonable profit on such portion of the work (such profit shall not include anticipatory profit or consequential damages) less amounts paid to or to be paid for accepted supplies or services; provided, however, that if it appears that the ESCO would have been sustained a loss if the entire contract would have been completed, no profit shall be allowed or included and the amount of compensation shall be reduced to reflect the anticipated rate of loss.
3. Costs of settling and paying claims arising out of the termination of subcontracts or orders pursuant to the ESCO's obligations paragraph of this clause. These costs must not include costs paid in accordance with subparagraph B of this Section.
4. The reasonable settlement costs of the ESCO including accounting, legal, clerical, and other expenses reasonably necessary for the preparation of settlement claims and supporting data with respect to the terminated portion of the contract and for the termination and settlement of subcontracts thereunder, together with reasonable storage, transportation, and other costs incurred in connection with the terminated portion of this contract.
5. The total sum to be paid the ESCO under this subparagraph C shall not exceed the total contract price plus settlement costs, reduced by the

amount of payments otherwise made, the proceeds of any sales of supplies and manufacturing materials under subparagraph B, and the contract price of work not terminated.

Cost claimed or agreed to under this section shall be in accordance with applicable sections of the State Procurement Code.

4.3 Available Funds – Contingency - Remedies

The City is prohibited by law from making fiscal commitments beyond the term of its current fiscal period. Therefore, ESCO's compensation is contingent upon the continuing availability of City appropriations.. Payments pursuant to this contract shall only be made from available funds encumbered for this Contract, and the City's liability for such payments shall be limited to the amount remaining of such encumbered funds. If City or federal funds are not appropriated, or otherwise become unavailable to fund this Contract, the City may immediately terminate the Contract in whole or in part without further liability in accordance with the Termination for Cause subsection of the Remedies section of this Contract. All payments are subject to the general Remedies section of this Contract.

5. Insurance

[**Note**: Coordinate insurance requirements and amounts of coverage with existing policy amounts and coverages and modify below as needed.
Before commencing any Work under this Contract, ESCO shall file with City certificates of insurance evidencing the coverage's as specified below.]

5.1

It is agreed and understood ESCO shall maintain in full force and effect adequate commercial general liability insurance and property damage insurance, as well as workmen's compensation and employer's liability insurance pursuant to the State insurance requirements as defined below.

5.2

The ESCO shall obtain, and maintain at all times during the term of this Agreement, insurance in the following kinds and amounts.

1. Standard Workers' Compensation and Employer's Liability as required by State statute, including occupational disease, covering all employees at the work site.
2. General Liability (minimum coverage)
   a) Combined single limit of $600,000 written on an occurrence basis.
   b) Any aggregate limit will not be less than $1,000,000.
   c) The ESCO must purchase additional insurance if claims reduce the annual aggregate below $600,000.

3. Automobile Liability (minimum coverage) in the amount of $600,000 combined single limit
4. The City shall be named as an additional insured on each commercial general liability policy.
5. The insurance shall include provisions preventing cancellation without 30 calendar days prior written notice, by certified mail to the Principal Representative
6. ESCO shall be responsible for all claims, damages, losses or expenses, including attorney's fees, arising out of or resulting from the performance of the Services contemplated in this Contract, provided that any such claim, damage, loss or expense is caused by any negligent act, error or omission of ESCO, any Consultant or associate thereof, or anyone directly or indirectly employed by ESCO. ESCO shall submit a Certificate of Insurance at the signing of this Contract and also any notices of Renewal of said Policy as they occur.

6. Energy Savings Performance Contract

The Parties intend to negotiate an Energy Savings Performance Contract under which the ESCO will design, install and implement energy, water and operating savings measures which the Parties have agreed to, and provide certain maintenance and monitoring services.

However, nothing in this Contract should be construed as an obligation on any of the Parties to execute such a contract. The terms and provisions of such an Energy Savings Performance Contract will be set forth in a separate contract.

7. Extent of Agreement

7.1

This Contract represents the entire and integrated agreement between City and ESCO and supersedes all prior negotiations, representations or agreement, either written or oral. This Contract may be amended only by written instrument signed by the City.

7.2

The City and ESCO understand and agree the attachments and exhibits hereto are and shall be an integral part of this Contract and the terms and provisions thereof are hereby incorporated, made a part of and shall supplement those recited herein. In the event of any conflict, or variance, the terms and provisions of this printed Agreement shall supersede, govern and control.

8. Term

The term of this Contract will become effective upon approval by the [Controller] and acceptance by the City**.** The term shall end [number of days plus 15 days to allow for processing of check (suggest 135 days)] after signing of the **Notice of Acceptance of**

Investment Grade Audit Report and Project Development Proposal (Attachment B) by the City.

9. Order of Precedence

In the event of conflict or inconsistency between this contract and its exhibits or attachments, such conflicts or inconsistencies shall be resolved by reference to the documents in the following order of priority:

1. Special Provisions.
2. Contract - general terms and conditions
3. Other exhibits or attachments

10. City's Special Provisions

[Insert as required or as available.]

THE PARTIES HERETO HAVE EXECUTED THIS CONTRACT

IN WITNESS WHEREOF, and intending to be legally bound, the parties hereto subscribe their names to this Contract on the date first written above.

THE PARTIES HERETO HAVE EXECUTED THIS CONTRACT

IN WITNESS WHEREOF, and intending to be legally bound, the parties hereto subscribe their names to this Contract on the date first written above.

[City]

By_____
Principal Representative

(Corporate Seal)

ESCO
By:

_____
ATTEST Name Title
_____

_____
Secretary Signature

_____
Address

_____
_____

City, State, Zip

_____

Social Security Number or Federal ID

APPROVED:

EXHIBIT C
TO
RFP#2019017
ENERGY SAVING PERFORMANCE CONTRACTING SERVICES

[Model Energy Saving Performance Contract]

See following Pages

ESPC Appendix & Schedules

This document is part of a collection of model procurement and contracting documents that represent Best Practices for state energy offices (SEOs) to launch and administer programs to increase energy efficiency through Energy Savings Performance Contracting. The documents draw from successful programs in various states and are continually updated to incorporate the latest strategies. They can be easily customized to meet the needs of any SEO or similar government department.

DESCRIPTION – Examples and Tables for Schedules in the Energy Savings Performance Contract

This provides process descriptions, examples and tables related to the Energy Savings Performance Contract's Schedules. The Schedules provide the critical details that define the project, operations and management.

This is a model document only and does not attempt to identify or address all circumstances or conditions you may encounter or desire. Consult with your legal counsel and procurement staff to adapt it to meet your needs.

Table of Contents

Schedules

Savings Guarantee

Schedule A Savings Guarantee
Schedule B Baseline Energy Consumption; Methodology to Adjust Baseline
Schedule C Savings Measurement and Verification Plan; Post-Retrofit M&V Plan; Annual M&V Reporting Requirements
Schedule D Data Collection and Reporting by ESCO - Using eProject Builder (ePB)
Schedule E Measurement and Verification Plan – Sample
Schedule F Measurement and Verification Guidelines
Schedule G Left blank for optional schedules

Payments and Schedule

Schedule H Final Project Cost & Project Cash Flow Analysis
Schedule I Financing Agreement and Payment Schedule
Schedule J Compensation to ESCO for Annual Services
Schedule K Rebates, Incentives and Grants
Schedule L Contingency Fund
Schedule M-P Left blank for optional schedules

Design and Construction Phase

Schedule Q Description of Project Site(s)
Schedule R Equipment to be Installed by ESCO
Schedule S Construction and Installation Schedule
Schedule T Systems Start-Up and Commissioning; Operating Parameters of Installed Equipment
Schedule U Standards of Comfort
Schedule V ESCO's Training Responsibilities
Schedule W Retro-Commissioning
Schedule X-AA Left blank for optional schedules

Post-Construction

Schedule BB ESCO's Maintenance Responsibilities
Schedule CC City's Maintenance Responsibilities
Schedule DD Facility Maintenance Checklist
Schedules EE – II Left blank for optional schedules

Administration

Schedule JJ Alternative Dispute Resolution Procedures
Schedule KK Life of Contract Plan – Document Management
Schedule LL– OO Left blank for optional schedules

<u>Optional Schedules</u>
Pre-Existing Service Contracts
Energy Savings Projections
Facility Changes Checklist
Current and Known Capital Projects at Facility

Exhibits

Exhibit I	Performance Bond/Construction Bond
Exhibit II	Labor and Material Payment Bond ***if required***
Exhibit III (i)	Certificate of Acceptance—Investment Grade Audit Report
Exhibit III (ii)	Certificate of Acceptance—Installed Equipment
Exhibit IV	Equipment Warranties

Optional Exhibits
- Manifest of Ownership
- Minority and Woman-Owned Business Certification
- Certification that Financing Term is no Longer than the Aggregated Equipment Lifetime
- Notice of Substantial Completion
- Notice to Proceed with Construction Phase
- Record of Reviews by City

Appendices

Appendix A	RFP for ESCO Solicitation (Pre-qualification Phase; Final Selection Phase)
Appendix B	ESCO Proposal (Pre-qualification Phase; Final Selection Phase)
Appendix C	Investment Grade Audit and Project Development Contract
Appendix D	Investment Grade Audit Report

SAVINGS GUARANTEE SCHEDULES

SCHEDULE A. SAVINGS GUARANTEE

Fully describe all provisions and conditions of the ESCO's energy saving guarantee. The guarantee should be defined in units of energy to be saved for the duration of the contract term. Reference to the annual reconciliation of achieved vs. guaranteed savings should be included (there is also language in the body of the contract regarding annual reconciliation See **Section 3.2 (Annual Review and Reimbursement/Reconciliation**).

SCHEDULE B. BASELINE ENERGY CONSUMPTION; METHODOLOGY TO ADJUST BASELINE

The baseline energy consumption is the "yardstick" by which all savings achieved by the installed project will be measured.

B.1. Baseline Energy Consumption

Present the methodology and all supporting documentation used to calculate the baseline including unit consumption and current utility rates for each fuel type. Also include baseline documentation regarding other cost savings such as material savings (e.g. bulbs, ballasts, filters, chemicals etc.), and cost savings associated with the elimination of outside maintenance contracts.

Energy and Water Baseline Development - Describe in general terms how the baseline for this ECM is defined.

- Describe variables affecting baseline energy or water use. Include variables such as weather, operating hours, set point changes, etc. Describe how each variable will be quantified, i.e., measurements, monitoring, assumptions, manufacturer data, maintenance logs, engineering resources, etc.
- Define key system performance factors characterizing the baseline conditions. Include factors such as comfort conditions, lighting intensities, temperature set points, etc.
- Define requirements for City's witnessing of measurements if different than whole project data requirements.
- Provide details of baseline data collected, including: Parameters monitored, Details of equipment monitored, i.e., location, type, model, quantity, etc., Sampling plan, including details of usage groups and sample sizes, Duration, frequency, interval, and seasonal or other requirements of measurements, Personnel, dates, and times of measurements, Proof of City's witnessing of measurements (if required), Monitoring equipment used, Installation requirements for monitoring equipments (test plug for temperature sensors, straight pipe for flow measurement etc.), Certification of calibration/calibration procedures followed, Expected accuracy of measurements/monitoring equipment, Quality control procedures used, Form of data (.xls, .cvs, etc.), Results of measurements (attach appendix and electronic forma as necessary), Completed data collection forms, if used.
- Provide details of baseline data analysis performed, including: Analysis using results of measurements, Weather normalized regressions, Weather data used and source of data

B.2 METHODOLOGY TO ADJUST BASELINE.

Periodically (at least on an annual basis), the baseline will be adjusted to account for the prevailing conditions (e.g., weather, billing days, occupancy, etc.) during the measurement period. All methodologies y used to account for any adjustments to the baseline needs to be clearly defined.

SCHEDULE C. SAVINGS MEASUREMENT AND VERIFICATION PLAN; POST-RETROFIT M&V PLAN; ANNUAL M&V REPORTING REQUIREMENTS

The monitoring and verification (M&V) process is divided into three phases:

C.1 Savings Measurement and Verification Plan
C.2 Post-Installation M&V Plan
C.3 Annual M&V Reporting Requirements

Also see **Schedule B (Baseline Energy Consumption; Methodology to Adjust Baseline**.

The latest version of the *International Performance Monitoring and Verification Protocol (IPMVP)* is used as the basis of the savings calculation and verification methodology.

To help ensure plans and reports are complete and consistent, use the process and tables provided.

C.1 SAVINGS MEASUREMENT AND VERIFICATION PLAN.

A preliminary monitoring and verification plan would typically have been developed in the Investment Grade Audit process. In the Energy Savings Performance Contract process this plan is finalized.

Include a description of the energy savings measurement, monitoring and calculation procedures used to verify and compute the savings performance of the installed equipment. Include methods to compare the level of energy that would have been consumed without the project referred to as the "Baseline") with the amount of energy that was actually consumed during a specific time period (monthly, quarterly, etc.). Explicitly describe all methods of measuring savings including engineered calculations, metering, equipment run times, pre- and post-installation measurements, etc. for all equipment installed. Provide a clear methodology for converting energy savings into energy cost savings. Define the utility rates to be used for the baseline and actual energy costs. Clearly describe how the calculations are affected by rising or lowering utility rates. Clearly predictable annual variations are usually handled through established procedures for each identified factor (e.g., weather, billing days, occupancy, etc.) in the savings formulas. Explicitly define any routine adjustments that will be made during the performance period. Non-routine adjustments may be required for issues such as changes in production shifts, facility closures, adding new wings or loads (such as computer labs) require a conceptual approach versus a method to cover each eventuality. Specify how permanent changes, such as changes in square footage, will be handled. Options include use of agreement clauses that allow predictable or expected changes and/or through a “re-open” clause that allows either party to renegotiate the baseline. A Facility Changes Checklist or other method may be provided by the ESCO for the City to notify the ESCO of any changes in the facility that could have an impact on energy use (occupancy, new equipment, hours of use, etc.).

Prepare the M&V Plan as presented below.

List of Processes and Tables:

Risk, Responsibility and Perfomance Matrix.

M&V Plan and Savings Calculation Methods

- Proposed Annual Savings Overview
- Site Use and Savings Overview (Optional)
- M&V Plan Summary
- Schedule of Verification Reporting Activities
- Proposed Annual Savings For ECM
- Expected Year 1 Savings for ECM
- ENERGY STAR Ratings

Risk, Responsibility and Performance Matrix.
The ESCO shall complete and include the matrix below to summarize the allocation of responsibility for key items related to M&V.

RESPONSIBILITY/DESCRIPTION	CONTRACTOR PROPOSED APPROACH
1. Financial	
a. Interest rates: Neither the contractor nor the City has significant control over prevailing interest rates. Higher interest rates will increase project cost, financing/project term, or both. The timing of the TO signing may impact the available interest rate and project cost.	
b. Construction costs: The contractor is responsible for determining construction costs and defining a budget. In a fixed-price design/build contract, the City assumes little responsibility for cost overruns. However, if construction estimates are significantly greater than originally assumed, the contractor may find that the project or measure is no longer viable and drop it before TO award. In any design/build contract, the City loses some design control. **Clarify design standards and the design approval process (including changes) and how costs will be reviewed.**	
c. M&V confidence: The City assumes the responsibility to determine the confidence that it desires to have in the M&V program and energy savings determinations. The desired confidence will be reflected in the resources required for the M&V program, and the ESCO must consider the requirement prior to submittal of the final proposal. **Clarify how project savings are being verified (e.g., equipment performance, operational factors, energy use) and the impact on M&V costs.**	

<u>d. Energy Related Cost Savings</u>: The City and the contractor may agree that the project will include savings from *recurring* and/or *one-time* costs. This may include one-time savings from avoided expenditures for projects that were appropriated but will no longer be necessary. Including one-time cost savings before the money has been appropriated may involve some risk to the City. Recurring savings generally result from reduced O&M expenses or reduced water consumption. These O&M and water savings must be based on actual spending reductions. **Clarify sources of nonenergy cost savings and how they will be verified.**	
<u>e. Delays:</u> Both the contractor and the City can cause delays. Failure to implement a viable project in a timely manner costs the City in the form of lost savings, and can add cost to the project (e.g., construction interest, re-mobilization). **Clarify schedule and how delays will be handled.**	
<u>f. Major changes in facility:</u> The City controls major changes in facility use, including closure. **Clarify responsibilities in the event of a premature facility closure, loss of funding, or other major change.**	
2. Operational	
<u>a. Operating hours</u>: The City generally has control over operating hours. Increases and decreases in operating hours can show up as increases or decreases in "savings" depending on the M&V method (e.g., operating hours multiplied by improved efficiency of equipment vs. whole-building/utility bill analysis). **Clarify whether operating hours are to be measured or stipulated and what the impact will be if they change.** If the operating hours are stipulated, the baseline should be carefully documented and agreed to by both parties.	

<u>b. Load:</u> Equipment loads can change over time. The City generally has control over hours of operation, conditioned floor area, intensity of use (e.g., changes in occupancy or level of automation). Changes in load can show up as increases or decreases in "savings" depending on the M&V method. **Clarify whether equipment loads are to be measured or stipulated and what the impact will be if they change**. If the equipment loads are stipulated, the baseline should be carefully documented and agreed to by both parties.	
<u>c. Weather:</u> A number of energy efficiency measures are affected by weather. Neither the contractor nor the City has control over the weather. Should the City agree to accept risk for weather fluctuations, it shall be contingent upon aggregate payments not exceeding aggregate savings. **Clearly specify how weather corrections will be performed.**	
<u>d. User participation:</u> Many energy conservation measures require user participation to generate savings (e.g., control settings). The savings can be variable and the contractor may be unwilling to invest in these measures. **Clarify what degree of user participation is needed and utilize monitoring and training to mitigate risk.** If performance is stipulated, document and review assumptions carefully and consider M&V to confirm the capacity to save (e.g., confirm that the controls are functioning properly).	
3. Performance	

a. Equipment performance: The contractor has control over the selection of equipment and is responsible for its proper installation, commissioning, and performance. The contractor has responsibility to demonstrate that the new improvements meet expected performance levels including specified equipment capacity, standards of service, and efficiency. **Clarify who is responsible for initial and long-term performance, how it will be verified, and what will be done if performance does not meet expectations.**	
b. Operations: Performance of the day-to-day operations activities is negotiable and can impact performance. However, the contractor bears the ultimate risk regardless of which party performs the activity. **Clarify which party will perform equipment operations, the implications of equipment control, how changes in operating procedures will be handled, and how proper operations will be assured.**	
c. Preventive Maintenance: Performance of day-to-day maintenance activities is negotiable and can impact performance. However, the contractor bears the ultimate risk regardless of which party performs the activity. **Clarify how long-term preventive maintenance will be assured, especially if the party responsible for long-term performance is not responsible for maintenance (e.g., contractor provides maintenance checklist and reporting frequency). Clarify who is responsible for performing long-term preventive maintenance to maintain operational performance throughout the contract term. Clarify what will be done if inadequate preventive maintenance impacts performance.**	

<u>d. Equipment Repair and Replacement</u>: Performance of day-to-day repair and replacement of contractor-installed equipment is negotiable, however it is often tied to project performance. The contractor bears the ultimate risk regardless of which party performs the activity. **Clarify who is responsible for performing replacement of failed components or equipment replacement throughout the term of the contract.** Specifically address potential impacts on performance due to equipment failure. Specify expected equipment life and warranties for all installed equipment. Discuss replacement responsibility when equipment life is shorter than the term of the contract.	

M&V PLAN AND SAVINGS CALCULATION METHODS OUTLINE

Fill in the following tables or provide equivalent information.

PROPOSED ANNUAL SAVINGS OVERVIEW

[Include all applicable fuels/commodities for project, e.g., electric energy, electric demand, natural gas, fuel oil, coal, water, etc.]

ECM	Total energy savings (MBtu/yr)	Electric energy savings (kWh/yr)	Electric demand savings (kW/yr)*	Natural gas savings (MBtu/yr)**	Water savings (gallons/yr)	Other energy savings (MBtu/yr)**	Total energy and water cost savings, Year 1 ($/yr)	Other energy-related O&M cost savings, Year 1 ($/yr)	Total cost savings, Year 1 ($/yr)
Total savings									

First Year Guaranteed Cost Savings: $_____

Notes
*Annual electric demand savings (kW/yr) is the sum of the monthly demand savings.
MBtu=10^6 Btu.
**If energy is reported in units other than MBtu, provide a conversion factor to MBtu for link to cost schedules (e.g., 0.003413 MBtu/kWh).

SITE USE AND SAVINGS OVERVIEW

	Total energy savings (MBtu/yr)	Electric energy savings (kWh/yr)	Electric demand savings (kW/yr)*	Natural gas savings (MBtu/yr)**	Water savings (gallons/yr)	Other energy savings (MBtu/yr)**
Total proposed project savings						
Usage for entire site**						
% Total site usage saved						
Project square footage (KSF)						
Total site square footage (KSF)						
% Total site area affected						

Notes
MBtu=10^6 Btu
*Annual electric demand savings (kW/yr) is the sum of the monthly demand savings.
**If energy is reported in units other than MBtu, provide a conversion factor to MBtu for link to cost schedules (e.g., 0.003413 MBtu/kWh).
***Define usage period.
KSF = 10^3 square feet.

M&V PLAN SUMMARY

ECM No.	ECM Description	M&V Option Used*	Summary of M&V Plan

*M&V options include A, B, C, and D of the International Performance Measurement and Verification Protocol (IPMVP).

SCHEDULE OF VERIFICATION REPORTING ACTIVITIES

Item	[a]Recommended time of submission	[a]City's review and acceptance period
Post-Installation Report	30 to 60 days after acceptance	30 days
Annual Report	30 to 60 days after annual performance period	30 days

[a]Times are recommended based on industry practice; modify as needed.

PROPOSED ANNUAL SAVINGS FOR EACH ECM

[Include all applicable fuels/commodities for project, such as: electric energy, electric demand, natural gas, fuel oil, coal, water, etc.]

	Total energy use (MBtu/yr)	Electric energy use (kWh/yr)	Electric energy cost, Year 1 ($/yr)	Electric demand* (kW/yr)	Electric demand cost, Year 1 ($/yr)	Natural gas use (MBtu/yr)**	Natural gas cost, Year 1 ($/yr)	Water use (gallons/yr)	Water cost, Year 1 ($/yr)	Other energy use (MBtu/yr)**	Other energy cost, Year 1 ($/yr)	Other energy-related O&M costs, Year 1 ($/yr)	Total costs, Year 1 ($/yr)
Baseline use													
Post-installation use													
Savings													

Notes
*Annual electric demand savings (kW/yr) is the sum of the monthly demand savings.
MBtu = 10^6 Btu.
**If energy is reported in units other than MBtu, provide a conversion factor to MBtu for link to cost schedules (e.g., 0.003413 MBtu/kWh).

ECM-SPECIFIC M&V PLAN AND SAVINGS CALCULATION METHODS

Develop section for each ECM.

- Summarize the scope of work, location, and how cost savings are generated. Describe source of all savings including energy, water, O&M, and other (if applicable).
- Specify the M&V guideline and option used from the International Performance Measurement and Verification Protocol (IPMVP).
- Provide an overview of M&V Activities for ECM. Explain intent of M&V plan, including what is being verified.
- Provide an overview of savings calculations methods for ECM. Provide a general description of analysis methods used for savings calculations.

Proposed Energy and Water Savings Calculations and Methodology

- Provide detail description of analysis methodology used. Describe any data manipulation or analysis that was conducted prior to applying savings calculations.
- Detail all assumptions and sources of data, including all stipulated values used in calculations.
- Include equations and technical details of all calculations made. (Use appendix and electronic format as necessary.) Include description of data format (headings, units, etc.).
- Details of any savings or baseline adjustments that may be required.
- Detail energy and water rates used to calculate cost savings. Provide post-acceptance performance period energy and water rate adjustment factors.
- Detail proposed savings for this energy conservation measure for post-acceptance performance period. Include table - Proposed Annual Savings for Each ECM.

Operations and Maintenance Cost Savings

- Provide justification for O&M cost savings. Describe how savings are generated. Detail cost savings calculations.
- Provide post-acceptance performance period other cost savings adjustment factors.

Details of other savings (if applicable)

- Provide justification for cost savings. Describe how savings are generated. Detail cost savings calculations.
- Provide post-acceptance performance period other cost savings adjustment factors.

Post-Installation M&V Activities - Describe the intent of post-installation verification activities, including what will be verified.

- Describe variables affecting post-installation energy or water use. Include variables such as weather, operating hours, set point changes, etc. Describe how each variable will be quantified, i.e., measurements, monitoring, assumptions, manufacturer data, maintenance logs, engineering resources, etc.
- Define key system performance factors characterizing the post-installation conditions such as lighting intensities, temperature set points, etc.
- Define requirements for City witnessing of measurements if different than whole project data requirements.
- Provide details of post-installation data to be collected, including: Parameters to be monitored, Details of equipment to be monitored (location, type, model, quantity, etc.), Sampling plan, including details of usage groups and sample sizes, Duration, frequency, interval, and seasonal or other requirements of measurements, Monitoring equipment to be used, Installation requirements for monitoring equipment, Calibration requirements/procedures, Expected accuracy of measurements/monitoring equipment, Quality control procedures to be used, Form of data to be collected (.xls, .cvs, etc.), Sample data collection forms (optional)
- Detail data analysis to be performed.

Post-Acceptance Performance Period Verification Activities

- Describe variables affecting post-acceptance performance period energy or water use. Include variables such as weather, operating hours, set point changes, etc. Describe how each variable will be quantified, i.e., measurements, monitoring, assumptions, manufacturer data, maintenance logs, engineering resources, etc.
- Define key system performance factors characterizing the post-acceptance performance period conditions. Include factors such as comfort conditions, lighting intensities, temperature set points, etc.
- Describe the intent of post-acceptance performance period verification activities – what will be verified.
- Provide detailed schedule of post-acceptance performance period verification activities and inspections.
- Define requirements for City witnessing of measurements if different than whole project data requirements.
- Provide details of post-acceptance performance period data to be collected, including: Parameters to be monitored, Details of equipment to be monitored (location, type, model, quantity, etc.), Sampling plan, including details of usage groups and sample sizes, Duration, frequency, interval, and seasonal or other requirements of measurements, Monitoring equipment to be used, Installation requirements for monitoring equipment, Calibration requirements/procedures, Expected accuracy of measurements/monitoring equipment, Quality control procedures to be used, Form of data to be collected (.xls, .cvs, etc.), Sample data collection forms (optional)

- Detail data analysis to be performed.
- Define O&M and repair reporting requirements. Detail verification activities and reporting responsibilities of City and contractor on operations and maintenance items. Define reporting schedule.

ENERGY STAR: For each building included in the project, ESCO will provide a Portfolio Manager rating. Also, for applicable buildings, ESCO includes the cost to provide services and complete the annual application for a building ENERGY STAR label. ESCO shall provide a Portfolio Manager rating and energy performance target score estimate. For each eligible building, ESCO shall provide a pre-retrofit Energy Performance Rating using EPA ENERGY STAR's Portfolio Manager, the weather normalized energy intensity in kBtu/SF, and an estimated post-retrofit Energy Performance Rating. If the building type is not eligible for rating in Portfolio Manager, then the normalized source EUI will suffice. ESCO shall provide a completed Cash Flow Opportunity Calculator (CFO Calculator) for the project, with variables inserted that represent the most likely options available to the customer. This will enable the ESCO and the customer to have an agreed-upon format for discussing project financing options and the potential costs of project delays. The CFO Calculator will be provided in both hard copy and electronic format, so that the agency can run its own analyses on financing options in the agreed format. ESCO will submit a completed Cash Flow Opportunity spreadsheet using the Cash Flow Opportunity Calculator (CFO Calculator) for the total project which shall include all facilities to be improved.

C.2. POST-INSTALLATION M&V PLAN.

The Post-Installation M&V Plan updates the M&V Plan and includes detailed measurements, monitoring, and inspections.

List of Processes and Tables:

- Proposed Annual Savings Overview
- Expected Savings Overview for First Performance Year
- Impact to Energy Cost Savings from Changes between Final Proposal and As-Built Conditions for ECM
- Expected Year 1 Savings for ECM
- ENERGY STAR Ratings

POST-INSTALLATION REPORT OUTLINE

Post-Acceptance Performance Period Dates Covered: _____ to_____

EXECUTIVE SUMMARY

Project Background - Provide an overview of project background, including:

- Dates of relevant contract modifications

- Post-acceptance performance period dates covered
- Project acceptance date (actual or expected)

Brief Project and ECM Descriptions

- Provide an overview what was done and how savings are generated.
- Note any changes in project scope between the final proposal (including any relevant contract modifications) and as-built conditions.

Proposed and expected energy and cost savings for Year 1 of the post-acceptance performance period

- Proposed Annual Savings Overview.
- Compare expected savings for first performance year to first year guaranteed cost savings. State whether guarantee is expected to be fulfilled for first year.

Note: Expected savings are prediction for first year based on post-installation M&V activities. Verified savings for first year of post-acceptance performance period will be documented in annual report. The proposed savings for each ECM are included in TO-4 of the contract.

Proposed Annual Savings Overview

[Include all applicable fuels/commodities for project, e.g., electric energy, electric demand, natural gas, fuel oil, coal, water, etc.]

ECM	Total energy savings (MBtu/yr)	Electric energy savings (kWh/yr)	Electric demand savings (kW/yr)*	Natural gas savings (MBtu/yr)**	Water savings (gallons/yr)	Other energy savings (MBtu/yr)**	Total energy and water cost savings, Year 1 ($/yr)	Other energy-related O&M cost savings, Year 1 ($/yr)	Total cost savings, Year 1 ($/yr)
Total savings									

Notes
MBtu=10^6 Btu.
*Annual electric demand savings (kW/yr) is the sum of the monthly demand savings.
**If energy is reported in units other than MBtu, provide a conversion factor to MBtu for link to cost schedules (e.g., 0.003413 MBtu/kWh).

Expected Savings Overview for 1st Performance Year

[Include all applicable fuels/commodities for project, e.g., electric energy, electric demand, natural gas, fuel oil, coal, water, etc.]

ECM	Total energy savings (MBtu/yr)	Electric energy savings (kWh/yr)	Electric demand savings (kW/yr)*	Natural gas savings (MBtu/yr)**	Water savings (gallons/yr)	Other energy savings (MBtu/yr)**	Total energy and water cost savings, Year 1 ($/yr)	Other energy-related O&M cost savings, Year 1 ($/yr)	Total cost savings, Year 1 ($/yr)
Total savings									

Notes
MBtu=10^6 Btu.
*Annual electric demand savings (kW/yr) is the sum of the monthly demand savings.
**If energy is reported in units other than MBtu, provide a conversion factor to MBtu for link to cost schedules (e.g., 0.003413 MBtu/kWh).

Guaranteed Cost Savings for First Performance Year

First Year Guaranteed Cost Savings:	$ _____

Energy, Water, and O&M Rate Data

- Detail energy and water rates used to calculate cost savings for this period.
- Provide post-acceptance performance period rate adjustment factors for energy, water, and O&M cost savings, if used.
- Report actual energy and water rates at site for same period (optional).

Savings Adjustments

- Provide summary of any energy and/or cost savings adjustments required between final proposal (including any relevant contract modifications) and as-built conditions.
- Describe the impact in changes between the final proposal (including any relevant contract modifications) and as-built conditions based on post-installation M&V results.

Construction Period Savings

- Provide a summary of construction period savings, if applicable.
- Provide overview of how construction period savings are calculated.

Status of Rebates - Include if applicable.

- Provide a summary of the source of any third-party rebates or incentives provided on this project.
- Provide status of any third-party rebates or incentives.

ECM-SPECIFIC M&V ACTIVITIES AND EXPECTED FIRST YEAR SAVINGS

Develop section for each ECM.

Overview of ECM, M&V Plan, and Savings Calculation for ECM

- Summarize the scope of work, location, and how cost savings are generated.
- Describe source of all savings including energy, water, O&M, and other (if applicable).
- Provide an overview of M&V activities for ECM. Explain the intent of M&V plan, including what is being verified.
- Provide an overview of Savings Calculation Methods for ECM. Provide a general description of analysis methods used for savings calculations.

Installation Verification

- Detail any changes between final proposal (including any relevant contract modifications) and as-built conditions.
- Provide details of energy and cost savings impact from changes between final proposal (including any relevant contract modifications) and as-built conditions based on post-installation M&V results. Include Impact to Energy and Cost

Savings from Changes between Final Proposal and As-built Conditions for each ECM.

Impact to Energy and Cost Savings from Changes between Final Proposal and As-built Conditions for Each ECM

	Total energy savings (MBtu/yr)	Electric energy savings (kWh/yr)	Electric energy cost savings, Year 1 ($/yr)	Electric demand savings* (kW/yr)	Electric demand cost savings, Year 1 ($/yr)	Natural gas savings (MBtu/yr)**	Natural gas cost savings, Year 1 ($/yr)	Water savings (gallons/yr)	Water cost savings, Year 1 ($/yr)	Other energy savings (MBtu/yr)**	Other energy cost savings, Year 1 ($/yr)	Other energy-related O&M cost savings, Year 1 ($/yr)	Total cost savings, Year 1 ($/yr)
Proposed													
Expected													
Variance													

Notes
MBtu = 10^6 Btu.
*Annual electric demand savings (kW/yr) is the sum of the monthly demand savings.
**If energy is reported in units other than MBtu, provide a conversion factor to MBtu for link to cost schedules (e.g., 0.003413 MBtu/kWh).

Note: Expected savings are prediction for first year based on post-installation M&V activities. Verified savings for first year of post-acceptance performance period will be documented in the annual M&V report. The proposed savings for each ECM are included in the contract.

- Describe construction period savings (if applicable). Include date ECM was in effect, and reference acceptance documentation.
- Detail savings calculations for construction period savings.

Post-Installation M&V Activities Conducted - Detail measurements, monitoring, and inspections conducted in accordance with M&V plan (include all that apply for each one):

- Measurement equipment used.
- Equipment calibration documentation.
- Dates/times of data collection or inspections, names of personnel, and documentation of City witnessing.
- Details to confirm adherence to sampling plan.
- Include all post-installation measured values. Include periods of monitoring and durations and frequency of measurements. (Use appendix and electronic format as necessary). Include description of data format (headings, units, etc.).
- Describe how performance criteria have been met.
- Detail any performance deficiencies that need to be addressed by ESCO or City.
- Note impact of performance deficiencies or enhancements on generation of savings.

Expected Savings Calculations and Methodology

- Provide detailed description of analysis methodology used. Describe any data manipulation or analysis that was conducted prior to applying savings calculations.
- Detail all assumptions and sources of data, including all stipulated values used in calculations.
- Include equations and technical details of all calculations made. (Use appendix and electronic format as necessary.) Include description of data format (headings, units, etc.).
- Details of any baseline or savings adjustments made.
- Detail energy and water rates used to calculate cost savings. Provide post-acceptance performance period energy and water rate adjustment factors, if used. Report actual energy and water rates at site for same period (optional).
- Detail expected savings for this energy conservation measure for first year. Include Expected Year 1 Savings for ECM.

Details of O&M Savings (if applicable)

- Describe source of savings.
- Describe verification activities.
- Provide post-acceptance performance period O&M cost savings adjustment factors, if applicable.

Details of other savings (if applicable)

- Describe source of savings.

- Describe verification activities.
- Provide post-acceptance performance period adjustment factors, if applicable.

Note: Expected savings are prediction for first year based on post-installation M&V activities. Verified savings for first year of post-acceptance performance period will be documented in the annual report. The proposed savings for each ECM are included in Schedule TO-4 of the contract.

Expected Year 1 Savings for ECM

[Include all applicable fuels/commodities for project, e.g., electric energy, electric demand, natural gas, fuel oil, coal, water, etc.]

	Total energy use (MBtu/yr)	Electric energy use (kWh/yr)	Electric energy cost ($/yr)	Electric demand* (kW/yr)	Electric demand cost ($/yr)	Natural gas use (MBtu/yr)**	Natural gas cost ($/yr)	Water use (gallons/yr)	Water cost ($/yr)	Other energy use (MBtu/yr)**	Other energy cost ($/yr)	Other energy-related O&M costs ($/yr)	Total costs ($/yr)
Baseline use													
Post-installation use													
Savings													

Notes
MBtu = 10^6 Btu.
*Annual electric demand savings (kW/yr) is the sum of the monthly demand savings.
**If energy is reported in units other than MBtu, provide a conversion factor to MBtu for link to cost schedules (e.g., 0.003413 MBtu/kWh).

ENERGY STAR Ratings: For each building included in the project, ESCO will provide an updated Portfolio Manager rating. Also, for applicable buildings, ESCO includes the cost to provide services and complete the annual application for a building ENERGY STAR label.

C.3. ANNUAL M&V REPORTING REQUIREMENTS

Summarize the project including energy, water and operational cost savings (in dollars and MMBTUs) for the annual reporting period, annual emission reductions and ENERGY STAR rating (if applicable). This summary information is useful for tracking and reporting on annual project performance.

Prepare the Annual Report as presented below.

List of Processes and Tables:

- Annual Report Overview
- Proposed Annual Savings Overview
- Verified Savings Overview for Performance Year # _____
- Verified Savings for Performance Period to Date
- Verified Annual Savings for ECM for Performance Year #_____

Annual Report Overview

City Name/City Contact (Include Email and Phone Number)	
Facility Name/Facility Contact (Include Email and Phone Number)	
ESCO Name/ESCO Contact (Include Email and Phone Number)	
Total Square Footage of Project Site/Contract Start Date/Contract End Date	
Current Repayment Year (ex. Yr. 3/ 2005)	
Reporting Timeframe (ex. Jan 1-Dec. 31)	
Installed Project Cost (no financing costs)	
Total Contract Value of Guaranteed Savings	
Annual Value of Guaranteed Savings	

Measured Energy Savings	
Operational Savings	
Avoided Capital Cost (if applicable)	
Annual Dollar Value of Achieved Savings	
Total Annual Achieved Energy Savings (MMBTU)	
Electric	
Natural Gas	
Oil	
Coal	
Steam	
Other	
Annual Water Savings (kgal)	
Annual Avoided NOx Emissions (Tons)	
Annual Avoided SOx Emissions (Tons)	
Annual Avoided CO2 Emissions (Tons)	
ENERGY STAR Rating	

ENERGY STAR Ratings: For each building included in the project, ESCO will provide an updated Portfolio Manager rating to be included in the Measurement and Verification report at the conclusion of each year of project operation (alternately, at the conclusion of each of the first xx years of project operation). Also, for applicable buildings, ESCO includes the cost to provide services and complete the annual application for a building ENERGY STAR label.

ANNUAL MEASUREMENT AND VERIFICATION REPORT OUTLINE

Post-Acceptance Performance Period Dates Covered: _____ to_____

Contract year #: _____

EXECUTIVE SUMMARY

Project Background - Provide an overview of project background, including:

- Date of Contract Execution and primary parties to the contract
- Dates of relevant contract modifications
- Post-acceptance performance period dates covered
- Project acceptance date (actual or expected)

Brief Project and ECM Descriptions - Provide an overview including what was done and how savings are generated.

Summary of proposed and verified energy and cost savings. Compare verified savings for Performance Year # to Guaranteed Cost Savings for Year #. State whether guarantee is fulfilled for year. If not, provide detailed explanation.

- Define post-acceptance performance period.
- Include Proposed Annual Savings Overview.

Proposed Annual Savings Overview

[Include all applicable fuels/commodities for project, e.g., electric energy, electric demand, natural gas, fuel oil, coal, water, etc.]

ECM	Total energy savings (MBtu/yr)	Electric energy savings (kWh/yr)	Electric demand savings (kW/yr)*	Natural gas savings (MBtu/yr)**	Water savings (gallons/yr)	Other energy savings (MBtu/yr)	Total energy and water cost savings, Year # ($/yr)	Other energy-related O&M cost savings, Year # ($/yr)	Total cost savings, Year # ($/yr)
Total Savings									

Notes
MBtu = 10^6 Btu.
*Annual electric demand savings (kW/yr) is the sum of the monthly demand savings.
**If energy is reported in units other than MBtu, provide a conversion factor to MBtu for link to cost schedules (e.g., 0.003413 MBtu/kWh).

Note: The proposed savings for each ECM are included in the contract as well as the guaranteed savings.

Verified Savings for Performance Year

[Include all applicable fuels/commodities for project, e.g., electric energy, electric demand, natural gas, fuel oil, coal, water, etc.]

ECM	Total energy savings (MBtu/yr)	Electric energy savings (kWh/yr)	Electric demand savings (kW/yr)*	Natural gas savings (MBtu/yr)**	Water savings (gallons/yr)	Other energy savings (MBtu/yr)	Total energy and water cost savings, Year # ($/yr)	Other energy-related O&M cost savings, Year # ($/yr)	Total cost savings, Year # ($/yr)
Total savings									

Notes
MBtu = 10^6 Btu.
*Annual electric demand savings (kW/yr) is the sum of the monthly demand savings.
**If energy is reported in units other than MBtu, provide a conversion factor to MBtu for link to cost schedules (e.g., 0.003413 MBtu/kWh).

Savings Adjustments - Provide summary of any energy and/or cost savings adjustments required.

Performance and O&M Issues

Note impact of operating deficiencies or enhancements on generation of savings.
Note impact of maintenance deficiencies on generation of savings.
Detail any deficiencies needed to be addressed by contractor or City.

Energy, Water, and O&M Rate Data

Detail energy and water rates used to calculate cost savings for this period.
Provide post-acceptance performance period rate adjustment factors for energy, water and O&M, if used.
Report actual energy and water rates at site for same period (optional).

Verified Savings To Date - Include Table 3**.**

Verified Savings for Post-Acceptance Performance Period to Date

[Include all applicable fuels/commodities for project, e.g., electric energy, electric demand, natural gas, fuel oil, coal, water, etc.]

Year #	Total energy savings (MBtu/yr)	Electric energy savings (kWh/yr)	Electric demand savings (kW/yr)*	Natural gas savings (MBtu/yr)**	Water savings (gallons/yr)	Other energy savings (MBtu/yr)	Total energy and water cost savings, Year # ($/yr)	Other energy-related O&M cost savings, Year # ($/yr)	Total cost savings, Year # ($/yr)	Guaranteed cost savings for year
Total savings										

Notes
MBtu = 10^6 Btu.
*Annual electric demand savings (kW/yr) is the sum of the monthly demand savings.
**If energy is reported in units other than MBtu, provide a conversion factor to MBtu for link to cost schedules (e.g., 0.003413 MBtu/kWh).

DETAILS FOR EACH ECM

Develop section for each ECM.

Overview of ECM, M&V Plan, and Savings Calculation for ECM

- Summarize the scope of work, location, and how cost savings are generated. Describe source of all savings including energy, water, O&M, and other (if applicable).
- Provide an overview of M&V Activities for ECM. Explain the intent of M&V plan, including what is being verified.
- Provide an overview of savings calculation methods for ECM. Provide a general description of analysis methods used for savings calculations.

M&V Activities Conducted This Period - Detail measurements, monitoring and inspections conducted this reporting period in accordance with M&V plan (include all that apply for each one):

- Measurement equipment used.
- Equipment calibration documentation.
- Dates/times of data collection or inspections, names of personnel, and documentation of City witnessing.
- Details to confirm adherence to sampling plan.
- Include all measured values for this period. Include periods of monitoring and durations and frequency of measurements. (Use appendix and electronic format as necessary). Include description of data format (headings, units, etc.).
- Describe how performance criteria have been met.
- Detail any performance deficiencies that need to be addressed by ESCO or City. Note impact of performance deficiencies or enhancements on generation of savings.

Verified Savings Calculations and Methodology

- Provide detailed description of analysis methodology used. Describe any data manipulation or analysis that was conducted prior to applying savings calculations.
- Detail all assumptions and sources of data, including all stipulated values used in calculations.
- Include equations and technical details of all calculations made. (Use appendix and electronic format as necessary.) Include description of data format (headings, units, etc.).
- Details of any baseline or savings adjustments made.
- Detail energy and water rates used to calculate cost savings. Provide post-acceptance performance period energy and water rate adjustment factors, if used. Report actual energy and water rates at site for same period (optional).

- Detail verified savings for this energy conservation measure for performance year.

Details of O&M Savings (if applicable)

- Describe source of savings.
- Describe verification activities.
- Provide post-acceptance performance period O&M cost savings adjustment factors, if applicable.

Details of other savings (if applicable)

- Describe source of savings.
- Describe verification activities.
- Provide post-acceptance performance period adjustment factors, if applicable.

Verified Annual Savings For ECM for Performance Year #

[Include all applicable fuels/commodities for project, e.g., electric energy, electric demand, natural gas, fuel oil, coal, water, etc.]

	Total energy use (MBtu/yr)	Electric energy use (kWh/yr)	Electric energy cost, Year # ($/yr)	Electric demand* (kW/yr)	Electric demand cost, Year # ($/yr)	Natural gas (MBtu/yr)**	Natural gas cost, Year # ($/yr)	Water use (gallons/yr)	Water cost, Year # ($/yr)	Other energy use (MBtu/yr)	Other energy cost, Year # ($/yr)	Other energy-related O&M costs, Year # ($/yr)	Total costs, Year # ($/yr)
Baseline use													
Perform-ance Year # use													
Savings													

Notes
MBtu = 10^6 Btu.
*Annual electric demand savings (kW/yr) is the sum of the monthly demand savings.
**If energy is reported in units other than MBtu, provide a conversion factor to MBtu for link to cost schedules (e.g., 0.003413 MBtu/kWh).

O&M Activities

Operating requirements

1. State organization(s) responsible for equipment operations. If appropriate, detail how responsibilities are shared.
2. Detail any deficiencies needed to be addressed by contractor or City.
3. Note impact of operating deficiencies or enhancements on generation of savings.

Preventive Maintenance requirements - State organization(s) responsible for performing maintenance. If appropriate, detail how responsibilities are shared.

Verification of scheduled maintenance items completed by ESCO or City

1. Detail any deficiencies needed to be addressed by contractor or City.
2. Note impact of maintenance deficiencies on generation of savings.

Repair and replacement requirements

1. State organization(s) responsible for performing maintenance. If appropriate, detail how responsibilities are shared.
2. Summary of activities conducted this period by contractor or City.
3. Detail any deficiencies needed to be addressed by contractor or City.
4. Note impact of maintenance deficiencies on generation of savings.

SCHEDULE D. DATA COLLECTION AND REPORTING BY ESCO – Using eProject Builder (ePB)

Background

eProject Builder ("ePB") is a web-based tool managed on behalf of the Department of Energy by The University of California/Lawrence Berkeley National Laboratory (LBNL). ePB enables ESCO and their contracting agencies or other entities to:

(1) upload and track project-level information;
(2) generate basic project reporting materials (e.g. task order schedules) that may be mandated by local, state, and/or federal agency requirements; and
(3) benchmark proposed Energy Savings Performance Contract (ESPC) projects against historical project data.

See the following site for more information: http://eprojectbuilder.lbl.gov

ESCO agrees to deliver to LBNL, on behalf of City and with approval of City, all required project-level information as described on the ePB website, dated June 1, 2014, and as amended from time to time.

Based on information identified above that has been and will be provided by the ESCO, the parties agree that the data required to be delivered to LBNL under this clause has commercial value whose disclosure would cause competitive harm to the commercial value or use of the data. LBNL intends to withhold such data from disclosure under 10 C.F.R. 1004.3(e)(2). The use of this data is governed by the provisions of this contract. Unless compelled by a court of competent jurisdiction, there may be no release of this data to the public without the written consent of the Recipient and DOE. Aggregate data that does not identify project-specific metric information may be released as set forth in the contract. Other information required to be delivered under this contract, but not covered under this Commercially Valuable ESPC Project Data clause, shall be delivered in accordance with this contract.

Data for ESCO to Collect and Report

The ESCO will collect and report the following data, as relevant and as directed and approved by the City, at the following times:

1. Upon contract execution provide proposed project data from the following schedules.
2. At the end of each performance year provide data related to actual performance of the project.

Summary Schedule—Basic Project Information:

- Customer Name
- Cabinet Agency Name
- Utility
- Project Name; Zip
- Floor area
- Average annual energy consumption of affected buildings
- Federal Contract Type (if applicable: Department of Energy-IDIQ, U.S. Army Corps of Engineers-MATOC, UESC, Other)
- Market Segment (Federal Government, State/Local Government, Healthcare, K-12 Schools, University/College, Other, Industrial, Commercial (Leased), Commercial (Owner-occupied), Public Housing, Residential, Retail (Leased), Retail (Owner-occupied), Hotel/Hospitality)
- List of sites
- Number of buildings
- List of buildings
- Project Facilitator City
- Finance Specialist City
- Financing City
- ESCO Name
- Task Order Number (if applicable)
- ESCO Contract Number (if applicable)
- Construction Period (Months)
- ESCO-Contact name (Project Builder); ESCO-Contact email; ESCO-Contact phone
- Customer-Contact name (Project Initiator); Customer-Contact email; Customer-Contact phone
- Project Facilitator-Contact name; Project Facilitator-Contact email; Project Facilitator-Contact phone
- Financing Specialist-Contact name; Financing Specialist-Contact email; Financing Specialist-Contact phone

- Financier-Contact name; Financier-Contact email; Financier-Contact phone
- Payment type (Annual) (Beginning, Arrears)
- Project agreement type (Guaranteed Savings, Guaranteed Payout Term, Asset Ownership/Chauffage, Shared, Pay-from-savings, Design/Build, Fee-for-service, Fixed Price, Other)
- Type of project financing (Appropriation, Cash, Partial Cash, Term Loan, State/Local Bond, Lease, Combination, Other)
- Bonded amount
- Issue date
- Financing quote effective through date
- Financing Procurement Price ($)-construction interest
- Financing Procurement Price ($)-other expenses
- Applicable Financial Index
- Index Rate (%)
- Added Premium (%)
- Guarantee % of Estimated Savings

Project-level Annual Dollar Savings Escalation Rates:
Specify the escalation rates for each performance year in the term for the following utilities:

- Electricity
- Electric demand
- Natural gas
- Water
- Other Savings 1
- Other Savings 1 Type (Coal, Diesel, Gasoline, Heating Oil, Jet Fuel, Purchased Steam, Chilled Water, Other)
- Other Savings 2
- Other Savings 2 Type (Coal, Diesel, Gasoline, Heating Oil, Jet Fuel, Purchased Steam, Chilled Water, Other)
- O&M
- Other Non-Energy Savings

Schedule #1: Cost Savings and Contractor Payments
For the Implementation Period, list:

- Implementation Period Payments
- Estimated cost savings for implementation period
- Guaranteed cost savings for implementation period

Schedule #2: Implementation Price by Energy Conservation Measure:
For each ECM (defined by an ECM #), provide:

- Project Development costs
- Project Margin %
- ECM Number (if applicable)
- ECM Description-Title
- ECM Size
- ECM Coverage
- M&V Expense
- Implementation Expense - Initial costs
- Implementation Expense -Applied Incentives

Schedule #3: Performance Period Cash Flow:

Provide the following data for each of the performance years in the contract

- Incentives (Annual)
- Management/Administration -Performance Period Expense (Annual)
- Operation - Performance Period Expense (Annual)
- Maintenance - Performance Period Expense (Annual)
- Repair and Replacement - Performance Period Expense (Annual)
- M&V - Performance Period Expense (Annual)
- Other 1 - Performance Period Expense (Annual)
- Other 1 - Performance Period Expense Type (Permits and Licenses, Insurance, Property Taxes, Other)
- Other 2 - Performance Period Expense (Annual)
- Other 2 - Performance Period Expense Type (Permits and Licenses, Insurance, Property Taxes, Other)
- Performance Period Margin (%)

Schedule #4: First Year Estimated Annual Cost Savings by ECM

- M&V Methodology (IPMVP Option A, IPMVP Option B, IPMVP Option C, IPMVP Option D, Other, Unknown)
- Baseline-Electricity use (kWh)
- Baseline-Electricity demand (kW/mo)
- Baseline-Water use (kgal)
- Baseline-Natural gas use (MMBtu)
- Baseline-Other 1 energy use (MMBtu)
- Baseline-Other 2 energy use (MMBtu)
- Baseline- Energy and resource use ($)
- Baseline-O&M costs ($)
- Baseline-Other non-energy costs ($)
- Specify type of other non-energy costs (Capital Costs, Pollution Costs, Other Costs)
- Estimated annual savings - Electricity use (kWh)
- Estimated annual cost savings - Electricity use ($)
- Estimated annual savings - Electricity demand (kW/mo)
- Estimated annual cost savings - Electricity Demand ($)
- Estimated annual savings - Water use (Kgal)
- Estimated annual cost savings - Water use ($)
- Estimated annual savings - Natural gas (MMBtu)
- Estimated annual cost savings - Natural Gas ($)
- Estimated annual savings - Other 1 energy (MMBtu)
- Estimated annual cost savings - Other1 energy ($)
- Estimated annual savings - Other 2 energy (MMBtu)
- Estimated annual cost savings - Other2 energy ($)
- Estimated annual savings - Avoided O&M costs ($)
- Estimated annual savings - Other avoided non energy costs ($)

Schedule #5: Cancellation Ceilings

For each year, and by month, list the cancellation ceilings to establish the maximum termination liability for that time period.

- Cancellation ceiling payments

Actual Performance Data from Annual M&V reports

At the end of each performance year provide data related to actual performance of the project. Provide the following actual ECM yearly performance data for each (N) of the performance period in the contract:

- Year N annual savings - Electricity use (kWh)
- Year N annual savings - Electricity savings ($)
- Year N annual savings - Electricity demand (kW/mo)
- Year N annual savings - Electricity demand ($/yr)
- Year N annual savings - Water use (KGal)
- Year N annual savings - Water ($/yr)
- Year N annual savings - Natural gas (MMBtu)
- Year N annual savings - Natural gas ($)
- Year N annual savings - Other energy 1(MMBtu)
- Year N annual savings - Other energy 1 ($)
- Year N annual savings - Other energy 2 (MMBtu)
- Year N annual savings - Other energy 2 ($)
- Year N annual savings - Avoided O&M costs ($)
- Year N annual savings - Other avoided non-energy costs ($)

SCHEDULE E. Measurement and Verification Plan – Sample

This document is a comprehensive M&V Plan for a fictitious energy performance contract project. This document is intended to serve the following purposes:

- Provide examples of M&V Plans for common ECMs that comply with the requirements set forth in the FEMP M&V guidelines, Version 2.21, and
- Provide and promote use of a consistent format for M&V Plans for Federal ESPC projects, as detailed by the M&V Plan Outline2.

This document contains M&V Plans for three measures, using Options A and B, at a fictitious federal office building. The ECMs include lighting, energy management and control system (EMCS) installation, and a chiller retrofit:

- Lighting Efficiency Measure – Option A, FEMP Method LE-A-02
- Energy Management Control System Installation – Option B, FEMP Method GVL-B-01
- Chiller Replacement Measure – Option B, FEMP Method CH-B-02

This document was developed for the U.S. Department of Energy's Federal Energy Management Program (FEMP) and is posted on FEMP's website at:

Sample M&V Plan
(http://energy.gov/sites/prod/files/2013/10/f3/sample_mv_plan.pdf)

SCHEDULE F. Measurement and Verification Guidelines

This document provides guidelines and methods for measuring and verifying energy, water, and cost savings associated with federal energy savings performance contracts (ESPCs). This document was developed for U.S. Department of Energy's Federal Energy Management Program (FEMP) for federal projects. The guidelines are also applicable to non-federal projects and are posted on FEMP's website at:

M&V Guidelines
(http://energy.gov/sites/prod/files/2013/10/f3/sample_mv_plan.pdf)

SCHEDULE G. Left blank for optional schedule related to Savings Guarantee

PAYMENTS SCHEDULES

SCHEDULE H. FINAL PROJECT COST & PROJECT CASH FLOW ANALYSIS

This schedule contains a spreadsheet depiction of the expected financial performance of the project throughout the entire contract term. The documentation should clearly identify all financial components of the project, including interest rates, current fuel prices, any escalation rates, guaranteed savings figures, ESCO compensation figures, cash-flow projections, and projected Net Present Value of any cumulative positive cash flow benefits to the City. Savings projections should be delineated by utility/fuel type and should identify ongoing annual service fees provided over the contract term. Project cost breakdowns should identify both hard costs (labor costs, subcontractor costs, cost of materials and equipment, and miscellaneous costs like permits, bonds taxes, insurance, mark-ups, overhead and profit, etc.).

SCHEDULE I. FINANCING AGREEMENT AND PAYMENT SCHEDULE

This schedule contains a copy of the project financing agreement or terms and conditions of whatever financing vehicle is used (lease, COPs, bank financing etc.). An amortization and payment schedule should also be included as well as the progress payment disbursement schedule that will be used to pay the ESCO during the Interim Period (construction and installation) for the agreed-upon percentages of work completed.

SCHEDULE J. COMPENSATION TO ESCO FOR ANNUAL SERVICES

This should contain the amount and frequency of any payments that may be made to the ESCO for maintenance, monitoring or other services negotiated as part of the contract. It should contain information about how the compensation is calculated, and if an annual inflation index is to be used to escalate fees over the duration of the contract term. An hourly fee structure will also likely be included to cover ESCO costs for any services provided beyond the scope agreed to at the time of contract execution.

SCHEDULE K. REBATES, INCENTIVES AND GRANTS

List and describe any rebates, incentives and grants related to this project.

SCHEDULE L. CONTINGENCY FUND

City's Contingency:

- The investment grade audit report details the cost of the work and identifies the funds in the contingency budget.
- The owner's contingency may be increased from applicable utility rebates, tax credits or tax rebates.
- Contingency Funds, if applicable, shall mean State funds not included in the Fixed Limit of Construction Cost and set aside for the State to release to Contractor or any Third-party Lessor in the event the State desires to add to or

change the scope of Contractor's work or reduce the State's obligation to any Third-party Lessor.

- The State may authorize the disbursement of Contingency Funds to Contractor through a Change Order or other state contract modification procedure.
- The addition of contingency funds to a project may impact or modify the competition date, utility savings, the guarantee of savings, project collateralization, operation and maintenance requirements, training requirements, and other items.
- Each modification should be tracked with the appropriate documentation.

SCHEDULE M. Left blank for optional schedule related to Payments and Schedule
SCHEDULE N. Left blank for optional schedule related to Payments and Schedule
SCHEDULE O. Left blank for optional schedule related to Payments and Schedule
SCHEDULE P. Left blank for optional schedule related to Payments and Schedule

DESIGN, AUDIT AND CONSTRUCTION PHASE SCHEDULES

SCHEDULE Q. DESCRIPTION OF PROJECT SITE(S); PRE-EXISTING EQUIPMENT INVENTORY

This schedule contains basic information about the condition of the Project Site(s) at the time of contract execution. Such information would include facility square footage, building construction, use, occupancy, hours of operation etc., and any special conditions that may exist.

The inventory is important to include for the purpose of identifying what equipment was in place and how it was configured at the time of contract execution. This schedule is important to the accurate establishment of baseline, savings measurement and may need to be referred to in the later years of the contract.

This is not a statement on the layout of the information, but a listing on important information that should be included in any description of the buildings, infrastructure, or other items identified in the original client request. The list should only list facilities that were included in the final energy performance contract agreed scope of work.

- Name of the building.
- Photograph of the exterior of the building.
- Short description of the building (occupancy type, occupancy schedule, construction type, etc)
- Size, age (original and any major additions).
- Short descriptions of the mechanical and electrical systems within the building (heating, cooling, HVAC, lighting, air compressors, controls, plumbing, etc). Indicate the age or date of any component may have been replaced or upgraded.

- List of utility meters connected to the building.
- Indicate the envelope components of the building if important to any final energy conservation measure. (Windows, roof, insulation levels, etc).
- Indicate of the client's facilities are heated/cooled by a central distribution system and include a map (if applicable).
- Infrastructure information as necessary (tunnels, steam, chilled water, condensate, compressed air lines, etc).
- Existing Service Contracts

SCHEDULE R. EQUIPMENT TO BE INSTALLED BY ESCO

This schedule should specify all of the newly installed equipment including manufacturer, quantity, location and warranties (you can also have a separate schedule for warranties). This schedule should also describe any modifications that may have been made to existing equipment, if applicable.

Include a table that indicates which measures are installed in which building. The description of each measure then follows the table. Only list the measures that are included in the final accepted energy savings performance contract. Recognize that the audit does not determine the scope of work but is now an attachment to the contract for reference purposes.

MEASURE name	Building 1	Building 2	Building 3	Building 4
Convert T12 to T8 (lamps and ballast)	X	X	X	
Boiler Replacement			X	X
Chiller Replacement	X			

For the description, indicate the following (the more details the better):

- Detailed description of the MEASURE
- Preferred type of equipment to be installed (by product name) or approved equal.
- List all major and minor components replaced, upgraded, or modified.
- All Operation and Maintenance changes (if O&M savings are being considered in the financial performance, justify why these savings are valid and achievable).
- Indicate potential interaction with other MEASUREs.
- For de-lamping work, ESCO will need to guarantee that the light levels in the areas containing the fixtures will meet the standards set by the IESNA.
- Indicate if any hazardous materials are included in the work or by MEASURE (i.e. disposal of lamps/ballast).

- Indicate when the client is responsible for any identified hazardous material remediation (removal of asbestos insulation).
- For lighting work, include a spreadsheet or table indicating by room/location the work.

SCHEDULE S. CONSTRUCTION AND INSTALLATION SCHEDULE

Include the timetables and milestones for project construction and installation. If so desired, document required insurance, subcontractor lists and any MBE/WBE required subcontracts or break out into a separate schedule. NOTE: It is important that the construction/installation phase of the project be treated in compliance with individual cityal requirements and the appropriate governing statutes. Since construction is just one component of the overall project, a separate construction contract may be desirable and in some cases necessary. The construction contract would then be referred to in the body of the contract and attached as an exhibit, appendix or other type of attachment. Another approach would be to consolidate the appropriate construction language for inclusion in the body of the final contract. This will need to be decided as appropriate on a case-by-case basis.

The schedule should include the duration and the start/finish date for each major item and measure. The design, procurement, construction, commissioning, and final acceptance for the work should be indicted. Any critical important seasonal dates, academic calendar, heating/cooling system schedule should be indicated. The level of detail depends on the complexity of the measure. The issuance of any Notice to Proceed for Construction will be dependent on the initial schedule being refined and finalized during the design phase.

SCHEDULE T. SYSTEMS START-UP AND COMMISSIONING OF EQUIPMENT; OPERATING PARAMETERS OF INSTALLED EQUIPMENT

Specify the performance testing procedures that will be used for start-up and commissioning of the installed equipment and total system. Define procedures for developing and implementing a commissioning plan and specify any requirements for the City and/or third party review and approvals, pre-functional inspections, use of manufacturers' start-up procedures, and for executing functional performance tests. Include operating parameters should for the operation of the installed equipment such as temperature setbacks, equipment run times, load controlling specifications and other conditions for the operation of the equipment.

Provide a general commissioning schedule, including any seasonal testing, and outline commissioning tracking and reporting requirements, including periodic and final commissioning reports, and any other required submittals such as a systems manual. Prescribe any requirements for warranty walk-through or other commissioning follow-up procedures.

Include specific provisions on how the City's project requirements or design intent for each measure or system will be defined. Define any requirements for certification that the tests followed the specified procedures and met or exceeded the expected results.

Define the qualifications and affiliation of the commissioning agent, and provide an overview of the roles and responsibilities of the commissioning agent, ESCO and the City in the commissioning process.

Provide for the City to be notified of and present during all commissioning procedures. Include a provision for the documentation of the City's attendance at the various tests and the City's approval that the tests followed the specified procedures and met or exceed the expected results.

Because of the design-build nature of ESPCs, the details of the commissioning activities are developed along with the project scope, rather than being explicitly defined at the beginning of the project. Commissioning requirements must be: 1) specified in the contract, 2) defined explicitly after design, 3) implemented during construction, 4) completed prior to final project acceptance, and 5) followed-up on after acceptance.

Specify commissioning that will be completed during the following stages:

- Commissioning Process Defined at the Time of Contract Execution
- Defining Commissioning Activities During Project Design
- Implementing Commissioning Activities During Construction
- Completing Commissioning Activities Prior to Project Acceptance

PHASE 1 – CONTRACT DEVELOPMENT

Outline the project's specific commissioning requirements including:

- Qualifications and affiliation of the Commissioning Agent (CxA);
- Roles and responsibilities of CxA, ESCO and City, including witnessing of Cx activities;
- Process that will be followed to document the design intent or City's project requirements for each energy conservation measure (MEASURE) or system;
- Requirements for City or 3rd party design reviews or submittal approvals;
- Schedule for developing and approving a Cx plan, including expected content such as:
    - Pre-functional inspections,
    - Functional testing procedures,
    - Required use of manufactures' start-up procedures,
- Plan for seasonal testing and conditional acceptance, if needed;
- Contents and timing of periodic project reports, Final Cx Report, and
- Systems Manual;
- Requirements for CxA oversight of O&M training; and
- Plan for warranty walk-through or other follow-up procedures.

Designate both the affiliation and qualifications of the Commissioning Agent (CxA) that will lead the commissioning process for the project. The key responsibilities of the CxA are: 1) Directing the commissioning team in the completion of the commissioning requirements; 2) Overseeing or performing the commissioning tests; and 3) Verifying the adequacy of the commissioning results.

Develop a written design intent for each system or MEASURE installed documenting the City's project requirements. Specific operational parameters, design details, performance requirements (conditions in addition to energy savings), or other provisions that are established by a design intent are:

- Operational parameters, such as temperature setback capabilities or operator interface features;
- Requirements for design details or ancillary items, such as sensors, valves, access, electrical, existing equipment demolition, etc.;
- Performance requirements, such as equipment efficiencies, or ton-hours of chilled water to be delivered.

PHASE 2 – PROJECT DESIGN

Commissioning related activities performed by the Cx team in the design phase include:

- ESCO completes project design;
- City and CxA review design and approve equipment submittals;
- ESCO and City document the design intent for each MEASURE or system;
- CxA develops a draft Cx Plan, including the specifics of all pre-functional inspections and functional performance tests;
- CxA develops Cx specifications for project (if needed);
- City and ESCO review and accept Cx documents;
- CxA issues Final Commissioning Plan and specifications.

PHASE 3 – CONSTRUCTION

Commissioning related activities that occur during the construction phase include:

- Construction observation by City's Cx representative and
- Commissioning Agent;
- Periodic Cx meetings are held with the project team;
- Cx progress reports are submitted by the CxA;
- Pre-functional inspections are completed and certified by the ESCO prior to equipment start-up and functional testing;
- Manufactures' start-up procedures are completed by the ESCO or manufacturer's representative.

Commissioning related activities that occur during the construction phase should also include ESCO development and submittal of "as-built" construction documents for completed MEASUREs in each impacted building or facility.

PHASE 4 – PROJECT ACCEPTANCE

In this phase the functional performance tests are executed and the procedures are documented by the CxA, explicitly including how the City's project requirements or design intent prescribed for each system were met. Any items that did not pass shall be tracked and presented to the project team in a deficiency log. The ESCO will rectify the items and then perform a retest in the presence of the CxA to confirm that the items have been fixed. The deficiency log is then updated by the CxA, noting the date and corrective action taken. The City may choose to specify consequences for multiple failed re-tests to limit the possibility of excessive use of the CxA's time. The ESCO then assembles the Final Commissioning Report or a Systems Manual including, at minimum, the following:

- Commissioning summary report;
- ESCO certified pre-functional checklists;
- Completed manufacturers start-up sheets;
- Results of functional testing and verification of system performance;
- Detailed operating procedures / sequences of operations;
- Closed out deficiency log;
- Overview of training provided to O&M staff.
- Some Agencies may prefer to receive a more comprehensive Systems Manual, which is required for LEED certification. A systems manual typically brings together comprehensive project documentation:
- City's project requirements or design intent;
- Schematic system drawings;
- Approved submittals;
- Recommended record keeping procedures;
- Maintenance procedures & schedules;
- Test requirements for ongoing commissioning.

PHASE 5 – POST-ACCEPTANCE PHASE

Commissioning activities that typically extend beyond Project Acceptance include deferred functional testing and warranty verification. Some functional testing may be postponed until seasonal conditions are appropriate to evaluate the system. When some functional testing has been deferred, acceptance of the project is conditional upon the success of the scheduled tests. Most equipment installed will have a one-year warranty provided by the manufacturer. A warranty check-out with the ESCO after 8 to 10 months of operation is a recommended commissioning activity. Reviewing the equipment warranties and performing a site walkthrough at this time can identify any problems that may still be covered by a manufacturer's or contractor's warranty.

COMMISSIONING PLAN

A Commissioning Plan should involve the following:

- Written as a user-friendly document that defines the flexibility requirements and migration path of the proposed system
- Provides complete documentation of how system design intent will meet the owner's needs
- Includes design review and post-acceptance project monitoring
- Defines design objectives for the functional use of the system
- Provides an adequate set of pre-functioned test checklists to verify installation compliance with design intent
- Provides an adequate description of functional performance tests (e.g. step by step procedures)
- Do functional performance tests verify that the controls function as an integrated system congruent with design intent
- Do functional performance tests cover equipment startup, seasonal changeovers, and shut down
- Do performance tests cover system normal, alarm, and failure sequences
- Requires a master list of deficiencies and status of resolution for each item
- Are sensor accuracy tests performed with a standardized instrument
- Does performance testing include both hardware and software
- Provides effective operations and maintenance training for building operators
- Contains equipment data sheets and commissioning logs
- Contains equipment startup checklists
- Requires production of a systems manual with full documentation of the control logic in addition to O&M manuals
- Requires a final commissioning report and recommissioning schedule or continuous commissioning plan

SCHEDULE U. STANDARDS OF COMFORT

Explicitly describe the standards of comfort to be maintained for heating, cooling, lighting levels, hot water temperatures, humidity levels and/or any special conditions for occupied and unoccupied areas of each building.

SCHEDULE V. ESCO'S TRAINING RESPONSIBILITIES

Describe the ESCO's training program or sessions for facility personnel including the duration and frequency of the specified training. Describe any provisions for on-going training, commitments to train newly hired facility personnel, and training with respect to possible future equipment or software upgrades. Also specify any fees associated with the City's request for training beyond what the ESCO is contractually bound to provide.

Describe your firm's proposed approach to providing technical training for Facility personnel. Indicate the proposed number of personnel to be trained and the type and frequency of training to be provided for the duration of the Agreement. Indicate how

your firm shall address any turnover of key Facility personnel as it relates to project performance.

The Training Approach is customized to meet the specific needs of the Customer in a cost effective manner. It is a systematic process for identifying and implementing operational and maintenance improvements and for ensuring their continued performance over time. The content of the work scope is developed to focus on optimizing the building's systems and protecting the significant investment made by the Customer. This work scope will result in improved occupant comfort, maximum energy and operational savings and will be accomplished in a cost-effective manner.

As part of ensuring continued performance over time, the Customer should consider implementing an Asset Management software solution to optimize training and maintenance procedures. Turnover is a key concern for every building management team and an automated technology solution will assist in training maintenance personnel by automating preventive maintenance scheduling, work orders and inventory management. Maintenance personnel receive step-by-step procedures and the required parts to complete a planned or unplanned maintenance activity. In addition to saving money on unnecessary or repeated trips to equipment, the directions provide assistance to facilities personnel that do not have experience with a particular piece of equipment.

The overall goal of a Training Approach process is to assure that the HVAC, electrical and safety systems in the building are operating in accordance with the proper design intent and to maintain staff and visitor comfort during the life of the building. The process will accomplish the following:

- Building HVAC, electrical and plumbing systems will operate in accordance with the design intent that best suits the needs of the occupants and will provide a comfortable, safe and healthy environment
- Energy and operating costs will be reduced due to systems operating at maximum efficiency and through the implementation of energy efficient measures through the application of current technology
- Maintenance staff will be adequately trained to operate and maintain HVAC, electrical, plumbing and other systems in accordance with the proper design intent
- Reduction in occupant complaints reducing maintenance service calls
- Improvement in the overall building environment
- Extended service life of existing HVAC, electrical, plumbing and other systems and equipment

The key steps in the Training Approach processes are outlined as follows:

- Define and document the service requirement for each system and component. Each work scope item will include the following:
    - Identify the actual work scope that is required

    - Define the frequency of service procedures
    - Identify materials required
    - Identify any special tools or skills required
    - Identify the approximate time required to perform the service
    - Identify the safety concerns for the specific work scope
- Identify the specific service scope that can be performed by in-house staff. These work items will be selected based on the following factors:
    - Availability of in-house staff.
    - Expertise required by in-house staff
    - Tools required to perform work
    - Time required to perform work
- Train the in-house staff to perform specific service scope work items. The benefits of work completion by in-house staff include:
    - The Customer will realize cost savings by self-performing work items
    - The Customer will not be dependent on outside vendors
    - Enhanced understanding of system/equipment operation by in-house staff
    - Improved job satisfaction for in-house staff due to increased responsibilities
- Identify the specific service scope to be performed by external service providers. These work items will be selected based on the following factors:
    - Requirement of specific expertise
    - Risk management of asset life
- Recommend service providers to perform work scope items. These providers will be selected based on the following factors:
    - Local presence.
    - Knowledge of Customer facilities
    - Warranty requirements
    - Specific system/equipment expertise
    - Cost of service

SCHEDULE W. Retro-commissioning

Good candidates for retro-commissioning are buildings with:

- Complex systems
- Consumption exceeds commercial building energy consumption survey benchmarks
- A history of operating problems
- Incomplete prior commissioning efforts
- Advanced DDC control systems
- High air change rates
- Dedicated facilities manager
- Permanent web-based metering

- Systems sub-meters
- Historical low-profile data
- Large, single HVAC systems
- Use of water-side economizers
- VAV systems
- Data collection to support condition-based maintenance
- Trend data from EMS
- Good utility baseline data
- Motivated and capable facility staff
- Extensive use of control strategies

Recommendations for Monitored Retro-Commissioning

- Review EMS trend logs
- Review energy use profiles
- Set alarms for savings persistence
- Continuous monitoring and optimization
- Benchmark all buildings
- Invest in staff training
- Major opportunities to resolve air system distribution noise, laboratory operational issues, better temperature control, and controls calibration
- Improved ventilation effectiveness
- Improved chiller sequence
- Improved reset controls and VAV static controls

Examples of trend logs to collect may include:

- Supply air vs. return air
- Chiller schedule
- Chiller outdoor air lockout
- Hot water supply temperature reset
- Hot water pump outdoor air lockout
- kW demand monitoring vs. outdoor air temperature
- Chiller kW vs. outdoor air temperature
- Ton hours vs. outdoor air temperature
- kWh vs. ton hours
- kW vs. outdoor air temperature
- Run hours of ventilation fans

Monitored retro-commissioning involves three steps:

- A performance persistence tracking system
- A performance degradation review process
- A persistence problem resolution process

Examples of points that may be archived include:

- Fan static pressure
- Schedule for the fan control signal
- Air and water temperatures

- Lobby schedules
- Chiller sequences
- Chilled water valve cycling
- Supply air temperature reset

SCHEDULE X. Left blank for optional schedule related to Design and Construction Phase
SCHEDULE Y. Left blank for optional schedule related to Design and Construction Phase
SCHEDULE Z. Left blank for optional schedule related to Design and Construction Phase
SCHEDULE AA. Left blank for optional schedule related to Design and Construction Phase

POST-CONSTRUCTION SCHEDULES

Also see Schedule T: Start-Up Commissioning

SCHEDULE BB. ESCO'S MAINTENANCE RESPONSIBILITIES

Include a complete description of the ESCO's specific operations and maintenance responsibilities along with the time intervals for their performance of the stated O&M activities.

The description shall include but is not limited to:

- Description of ESCO's operations and maintenance responsibilities.
- Performance period for ESCO's performance of the stated operating and maintenance activities.
- Period of time for Maintenance during or after warranty period.
- Payment terms for Maintenance: annually and for how much.

Following is a template that can be developed in a spreadsheet.

ESCO's Maintenance Responsibilities - Contractual Terms
Sample Checklist

Equipment Designation	Equipment Type	Equipment Location	Description of ESCO's Maintenance Responsibilities	Frequency by ESCO	Retro-commissioning Service - detail frequency (if applicable)	Any Activity required by Client, if applicable.
AHU-1 AHU-2	Single Zone Air handler	Floor 1 Mech. Room # 101	Lubricate fan bearings	Annual		Yes

Period of time for maintenance during warranty period:	
Period of time for maintenance after warranty period:	
Annual Fee:	

SCHEDULE CC. CITY'S MAINTENANCE RESPONSIBILITIES

Describe the operations and maintenance responsibilities that may be assigned to facility staff as agreed to by both parties. In some instances this will contain no more than a description of routine O&M currently being performed on existing energy consuming equipment in the facility. In other cases, facility staff may be used to provide some maintenance on the new equipment installed under the performance contract, with the ESCO providing any specialized services as needed.

The description shall include but is not limited to:

- Description of the City's operations and maintenance responsibilities
  - Existing maintenance and operations
  - Additional maintenance and operations necessitated by the Work

City shall provide all maintenance tasks on all existing equipment at all times. City shall provide all maintenance duties on new equipment after Substantial Completion. Maintenance Duties will be outlined in Operation and Maintenance Manuals, which will be provided by ESCO.

Following is a Client Maintenance Template for use in a spreadsheet.

Client's Maintenance Responsibilities
Sample Checklist

Equipment Designation	Equipment Type	Equipment Location	Maintenance Activity by Client	Frequency by Client	Any Activity required by ESCO? (If yes, see Sched. BB)
Existing Equipment:					
AHU-2	Single Zone Air handler	Floor 2 Mech. Room # 202	Routine maintenance	Every 6 months	No
New Equipment:					

AHU-1	Single Zone Air handler	Floor 1 Mech. Room # 101	Change Filters	Every 6 months	Yes
Period of time for maintenance during warranty period:					
Period of time for maintenance after warranty period:					

SCHEDULE DD. FACILITY MAINTENANCE CHECKLIST

This checklist is a method by which the ESCO may record and track the City's compliance with any of the maintenance procedures being performed by facility personnel. The checklist typically specifies simple list of tasks and the corresponding schedule for the performance of the prescribed procedures. Facility staff will complete the checklist and forward it to the ESCO, usually on a monthly basis. (This checklist is a very useful tool for both the ESCO and City to verify that the required maintenance activities are being performed at the scheduled intervals).

Following is a Facility Maintenance Checklist for use in a spreadsheet.

Facility Maintenance Checklist
Sample

Existing Equipment:						
Equipment Designation	**Equipment Type**	**Equipment Location**	**Maintenance Activity by Client**	**Date Performed**	**Performed by:**	**Notes**
AHU-2	Single Zone Air handler	Floor 2 Mech. Room # 202	Routine maintenance	6/1/2013	MJO	
New Equipment:						
Equipment Designation	**Equipment Type**	**Equipment Location**	**Maintenance Activity by Client**	**Date Performed**	**Performed by:**	**Notes**
AHU-1	Single Zone Air handler	Floor 1 Mech. Room # 101	Change Filters	6/1/2013	MJO	High filter loading - consider more frequent changes if

						this continues

SCHEDULE EE. Left blank for optional schedule related to Post-Construction Phase
SCHEDULE FF. Left blank for optional schedule related to Post-Construction Phase
SCHEDULE GG. Left blank for optional schedule related to Post-Construction Phase
SCHEDULE HH. Left blank for optional schedule related to Post-Construction Phase
SCHEDULE II. Left blank for optional schedule related to Post-Construction Phase

ADMINISTRATION SCHEDULES

SCHEDULE JJ: Alternative Dispute Resolutions

It should be a mutual goal of the ESCO and agency to voluntarily resolve any performance problems that may arise. Because of cost and time delays, it is not advisable to delegate a technical dispute to attorneys or others. But it is important to fully disclose all pertinent information and not allow frustration to result in the parties losing focus on the project value and their real interests.

EPC projects require a cooperative effort between the agency and ESCO to achieve energy and cost saving goals, effective equipment maintenance and building comfort. Maintaining high quality performance results over a 10- or 20-year contract requires effective communication, a mutual understanding and the fulfillment of contract responsibilities.

The voluntary resolution of performance problems is facilitated when both parties are committed to seeking resolution based on good faith. Pertinent facts should be fully disclosed early in the resolution process with the ESCO and the agency devoting sufficient time and resources to the proper evaluation of viable options. The ESCO and the agency must realistically evaluate the potential risk and cost of seeking legally binding involuntary resolution. Litigation and formal arbitration are usually very expensive and involve lengthy procedures by judges or arbitrators who often have inadequate expertise to understand complex technical issues. Alternative dispute resolution (ADR) that requires the use of mediation should be included as a standard contract provision to minimize the high cost of resolving performance problems.

To ensure a successful relationship and reduce the potential for conflict, the following should be considered:

Document and Explain Adjustments Made to the Base Year Projections

Mutual duties should be explicitly defined in the contract. Any contractual conditions that affect the savings guarantee must be realistic and technically sound. It is important to document and explain any adjustments made to the base year projections. If unsound technical data are used for project analysis and planning, there will be problems with the project performance.

Document Equipment Technical Performance Requirements

Adequate staff training and accurate documentation of equipment technical performance requirements are a must for a successful project. Continuous monitoring and regular performance reviews provide important feedback to keep the project on track. Also, coordination of energy performance contracts with other construction projects helps to minimize conflicts between project goals.

Put All Project Changes IN WRITING
It is important to keep thorough and precise written records of approvals for all changes to the project. Individual memories are often unreliable and staff turnover is unavoidable. The resolution of problems through prompt and effective action by both the ESCO and the agency is essential to avoiding disputes. Sound technical solutions, transparent to both parties, should satisfy the legitimate interests of both the agency and the ESCO. It is advisable to have a process in place to confirm, by mutual sign-off, that performance problems are solved.

Create Explicit Definitions of Technical and Economic Data and Performance Measurement Methods
Since vague definitions of technical and economic data and methods of performance measurement invite misunderstanding and differing perceptions, it is important that clear definitions be provided. Definitions and contract standards should be fair, economically viable, technically sound, transparent and mutually approved. All technical calculations should be double-checked for data input and math errors and fully documented to explain any base year adjustments.

Encourage Open and Timely Communication
Open and timely communication between the ESCO and agency staff charged with performance responsibilities is crucial to a project success, especially during project commissioning. Each party needs to fully describe project performance concerns and objectively evaluate the merits of available options in order to fairly and efficiently resolve performance problems

SCHEDULE KK: Life of Contract Plan – Document Management

A Life of Contract (LOC) Plan captures the performance data from the acceptance phase of the contract, to provide guidance on how to manage the contract for its remaining term to ensure proper performance of the equipment and the verification of savings guarantees for the life of the contract.

Data collection is organized chronologically to:

- Document the Operation and Maintenance (O&M) and Repair and Replacement (R&R) requirements to monitor and verify that necessary actions are conducted to maintain equipment performance, ensuring that savings are realized.
- Define activities to support annual M&V and true-up processes to allow confirmation that all testing and inspections are accomplished and that the M&V report can be accepted or rejected annually for the life of the contract.
- Document results of initial commissioning of the project equipment and subsequent commissioning of controls.

Personnel responsible for the project's success can use these documents to monitor and document activities over the contract term. This documentation provides continuity in

the event of personnel changes. See the following resource developed by the Hawaii Energy Office with funding from U.S. DOE.

ESPC Life of Contract (LOC) Plan - Hawaii
This document was developed by the Hawaii Energy Office with funding from U.S. DOE. It provides guidance to project staff members during the ESPC's post-installation performance period.
(http://energy.hawaii.gov/wp-content/uploads/2012/06/ESPC-Life-of-Contract-Plan.-12-19-12.pdf)

OPTIONAL SCHEDULES

PRE-EXISTING SERVICE CONTRACTS

Information regarding the scope and cost of pre-existing equipment service contracts should be located in this schedule. This gives both the City and ESCO information about how and when the existing equipment is being serviced. As well, if the ESCO is credited with any maintenance savings or is taking over any existing service contracts, the scopes and costs of such Contracts will useful in tracking the performance of the ESCO in providing the required services and documenting any attributable cost savings.

ENERGY SAVINGS PROJECTIONS

This schedule should contain the projected energy savings in units for each year of the contract. Oftentimes these projections are broken down on a measure by measure basis although some measures may be aggregated into general categories such as lighting or HVAC. If there are several buildings involved in the project, this schedule should contain projections for each facility, even though they may all be covered under a single guarantee.

FACILITY CHANGES CHECKLIST

A "Facility Changes Checklist" or other method may be provided by the ESCO for the City to notify the ESCO of any changes in the facility that could have an impact on energy consumption (e.g. occupancy, new equipment acquisition, hours of use etc.). This checklist is generally submitted on a monthly basis or quarterly basis.

The "Facility Changes Checklist" should also be used as a preliminary "evaluation tool" during annual reconciliations for the Monitoring and Verification (M&V) process because it should be reasonable to ASSUME (in very general overview terms): annual energy consumption records (such as: cumulative totals for kilo-watt-hours charged on a "building-by-building" or a "facility-by-facility" basis) for the "mutually agreed to" baseline year less the ESCO's guaranteed energy savings (in terms of reduced annual consumptions) under the Guaranteed Energy Savings contractual agreement that are adjusted (+/-) in accordance with energy consumption increases or decreases associated with the "Facility Changes Checklist" should stay within 10% of the actual energy

consumption records (cumulative totals) for each year of the performance guarantee period.

CURRENT AND KNOWN CAPITAL PROJECTS AT FACILITY

If there are any current or planned capital projects to be implemented in the facility, that information should be contained in this schedule. This information could prove to be very useful in the out-years of the contract to avoid potential disputes over long-term energy savings performance, overall facility energy consumption and costs.

EXHIBITS

EXHIBIT I	PERFORMANCE BOND/CONSTRUCTION BOND
EXHIBIT II	LABOR AND MATERIAL PAYMENT BOND ***if required***
EXHIBIT III (i)	CERTIFICATE OF ACCEPTANCE—INVESTMENT GRADE AUDIT REPORT
EXHIBIT III (ii)	CERTIFICATE OF ACCEPTANCE—INSTALLED EQUIPMENT
EXHIBIT IV	**EQUIPMENT WARRANTIES**

Provide a full description or schedule of equipment warranties. Include manufacturer warranty dates and periods as well as ESCO warranty dates and periods, if they differ.

If the ESCO warranty starts prior to the commencement of energy savings, provide the client of warranty start criteria (i.e. – "beneficial use"), and warranty duration by MEASURE.

Extended warranties may be available; if so, indicate if such warranties are for labor and material, or material only. Include detailed warranty instructions if an extended warranty will transfer the warranty relationship from the ESCO to the client. Provide manufacturer contact information, return addresses and instructions.

Warranty commencement, whether by MEASURE or for the project as a whole, must be initiated with a letter to the client detailing all of the above information.

If completed MEASUREs are accepted in incremental phases (such as by buildings or facilities) prior to final acceptance for all of the MEASUREs under the Guaranteed Energy Services contractual agreement, then the project schedule for equipment, workmanship/installation, and product warranty considerations should clearly identify when the ESCO's warranty period starts and ends for completed MEASUREs in each impacted building or facility. The project schedule should also clearly identify when the ESCO performance guarantee period for all of the completed and accepted MEASUREs starts (which should typically be from the date of final acceptance for all of the

completed MEASUREs) and ends, as wells as incorporate provisional language on what happens if the final acceptance date for all completed MEASUREs is processed earlier or later than anticipated.

EXHIBIT IV	Equipment Warranties
EXHIBIT V	Record of Reviews by City
OPTIONAL EXHIBITS	
	Manifest of Ownership Minority and Woman-Owned Business Certification Certification that Financing Term is no Longer than the Aggregated Equipment Lifetime Notice of Substantial Completion Notice to Proceed with Construction Phase Record of Reviews by City

APPENDICES

APPENDIX A	RFP FOR ESCO SOLICITATION
APPENDIX B	ESCO PROPOSAL
APPENDIX C	INVESTMENT GRADE AUDIT AND PROJECT PROPOSAL CONTRACT
APPENDIX D	INVESTMENT GRADE AUDIT REPORT

NOTE: THESE SCHEDULES CAN BE INCLUDED AS OPTIONAL AND INCLUDED OR COMBINED WITH OTHERS OR MAY BE CONTAINED IN THE AUDIT REPORT AS DESIRED.

EXHIBIT D
TO
RFP#2019017
ENERGY SAVING PERFORMANCE CONTRACTING SERVICES

[State Statues on Performing Contracting]

See following Pages

EXHIBIT D: State Statutes on Performance Contracting

Arizona Revised Statute (ARS) 34-105. Guaranteed energy cost savings contracts; definitions

A. An agent may contract for the procurement of a guaranteed energy cost savings contract with a qualified provider.

B. An agent may enter into a guaranteed energy cost savings contract with a qualified provider if the agent determines that the amount the agent would spend on the energy cost savings measures recommended in the proposal would not exceed the amount to be saved in energy costs over the expected life, according to the manufacturer's equipment standards, of the energy cost savings measures implemented, the term of the financial agreement or twenty-five years, whichever is shortest, after the date that installation or implementation is complete, if the recommendations in the proposal are followed. An agent shall retain the cost savings achieved by a guaranteed energy cost saving contract, and these cost savings may be used to pay for the contract and project implementation.

C. An agent shall use objective criteria in selecting the qualified provider, including the cost of the contract, the energy savings, the net projected energy savings, the quality of the technical approach, the quality of the project management plan, the financial solvency of the qualified provider and the experience of the qualified provider with projects of similar size and scope. An agent shall state each criterion with its relevant order of importance in the request for proposal.

D. In selecting a contractor to perform any construction work related to performing the guaranteed energy cost savings contract, the qualified provider may develop and use a prequalification process for contractors. These prequalifications may require the contractor to demonstrate that the contractor is adequately bonded to perform the work and that the contractor has not failed to perform on a prior job.

E. The selected qualified provider shall perform a study in order to establish the exact scope of the guaranteed energy cost savings contract, the fixed cost savings guarantee amount and the methodology for determining actual savings. The agent shall review and approve this report before the actual installation of any equipment. The qualified provider shall transmit a copy of the approved study to the governor's office of energy policy.

F. The guaranteed energy cost savings contract shall require that in determining whether the projected energy savings calculations have been met, the energy costs savings shall be computed by comparing the energy baseline before installation or implementation of the energy cost savings measures with the energy consumed after installation or implementation of the energy cost savings measures. The qualified provider and the agent may agree to make modifications to the energy baseline only for any of the following:

1. Changes in utility rates.

2. Changes in the number of days in the utility billing cycle.

3. Changes in the square footage of the facility.

4. Changes in the operational schedule of the facility.

5. Changes in facility temperature.

6. Significant changes in the weather.

7. Significant changes in the amount of equipment or lighting utilized in the facility.

8. Significant changes in the nature or intensity of energy use such as the change of classroom space to laboratory space.

G. The information to develop the energy baseline shall be derived from historical energy costs or actual energy measurements or shall be calculated from energy measurements at the facility where energy cost savings measures are to be installed or implemented. The baseline shall be established before the installation or implementation of energy cost savings measures.

H. When submitting a proposal for the installation of equipment, the qualified provider shall include information on the projected energy savings associated with each proposed energy cost savings measure.

I. An agent, or two or more agents, may enter into a financing agreement with a qualified provider or the financial institution, trustee or paying agent for the purchase and installation or implementation of energy cost savings measures. The guaranteed energy cost savings contract may provide for payments over a period of not more than the expected life, according to the manufacturer's equipment standards, of the energy cost savings measures implemented, the term of the financial agreement or twenty-five years, whichever is shortest. The contract shall provide that all payments, except obligations on termination of the contract before its expiration, shall be made pursuant to the terms of the agreement. If an agent purchases the energy cost savings measure, the qualified provider shall guarantee that the energy cost savings meet or exceed the agent's total cost of purchase.

J. The guaranteed energy cost savings contract shall include a written guarantee of the qualified provider that the energy cost savings will meet or exceed the costs of the energy cost savings measures over the expected life, according to the manufacturer's equipment standards, of the energy cost savings measures implemented, the term of the financial agreement or twenty-five years, whichever is shortest, except as provided in subsection I of this section. The qualified provider shall:

1. For the term of the contract, prepare a measurement and verification report on an annual basis in addition to an annual reconciliation of savings.

2. Reimburse the agent for any shortfall of guaranteed energy cost savings on an annual basis.

3. Use the international performance and measurement and verification protocol standards or the federal energy management program standards to validate the savings guarantee.

K. The agent may obtain any required financing as part of the original competitive sealed proposal process from the qualified provider or a third-party financing institution.

L. A qualified provider that is awarded the contract shall give a sufficient bond to the agent for its faithful performance of the equipment installment.

M. This section does not apply to the construction of new buildings.

N. An agent may use a simplified energy performance contract for projects less than five hundred thousand dollars. Simplified energy performance contracts are not required to include an energy savings guarantee and shall comply with all requirements in this section except for the requirements that are specifically related to the energy savings guarantee and the measurement and verification of the guaranteed savings.

O. For the purposes of this section:

1. "Agent" has the same meaning prescribed in section 34-101 but also includes a community college district organized under title 15, chapter 12, the department of administration and the Arizona board of regents.

2. "Construction" means the process of building, altering, repairing, improving or demolishing any structure or building, or other public improvements of any kind to any real property. Construction does not include the routine operation, routine repair or routine maintenance of existing structures, buildings or real property.

3. "Energy baseline" means a calculation of the amount of energy used in an existing facility before the installation or implementation of the energy cost savings measures.

4. "Energy cost savings measure" means a training program or facility alteration designed to reduce energy consumption and may include one or more of the following, and any related meters or other measuring devices:

(a) Insulating the building structure or systems in the building.

(b) Storm windows or doors, caulking or weather stripping, multiglazed windows or door systems, additional glazing, reductions in glass area, or other window and door system modifications that reduce energy consumption.

(c) Automated or computerized energy control systems.

(d) Heating, ventilating or air conditioning system modifications or replacements, including ground source heat pumps.

(e) Replacing or modifying lighting fixtures to increase the energy efficiency of the lighting system without increasing the overall illumination of a facility unless an increase in illumination is necessary to conform to the applicable state or local building code for the lighting system after the proposed modifications are made.

(f) Indoor air quality improvements to increase air quality that conform to the applicable state or local building code requirements.

(g) Energy recovery systems.

(h) Installing a new or retrofitting an existing day lighting system.

(i) Procurement of low-cost utility supplies of all types, including electricity, natural gas, propane and water.

(j) Devices that reduce water consumption and water costs or that reduce sewer charges.

(k) Rainwater harvesting systems.

(l) Combined heat and power systems.

(m) Renewable and alternative energy projects and renewable energy power service agreements.

(n) Self-generation systems.

(o) Any additional building systems and infrastructure that produce energy, or that provide utility cost savings not specifically mentioned in this paragraph, if the improvements meet the life cycle cost requirement and enhance building system performance or occupant comfort and safety.

(p) Geothermal.

5. "Life cycle cost" means the sum of the present values of investment costs, capital costs, installation costs, energy costs, operating costs, maintenance costs and disposal costs and utility rebates over the life of the project, product or measure as provided by federal life cycle cost rules, regulations and criteria contained in the United States department of energy federal energy management program "guidance on life-cycle cost analysis" required by executive order 13423, January 2007.

6. "Qualified provider" means a person or a business that is experienced in designing, implementing or installing energy cost savings measures, that has a record of established projects or measures of similar size and scope, that has demonstrated technical, operational,

financial and managerial capabilities to design and operate cost savings measures and projects and that has the financial ability to satisfy guarantees for energy cost savings

EXHIBIT E
TO
RFP#2019017
ENERGY SAVING PERFORMANCE CONTRACTING SERVICES

[Proposed Project Schedule]

See following Pages

EXHIBIT E: PROPOSED PROJECT SCHEDULE

The following schedule is the proposed schedule, and may change during the project.
Note: Change week numbers as needed. Consider holiday or seasonal schedules if they are the best times for construction..

ACTIVITY **DATE**

RFP Phase
ESCO Selection and Award **Week 8**
Note: Refer to Submittal Schedule.
Consider time needed for Board approval, if necessary, or official announcement.

Investment Grade Audit Phase
Contract Negotiation **Weeks 9-11**
Note: Allow two weeks for negotiations. Reserve time to negotiate cost markups as maximum markups were given in the proposal response. Also negotiate the scope and level of the audit. Otherwise, this contract is simple and straightforward.

Board approval and signatures to execute contract **Week 12**
Note: Allow sufficient time based on past experience with contracts in your department.

Audit, Final Report and Presentation **Weeks 11-22**
Note: Allow time for several meetings during this process, so that there is sufficient discussion for agreement.

Energy Performance Contract Phase
Negotiation and Documentation **Weeks 23-30**
Note: It is very important to allow sufficient time to review the contract and meet several times with the ESCO to ensure thorough understanding of contract elements, to discuss and negotiate project scope and costs, and to fully document the contract to incorporate project schedules, maintenance agreements, and other project-specific documents. Its time well-spent, as a thorough understanding and documentation of expectations could avoid future conflicts.

Board approval and signatures to execute contract **Weeks 31-34**
Note: Allow sufficient time based on past experience with contracts in your department. To save time, request legal review and approval during the RFP stage.

Installation **To be negotiated**

Commissioning/Monitoring Phase

Commissioning	**To be negotiated**
Monitoring	**To be negotiated**
Staff Training	**To be negotiated**
Other	**To be negotiated**
Proposed Contract Term	**To be negotiated**

Note: This schedule is subject to change.