

PERFORMANCE CONTRACT

This Performance Contract (this "Agreement") is made this ____ day of _____, 2017 between:

PARTIES

JOHNSON CONTROLS, INC. ("JCI")
103 Woodmere Rd. Ste 110
Folsom CA 95630

and

CITY OF PLACERVILLE ("Customer")
3101 Center St
Placerville, CA 95667

RECITALS

WHEREAS, on November 24, 2015, the City of Placerville at a regularly scheduled City Council meeting, held a Public Hearing to discuss entering into an Energy Services Performance Contract pursuant to California Public Resource Code 25008 and California Government Code Chapter 3.2. Energy Conservation Contracts, Section 4217.10-4217.18; and

WHEREAS, on November 24, 2015, the City of Placerville retained JCI with the Project Development Agreement for the Energy Services Performance Contract; and

WHEREAS, the City of Placerville (Customer) is authorized and empowered pursuant to California Government Code Section 4217.10-4217.18 to retain JCI enter into this Agreement, and the Customer has complied with all requirements of said laws; and

WHEREAS, Customer desires to retain JCI to perform the work specified in Schedule 1 (Scope of Work) hereto (the "Work") relating to the installation of the improvement measures (the "Improvement Measures") described therein; and

WHEREAS, Customer selected JCI to perform the Work after determining JCI's proposal was the most advantageous to Customer in accordance with all applicable procurement and other Laws.

WHEREAS, on March 28, 2017 Customer held a regularly scheduled City Council meeting with a Public Hearing to discuss entering into this agreement and the City Council made the following findings:

- (1) that the anticipated cost to the Customer for electrical energy and conservation services provided by the energy conservation facility under this agreement will be less than the anticipated cost to the Customer of electrical energy that would have been consumed by the Customer in the absence of those purchases; and
- (2) the funds for the repayment of the financing the cost of design, construction and operation of the energy conservation facilities are projected to be available from revenues resulting from funding that otherwise would have been used for the purchase of electrical energy required by the City of Placerville in the absence of the energy conservation facilities.

NOW, THEREFORE, in consideration of the mutual promises set forth herein, the parties agree as follows:

AGREEMENT

1. **SCOPE OF THE AGREEMENT.** JCI shall perform the Work set forth in Schedule 1. After the Work is Substantially Complete (as defined below) and the Certificate of Substantial Completion is executed by Customer and JCI, JCI shall provide the assured performance guarantee (the "Assured Performance Guarantee") and the measurement and verification services (the "M&V Services") set forth in Schedule 2 (Assured Performance Guarantee) and/or Schedule 2A (Assured Performance Guarantee – Utility Meters), as applicable. Customer shall make payments to JCI for the Work and the M&V Services in accordance with Schedule 4 (Price and Payment Terms).
2. **AGREEMENT DOCUMENTS:** In addition to the terms and conditions of this Agreement, the following Schedules are incorporated into and shall be deemed an integral part of this Agreement:

Schedule 1 – Scope of Work

Schedule 2 – Assured Performance Guarantee

Schedule 3 – Customer Responsibilities

Schedule 4 – Price and Payment Terms

Attachment 1A – Initial Notice To Proceed

Attachment 1B – Construction Notice To Proceed

Attachment 2 – Change Order

Attachment 3 – Certificate of Substantial Completion, Certificate of Final Completion

Attachment 4 – M&V Services Agreement

3. **NOTICES TO PROCEED: SUBSTANTIAL COMPLETION; M&V SERVICES.** This Agreement shall become effective on the date of the last signature on the signature page below. In the event that Customer fails to execute and deliver the Initial Notice to Proceed to JCI by July 1, 2017, JCI may adjust its pricing based on any changes in pricing by JCI suppliers. In the event of such delay, Customer shall give JCI notice as to when, if at all, Customer intends to execute the Initial Notice to Proceed and JCI will advise Customer as to any cost increases as a result of such delay. In event of price increases or a failure by Customer to obtain the financing required by California Government Code Sections 4710 et seq., Customer may decline to execute the Initial Notice to Proceed or Customer and JCI may agree to an amended scope of work. In the event that Customer declines to execute the Initial Notice to Proceed, the Project Development Agreement will remain in force and effect. In that event Customer and JCI agree that \$129,966 shall be due and payable to JCI. JCI shall commence performance of the Work within ten (10) business days of receipt of each of the Customer's Notice to Proceed, a form of which is attached hereto as Attachment 1A and 1B, and shall achieve Substantial Completion of the Work by the Substantial Completion date, which shall be the earlier of:
 - (a) the date on which Customer executes a Certificate of Substantial Completion substantially in the form attached hereto as Attachment 3;
 - or
 - (b) 12 months after JCI's receipt of the City and State permits which will be applied for as described in Schedule 1 and Schedule 3, or the execution of the Interconnection Agreement, whichever is later, subject to adjustments set forth in Section 4 and Section 5 below.

For purposes of this Agreement, "Substantial Completion" means that JCI has provided sufficient materials and services to permit Customer to operate the Improvement Measures. The M&V Services shall commence on the first day of the month following the month in which Customer executes a Certificate of Substantial Completion and shall continue throughout the Guarantee Term, subject to earlier termination of the Assured Performance Guarantee as provided herein. Customer acknowledges and agrees that if, for any reason, it (i) cancels or terminates receipt of M&V Services, (ii) fails to pay for M&V Services in accordance with Schedule 4, (iii) fails to fulfill any of Customer's responsibilities necessary to enable JCI to complete the Work and provide the M&V Services, or (iv) otherwise cancels, terminates or materially breaches this Agreement, the Assured Performance Guarantee shall automatically terminate and JCI shall have no liability thereunder.

- 4. DELAYS AND IMPACTS.** If JCI is delayed in the commencement, performance, or completion of the Work and/or M&V Services by causes beyond its control and without its fault, including but not limited to inability to access property; concealed or unknown conditions encountered at the project, differing from the conditions represented by Customer in the bid documents or otherwise disclosed by Customer to JCI prior to the commencement of the Work; a Force Majeure (as defined below) condition; failure by Customer to perform its obligations under this Agreement; or failure by Customer to cooperate with JCI in the timely completion of the Work, JCI shall provide written notice to Customer of the existence, extent of, and reason for such delays and impacts. Under such circumstances, an equitable adjustment in the time for performance, price and payment terms, and the Assured Performance Guarantee shall be made.
- 5. ACCESS.** Customer shall provide JCI, its subcontractors, and its agents reasonable and safe access to all facilities and properties in Customer's control that are subject to the Work and M&V Services. Customer further agrees to assist JCI, its subcontractors, and its agents to gain access to facilities and properties that are not controlled by Customer but are necessary for JCI to complete the Work and provide the M&V Services. An equitable adjustment in the time for performance, price and payment terms, and Assured Performance Guarantee shall be made as a result of any failure to grant such access.
- 6. PERMITS, TAXES, AND FEES.** Unless otherwise specified in Schedule 3 (Customer Responsibilities), JCI shall be responsible for obtaining all building permits required for it to perform the Work. Unless otherwise specified in Schedule 1 (Scope of Work), Customer shall be responsible for obtaining all other permits, licenses, approvals, permissions and certifications, including but not limited to, all zoning and land use changes or exceptions required for the provision of the Work or the ownership and use of the Improvement Measures. JCI shall not be obligated to provide any changes to or improvement of the facilities or any portion thereof required under any applicable building, fire, safety, sprinkler or other applicable code, standard, law, regulation, ordinance or other requirement unless the same expressly regulates the installation of the Improvement Measures. Without limiting the foregoing, JCI's obligations with respect to the Work is not intended to encompass any changes or improvements that relate to any compliance matters (whether known or unknown) that are not directly related to the installation of the Improvement Measures or which have been imposed or enforced because of the occasion or opportunity of review by any governmental authority. Customer shall be responsible for and shall pay when due all assessments, charges and sales, use, property, excise, or other taxes now or hereafter imposed by any governmental body or agency upon the provision of the Work or the M&V Services, implementation or presence of the Improvement Measures, the use of the Improvement Measures or payments due to JCI under this Agreement, other than taxes upon the net income of JCI. Customer shall also be responsible for real or personal property taxes relating to equipment or material included in the Improvement Measures. Any fees, taxes, or other lawful charges paid by JCI on account of Customer shall become immediately due from Customer to JCI.
- 7. WARRANTY.** JCI will perform the Work in a professional, workman-like manner. JCI will promptly re-perform any non-conforming Work for no charge, as long as Customer provides written notice to JCI within one (1) year following Substantial Completion or such other period identified in Schedule 1. If JCI installs or furnishes goods or equipment under this Agreement, and such goods or equipment are covered by an end-user warranty from their manufacturer, JCI will transfer the benefits of such warranty to Customer. The foregoing remedy with respect to the Work, together with any remedy provided by goods or equipment manufacturers, shall be Customer's sole and exclusive remedies for warranty claims. Customer agrees that the one (1) year period following Substantial Completion, or such other period identified in Schedule 1, shall be a reasonable time for purposes of submitting valid warranty claims with respect to the Work. These exclusive remedies shall not have failed of their essential purpose so long as JCI transfers the benefits of any goods or equipment end-user warranty to Customer and remains willing to re-perform any non-conforming Work for no charge within the one (1) year period described above or such other period identified in Schedule 1. **NO OTHER EXPRESS OR IMPLIED WARRANTIES, INCLUDING IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARE PROVIDED BY JCI.** This warranty does not extend to any Work that has been abused, altered, or misused, or repaired by Customer or third parties without the supervision

or prior written approval of JCI. Except with respect to goods or equipment manufactured by JCI and furnished to Customer hereunder, for which JCI shall provide its express written manufacturer's warranty, JCI shall not be considered a merchant or vendor of goods or equipment.

8. **CLEANUP.** JCI shall keep the premises and the surrounding area free from accumulation of waste materials or rubbish caused by the Work and, upon completion of the Work, JCI shall remove all waste materials, rubbish, tools, construction equipment, machinery, and surplus materials.
9. **SAFETY; COMPLIANCE WITH LAWS.** JCI shall be responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the performance of the Work and M&V Services. Each of JCI and Customer shall comply with all applicable laws, ordinances, rules, regulations, and lawful orders of public authorities (collectively, "Laws") in connection with its performance hereunder.

10. **ASBESTOS-CONTAINING MATERIALS AND OTHER HAZARDOUS MATERIALS.**

Asbestos-Containing Materials: Neither party desires to or is licensed to undertake direct obligations relating to the identification, abatement, cleanup, control, removal or disposal of asbestos-containing materials ("ACM"). Consistent with applicable Laws, Customer shall supply JCI with any information in its possession relating to the presence of ACM in areas where JCI undertakes any Work or M&V Services that may result in the disturbance of ACM. It is JCI's policy to seek certification for facilities constructed prior to 1982 that no ACM is present, and Customer shall provide such certification for buildings it owns, or aid JCI in obtaining such certification from facility owners in the case of buildings that Customer does not own, if JCI will undertake Work or M&V Services in the facility that could disturb ACM. If either Customer or JCI becomes aware of or suspects the presence of ACM that may be disturbed by JCI's Work or M&V Services, it shall promptly stop the Work or M&V Services in the affected area and notify the other. As between Customer and JCI, Customer shall be responsible at its sole expense for addressing the potential for or the presence of ACM in conformance with all applicable Laws and addressing the impact of its disturbance before JCI continues with its Work or M&V Services, unless JCI had actual knowledge that ACM was present and acted with intentional disregard of that knowledge, in which case (i) JCI shall be responsible at its sole expense for remediating areas impacted by the disturbance of the ACM, and (ii) Customer shall resume its responsibilities for the ACM after JCI's remediation has been completed.

Other Hazardous Materials: JCI shall be responsible for removing or disposing of any Hazardous Materials (as defined below) that it uses in providing Work or M&V Services ("JCI Hazardous Materials") and for the remediation of any areas impacted by the release of JCI Hazardous Materials. For other Hazardous Materials that may be otherwise present at Customer's facilities ("Non-JCI Hazardous Materials"), Customer shall supply JCI with any information in its possession relating to the presence of such materials if their presence may affect JCI's performance of the Work or M&V Services. If either Customer or JCI becomes aware of or suspects the presence of Non-JCI Hazardous Materials that may interfere with JCI's Work or M&V Services, it shall promptly stop the Work or M&V Services in the affected area and notify the other. As between Customer and JCI, Customer shall be responsible at its sole expense for removing and disposing of Non-JCI Hazardous Materials from its facilities and the remediation of any areas impacted by the release of Non-JCI Hazardous Materials, unless JCI had actual knowledge that Non-JCI Hazardous Materials were present and acted with intentional disregard of that knowledge, in which case (i) JCI shall be responsible at its sole expense for the remediation of any areas impacted by its release of such Non-JCI Hazardous Materials, and (ii) Customer shall remain responsible at its sole expense for the removal of Non-JCI Hazardous Materials that have not been released and for releases not resulting from JCI's performance of the Work or M&V Services. For purposes of this Agreement, "Hazardous Materials" means any material or substance that, whether by its nature or use, is now or hereafter defined or regulated as a hazardous waste, hazardous substance, pollutant or contaminant under applicable Law relating to or addressing public or employee health and safety and protection of the environment, or which is toxic, explosive, corrosive, flammable, radioactive, carcinogenic, mutagenic or otherwise hazardous or which is or contains petroleum, gasoline, diesel, fuel, another petroleum hydrocarbon product, or polychlorinated biphenyls. "Hazardous Materials"

specifically includes mold and lead-based paint and specifically excludes ACM. JCI shall have no obligations relating to the identification, abatement, cleanup, control, removal, or disposal of mold, regardless of the cause of the mold.

Environmental Indemnity: To the fullest extent permitted by Law, Customer shall indemnify and hold harmless JCI and JCI's subcontractors, and their respective directors, officers, employees, agents, representatives, shareholders, affiliates, and assigns and successors, from and against any and all losses, costs, damages, expenses (including reasonable legal fees and defense costs), claims, causes of action or liability, directly or indirectly, relating to or arising from the Customer's use, or the storage, release, discharge, handling or presence of ACM, mold (actual or alleged and regardless of the cause of such condition) or Non-JCI Hazardous Materials on, under or about the facilities, or Customer's failure to comply with this Section 10.

11. CHANGE ORDERS. The parties, without invalidating this Agreement, may request changes in the Work to be performed under this Agreement, consisting of additions, deletions, or other revisions to the Work ("Change Orders"). The price and payment terms, time for performance and, if necessary, the Assured Performance Guarantee, shall be equitably adjusted in accordance with the Change Order. Such adjustments shall be determined by mutual agreement of the parties. Customer and JCI shall explore and consider value engineering options when evaluating change orders involving additional costs. JCI may delay performance until adjustments arising out of the Change Order are clarified and agreed upon in writing. Any Change Order must be signed by an authorized representative of each party.

The Authorized Representative for the Customer, shall be the City Manager, who will have the authority to approve any Change Order below \$25,000. Any Change Order, resulting in an amount over \$25,000, shall be valid only on the approval of the City Council.

If concealed or unknown conditions are encountered at the project, differing from the conditions represented by Customer in the bid documents or otherwise disclosed by Customer to JCI prior to the commencement of the Work, price and payment terms, time for performance and, if necessary, the Assured Performance Guarantee, shall be equitably adjusted. Claims for equitable adjustment may be asserted in writing within a reasonable time from the date a party becomes aware of a change to the Work by written notification. Failure to promptly assert a request for equitable adjustment, however, shall not constitute a waiver of any rights to seek any equitable adjustment with respect to such change.

12. CUSTOMER FINANCING; TREATMENT; TAXES. The parties acknowledge and agree that JCI is not making any representation or warranty to Customer with respect to matters not expressly addressed in this Agreement, including, but not limited to:

- (a) Customer's ability to obtain or make payments on any financing associated with paying for the Improvement Measures, related services, or otherwise;
- (b) Customer's proper legal, tax, accounting, or credit rating agency treatment relating to this Agreement; and
- (c) the necessity of Customer to raise taxes or seek additional funding for any purpose.

Customer is solely responsible for its obligations and determinations with respect to the foregoing matters. In addition, the parties acknowledge and agree that Customer shall be responsible to comply, at its cost and expense, with all Laws that may be applicable to it relating to performance contracting, including, without limitation, any requirements relating to the procurement of goods and/or services and any legal, accounting, or engineering opinions or reviews required or obtained in connection with this Agreement.

13. INSURANCE. JCI shall maintain insurance in amounts no less than those set forth below in full force and effect at all times until the Work has been completed, and shall provide a certificate evidencing such coverage promptly following Customer's request therefor.

COVERAGES

LIMITS OF LIABILITY

Workmen's Compensation Insurance or self insurance,
including Employer's Liability

Statutory

Commercial General Liability Insurance

\$5,000,000 Per Occurrence
\$5,000,000 Aggregate

Comprehensive Automobile Liability Insurance

\$5,000,000 Combined Single Limit

The above limits may be obtained through primary and excess policies, and may be subject to self-insured retentions.

- 14. INDEMNIFICATION.** To the fullest extent permitted by applicable Law, each party shall indemnify the other with respect to any third party claim alleging bodily injury, including death, or property damage to the extent such injury or damage is caused by the negligence or willful misconduct of the indemnifying party. A condition precedent to any obligation of a party to indemnify the other pursuant to this Section 14 shall be for the indemnified party to promptly advise the indemnifying party of the claim pursuant to the notice provision of this Agreement.
- 15. LIMITATION OF LIABILITY.** NEITHER JCI NOR CUSTOMER WILL BE RESPONSIBLE TO THE OTHER FOR ANY SPECIAL, INDIRECT, CONSEQUENTIAL, REMOTE, PUNITIVE, EXEMPLARY, LOSS OF PROFITS OR REVENUE, LOSS OF USE, OR SIMILAR DAMAGES, REGARDLESS OF HOW CHARACTERIZED AND REGARDLESS OF A PARTY HAVING BEEN ADVISED OF THE POSSIBILITY OF SUCH POTENTIAL LOSSES OR RELIEF, ARISING IN ANY MANNER FROM THIS AGREEMENT, THE WORK, THE IMPROVEMENT MEASURES, THE PREMISES, THE M&V SERVICES, OR OTHERWISE. WITHOUT LIMITING JCI'S EXPRESS OBLIGATIONS UNDER THE ASSURED PERFORMANCE GUARANTEE, JCI'S LIABILITY UNDER THIS AGREEMENT, REGARDLESS OF THE FORM OF ACTION, SHALL IN NO EVENT EXCEED THE AMOUNT OF THE PAYMENTS ACTUALLY RECEIVED BY JCI UNDER SCHEDULE 4. If this Agreement covers fire safety or security equipment, Customer understands that JCI is not an insurer regarding those services, and that JCI shall not be responsible for any damage or loss that may result from fire safety or security equipment that fails to prevent a casualty loss. The foregoing waivers and limitations are fundamental elements of the basis for this Agreement between JCI and Customer, and each party acknowledges that JCI would not be able to provide the work and services contemplated by this Agreement on an economic basis in the absence of such waivers and limitations, and would not have entered into this Agreement without such waivers and limitations.
- 16. FORCE MAJEURE.** Neither party will be responsible to the other for damages, loss, injury, or delay caused by conditions that are beyond the reasonable control, and without the intentional misconduct or negligence of that party. Such conditions (each, a "Force Majeure") include, but are not limited to: acts of God; acts of government agencies; strikes; labor disputes; fires; explosions or other casualties; thefts; vandalism; riots or war; acts of terrorism; electrical power outages; interruptions or degradations in telecommunications, computer, or electronic communications systems; changes in Laws; or unavailability of parts, materials or supplies matters related to environmental review including CEQA Certification, CEQA challenges and litigation related to environmental review/CEQA.
- 17. JCI'S PROPERTY.** All materials furnished or used by JCI personnel and/or JCI subcontractors or agents at the installation site, including documentation, schematics, test equipment, software and associated media remain the exclusive property of JCI or such other third party. Customer agrees not to use such materials for any purpose at any time without the express authorization of JCI. Customer agrees to allow JCI personnel and/or JCI subcontractors or agents to retrieve and to remove all such materials remaining after installation or maintenance operations have been completed. Customer acknowledges that any software furnished in connection with the Work and/or M&V Services is proprietary and subject to the provisions of any software license agreement associated with such

software. Notwithstanding the aforementioned, the Customer shall have full use of the Plans, Specification and/or As-Built Drawings for future planning, maintenance activities, clarifications or any other uses in its day to day operational activities.

- 18. DISPUTES.** JCI and Customer will attempt to settle any controversy, dispute, difference, or claim between them concerning the performance, enforcement, or interpretation of this Agreement (collectively, "Dispute") through direct discussion in good faith, but if unsuccessful, will submit any Dispute to non-binding mediation in the nearest major metropolitan area of the state where the project is performed. If the parties are unable to agree on a mediator or a date for mediation, either party may request JAMS, Inc. to appoint a mediator and designate the time and procedure for mediation. Such mediator shall be knowledgeable, to each party's reasonable satisfaction, with respect to matters concerning construction law. Neither JCI nor Customer will file a lawsuit against the other until not less than sixty (60) days after the mediation referred to herein has occurred, unless one or both parties is genuinely and reasonably concerned that any applicable statute of limitations is on the verge of expiring. JCI AND CUSTOMER HEREBY WAIVE THEIR RESPECTIVE RIGHTS TO A JURY TRIAL AS TO ANY CLAIM OR CAUSE OF ACTION BASED UPON, ARISING OUT OF OR DIRECTLY OR INDIRECTLY RELATED TO THIS AGREEMENT, INCLUDING CONTRACT, TORT AND STATUTORY CLAIMS, AND EACH OF THE PARTIES HERETO ACKNOWLEDGES THAT THIS WAIVER IS A MATERIAL INDUCEMENT TO ENTER INTO A BUSINESS RELATIONSHIP, THAT EACH HAS RELIED ON THIS WAIVER IN ENTERING INTO THIS AGREEMENT, AND THAT EACH WILL CONTINUE TO RELY ON THIS WAIVER IN THEIR RELATED FUTURE DEALINGS UNDER THIS AGREEMENT.
- 19. GOVERNING LAW.** This Agreement and the construction and enforceability thereof shall be interpreted in accordance with the laws of the state where the Work is conducted.
- 20. CONSENTS; APPROVALS; COOPERATION.** Whenever Customer's consent, approval, satisfaction or determination shall be required or permitted under this Agreement, and this Agreement does not expressly state that Customer may act in its sole discretion, such consent, approval, satisfaction or determination shall not be unreasonably withheld, qualified, conditioned or delayed, whether or not such a "reasonableness" standard is expressly stated in this Agreement. Whenever Customer's cooperation is required by JCI in order to carry out JCI's obligations hereunder, Customer agrees that it shall act in good faith and reasonably in so cooperating with JCI and/or JCI's designated representatives or assignees or subcontractors. Customer shall furnish decisions, information, and approvals required by this Agreement in a timely manner so as not to delay the performance of the Work or M&V Services.
- 21. FURTHER ASSURANCES.** The parties shall execute and deliver all documents and perform all further acts that may be reasonably necessary to effectuate the provisions of this Agreement.
- 22. INDEPENDENT CONTRACTOR.** The relationship of the parties hereunder shall be that of independent contractors. Nothing in this Agreement shall be deemed to create a partnership, joint venture, fiduciary, or similar relationship between the parties.
- 23. LOCAL PARTICIPATION.** JCI will use its best efforts to seek out local subcontractors, suppliers and vendors for the purpose of including their services in the Project. JCI shall submit to customer a description of the process followed to seek out local subcontractors. If the Customer is in agreement with the process, Customer shall issue the Construction Notice to Proceed 1B, to JCI. If Customer is not satisfied with the process Customer shall submit in writing to JCI additional measures to seek out local subcontractors. Such Notice to Proceed 1B will not be unreasonably withheld.
- 23. POWER AND AUTHORITY.** Each party represents and warrants to the other that (i) it has all requisite power and authority to execute and deliver this Agreement and perform its obligations hereunder, (ii) all corporate, board, body politic, or other approvals necessary for its execution, delivery, and performance of this Agreement have been or will be obtained, and (iii) this Agreement constitutes its legal, valid, and binding obligation.

- 23. SEVERABILITY.** In the event that any clause, provision, or portion of this Agreement or any part thereof shall be declared invalid, void, or unenforceable by any court having jurisdiction, such invalidity shall not affect the validity or enforceability of the remaining portions of this Agreement unless the result would be manifestly inequitable or materially impair the benefits intended to inure to either party under this Agreement.
- 24. COMPLETE AGREEMENT.** It is understood and agreed that this Agreement contains the entire agreement between the parties relating to all issues involving the subject matter of this Agreement. No binding understandings, statements, promises or inducements contrary to this Agreement exist. This Agreement supersedes and cancels all previous agreements, negotiations, communications, commitments and understandings with respect to the subject matter hereof, whether made orally or in writing, with the exception of the Water Fund Portion of the Project Development Agreement, entered into by JCI and the Customer on December 4, 2015. Each of the parties to this Agreement expressly warrants and represents to the other that no promise or agreement which is not herein expressed has been made to the other, and that neither party is relying upon any statement or representation of the other that is not expressly set forth in this Agreement. Each party hereto is relying exclusively on the terms of this Agreement, its own judgment, and the advice of its own legal counsel and/or other advisors in entering into this Agreement. Customer acknowledges and agrees that any purchase order issued by Customer associated with this Agreement is intended only to establish payment authority for Customer's internal accounting purposes. No purchase order shall be considered a counteroffer, amendment, modification, or other revision to the terms of this Agreement.
- 25. HEADINGS.** The captions and titles in this Agreement are for convenience only and shall not affect the interpretation or meaning of this Agreement.
- 26. COUNTERPARTS.** This Agreement may be executed in any number of counterparts, all of which when taken together shall constitute one single agreement between the parties.
- 27. NOTICES.** All notices or communications related to this Agreement shall be in writing and shall be deemed served if and when sent by facsimile or mailed by certified or registered mail: to Johnson Controls, Inc. at the address listed on the first page of this Agreement, ATTN: Regional Solutions Manager, with a copy to Johnson Controls, Inc., ATTN: General Counsel – Building Efficiency Americas, 507 East Michigan Street, Milwaukee, Wisconsin, 53202: and to Customer at the address listed on the first page of this Agreement.

CITY OF PLACERVILLE

JOHNSON CONTROLS, INC.

Signature: _____

Signature: _____

Printed Name: M. Cleve Morris

Printed Name: Christopher Schulken

Title: City Manager

Title: V.P. Regional General Manager, Energy Solutions

Date: _____

Date: _____

SCOPE OF WORK

Scope of Work General

JCI shall furnish and install the scope of work as defined in Table 1 below.

Table 1: Scope of Work of Facility Improvement Measures (FIMs)

FIM Number	FIM Description
Wastewater Enterprise Fund	
1	Solar Photovoltaic (PV) for WWTP
2	Lighting Retrofit for WWTP
General Fund	
3	Lighting Retrofits for City Buildings

Permits and Fees

JCI shall provide the necessary engineering plans, calculations and documents for issuance of a City of Placerville building permit, specific to the scope of work herein for FIM 1. FIMs: 2 and 3 will not be included in the permitting.

JCI shall submit the completed plans to the Customer, for their approval, prior to submitting them to the City of Placerville planning department for permitting. All permits and inspection fees are the responsibility of the Customer.

FIM 1 Solar Photovoltaic (PV) WWTP

This measure is for the installation of a Solar Photovoltaic (PV) system, which is to be connected to the site’s existing 2000 amp electrical switchgear system. FIM 1 will generate useable electricity using solar energy. The PV system will be interconnected to the WWTP main electrical service in the electrical room located in the north electrical room of the WWTP at 2300 Coolwater Creek Road, Placerville, CA. Figure 1 Aerial View of the WWTP Photovoltaic System shows the approximate location of the equipment to be installed.

Solar PV Arrays

System	Total approximate wattage DC
FIM 1 WWTP NEM-A	831,915

FIM 1 Solar Photovoltaic Installation:

The PV System will be constructed by installing fixed tilt ground mounted arrays mounted on a racking system using driven piers embedded to maximum of eight feet, Installation is based on a minimum of 3,000 psi soil bearing. Racking materials will be of steel or aluminum materials.

Johnson Controls will provide electrical Photovoltaic engineered drawings, geotechnical engineering study report and the drainage study. The existing drainage storm water flow patterns will match the post construction drainage patterns and the flow will be directed to the existing concrete area of the waste water treatment plant. No underground storm drainage systems will be analyzed within this scope of work.

Johnson Controls, Inc. Initials: _____

Customer Initials: _____



Schedule 1

Johnson Controls has included the permit registration documents and Storm Water Pollution Prevention Plan (SWPPP) including a Construction Site Monitoring Program (CSMP). The City of Placerville will be responsible for monitoring cost and fees if required. The construction duration for the PV scope of work is based on a duration of less than twelve months and the project is not a risk level 3 and no active treatment systems are required. The Permit Registration Documents (PRDs) and SWPPP will be uploaded to the Storm Water Multiple Application and Report Tracking System (SMARTS) system.

Provide and install SWPP and maintain during construction.

Obtain construction permits from City of Placerville Building Department.

Provide silicon crystalline photovoltaic modules, electrical connections, and connection to the electrical service for the site, including where necessary, cutting, trenching, boring, backfill, and patching to match existing.

Aluminum conductors will be used where permitted by equipment listing provisions and applicable code.

Provide grid interactive inverters located inside the perimeter of the solar array chain link fencing.

Provide revenue grade metering and web based DAS monitoring system which is connected via cellular modem. Monitoring system includes one meteorological station to monitor plane-of-array irradiance, cell temperature, ambient temperature, and wind speed. Monitoring system includes one year subscription for monitoring service. Customer must maintain the cell service and monitoring service for the term of the M&V Services.

Trees and shrubs will be removed. Smaller trees, branches and shrubs will be masticated and spread over the site. Logs will be removed from the site.

JCI will assist the Customer with support and coordinate for their Consultants.

Provide 6' high chain link fence with 3 strands of barbed wire around the array field. Also included is one (1) vehicle gate and one (1) man gate.

Commissioning and testing of the installed PV systems.

Seed Photovoltaic array area with a native low growth ground cover.

Prepare the Interconnection Agreement application and deliver to customer for approval and submission to local utility including the following change of electric rate schedules:

The Interconnection Agreement application will request a Net Energy Metering- Aggregated (NEM-A) structure where the non-exported PV energy consumed by the North meter loads reduces the metered utility energy flowing into that meter. The exported PV energy is divided between the two meters based on their relative remaining loads during each TOU period.

Change from the existing E-19S to rate schedule A-10 TOU.

The Customer will sign off and approve the plans prior to any on site construction.

Johnson Controls, Inc. Initials: _____

Customer Initials: _____

Equipment Specifications and Design Parameters. The modeled energy is based on the equipment and design parameters as shown in table below:

Design Parameters	
FIM 1 PV WWTP NEM-A	
Address	WWTP, 2300 Coolwater Creek Road, Placerville, CA 95667
Meter(s)	North 1009486051, South 1006734002
Module Tilt	15 degrees fixed tilt
Azimuth	180 Degrees
PV Modules	JA Solar JAP6 72/315/488, or equal
Inverters	(20) Solectria PVI-36TL, or equal
Number of Modules	2,641
kWdc STC (approximate)	831.915
Monitoring	Draker Energy With Revenue Grade Meters, or equivalent

Extended Warranty:

The photovoltaic (PV) modules and inverters shall include a 9 year extended warranty which shall include parts and labor. In addition there is extended product warranties offered by the equipment manufactures. The Manufactures extended warranty for the PV modules shall be from years 11 to 25. The Manufactures extended warranty for the PV invertors shall be from years 11 to 20. The extended warrantee information will be provided to the Customer in the project submittals and the Operational and Maintenance Manuals during the project close-out.

Exclusions:

- Remedies for hard rock or adverse soil conditions, including but not limited to, soil conditions of less than 3,000 psi. All trenching to be performed by normal means (Case 580 backhoe).
- Hazardous or corrosive material testing and/or removal.
- Arc flash studies on existing equipment
- Warranty, repair, or replacement of existing systems in disrepair or not code compliant.
- Remedies for encounters with unknown, unforeseen or undocumented structures or underground utilities.
- Overtime and shift labor if requested by the Customer is excluded. (JCI will coordinate access and system shutdowns with Customer prior to and concurrent with construction activities).
- CEQA Environmental assessment and permit documents, including but not limited to: agency fees, Encroachment permits if necessary, title services and exceptions, dry trench and utility plans.
- FEMA flood plain or special permits and filing fees. Customer to provide title report, vesting deed to assist the city’s engineering group in preparation of final reports and permitting submission documents.
- Correction of any pre-existing applicable building code violations by JCI during the execution of the work. Such violations will be brought to the attention of the Customer for remedy.
- Repair or replacement of defective electrical equipment and the electrical distribution system, except the expressed equipment described in the Scope of Work (Defective equipment identified by JCI during implementation of the Scope of Work will be brought to the attention of the Customer).
- Resolution of existing design, service, and or distribution conditions known or unknown and including utility company requirements, whether on site or off, are excluded.
- The grading of the PV array site does not include import or export of soils, any additional soil will be spread on site. The final slope will be determined after the final design is completed.

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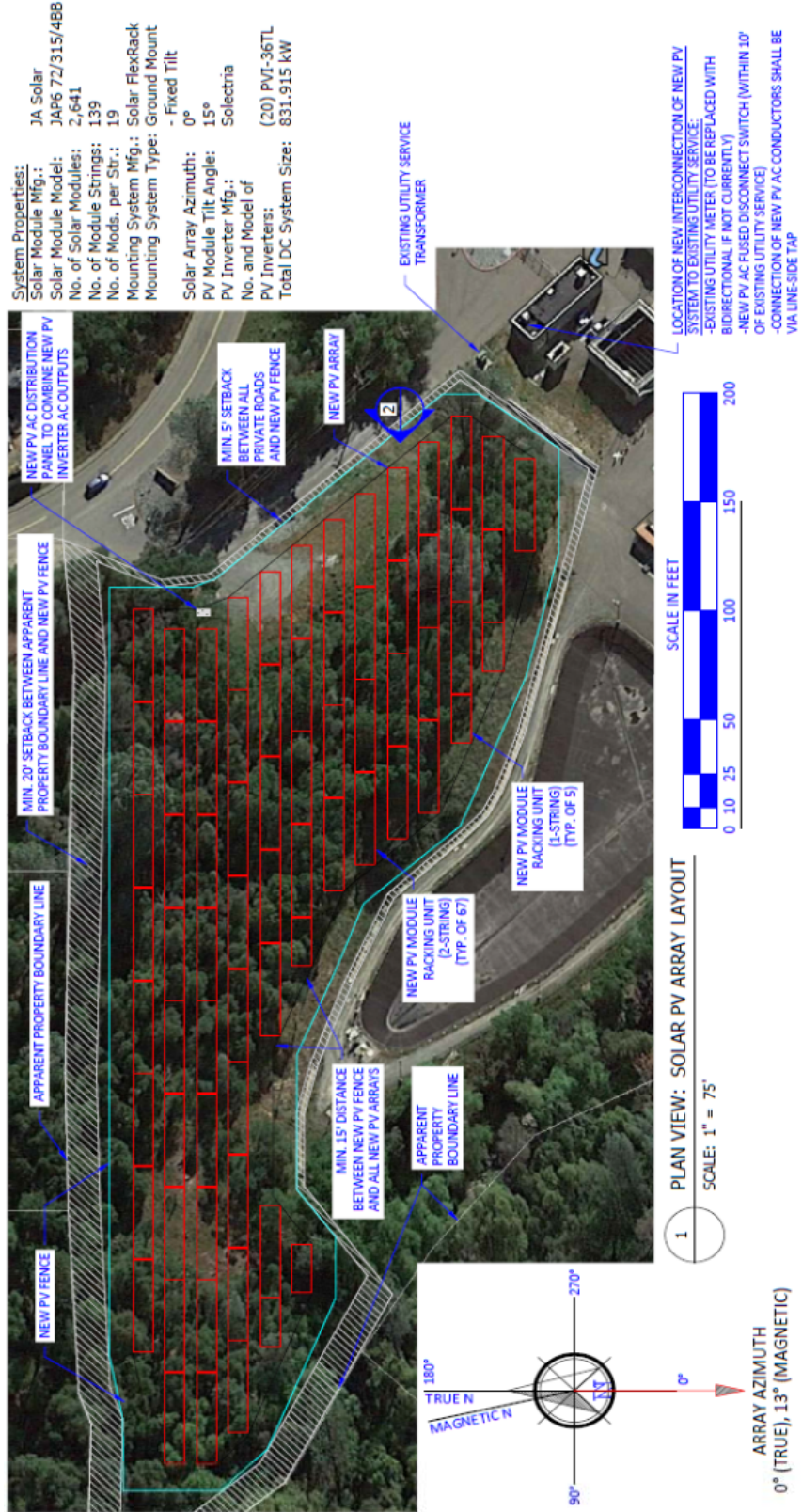


Figure 1 Aerial View of the WWTP Photovoltaic System

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FIM 2 Lighting Retrofits for WWTP
FIM 3 Lighting Retrofits for City Buildings

JCI shall provide lighting retrofit work as defined in Table 2 Lighting Retrofit Line by Line and shall include all necessary labor, materials, equipment, disposal, fixture cleaning, transportation and storage for fixtures as identified in Lighting Scope of Work Table below. The Lighting Line by Line Scope, will be modified to reflect the actual post construction conditions, and shall be used for the purposes of as-built drawings. The updated Tables will be submitted to the Customer during the project close-out phase.

JCI will provide the necessary sample installations, for the purpose of acquiring the Customers approval of the color rendering of the lamps and/or fixtures, prior to beginning the installation. Such approval shall not be unreasonable withheld by the Customer.

JCI will pass along all extended manufactures warranty information to the Customer with the project close-out documents.

In general the following are the significant elements of the lighting retrofit scope of work:

“Retrofits” in which new components (e.g.: lamps and ballasts) are installed and the existing fixture housing are reused.

“Replacements” in which a new fixture of similar form to the existing is installed in the current location.

“Relamps” in which the existing lamp is replaced with a new lamp of similar form.

New replacement Light Emitting Diode (LED) fixtures will be of the brand Maxlite, Light Efficient Design, Lumecon, Venture, Phillips or equal.

The disposal shall include removed materials, trash, fluorescent lamps and ballasts. Removed fluorescent lamps and ballasts will be disposed of as per current California EPA guidelines.

Unless otherwise specified, the basis for the lighting retrofit selections is to maximize energy savings and to meet or exceed existing light levels. It is not the intent to redesign the existing lighting system, change fixture orientation or provide revised lighting layouts unless specifically indicated. If such items are required by the AHJ, these items will be at an additional cost.

The 150 watt induction lighting fixtures located in the city hall parking garage will have a photo cell installed (one per circuit) to shut off the fixtures when adequate daylighting exists to illuminate the parking garage.

Any and all equipment manufactures extended warranty shall be provided in the project submittals and/or the project close-out documents.

Lighting Exclusions

Lighting fixtures not identified in the Scope of Work are excluded from any repair or replacement scope.

New fixture lenses are excluded unless they are specified in the scope of work as replacement or if the lenses are broken or damaged during the installation.

Replacement of ceiling tiles is excluded, unless damaged by JCI during installation work.

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Schedule 1

Repair or replacement of existing damaged or defective motion sensors, time clocks, dimming system or switches is excluded.

Repair or replacement of defective electrical, other than the equipment specifically described in the FIM description and Work. JCI will identify the location of defective equipment and notify Customer.

Repair or upgrades required to rectify existing code violations, unless specifically described in this scope of Work.

Egress and emergency lighting is excluded, unless specifically described in the scope of Work.

Repair or replacement of existing switches, breakers, wiring, etc. unless the failure is a direct result of JCI's actions.

Existing faulty wiring or raceways providing power to lighting system. (JCI will bring such conditions to the attention of Customer, but it shall be the responsibility of Customer to address the identified deficiencies).

Reconfiguration of existing lighting system layout, except where noted herein.

Conformance to IEEE standards if the existing layout does not comply with same.

Engineering drawings and/or reflected ceiling plans are excluded. JCI will revise and amend the following Line by Line Tables, upon completion of the work to reflect the as-built conditions. The revised Tables will be provided to the Customer in the project close-out documents.

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Table 2 Lighting Retrofit Line by Line

SITE INFORMATION										PROPOSED LIGHTING SYSTEM																	
ITEM #	BLDG.	ROOM	FIXTURE TYPE	FIX. CODE	DESCRIPTION	FIX. QTY.	LAMP TYPE	WATTS/ LAMP	TOTAL WATTS/ FIX. (KW)	ANNUAL HOURS	ANNUAL KWH	ANNUAL COSTS	ELECTR. COST PER FIX	SENSOR (Y/N)	MAT CODE	DESCRIPTION	LAMP/ FIX. QTY.	NEW FIX. KW	TOTAL FIX. (\$)	ANNUAL COSTS	ANNUAL SAVINGS	PGE Rate	Interior/ Exterior	POE Rate Calculation			
1	Police Dept.	Hallway	U Lamp	FUJLL	Fluorescent (1) U-Type, T8 lamp	19	F10T18/86	32	0.00	0.61	1456	885	\$ 108.23	\$ 35.51	Y	LED U-LAMP	LED U-LAMP	19	0.0165	\$64.77	\$ 51.46	\$ 17.31	E19S	I	\$ 0.21	\$30.20	
2	Police Dept.	Investigators	STRIP	F4ZLL	Fluorescent (2) 48" T8 lamp, Instant Start Ballast, N.O.B.F., 85-95	4	F2T8	32	0.06	0.24	1456	345	\$ 41.44	\$ 13.85	Y	LED T8 LINEAR	LINEAR LED 8V/3SK INTERNAL DRIVER	4	0.00	\$20.97	\$ 20.48	\$ 5.49	E19S	I	\$ 0.21	\$35.90	
3	Police Dept.	Conference Room	STRIP	F4ZLL	Fluorescent (2) 48" T8 lamp, Instant Start Ballast, N.O.B.F., 85-95	6	F2T8	32	0.06	0.36	3076	1,088	\$ 130.55	\$ 20.78	Y	LED T8 LINEAR	LINEAR LED 8V/3SK INTERNAL DRIVER	6	0.00	\$80.04	\$ 64.50	\$ 15.54	E19S	I	\$ 0.21	\$19.07	
4	Police Dept.	Break Room	STRIP	F4ZLL	Fluorescent (2) 48" T8 lamp, Instant Start Ballast, N.O.B.F., 85-95	2	F2T8	32	0.06	0.12	3076	363	\$ 43.52	\$ 6.93	Y	LED T8 LINEAR	LINEAR LED 8V/3SK INTERNAL DRIVER	2	0.00	\$22.01	\$ 21.50	\$ 0.51	E19S	I	\$ 0.21	\$37.69	
5	Police Dept.	First Aid	STRIP	F4ZLL	Fluorescent (2) 48" T8 lamp, Instant Start Ballast, N.O.B.F., 85-95	1	F2T8	32	0.06	0.06	3076	181	\$ 21.76	\$ 3.46	Y	LED T8 LINEAR	LINEAR LED 8V/3SK INTERNAL DRIVER	1	0.00	\$11.01	\$ 10.75	\$ 0.26	E19S	I	\$ 0.21	\$18.85	
6	Police Dept.	Interview Room	STRIP	F4ZLL	Fluorescent (2) 48" T8 lamp, Instant Start Ballast, N.O.B.F., 85-95	2	F2T8	32	0.06	0.12	3076	363	\$ 43.52	\$ 6.93	Y	LED T8 LINEAR	LINEAR LED 8V/3SK INTERNAL DRIVER	2	0.00	\$22.01	\$ 21.50	\$ 0.51	E19S	I	\$ 0.21	\$37.69	
7	Police Dept.	Men's Locker Room	STRIP	F4ZLL	Fluorescent (2) 48" T8 lamp, Instant Start Ballast, N.O.B.F., 85-95	4	F2T8	32	0.06	0.24	3076	725	\$ 87.03	\$ 13.85	Y	LED T8 LINEAR	LINEAR LED 8V/3SK INTERNAL DRIVER	4	0.00	\$44.03	\$ 43.00	\$ 1.03	E19S	I	\$ 0.21	\$75.38	
8	Police Dept.	Women's Locker Room	STRIP	F4ZLL	Fluorescent (2) 48" T8 lamp, Instant Start Ballast, N.O.B.F., 85-95	2	F2T8	32	0.06	0.12	728	86	\$ 10.36	\$ 6.93	Y	LED T8 LINEAR	LINEAR LED 8V/3SK INTERNAL DRIVER	2	0.00	\$5.24	\$ 5.12	\$ 0.12	E19S	I	\$ 0.21	\$9.97	
9	Police Dept.	Equip. Room	STRIP	F4ZLL	Fluorescent (2) 48" T8 lamp, Instant Start Ballast, N.O.B.F., 85-95	6	F2T8	32	0.06	0.36	728	250	\$ 31.09	\$ 20.78	Y	LED T8 LINEAR	LINEAR LED 8V/3SK INTERNAL DRIVER	6	0.00	\$15.72	\$ 15.36	\$ 0.36	E19S	I	\$ 0.21	\$28.02	
10	Police Dept.	Chief Office	STRIP	F4ZLL	Fluorescent (2) 48" T8 lamp, Instant Start Ballast, N.O.B.F., 85-95	4	F2T8	32	0.06	0.24	546	130	\$ 16.54	\$ 13.85	Y	LED T8 LINEAR	LINEAR LED 8V/3SK INTERNAL DRIVER	4	0.00	\$7.86	\$ 7.68	\$ 0.18	E19S	I	\$ 0.21	\$14.46	
11	Police Dept.	Chief Office	CAN	CF78/1	Compact Fluorescent, twin, (1) 28W lamp	6	CF78W	26	0.00	0.18	546	98	\$ 11.79	\$ 10.91	Y	PULLED LAMP	LED 12W (1) Plug in	6	0.013	\$5.11	\$ 5.68	\$ 0.57	E19S	I	\$ 0.21	\$17.72	
12	Police Dept.	Segregation Room	STRIP	F4ZLL	Fluorescent (2) 48" T8 lamp, Instant Start Ballast, N.O.B.F., 85-95	4	F2T8	32	0.06	0.24	546	130	\$ 16.54	\$ 13.85	Y	LED T8 LINEAR	LINEAR LED 8V/3SK INTERNAL DRIVER	4	0.00	\$7.86	\$ 7.68	\$ 0.18	E19S	I	\$ 0.21	\$14.46	
13	Police Dept.	Records Room	STRIP	F4ZLL	Fluorescent (2) 48" T8 lamp, Instant Start Ballast, N.O.B.F., 85-95	3	F2T8	32	0.06	0.18	546	97	\$ 11.66	\$ 10.39	Y	LED T8 LINEAR	LINEAR LED 8V/3SK INTERNAL DRIVER	3	0.00	\$5.90	\$ 5.76	\$ 0.14	E19S	I	\$ 0.21	\$10.10	
14	Police Dept.	Records Room	U lamp	FU2LL/14	Fluorescent (2) U-Type, T8 lamp, Instant Start Ballast, random wired	2	F10T18/86	32	0.06	0.11	862.4	65	\$ 7.83	\$ 6.94	Y	LED U-LAMP	LED U-LAMP	2	0.033	\$4.61	\$ 3.21	\$ 1.40	E19S	I	\$ 0.21	\$5.64	
15	Police Dept.	Records Room	CAN	CF78/1	Compact Fluorescent, twin, (1) 28W lamp	3	CF78W	26	0.00	0.09	862.4	52	\$ 6.29	\$ 5.26	Y	PULLED LAMP	LED 12W (1) Plug in	3	0.013	\$2.73	\$ 3.56	\$ 0.83	E19S	I	\$ 0.21	\$8.25	
16	Police Dept.	Commander	STRIP	F4ZLL	Fluorescent (2) 48" T8 lamp, Instant Start Ballast, N.O.B.F., 85-95	10	F2T8	32	0.06	0.59	862.4	345	\$ 41.44	\$ 34.63	Y	LED T8 LINEAR	LINEAR LED 8V/3SK INTERNAL DRIVER	10	0.00	\$20.97	\$ 20.48	\$ 0.49	E19S	I	\$ 0.21	\$35.90	
17	Police Dept.	Service Room	STRIP	F4ZLL	Fluorescent (2) 48" T8 lamp, Instant Start Ballast, N.O.B.F., 85-95	6	F2T8	32	0.06	0.36	862.4	207	\$ 24.87	\$ 20.78	Y	LED T8 LINEAR	LINEAR LED 8V/3SK INTERNAL DRIVER	6	0.00	\$12.58	\$ 12.29	\$ 0.29	E19S	I	\$ 0.21	\$21.54	
18	Police Dept.	Admin Office, Chief	CAN	CF78/1	Compact Fluorescent, twin, (1) 28W lamp	3	CF78W	26	0.00	0.09	3276	285	\$ 35.38	\$ 5.26	Y	PULLED LAMP	LED 12W (1) Plug in	3	0.013	\$15.33	\$ 20.05	\$ 4.72	E19S	I	\$ 0.21	\$35.15	
19	Police Dept.	Evidence	STRIP	F4ZLL	Fluorescent (2) 48" T8 lamp, Instant Start Ballast, N.O.B.F., 85-95	4	F2T8	32	0.06	0.24	3276	777	\$ 93.25	\$ 13.85	Y	LED T8 LINEAR	LINEAR LED 8V/3SK INTERNAL DRIVER	4	0.00	\$47.17	\$ 46.07	\$ 1.10	E19S	I	\$ 0.21	\$80.77	
20	Police Dept.	Dark Room/Storage	CAN	CF78/1	Compact Fluorescent, twin, (1) 28W lamp	2	CF78W	26	0.00	0.06	612	368	\$ 44.15	\$ 3.90	Y	PULLED LAMP	LED 12W (1) Plug in	2	0.013	\$2.02	\$ 19.13	\$ 17.11	\$ 2.02	E19S	I	\$ 0.21	\$45.85
21	Police Dept.	Storage	CFL Bulbs	CF78/2	Compact Fluorescent, twin, (2) 40W lamp	1	CF78W	40	0.09	0.09	546	46	\$ 5.57	\$ 4.95	Y	PULLED TUBE	24 INCH PULL TWIN TUBE LINEAR CFL	1	0.08	\$5.24	\$ 3.33	\$ 1.91	E19S	I	\$ 0.21	\$0.57	
22	Police Dept.	Armory	LAMP	CFQ8/1	Compact Fluorescent, quad, (1) 18W lamp	1	CFQ8W	18	0.00	0.03	546	14	\$ 1.70	\$ 1.52	Y	LED LAMP RETROFIT	LED LAMP RETROFIT	1	0.013	\$0.85	\$ 0.85	\$ 0.00	E19S	I	\$ 0.21	\$1.49	
23	Police Dept.	Entry Front	CAN	CF78/1	Compact Fluorescent, twin, (1) 28W lamp	4	CF78W	26	0.00	0.12	1274	153	\$ 18.39	\$ 7.01	Y	PULLED LAMP	LED 12W (1) Plug in	4	0.013	\$7.85	\$ 10.40	\$ 2.55	E19S	I	\$ 0.21	\$12.22	
24	Police Dept.	Entry Front	U Lamp	FU2LL/14	Fluorescent (2) U-Type, T8 lamp, Instant Start Ballast, random wired	3	F10T18/86	32	0.06	0.17	1274	214	\$ 26.68	\$ 3.91	Y	LED U-LAMP	LED U-LAMP	3	0.033	\$15.14	\$ 10.55	\$ 4.59	E19S	I	\$ 0.21	\$18.49	
25	Police Dept.	Fingerprinting	STRIP	F4ZLL	Fluorescent (2) 48" T8 lamp, Instant Start Ballast, N.O.B.F., 85-95	1	F2T8	32	0.06	0.06	1274	76	\$ 9.07	\$ 3.46	Y	LED T8 LINEAR	LINEAR LED 8V/3SK INTERNAL DRIVER	1	0.00	\$4.99	\$ 4.48	\$ 0.51	E19S	I	\$ 0.21	\$7.85	
26	Police Dept.	Men's RR	STRIP	F4ZLL	Fluorescent (2) 48" T8 lamp, Instant Start Ballast, N.O.B.F., 85-95	3	F2T8	32	0.06	0.18	1274	227	\$ 27.29	\$ 10.39	Y	LED T8 LINEAR	LINEAR LED 8V/3SK INTERNAL DRIVER	3	0.00	\$13.76	\$ 13.44	\$ 0.32	E19S	I	\$ 0.21	\$22.55	
27	Police Dept.	Women's RR	STRIP	F4ZLL	Fluorescent (2) 48" T8 lamp, Instant Start Ballast, N.O.B.F., 85-95	3	F2T8	32	0.06	0.18	728	130	\$ 15.84	\$ 10.39	Y	LED T8 LINEAR	LINEAR LED 8V/3SK INTERNAL DRIVER	3	0.00	\$7.86	\$ 7.68	\$ 0.18	E19S	I	\$ 0.21	\$14.46	

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SITE INFORMATION										PROPOSED LIGHTING SYSTEM																	
Bldg.	Room	Fixture Type	Fix Code	Description	Fix Qty.	Lamp Type	Watts/Lamp	Watts/Fix	Total Fix KW	Usage Type	Annual Hours	Annual kWh	Annual Costs	Electric Cost Per Fix	Sens or (Y/N)	Mat Code	Description	Lamp/Fix Qty.	New KW	Total Fix (S) KW	Annual Costs	Annual Savings	POE Rate	Interior/Exterior	POE Rate	POE Rate Calculation	
32	Police Dept.	Strip - 8'Fl	F85E	Fluorescent, (2) 95" STD lamp	14	F-8T12	75	0.16	2.21	STORAGE	728	1,610	\$ 193.24	\$ 128.18	Y	LED T8 LINEAR	LINEAR LED 15W 35K INTERNAL DRIVER	14	0.08	0.940	\$73.38	\$193.86	\$7.03	EHS	I	\$ 0.21	\$210.11
32	Police Dept.	File Bay Area RR U Lamp	FULLT4	Fluorescent, (2) U-Tube, T8 lamp, Instant Start Ballast, tandem wired	2	F10T8/6	32	0.06	0.11	RESTROOM	424	140	\$ 17.12	\$ 6.54	Y	LED U-LAMP	LED U-LAMP	2	0.033	0.066	\$10.09	\$7.03	\$3.06	EHS	I	\$ 0.21	\$210.11
33	Police Dept.	File Bay Womens RR	CF402	Compact Fluorescent, twin, (2) 4W lamp	1	CF40W	40	0.09	0.09	RESTROOM	728	62	\$ 7.43	\$ 4.96	Y	LED LAMP RETROFIT	LED 18W (1) Plug n	1	0.018	0.018	\$1.57	\$6.85	\$5.28	EHS	I	\$ 0.21	\$10.26
34	Police Dept.	File Bay Womens RR	IND1501	Incandescent, (1) 60W lamp	10	60	60	0.06	0.60	RESTROOM	728	437	\$ 52.42	\$ 35.04	Y	LED A19 LAMP	LED A19 (1) Omni Directional Lamp	10	0.01	0.100	\$8.74	\$43.68	\$35.94	EHS	I	\$ 0.21	\$76.57
35	Police Dept.	EOC	FULLT4	Fluorescent, (2) U-Tube, T8 lamp, Instant Start Ballast, tandem wired	2	F10T8/6	32	0.06	0.11	STORAGE	424	143	\$ 17.12	\$ 6.54	Y	LED U-LAMP	LED U-LAMP	2	0.033	0.066	\$10.09	\$7.03	\$3.06	EHS	I	\$ 0.21	\$210.11
36	Police Dept.	EOC	CF402	Compact Fluorescent, twin, (2) 4W lamp	1	CF40W	40	0.09	0.09	STORAGE	480	398	\$ 59.67	\$ 4.96	N	LED LAMP RETROFIT	LED 18W (1) Plug n	1	0.018	0.018	\$12.64	\$7.03	\$5.61	EHS	I	\$ 0.21	\$65.96
37	Police Dept.	GYM	F85E	Fluorescent, (2) 95" STD lamp	3	F-8T12	75	0.16	0.47	OFFICE OPEN SPACE	480	2,208	\$ 332.75	\$ 27.68	N	LED T8 LINEAR	LINEAR LED 15W 35K INTERNAL DRIVER	3	0.08	0.180	\$101.09	\$ 231.66	\$ 231.66	EHS	I	\$ 0.21	\$289.43
38	Police Dept.	GYM	CF402	Compact Fluorescent, twin, (2) 4W lamp	1	CF40W	40	0.09	0.09	OFFICE OPEN SPACE	480	398	\$ 59.67	\$ 4.96	N	LED LAMP RETROFIT	LED 18W (1) Plug n	1	0.018	0.018	\$10.11	\$49.56	\$49.56	EHS	I	\$ 0.21	\$65.96
39	Police Dept.	Exterior Restroom CAN	CF7261	Compact Fluorescent, twin, (1) 26W lamp	20	CF726W	26	0.03	0.60	EXTERIOR BLDG	480	2,888	\$ 421.20	\$ 35.04	N	PLLED LAMP	LED 13W (1) Plug n	20	0.013	0.260	\$46.02	\$275.18	\$275.18	EHS	E	\$ 0.08	\$132.77
40	Police Dept.	Parking Walkback	HPS101	High Pressure Sodium, (1) 100W lamp	5	HPS150	150	0.19	0.94	EXTERIOR BLDG	480	4,399	\$ 669.88	\$ 54.90	N	LED CLUSTER LAMP	LED 802QE 65W	5	0.045	0.225	\$25.36	\$53.52	\$53.52	EHS	E	\$ 0.08	\$79.21
41	Police Dept.	Archive	CF402	Compact Fluorescent, twin, (2) 4W lamp	2	CF40W	40	0.09	0.17	STORAGE	480	796	\$ 119.34	\$ 9.93	N	LED LAMP RETROFIT	LED 18W (1) Plug n	2	0.018	0.036	\$20.22	\$93.12	\$93.12	EHS	I	\$ 0.21	\$131.92
42	Police Dept.	Evidence/hold	CF402	Compact Fluorescent, twin, (2) 4W lamp	2	CF40W	40	0.09	0.17	STORAGE	480	796	\$ 119.34	\$ 9.93	N	LED LAMP RETROFIT	LED 18W (1) Plug n	2	0.018	0.036	\$20.22	\$93.12	\$93.12	EHS	I	\$ 0.08	\$62.33
43	Police Dept.	Parking - Shoebox	HPS101	High Pressure Sodium, (1) 100W lamp	6	HPS100	100	0.14	0.83	EXTERIOR BLDG	480	3,875	\$ 581.26	\$ 48.36	N	LED HPS100W	LED 802QE 24W	6	0.024	0.144	\$60.87	\$509.39	\$509.39	EHS	E	\$ 0.08	\$67.10
44	Police Dept.	Globe Entry	CF281-SCRW	Compact Fluorescent, (1) 28W screw-in lamp, Twin or Quad, Globe or Capsule	2	CF28W	28	0.03	0.06	EXTERIOR BLDG	424	71	\$ 8.56	\$ 3.27	Y	LED HIGH OUTPUT J19	LED A19 (1) Omni Directional Lamp-High Output	2	0.015	0.030	\$4.59	\$3.97	\$3.97	EHS	E	\$ 0.08	\$2.76
45	IV Parking	Parking Area	HPS201	High Pressure Sodium, (1) 250W lamp	4	HPS250	250	0.30	1.18	EXTERIOR BLDG	424	1,503	\$ 180.40	\$ 68.91	Y	LED CLUSTER LAMP	LED 804BMA2	4	0.065	0.260	\$49.69	\$190.71	\$190.71	OL1	E	\$ 0.11	\$130.71
46	IV Parking	Parking Area	MH2501	Metal Halide, (1) 250W lamp	4	MH250	250	0.30	1.18	EXTERIOR BLDG	424	1,503	\$ 180.40	\$ 68.91	Y	LED CLUSTER LAMP	LED 804BMA2	4	0.065	0.260	\$49.69	\$190.71	\$190.71	OL1	E	\$ 0.11	\$130.71
47	Moony Lot	Parking Area	MH2501	Metal Halide, (1) 250W lamp	4	MH250	250	0.30	1.18	EXTERIOR BLDG	424	1,503	\$ 180.40	\$ 68.91	Y	LED CLUSTER LAMP	LED 804BMA2	4	0.065	0.260	\$49.69	\$190.71	\$190.71	OL1	E	\$ 0.11	\$130.71
48	Old City Hall	Outside RR	F-0LL	Fluorescent, (2) 48" T-8 lamp, Instant Start Ballast, N.O (BF- 85-95)	2	F-2T8	32	0.06	0.12	EXTERIOR BLDG	424	151	\$ 18.13	\$ 6.93	Y	LED T8 LINEAR	LINEAR LED 15W 35K INTERNAL DRIVER	2	0.03	0.060	\$11.47	\$6.67	\$6.67	A6	E	\$ 0.18	\$13.14
49	Old City Hall	Parking Area	MH2501	Metal Halide, (1) 250W lamp	13	MH250	250	0.30	3.84	EXTERIOR BLDG	480	17,948	\$ 2,453.74	\$ 223.96	Y	LED CLUSTER LAMP	LED 804BMA2	13	0.065	0.845	\$93.19	\$1,560.55	\$1,560.55	A6	E	\$ 0.18	\$2,462.66
50	Old City Hall	Men's RR	F-0LL	Fluorescent, (2) 48" T-8 lamp, Instant Start Ballast, N.O (BF- 85-95)	2	F-2T8	32	0.06	0.12	EXTERIOR BLDG	424	151	\$ 18.13	\$ 6.93	Y	LED T8 LINEAR	LINEAR LED 15W 35K INTERNAL DRIVER	2	0.03	0.060	\$11.47	\$6.67	\$6.67	A6	E	\$ 0.18	\$13.14
51	Old City Hall	Walkback	CF-0181	Compact Fluorescent, quad, (1) 18W lamp	2	CF-018W	18	0.03	0.05	EXTERIOR BLDG	424	66	\$ 7.65	\$ 3.04	Y	LED LAMP RETROFIT	LED 13W (1) Plug n	2	0.013	0.026	\$4.97	\$2.98	\$2.98	A6	E	\$ 0.18	\$5.93
52	Old City Hall	Lantern	MH201	Incandescent, (1) 40W lamp, Canadabra	2	MH20W	40	0.03	0.05	EXTERIOR BLDG	424	64	\$ 7.64	\$ 2.92	Y	LED E12 CANDLE/ABRA	LED CANDLE/ABRA BASE	2	0.0045	0.009	\$1.72	\$5.92	\$5.92	A6	E	\$ 0.18	\$9.19
53	Fox Lot	Parking Area	MH201	Metal Halide, (1) 250W lamp	7	MH250	250	0.30	2.07	EXTERIOR BLDG	424	2,681	\$ 315.70	\$ 120.60	Y	LED CLUSTER LAMP	LED 804BMA2	7	0.065	0.455	\$86.56	\$287.75	\$287.75	OL1	E	\$ 0.11	\$228.75
54	Milton	Parking Area	MH2501	Metal Halide, (1) 250W lamp	2	MH250	250	0.30	0.59	EXTERIOR BLDG	424	752	\$ 90.20	\$ 34.46	Y	LED CLUSTER LAMP	LED 804BMA2	2	0.065	0.130	\$24.84	\$65.36	\$65.36	OL1	E	\$ 0.11	\$65.36
55	City Hall Garage	Parking Garage	IND1501	Induction (1) 150W Lamp	119	IND150	150	0.19	22.37	EXTERIOR BLDG	8760	195,979	\$ 23,817.46	\$ 1,365.52	Y	PHOTO CELL	PHOTO CELL - 1 PER CIRCUIT	4	0.19	22.372	\$20,577.77	\$2,939.68	\$2,939.68	EHS	E	\$ 0.12	\$7,187.23
56	City Hall Garage	Parking Garage	CF-0181	Compact Fluorescent, quad, (1) 18W lamp	14	CF-018W	18	0.03	0.38	EXTERIOR BLDG	8760	3,189	\$ 382.64	\$ 21.26	Y	LED LAMP RETROFIT	LED 13W (1) Plug n	14	0.013	0.182	\$29.15	\$19.49	\$19.49	EHS	E	\$ 0.12	\$194.50
57	City Hall Area	Parking Area	MH2501	Metal Halide, (1) 250W lamp	11	MH250	250	0.30	3.25	EXTERIOR BLDG	2080	6,720	\$ 809.95	\$ 193.51	Y	LED CLUSTER LAMP	LED 804BMA2	11	0.065	0.715	\$223.08	\$668.87	\$668.87	A/USX	E	\$ 0.12	\$843.30

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Schedule 1

PROPOSED LIGHTING SYSTEM																								
Baseline																								
SITE INFORMATION																								
ITEM	BLDG.	ROOM	FIXTURE TYPE	FIX. CODE	DESCRIPTION	RLQ. QTY.	LAMP/TYPE	WATTS/LAMP	WATTS/FIX.	ANNUAL HOURS	ANNUAL kWh	ANNUAL COSTS	ENERG. COST PER EXT.	SENSOR (Y/N)	MAT CODE	DESCRIPTION	LAMP/TYPE	NEW KW/FIX.	NEW kWh/FIX.	ANNUAL SAVINGS	POE Rate	Interior/Exterior	POE Rate	POE Avg Calculation
61	City Hall	Elevator	Strip	F42LL	Fluorescent, (2) 4' T8 lamp, instant Start/Balast, M.O.B.F., (85-95)	2	F22B	32	0.06	546	16	\$ 7.77	\$ 6.93	Y	LED T8 LINEAR	LINEAR LED 15W 35K INTERNAL DRIVER	2	0.03	\$3.93	\$3.84	A15SX	I	\$0.21	\$6.00
62	City Hall	1st Floor Offices	Strip	F42LL	Fluorescent, (2) 4' T8 lamp, instant Start/Balast, M.O.B.F., (85-95)	5	F22B	32	0.06	546	162	\$ 16.43	\$ 17.32	Y	LED T8 LINEAR	LINEAR LED 15W 35K INTERNAL DRIVER	5	0.03	\$8.83	\$8.60	A15SX	I	\$0.21	\$16.49
63	City Hall	1st Floor Offices	Strip	F42LL	Fluorescent, (2) 4' T8 lamp, instant Start/Balast, M.O.B.F., (85-95) (2) ballast	20	F22B	32	0.09	546	893	\$ 117.94	\$ 105.12	Y	LED T8 LINEAR	LINEAR LED 15W 35K INTERNAL DRIVER	20	0.03	\$39.31	\$78.82	A15SX	I	\$0.21	\$103.11
64	City Hall	1st Floor Offices	U Lamp	F12LL/174	Fluorescent, (2) U-Tube, T8 lamp, Instant Star Balast, random wired	4	F10T08	32	0.06	546	122	\$ 14.83	\$ 10.38	Y	LED U-LAMP	LED U-LAMP	4	0.03	\$8.65	\$8.00	A15SX	I	\$0.21	\$10.38
65	City Hall	1st Floor Offices	Recessed	CF002	Compact Fluorescent, quad (2) 18W lamp	4	CF00W	18	0.05	546	98	\$ 11.70	\$ 10.51	Y	LED LAMP RETROFIT	LED 13W (1) Plug-in	4	0.03	\$3.41	\$8.30	A15SX	I	\$0.21	\$14.41
66	City Hall	2nd Floor Offices	Strip	F42LL	Fluorescent, (2) 4' T8 lamp, instant Start/Balast, M.O.B.F., (85-95)	3	F22B	32	0.06	780	138	\$ 16.63	\$ 10.38	Y	LED T8 LINEAR	LINEAR LED 15W 35K INTERNAL DRIVER	3	0.03	\$8.42	\$8.23	A15SX	I	\$0.21	\$14.14
67	City Hall	2nd Floor Offices	Strip	F42LL	Fluorescent, (2) 4' T8 lamp, instant Start/Balast, M.O.B.F., (85-95) (2) ballast	30	F22B	32	0.09	780	2,106	\$ 252.72	\$ 157.88	Y	LED T8 LINEAR	LINEAR LED 15W 35K INTERNAL DRIVER	30	0.03	\$84.24	\$168.48	A15SX	I	\$0.21	\$283.51
68	City Hall	2nd Floor Offices	U Lamp	F12LL/174	Fluorescent, (2) U-Tube, T8 lamp, Instant Star Balast, random wired	1	F10T08	32	0.06	780	44	\$ 5.24	\$ 3.27	Y	LED U-LAMP	LED U-LAMP	1	0.03	\$3.08	\$2.15	A15SX	I	\$0.21	\$3.70
69	City Hall	3rd Floor Offices	Strip	F42LL	Fluorescent, (2) 4' T8 lamp, instant Start/Balast, M.O.B.F., (85-95)	3	F22B	32	0.06	780	138	\$ 16.63	\$ 10.38	Y	LED T8 LINEAR	LINEAR LED 15W 35K INTERNAL DRIVER	3	0.03	\$8.42	\$8.23	A15SX	I	\$0.21	\$14.14
70	City Hall	3rd Floor Offices	Strip	F42LL	Fluorescent, (2) 4' T8 lamp, instant Start/Balast, M.O.B.F., (85-95) (2) ballast	27	F22B	32	0.09	1,940	2,527	\$ 302.26	\$ 141.91	Y	LED T8 LINEAR	LINEAR LED 15W 35K INTERNAL DRIVER	27	0.03	\$101.09	\$202.18	A15SX	I	\$0.21	\$247.42
71	City Hall	3rd Floor Offices	U Lamp	F12LL/174	Fluorescent, (2) U-Tube, T8 lamp, Instant Star Balast, random wired	5	F10T08	32	0.06	1,820	510	\$ 76.44	\$ 18.85	N	LED U-LAMP	LED U-LAMP	5	0.03	\$36.04	\$40.40	A15SX	I	\$0.21	\$43.16
72	City Hall	4th Floor Offices	Strip	F42LL	Fluorescent, (2) 4' T8 lamp, instant Start/Balast, M.O.B.F., (85-95)	3	F22B	32	0.06	780	138	\$ 16.63	\$ 10.38	Y	LED T8 LINEAR	LINEAR LED 15W 35K INTERNAL DRIVER	3	0.03	\$8.42	\$8.23	A15SX	I	\$0.21	\$14.14
73	City Hall	4th Floor Offices	Strip	F42LL	Fluorescent, (2) 4' T8 lamp, instant Start/Balast, M.O.B.F., (85-95) (2) ballast	18	F22B	32	0.09	780	1,264	\$ 151.63	\$ 94.61	Y	LED U-LAMP	LINEAR LED 15W 35K INTERNAL DRIVER	18	0.03	\$50.54	\$101.08	A15SX	I	\$0.21	\$173.71
74	City Hall	4th Floor Offices	U Lamp	F12LL/174	Fluorescent, (2) U-Tube, T8 lamp, Instant Star Balast, random wired	11	F10T08	32	0.06	780	480	\$ 57.66	\$ 35.97	Y	LED U-LAMP	LED U-LAMP	11	0.03	\$33.88	\$25.88	A15SX	I	\$0.21	\$40.69
75	City Hall	4th Floor Offices	Recessed	CF002	Compact Fluorescent, quad (2) 18W lamp	2	CF00W	18	0.05	780	70	\$ 8.42	\$ 5.26	Y	LED LAMP RETROFIT	LED 13W (1) Plug-in	2	0.03	\$2.43	\$4.98	A15SX	I	\$0.21	\$10.29
76	Aquatic Ctr.	Shower	Shower	HPS101	High Pressure Sodium, (1) 150W lamp	27	HPS101	150	0.19	780	3,951	\$ 475.11	\$ 298.44	Y	LED CUS/ET/LAMP	LED 300W 45W	27	0.045	\$163.72	\$361.39	E19S	E	\$0.08	\$251.29
77	Aquatic Ctr.	Wallpacks	Wallpack	HPS1751	High Pressure Sodium, (1) 175W lamp	9	HPS1751	175	0.21	780	1,465	\$ 178.43	\$ 111.95	Y	LED CUS/ET/LAMP	LED 300W 45W	9	0.045	\$37.91	\$141.52	E19S	E	\$0.08	\$88.41
78	Aquatic Ctr.	Tot Lights	CFL Bulbs	CF 18+S-CRW	Compact Fluorescent, (1) 18W screw-in lamp, Twin or Quad, Globe or Capsule	9	CF00W	18	0.02	1,040	108	\$ 20.22	\$ 9.46	Y	LED 14.8W PL	LED 13W (1) Plug-in	9	0.013	\$14.60	\$ 5.82	E19S	E	\$0.08	\$3.90
79	Aquatic Ctr.	Pool Lights	Bulbs	3001	Incandescent, (1) 300W lamp	3	000	300	0.30	1,040	936	\$ 112.32	\$ 52.85	Y	LED T8 LINEAR	LINEAR LED 15W 35K INTERNAL DRIVER	3	0.03	\$101.08	\$112.32	E19S	E	\$0.08	\$101.08
80	Comp. Yard	Trailer Offices	Strip	F42LL	Fluorescent, (2) 4' T8 lamp, instant Start/Balast, M.O.B.F., (85-95)	15	F22B	32	0.06	6,240	5,550	\$ 666.06	\$ 51.95	Y	LED T8 LINEAR	LINEAR LED 15W 35K INTERNAL DRIVER	15	0.03	\$336.96	\$328.10	A1X	I	\$0.20	\$653.76
81	Comp. Yard	Trailer Offices	Wallpack	HPS1001	High Pressure Sodium, (1) 100W lamp	15	HPS1001	100	0.14	6,240	12,917	\$ 1,550.02	\$ 120.88	Y	LED CUS/ET/LAMP	LED 300W 45W	15	0.024	\$355.97	\$ 294.46	A1X	E	\$0.20	\$1,092.20
82	Comp. Yard	Main Rooms	Strip	F42LL	Fluorescent, (2) 4' T8 lamp, instant Start/Balast, M.O.B.F., (85-95)	14	F22B	32	0.06	6,240	5,180	\$ 621.65	\$ 48.48	Y	LED T8 LINEAR	LINEAR LED 15W 35K INTERNAL DRIVER	14	0.03	\$314.50	\$307.16	A1X	I	\$0.20	\$622.44
83	Comp. yard	Main Rooms	Strip	F40SE	Fluorescent, (1) 96" STD lamp	3	F8T12	75	0.09	6,240	1,866	\$ 202.18	\$ 15.77	Y	LED T8 LINEAR 4L TRADE	LINEAR LED 15W 35K INTERNAL DRIVER	3	0.06	\$194.78	\$97.39	A1X	I	\$0.20	\$114.63
84	Comp. yard	Main Rooms	Strip	F40SE	Fluorescent, (1) 48" STD lamp	4	F40T12	40	0.05	4,838	874	\$ 104.63	\$ 11.88	Y	LED T8 LINEAR	LINEAR LED 15W 35K INTERNAL DRIVER	4	0.015	\$31.45	\$23.30	A1X	I	\$0.20	\$24.02
85	Comp. Yard	Main Rooms	Bulbs	H01	Incandescent, (1) 40W lamp-Candleabra	7	140	40	0.03	4,838	784	\$ 91.73	\$ 10.22	Y	LED E12 CANDLE-ABRA	LED CANDLE-ABRA BASE	7	0.045	\$20.64	\$71.09	A1X	I	\$0.20	\$127.94
86	Comp. Yard	Flood Lights	Bulbs	H501	High Pressure Incandescent, (1) 50W lamp	4	140	50	0.05	3,072	612	\$ 73.38	\$ 11.88	Y	LED E12 CANDLE-ABRA	LED CANDLE-ABRA BASE	4	0.045	\$8.26	\$65.13	A1X	E	\$0.20	\$103.11
87	Comp. yard	Wallpacks	Wallpack	HPS1501	High Pressure Sodium, (1) 150W lamp	7	HPS1501	150	0.18	3,072	1,024	\$ 122.88	\$ 76.86	Y	LED CUS/ET/LAMP	LED 300W 45W	7	0.045	\$44.47	\$38.38	A1X	E	\$0.20	\$80.61

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ITEM	SITE INFORMATION										Baseline										PROPOSED LIGHTING SYSTEM									
	Bldg.	Room	Fixture Type	Fix. Code	Description	Lamp / Qty.	Watts / Lamp	Total Fx. Kw	Usage Type	Annual Hours	Annual Costs	Elect. Cost Per Fx.	Sensor (Y/N)	Mat. Code	Description	Lamp Qty.	New Fx. Kw	Total Fx. Kw	Annual Costs	Annual Savings	PGE Rate	Interior/Exterior	PGE Rate	PGE Rate Calculation						
91	Town Hall	Office	Ext Sign	E151	EXIT Translucent, (1) 15W lamp	4	15	0.02	OFFICE OPEN	305.6	\$ 22.01	\$ 3.30	Y	LED EXIT	4	0.04	0.06	\$5.87	\$16.14	A1X	\$1.20	I	\$1.20	\$7.46						
92	Town Hall	Office - 2nd Floor	STRIP	F4LL	Fluorescent, (2) 48" T8 lamp, Instant Start Ballast, N.O. BF. (65-95)	34	32	0.06	OFFICE OPEN	305.6	\$ 738.77	\$ 117.75	Y	LED 78 LINEAR	34	0.03	1.020	\$374.25	\$366.52	A1X	\$1.20	I	\$1.20	\$821.71						
93	Town Hall	Control Rm	FLOOD LAMP	1651	Incandescent, (1) 165W lamp	14	65	0.07	SPECIAL USE	305.6	\$ 333.88	\$ 53.14	Y	LED LAMP RE-TOFIT	14	0.017	0.228	\$87.33	\$346.56	A1X	\$1.20	I	\$1.20	\$418.58						
94	Town Hall	Control Rm	STRIP	F4LL	Fluorescent, (2) 48" T8 lamp, Instant Start Ballast, N.O. BF. (65-95)	22	32	0.06	SPECIAL USE	305.6	\$ 478.67	\$ 76.19	Y	LED 78 LINEAR	22	0.03	0.660	\$242.16	\$236.51	A1X	\$1.20	I	\$1.20	\$402.28						
95	Town Hall	Ext. Code	GLOBE	4011	Incandescent, (1) 40W lamp, Chandeliera	3	40	0.03	EXTERIOR BLDG	305.6	\$ 27.52	\$ 4.38	Y	LED 12 CANDLE ABRA	3	0.046	0.044	\$4.95	\$20.57	A1X	\$1.20	E	\$1.20	\$38.87						
96	WWTP	Main Bldg	STRIP	F4LLU2	Fluorescent, (2) 48" T8 lamp, Instant Start Ballast, N.O. BF. (65-95), (2) Ballast	22	32	0.09	EXTERIOR BLDG	305.6	\$ 726.48	\$ 116.63	Y	LED 78 LINEAR	22	0.03	0.660	\$302.70	\$423.78	E19S	\$1.20	E	\$1.20	\$368.77						
97	WWTP	Main Bldg	STRIP	F54LL	FLUORESCENT (4) 54" T5 LAMP, INSTANT START BALLAST	24	54	0.02	EXTERIOR BLDG	305.6	\$ 177.88	\$ 28.31	Y	LED 78 LINEAR	24	0.081	1.944	\$381.60	\$173.72	E19S	\$1.20	E	\$1.20	\$272.28						
98	WWTP	Locker Rm/Storage	STRIP	F4LL	Fluorescent, (2) 48" T8 lamp, Instant Start Ballast, N.O. BF. (65-95)	9	32	0.06	RESTROOM	498	\$ 279.74	\$ 31.7	Y	LED 78 LINEAR	9	0.03	0.270	\$176.90	\$102.84	E19S	\$1.20	I	\$1.20	\$92.30						
99	WWTP	Blg. 10	STRIP	F4LL	Fluorescent, (2) 48" T8 lamp, Instant Start Ballast, N.O. BF. (65-95)	5	32	0.06	OFFICE OPEN	498	\$ 155.41	\$ 17.32	Y	LED 78 LINEAR	5	0.03	0.150	\$86.28	\$97.13	E19S	\$1.20	I	\$1.20	\$134.61						
100	WWTP	Blg. 10	STRIP	F4LL	Fluorescent, (2) 48" T8 lamp, Instant Start Ballast, N.O. BF. (65-95)	15	32	0.06	OFFICE OPEN	498	\$ 466.24	\$ 51.95	Y	LED 78 LINEAR	15	0.03	0.450	\$244.64	\$171.40	E19S	\$1.20	I	\$1.20	\$403.03						
101	WWTP	Blg. 27	STRIP	F4LL	Fluorescent, (2) 48" T8 lamp, Instant Start Ballast, N.O. BF. (65-95)	17	32	0.06	OFFICE OPEN	498	\$ 528.41	\$ 58.07	Y	LED 78 LINEAR	17	0.03	0.510	\$304.15	\$194.25	E19S	\$1.20	I	\$1.20	\$657.07						
102	WWTP	Blg. BFP	STRIP	F4LL	Fluorescent, (2) 48" T8 lamp, Instant Start Ballast, N.O. BF. (65-95)	20	32	0.06	OFFICE OPEN	498	\$ 621.05	\$ 69.26	Y	LED 78 LINEAR	20	0.03	0.600	\$393.12	\$226.53	E19S	\$1.20	I	\$1.20	\$538.44						
103	WWTP	Blg. WASBAS	STRIP	F4LL	Fluorescent, (2) 48" T8 lamp, Instant Start Ballast, N.O. BF. (65-95)	10	32	0.06	OFFICE OPEN	498	\$ 310.83	\$ 34.63	Y	LED 78 LINEAR	10	0.03	0.300	\$196.56	\$114.27	E19S	\$1.20	I	\$1.20	\$389.22						
104	WWTP	Blg. WASBAS	Strp	F03SE	Fluorescent, (2) 96" STD lamp	6	F03T2	75	0.16	OFFICE OPEN	498	\$ 498.90	\$ 55.36	Y	LED 78 LINEAR, TANDEM	6	0.06	0.660	\$255.87	\$243.03	E19S	\$1.20	I	\$1.20	\$601.27					
105	WWTP	Blg. Phasry	STRIP	F4LL	Fluorescent, (2) 48" T8 lamp, Instant Start Ballast, N.O. BF. (65-95)	7	32	0.06	OFFICE OPEN	498	\$ 217.58	\$ 24.24	Y	LED 78 LINEAR	7	0.03	0.210	\$137.59	\$79.99	E19S	\$1.20	I	\$1.20	\$188.45						
106	WWTP	Blg. MCC2	STRIP	F4LL	Fluorescent, (2) 48" T8 lamp, Instant Start Ballast, N.O. BF. (65-95)	5	32	0.06	OFFICE OPEN	498	\$ 155.41	\$ 17.32	Y	LED 78 LINEAR	5	0.03	0.150	\$86.28	\$97.13	E19S	\$1.20	I	\$1.20	\$134.61						
107	WWTP	Blg. MTU	High Bay Fix.	16H751	Merq. Highbay, (1) 75W lamp	20	16H75	75	0.22	EXTERIOR BLDG	1274	\$ 657.38	\$ 251.12	Y	LED 150X175	20	0.045	0.900	\$171.99	\$466.39	E19S	\$1.20	E	\$1.20	\$381.43					
108	WWTP	Passive Filter	STRIP	F4LL	Fluorescent, (2) 48" T8 lamp, Instant Start Ballast, N.O. BF. (65-95)	11	32	0.06	OFFICE OPEN	1274	\$ 92.72	\$ 38.09	Y	LED 78 LINEAR	11	0.03	0.330	\$53.06	\$36.66	E19S	\$1.20	I	\$1.20	\$86.37						
109	WWTP	Passive Filter	STRIP	F41SE	Fluorescent, (1) 48" STD lamp	10	F40T12	40	0.05	OFFICE OPEN	728	\$ 43.98	\$ 29.20	Y	LED 78 LINEAR	10	0.015	0.150	\$16.38	\$7.30	E19S	\$1.20	I	\$1.20	\$53.00					
110	WWTP	Outbd	STRIP	F4LL	Fluorescent, (2) 48" T8 lamp, Instant Start Ballast, N.O. BF. (65-95)	1	F32T8	32	0.06	OFFICE OPEN	1274	\$ 9.07	\$ 3.46	Y	LED 78 LINEAR	1	0.03	0.030	\$5.73	\$3.33	E19S	\$1.20	I	\$1.20	\$7.05					
111	WWTP	Dyeaser	STRIP	F4LL	Fluorescent, (2) 48" T8 lamp, Instant Start Ballast, N.O. BF. (65-95)	15	32	0.06	OFFICE OPEN	1274	\$ 136.99	\$ 51.95	Y	LED 78 LINEAR	15	0.03	0.450	\$86.00	\$49.99	E19S	\$1.20	I	\$1.20	\$117.78						
112	WWTP	GBT	STRIP	F4LL	Fluorescent, (2) 48" T8 lamp, Instant Start Ballast, N.O. BF. (65-95)	11	32	0.06	OFFICE OPEN	1274	\$ 92.72	\$ 38.09	Y	LED 78 LINEAR	11	0.03	0.330	\$53.06	\$36.66	E19S	\$1.20	I	\$1.20	\$86.37						
113	WWTP	Water Holding	STRIP	F4LL	Fluorescent, (2) 48" T8 lamp, Instant Start Ballast, N.O. BF. (65-95)	3	F32T8	32	0.06	OFFICE OPEN	1274	\$ 27.20	\$ 10.39	Y	LED 78 LINEAR	3	0.03	0.090	\$17.20	\$10.00	E19S	\$1.20	I	\$1.20	\$33.26					
114	WWTP	As Bldg	STRIP	F41SE	Fluorescent, (1) 48" STD lamp	15	F40T12	40	0.05	OFFICE OPEN	1274	\$ 114.66	\$ 43.90	Y	LED 78 LINEAR	15	0.015	0.225	\$43.00	\$71.66	E19S	\$1.20	I	\$1.20	\$140.70					
115	WWTP	Heavneaks	Strp	F22LU74	Fluorescent, (2) 24" T8 lamp, Instant Start Ballast, N.O. BF. (65-95), Tandem 4 Lamp Ballast	14	F17T8	17	0.03	OFFICE OPEN	498	\$ 223.82	\$ 24.94	Y	LED 78 LINEAR	14	0.006	0.119	\$77.97	\$146.85	E19S	\$1.20	I	\$1.20	\$283.00					

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General Clarifications and Exclusions

This project scope describes the work and services that JCI will provide to the Customer. JCI is confident of its ability to perform the preceding scope of work and does not foresee complications. There are certain items that are excluded from the scope of work and are itemized at the end of each of the preceding sections. The following are general clarifications and exclusions which apply to all measures. In the event that conditions require inclusion of these items in the scope of work, JCI and the Customer agree to negotiate in good faith a fair and equitable solution.

During the construction phase of the project there may be periods when it is not possible to maintain conditions in accordance with standard levels. Included are such issues as, but are not limited to: temperature, air circulation, odor control, sound level, electrical service, etc. JCI and the Customer will coordinate activities to minimize the inconvenience to occupants.

Customer acknowledges that previous permit applications that JCI was not involved with are not the responsibility of JCI.

Items indicated within Schedule 1 are subject to change during final engineering and design.

Exclusions

Any work not specifically delineated within this scope of work.

Warranty, repair or replacement of existing systems in disrepair or not compliant to current codes (including, but not limited to, requirements of Americans with Disabilities Act (ADA) or Fire & Life Safety system requirements).

Remedies for encounters with unforeseen/undocumented site conditions.

Building occupant relocation and/or temporary housing, furniture or sensitive equipment removal and/or relocation.

Inspection fees, laboratory or testing fees.

Overtime or premium time labor, that is not specified above, is excluded. (JCI will coordinate access and system shutdowns with Customer prior to and concurrent with construction activities).

When documentation is not available that suspected areas are free of asbestos containing materials (ACMs) the Customer will be responsible for providing spot testing and abatement, as necessary, of the work area.

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ASSURED PERFORMANCE GUARANTEE

OVERVIEW

The 25 year Performance Guarantee for the Facility Improvement Measures described in Schedule 1 above will have five (5) years of Measurement and Verification (M&V) that takes effect on the first day of the following month when the Certificate of Final Completion for the Performance Contract is approved by the Customer and JCI. This will be continued for sixty (60) consecutive months with an annual report provided each year within 60 days following the anniversary date of the commencement of the Performance Period. The specific details of the M&V processes, the International Measurement and Verification Protocol (IPMVP) procedures, and savings are described in detail in the following sections.

In addition, the project's savings from efficiencies gained as a result of the project were determined in collaboration with the City's Administration. A meeting for the M&V Workshop was held on April 20, 2016 for the Customer with the attendance of City Administration and JCI staff. The Workshop described in detail the M&V methodology to be applied and the procedures and details of the savings calculations. Based upon this meeting this performance guarantee, as detailed in the following sections, was produced.

I. PROJECT BENEFITS

A. Certain Definitions. For purposes of this Agreement, the following terms have the meanings set forth below:

Annual Project Benefits are the portion of the projected Total Project Benefits to be achieved in any one year of the Guarantee Term.

Annual Project Benefits Realized are the Project Benefits actually realized for any one year of the Guarantee Term.

Annual Project Benefits Shortfall is the amount by which the Annual Project Benefits exceed the Annual Project Benefits Realized in any one year of the Guarantee Term.

Annual Project Benefits Surplus is the amount by which the Annual Project Benefits Realized exceed the Annual Project Benefits in any one year of the Guarantee Term.

Baseline is the mutually agreed upon data and/or usage amounts that reflect conditions prior to the installation of the Improvement Measures as set forth in Section IV below.

Guarantee Term will commence on the first day of the month next following the Final Completion date and will continue for the period of 25 years through the duration of the M&V Services, subject to earlier termination as provided in this Agreement.

Installation Period is the period beginning on JCI's receipt of Customer's Notice to Proceed and ending on the commencement of the Guarantee Term.

M&V Term is the first five (5) years of the Guarantee Term during which M&V Services will be performed by JCI.

Measured Project Benefits are the utility savings and cost avoidance calculated in accordance with the methodologies set forth in Section III below.

Non-Measured Project Benefits are identified in Section II below. The Non-Measured Project Benefits have been agreed to by Customer and will be deemed achieved in accordance with the schedule set forth in the Total Project Benefits table below. Customer and JCI agree that: (i) the Non-Measured Project Benefits may include, but are not limited to, future capital and operational costs avoided as a result of the Work and implementation of the Improvement Measures, (ii) achievement of the Non-Measured Project Benefits may be

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Schedule 2

outside of JCI's control, and (iii) Customer has evaluated sufficient information to conclude that the Non-Measured Project Benefits will occur and bears sole responsibility for ensuring that the Non-Measured Project Benefits will be realized. Accordingly, the Non-Measured Project Benefits shall not be measured or monitored by JCI at any time during the Guarantee Term, but rather shall be deemed achieved in accordance with the schedule set forth in the Total Project Benefits table below.

Project Benefits are the Measured Project Benefits plus the Non-Measured Project Benefits to be achieved for a particular period during the term of this Agreement.

Average Project Benefits are the sum of the total project benefits over the M&V Term, inclusive of additional Project Benefits delivered through JCI's mitigation efforts, if any, divided by the years in the M&V Term.

Total Project Benefits are the projected Project Benefits to be achieved during the entire term of this Agreement.

B. Project Benefits Summary. Subject to the terms and conditions of this Agreement, JCI and Customer agree that Customer will be deemed to achieve a total of \$0 in Non-Measured Project Benefits and JCI guarantees that Customer will achieve a total of \$7,905,887 in Measured Project Benefits during the term of this Agreement, for Total Project Benefits of \$7,905,887 as set forth in the Total Project Benefits table below.

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Total Project Benefits

Year	Measured Project Benefits			Annual Project Benefits
	PV For WWTP Energy Savings (Electric)	Lighting Savings At WWTP (Electric)	Lighting Energy Savings at City Buildings (Electric)	
1	\$166,478	\$10,986	\$23,149	\$200,613
2	\$172,305	\$11,426	\$24,075	\$207,805
3	\$178,336	\$11,883	\$25,038	\$215,256
4	\$184,578	\$12,358	\$26,039	\$222,975
5	\$191,038	\$12,852	\$27,081	\$230,971
6	\$197,724	\$13,366	\$28,164	\$239,254
7	\$204,644	\$13,901	\$29,291	\$247,836
8	\$211,807	\$14,457	\$30,462	\$256,726
9	\$219,220	\$15,035	\$31,681	\$265,936
10	\$226,893	\$15,637	\$32,948	\$275,478
11	\$234,834	\$16,262	\$34,266	\$285,362
12	\$243,053	\$16,913	\$35,637	\$295,602
13	\$251,560	\$17,589	\$37,062	\$306,211
14	\$260,365	\$18,293	\$38,545	\$317,202
15	\$269,478	\$19,024	\$40,086	\$328,588
16	\$278,909	\$19,785	\$41,690	\$340,384
17	\$288,671	\$20,577	\$43,357	\$352,605
18	\$298,775	\$21,400	\$45,092	\$365,266
19	\$309,232	\$22,256	\$46,895	\$378,383
20	\$320,055	\$23,146	\$48,771	\$391,972
21	\$331,257	\$24,072	\$50,722	\$406,051
22	\$342,851	\$25,035	\$52,751	\$420,636
23	\$354,851	\$26,036	\$54,861	\$435,747
24	\$367,270	\$27,078	\$57,055	\$451,403
25	\$380,125	\$28,161	\$59,337	\$467,623
Total	\$6,484,308	\$457,525	\$964,054	\$7,905,887

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Within sixty (60) days of the commencement of the Guarantee Term, JCI will calculate the Measured Project Benefits achieved during the Installation Period plus any Non-Measured Project Benefits applicable to such period and advise Customer of same. Any Project Benefits achieved during the Installation Period will be allocated to the Annual Project Benefits for the first year of the Guarantee Term. During the M&V Term, within sixty (60) days of each anniversary of the commencement of the Guarantee Term, JCI will calculate the Measured Project Benefits achieved for the applicable year plus any Non-Measured Project Benefits applicable to such period and advise Customer of same.

JCI excludes any guarantee regarding the availability or continued existence of electric utility rates or tariffs or the customer's ability to change rates into the future.

Customer acknowledges and agrees that if, for any reason, it (i) cancels, or terminates receipt of M&V Services, (ii) fails to pay for M&V Services Agreement in accordance with Attachment 4, (iii) fails to fulfill any of its responsibilities necessary to enable JCI to complete the Work and provide the M&V Services, or (iv) otherwise cancels, terminates or materially breaches this Agreement, the Assured Performance Guarantee shall automatically terminate and JCI shall have no liability hereunder.

C. Project Benefits Shortfalls or Surpluses during the M&V Term.

- (i) Project Benefits Shortfalls. If an Annual Project Benefits Shortfall occurs during any one year of the Guarantee Term, JCI shall pay to Customer the amount of such shortfall. JCI reserves the right to pay the shortfall for the remaining term of the Guarantee at any one year of the term.
- (ii) Project Benefits Surpluses. If an Annual Project Benefits Surplus occurs for any one year of the Guarantee Term, JCI will apply the amount of such surplus to offset any subsequent Annual Project Benefit Shortfall during the Guarantee Term,
- (iii) Additional Improvements. Where an Annual Project Benefits Shortfall has occurred, JCI may, subject to Customer's approval (which approval shall not be unreasonably withheld, conditioned, or delayed), implement additional Improvement Measures, at no cost to Customer, which may generate additional Project Benefits in future years of the Guarantee Term. Additional improvements may include, but are not limited to, EMS control strategies and optimization or enhancements of the installed measures.

D. Energy Savings Dispute. To remedy a dispute over the Annual Project Benefits, both parties will mutually agree to select a disinterested third party engineer and agree to abide by the independent Engineer's report.

- (i) **Engineers Credentials.** The Engineer shall be a California registered Professional Engineer (PE) in good standing. In addition, the Engineers shall be certified by the Association of Energy Engineers with the designations of a Certified Energy Manager (CEM) and Certified Measurement & Verification Professional (CMVP),
- (ii) **Engineers Compensation.** If the third party engineer's review indicates a shortfall of greater than ten (10%) of JCI's Annual Benefit Report, JCI, will reimburse the Customer for all reasonable costs for the third party engineer's review costs.
- (iii) **JCI's Compensation.** If the third party engineer's review does not indicate an error of more than a ten (10%) percent shortfall of JCI's Annual Project Benefits, the Customer will be responsible for JCI's reasonable engineering costs to substantiate the savings report.
- (iv) **M&V Plan.** The third party engineer shall adhere to the M&V plan as described herein.

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E. Project Benefits Shortfalls or Surpluses at the end of the M&V Term.

At the end of the M&V Term, upon completion of the final Energy Year's Savings Report, JCI will calculate the Average Project Benefits, including any shortfall payments. If the Average Project Benefits exceed the Average Guaranteed Project Benefits over the M&V Term (years 1-5), then savings guarantee shall have been met for the remaining Guarantee Term (years 6 through 25).

If the Average Project Benefits are short of the Average Guaranteed Project Benefits, and the shortfall has not been mitigated by JCI, the average shortfall will be multiplied by the twenty (20) years remaining on the Guaranteed Term, and will be discounted, at the yield rate of a ten (10) year US Treasury not to exceed three percent (3.0%), to establish the net present value of the shortfall. JCI will remit payment within 90 days of the determination.

If the Average Project Benefits are short of the Average Guaranteed Project Benefits, and the shortfall has been mitigated by JCI, the average shortfall post mitigation will be multiplied by the twenty (20) years remaining on the Guaranteed Term, and will be discounted, at the yield rate of a ten (10) US Treasury not to exceed three percent (3.0%), to establish the net present value of the shortfall. JCI will remit payment within 90 days of the determination.

II. NON-MEASURED PROJECT BENEFITS

Following is a description of the derivation of the Non-Measured Project Benefits to which JCI and the Customer have mutually agreed.

This section not applicable

III. MEASUREMENT AND VERIFICATION METHODOLOGIES

The following is a brief overview of the measurement and verification methodologies applicable to the Improvement Measures set forth below. JCI shall apply these methodologies, as more fully detailed in the guidelines and standards of the International Measurement and Verification Protocol (IPMVP), in connection with the provision of M&V Services hereunder.

Option A

Retrofit Isolation: Key Parameter Measurement

Measured Project Benefits are determined by partial field measurement of the energy use of the system(s) to which an Improvement Measure was applied separate from the energy use of the rest of the facility.

Partial measurement means that some but not all parameters will be measured. Careful review of the design and installation of Improvement Measures is intended to demonstrate that the stipulated values fairly represent the probable actual values. Agreed-upon values will be shown in the measurement and verification plan. Engineering calculations using measurements and stipulations are used to calculate Measured Project Benefits for the duration of the Guarantee Term.

Measured Project Benefits from the following Improvement Measures will be calculated using Option A:

- FIM 1 Electric Rate Change for Photovoltaic (PV) at WWTP (NEM-A)**
- FIMs 2 & 3 Lighting Retrofits**

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Option B
Retrofit Isolation: All parameter Measurement

Measured Project Benefits are determined by field measurement of the energy use of the systems to which an Improvement Measure was applied separate from the energy use of the rest of the facility. Short-term, long-term or continuous measurements are taken throughout the pre and post-retrofit periods.

Engineering calculations using short term, long-term or continuous pre and post-retrofit measurements are used to calculate the Measured Project Benefits for the duration of the Guarantee Term.

Measured Project Benefits from the following Improvement Measures will be calculated using Option B:

FIM 1 Photovoltaic (PV) for WWTP (NEM-A)

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**CHANGES IN USE OR CONDITION; ADJUSTMENT TO BASELINE
AND/OR ANNUAL PROJECT BENEFITS**

Customer agrees to notify JCI, within fourteen (14) days, of (i) any actual or intended change, whether before or during the Guarantee Term, in the use of any facility, equipment, or Improvement Measure to which this Schedule applies; (ii) any proposed or actual expansions or additions to the premises or any building or facility at the premises; (iii) a change to utility services to all or any portion of the premises; or (iv) any other change or condition arising before or during the Guarantee Term that reasonably could be expected to change the amount of Project Benefits realized under this Agreement.

Such a change, expansion, addition, or condition would include, but is not limited to: (a) changes in the primary use of any facility, Improvement Measure, or portion of the premises; (b) changes to the hours of operation of any facility, Improvement Measure, or portion of the premises; (c) changes or modifications to the Improvement Measures or any related equipment; (d) changes to the M&V Services provided under this Agreement; (e) failure of any portion of the premises to meet local building codes; (f) changes in utility suppliers, utility rates, method of utility billing, or method of utility purchasing; (g) improper maintenance or unsound usage of the Improvement Measures or any related equipment at any facility or portion of the premises (other than by JCI); (h) changes to the Improvement Measures or any related equipment or to any facility or portion of the premises required by local building codes or any governmental or quasi-governmental entity; or (i) additions or deletions of Improvement Measures or any related equipment at any facility or portion of the premises.

Such a change or condition need not be identified in the Baseline in order to permit JCI to make an adjustment to the Baseline and/or the Annual Project Benefits. If JCI does not receive the notice within the time period specified above and travels to either Customer's location or the project site to determine the nature and scope of such changes, Customer agrees to pay JCI, in addition to any other amounts due under this Agreement, the applicable hourly consulting rate for the time it took to determine the changes and to make any adjustments and/or corrections to the project as a result of the changes, plus all out-of-pocket expenses, including travel costs. Upon receipt of such notice, or if JCI independently learns of any such change or condition, JCI shall calculate and send to Customer a notice of adjustment to the Baseline and/or Annual Project Benefits to reflect the impact of such change or condition, and the adjustment shall become effective as of the date that the change or condition first arose. Should Customer fail to promptly provide JCI with notice of any such change or condition, JCI may make reasonable estimates as to the impact of such change or condition and as to the date on which such change or condition first arose in calculating the impact of such change or condition, and such estimates shall be conclusive.

IV. BASELINE CALCULATIONS AND UTILITY RATES

The unit utility costs for the Baseline period are set forth below as "Base Utility Cost" and shall be used for all calculations made under this Schedule. The Base Utility Cost shall be escalated annually by the actual utility cost escalation but such escalation shall be no less than the mutually agreed "floor" escalation rate of four percent (4%).

The Base Utility usage for each type of utility represents the 12 month average utility usage of the facilities from November 2014 through October 2015 as reported in the utility bills from that period.

Electricity rates in effect January 1, 2016 are documented below.

The first year of savings is scheduled to occur in 2018 and therefore for Year 1 savings, the calculated savings were escalated for two years at the rate of 4% each year. This applies to all measures except PV FIM 1.

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Schedule 2

Note: The annual energy cost escalation rate of 4% is as mutually agreed upon during the April 20, 2016 M&V Workshop with the Customer and JCI. This value is used throughout Schedule 2 of this Agreement.

PG&E Electric Utility Rates effective January 1, 2016

Site	FIM #	Rate Schedule	Customer Charge	Season	Time-of-Use Period	Demand Charge (per kW)			Time-of-Use Period	Total Energy Charge (per kWh)		
						Secondary	Primary	Transmission		Secondary	Primary	Transmission
Corp Yard and Town Hall	3	A-1 TOU	Single Phase Service per meter/day = \$0.32854 Polyphase Service per meter/day = \$0.65708	Summer		-			On peak	\$0.25368		
					Part Peak				\$0.23002			
					Off Peak				\$0.20267			
				Winter		-		Part Peak	\$0.21039			
					Off Peak			\$0.18948				
Old City Hall	3	A-6 TOU	Single phase service per meter/day = \$0.32854; Polyphase service per meter/day = \$0.65708. Plus Meter charge = \$0.20107 per day for A6 or A6X = \$0.05914 per day for A6W ²	Summer		-			On peak	\$0.54462		
					Part Peak				\$0.24779			
					Off Peak				\$0.17620			
				Winter		-		Part Peak	\$0.19402			
					Off Peak			\$0.17578				
City Hall	3	A-10 TOU	\$4,599.59 per meter per day	Summer		\$16.37	\$15.45	\$9.59	Peak	\$0.21428	\$0.20249	\$0.16542
					Part-Peak				\$0.15915	\$0.15193	\$0.11854	
					Off-Peak				\$0.13108	\$0.12530	\$0.09324	
				Winter		\$9.00	\$9.29	\$6.27	Part-Peak	\$0.13047	\$0.12857	\$0.10675
					Off-Peak				\$0.11341	\$0.11269	\$0.09218	
WWTP Old Rate, Aquatic Center, Police Dept	1, 2, 3	E-19 TOU	Cust Chg/Meter Chg: <u>Mandatory</u> : \$19.71253/day for E19S; =\$32.85421/day for E19P; = \$59.13758/day for E19T. <u>Voluntary</u> : With SmartMeter = \$4,599.59/day for E19V, S, P and T. Without SmartMeter = \$4,777.00/day for E19 V or X; = \$4,635.07/day for E19W ²	Summer	Max. Peak	\$18.74	\$16.68	\$12.27	Peak	\$0.14683	\$0.13673	\$0.10091
					Part Peak	\$5.23	\$4.57	\$3.08	Part Peak	\$0.10671	\$0.09877	\$0.08847
					Maximum	\$15.86	\$12.59	\$7.16	Off Peak	\$0.08014	\$0.07436	\$0.07199
				Winter	Part Peak	\$0.13	\$0.15	\$0.00	Part Peak	\$0.10122	\$0.09364	\$0.09042
					Maximum	\$15.86	\$12.59	\$7.16	Off Peak	\$0.08674	\$0.08039	\$0.07777

Summer Period A (May-October)

Peak:	12:00 noon to 6:00 pm	Monday through Friday (except holidays)
Partial-Peak:	8:30 am to 12:00 noon	Monday through Friday (except holidays)
	6:00 pm to 9:30 pm	Monday through Friday (except holidays)
Off-Peak:	9:30 pm to 8:30 am	Monday through Friday (except holidays)
	All Day	Saturday, Sunday, and Holidays

Winter Period B (November-April)

Off-Peak:	9:30 pm to 8:30 am	Monday through Friday (except holidays)
	All Day	Saturday, Sunday, and Holidays

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PG&E Electric Utility Rate A10 TOU (new rate for WWTP)

A-10 TOU	Distr	Gen	PPP	Other	Total	
DEMAND CHARGE (/kW)						
Transmission						
Summer	1.14	.00		6.57	7.71	
Winter	1.14	.00		6.57	7.71	
Primary						
Summer	4.40	.00		6.57	10.97	
Winter	4.40	.00		6.57	10.97	
Secondary						
Summer	4.19	.00		6.57	10.76	
Winter	4.19	.00		6.57	10.76	
ENERGY CHARGE (/kWh)						
Transmission						
Summer						
Peak	.00615	.14855	.00926	.01069	.17464	
Part-Peak	.00615	.09653	.00926	.01069	.12263	
Off-Peak	.00615	.07532	.00926	.01069	.10142	
Winter						
Part-Peak	.00615	.09386	.00926	.01069	.11996	
Off-Peak	.00615	.07854	.00926	.01069	.10464	
Super Off-Peak	.00615	.03955	.00926	.01069	.06565	
Primary						
Summer						
Peak	.04067	.15714	.01327	.01069	.22177	
Part-Peak	.04067	.10372	.01327	.01069	.16835	
Off-Peak	.04067	.08201	.01327	.01069	.14664	
Winter						
Part-Peak	.02193	.10082	.01327	.01069	.14670	
Off-Peak	.02193	.08522	.01327	.01069	.13109	
Super Off-Peak	.02193	.04623	.01327	.01069	.09210	
Secondary						
Summer						
Peak	.04174	.16857	.01384	.01069	.23484	
Part-Peak	.04174	.11206	.01384	.01069	.17833	
Off-Peak	.04174	.08918	.01384	.01069	.15544	
Winter						
Part-Peak	.02214	.10872	.01384	.01069	.15539	
Off-Peak	.02214	.09234	.01384	.01069	.13901	
Super Off-Peak	.02214	.05335	.01384	.01069	.10002	
CUSTOMER CHARGE (/meter/day)	4.59959				4.59959	140.00
OPTIONAL METER DATA						
ACCESS CHARGE (/meter/day)	.98563				.98563	30.00
A-15						
	Distr	Gen	PPP	Other	Total	
ENERGY CHARGE (/kWh)						
Summer	.08012	.10959	.01486	.02893	.23350	
Winter	.06013	.08997	.01486	.02893	.19389	
CUSTOMER CHARGE (/meter/day)	.49281				.49281	15.00
FACILITY CHARGE (/meter/day)	.82136				.82136	25.00

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A-10 Time-of-Use Periods for WWTP		
<u>Summer Period A (June-September)</u>		
Peak:	5:00 pm to 10:00 pm	All days
Partial-Peak:	3:00 pm to 5:00 pm	All days
	10:00 pm to 12:00 am	All days
Off-Peak:	12:00 am to 3:00 pm	All days
<u>Winter Period B (October-May)</u>		
Peak:	5:00 pm to 10:00 pm	All days
Off-Peak:	10:00 pm to 5:00 pm	All days
Super Off-Peak:	10:00 am to 3:00 pm	March - May all days

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Lighting Blended Rates

Blended Rate Calculations		
The following establish the electric rate used for FIMs 2, 3 Lighting Retrofit savings calculations		
Old City Hall	Normal Hours are 0800 to 1800 Monday through Friday	
PG&E Rate A6	Assume Summer and Winter are 6 months each	
	Assume during Summer that Peak Period is from 1200 to 1800	
	Assume during Summer that Part Peak Period is from 0800 to 1200	
	Assume during Winter that Part Peak Period is from 0800 to 1800	
	Therefore	
	25% Summer On Peak	\$0.54462
	25% Summer Part Peak	\$0.17620
	50% Winter Part Peak	\$0.19402
	Interior Average Blended Rate	\$0.3030
	Exterior Average Blended Rate	\$0.1760
WWTP, Aquatic Center and Police Department		
PG&E Rate E19	Normal interior Hours are mostly 0600 to 1800 Sunday through Monday	
	Assume 10% of use is exterior - always Off Peak	
	Assume Summer and Winter are 6 months each	
	Assume during Summer that Peak Period is from 1200 to 1800	
	Assume during Summer that Part Peak Period is from 0800 to 1200	
	Assume during Winter that Part Peak Period is from 0800 to 1800	
	All Weekend Hours are off Peak	
	All Exterior Lighting is Off Peak	
	Therefore	
	23% Summer On Peak	\$0.1468
	23% Summer Part Peak	\$0.1067
	7% Summer Off Peak	\$0.0801
	36% Winter Part Peak	\$0.1012
	11% Winter Off Peak	\$0.0867
	100% Average Blended Rate	\$0.2104
	Exterior Average Blended Rate	\$0.0834
Corp Yard and Town Hall		
PG&E Rate A1	Normal interior Hours are mostly 0600 to 1800 Sunday through Monday	
	Assume 10% of use is exterior - always Off Peak	
	Assume Summer and Winter are 6 months each	
	Assume during Summer that Peak Period is from 1200 to 1800	
	Assume during Summer that Part Peak Period is from 0800 to 1200	
	Assume during Winter that Part Peak Period is from 0800 to 1800	
	All Weekend Hours are off Peak	
	All Exterior Lighting is Off Peak	
	Therefore	
	23% Summer On Peak	\$0.2537
	23% Summer Part Peak	\$0.2300
	7% Summer Off Peak	\$0.2027
	36% Winter Part Peak	\$0.2104
	11% Winter Off Peak	\$0.1895
	100% Average Blended Rate	\$0.2041
	Exterior Average Blended Rate	\$0.1961
City Hall		
PG&E Rate A10	Normal interior Hours are mostly 0600 to 1800 Sunday through Monday	
	Assume 10% of use is exterior - always Off Peak	
	Assume Summer and Winter are 6 months each	
	Assume during Summer that Peak Period is from 1200 to 1800	
	Assume during Summer that Part Peak Period is from 0800 to 1200	
	Assume during Winter that Part Peak Period is from 0800 to 1800	
	All Weekend Hours are off Peak	
	All Exterior Lighting is Off Peak	
	Therefore	
	23% Summer On Peak	\$0.2143
	23% Summer Part Peak	\$0.1592
	7% Summer Off Peak	\$0.1311
	36% Winter Part Peak	\$0.1305
	11% Winter Off Peak	\$0.1134
	100% Average Blended Rate	\$0.2062
	Exterior Average Blended Rate	\$0.1222

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V. PRIMARY OPERATIONS SCHEDULE PRE & POST RETROFIT

The schedules and operations information as shown in the table below will be the basis of the pre retrofit baseline and post retrofit which will be used for the project to calculate savings.

Lighting Baseline Burn Hours Table

USAGE GROUPS	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY	WEEKLY TOTAL	ANNUAL TOTAL	Hours with Occupancy Sensor Control
EXTERIOR	12	12	12	12	12	12	12	84	4368	3058
HALL/LOBBY (High Use)	24	24	24	24	24			120	6240	4368
HALL/LOBBY (Low use)	18	18	18	18	18			90	4680	3276
OFFICE OPEN SPACE (High Use)	4	4	4	4	4			20	1040	728
OFFICE OPEN SPACE (Low Use)	3	3	3	3	3			15	780	546
PRIVATE OFFICE	7	7	7	7	7			35	1820	1274
RESTROOMS	3	3	3	3	3			15	780	546
SPECIAL USE 1	4	4	4	4	4			20	1040	728
SPECIAL USE 2	8				8			16	832	582
STORAGE/ IT	4	4	4	4	4	0	0	20	1040	728
PUBLIC OPEN SPACE	8	8	8	8	8			40	2080	1456
										Hours with Photocell Control
PARKING GARAGE	24	24	24	24	24	24	24	168	8760	6132

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VI. MEASUREMENT & VERIFICATION ACTIVITIES

JCI will perform the M&V Activities set forth below in connection with the Assured Performance Guarantee. The following table describes the M&V Plan:

FIM #	FIM Title	Option	FIM Description	M&V Method
1	Photovoltaic (PV) at WWTP (NEM)	IPMVP B / Operation Verification	Installation of Photovoltaic (PV) System at the Industrial Waste Water Plant plus rate schedule change (option A)	Installation Period: JCI will assist customer in changing the electrical rate. Setup Draker systems to provide monthly and annual data for PV Reports. JCI will provide a Post Installation Report that provides the monthly PV savings from the partial acceptance date to the beginning of Year 1 Measurement & Verification Period. Measured variables are - Sunlight solar irradiance (kWh/m2) (Measured Post retrofit), Electricity Production kW and kWh, (Measured Post retrofit). JCI will notify customer to change rate schedule. Year 1 - 5 Period: Continuous measurement of solar insolation and electrical power output. Comparison of actual production to modeled energy production of PV generation. Baseline adjustments will be made for solar insolation and for outages due to acts of nature/god and vandalism. Normalized production shall be inputted into the calculation sheet to determine savings based on new rate schedule. The rate schedule will be verified by JCI. Monthly monitoring PV data via the data acquisition system.
2,3	Lighting Retrofits	IPMVP A with stipulated Pre-measurements	Convert Existing Light Fixtures to LED. Convert Existing HPS Exterior HPS fixtures to LED Fixtures.	Installation Period: JCI's Lighting Subcontractor will complete an 80/20 M&V sampling Plan for one time Post kW and FC readings. Pre readings will be stipulated based light fixture manufacturers published kW. Hours of operation are agreed upon. JCI Lighting Subcontractor will complete the post light fixture measurements (consumption in watts and light level in fc and, complete as-builts. The PAE will update the installation report with as-built conditions and JCI will deliver the Post Installation Measurement & Verification Report to the customer. Year 1 - 5Period: As-built lighting revisions made during the PIR will be applied to determine annual energy savings. The savings determined in the PIR report will be used as verified savings for the remaining years of the contract.
3	Parking Garage Lighting Controls	IPMVP A	Install Photocell Lighting Controls on 4 circuits that control 114 light fixtures in the Downtown Parking Garage.	Installation Period: JCI will install Photocell lighting controls on four circuits that control (114) light fixtures in the downtown parking garage. The total savings from lighting controls is 58,794 kWh/year Year 1 Period: Pre and post measurements are based on the manufacturers published kW. Hours of operation are stipulated and agreed upon by the customer. Year 2 - 5 Period: The PAE will complete an annual inspection on the lighting system controls to verify the lighting controls are operating as designed each year when the Annual Measurement & Verification Report is delivered to the customer. The savings determined in the PIR report will be used as verified savings for the remaining years of the contract.

Data records maintained in the ordinary course of system operation shall be used and relied upon by Johnson Controls in connection with the Measurement and Verification Activities. Johnson Controls will use commercially reasonable efforts to ensure the integrity of the data collected to calculate the required metrics. In the event data are lost due to equipment failure, power failure or other interruption in data collection, transmission or storage, Johnson Controls will use reasonable engineering methods to estimate the impact of or replace the lost data.

Option A:

FIM 15C Electric Rate Change for Photovoltaic (PV) for WWTP (NEM-A)

Energy savings from the PV system FIM result from the displacement of utility provided electricity by the PV array produced electricity at the proposed utility rates. Additional savings is the result of changing the electric rate from the current PG&E rate to the PG&E A-10 TOU6 rate which provides a higher value for the electricity produced by the PV system.

This measure will utilize one time IPMVP Option A M&V approach. JCI will validate the energy savings realized from the implementation of this FIM by:

Verification at the commencement of the Guarantee Term, via inspection of PG&E billing that the proposed rate change has been made.

Once the verification described above has been made, thereafter, the post-retrofit savings for this measure will be deemed to have been verified and no further M&V activities will be performed for the remainder of the term.

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Customer Initials: _____



Rate Change Calculation:

The following methodology is used to determine the savings resulting from the rate change:

Using the baseline electric bills from November 2014 through October 2015. The existing PG&E rate (old rate) and the PG&E rate A-10 TOU (new rate) have been applied to the baseline with the generation of the PV system, with the savings being the difference.

Site	Old PG&E Electric Rate	Change to New PG&E Electric Rate
Waste Water Treatment Plant (WWTP)	E-19S TOU	A-10 TOU

Annual Cost Savings \$ = Baseline Expenses – Post Retrofit Expenses

where:

Baseline Expenses = (baseline kWh and kW (see below Option B FIM 1) at old rate) – (estimated PV kW and kWh production at old rate)

Post Retrofit Expenses= (baseline kWh and kW (see below Option B FIM 1) at new rate) – (estimated PV kW and kWh production at new rate)

As shown above in Section IV, the new electric Utility Rate A-10 TOU will be used to calculate the PV rate Change Savings and escalated annually by the actual utility cost escalation but such escalation shall be no less than the mutually agreed “floor” escalation rate of four percent (4 %) during the performance period.

FIMs 2, 3 Lighting Retrofits

The savings for this FIM will be verified using IPMVP Option A, Retrofit Isolation with Key Parameter Measurement.

The existing power draw will be stipulated based upon the manufacturer’s nameplate wattage as observed during the lighting audit. These wattage values are listed in Schedule 1 in the room by room scope of work.

The lighting system annual run hours by space type are agreed upon. These run hours are based on interviews with city personnel and observations during the lighting audit. The results of the lighting run hours, multiplied by the baseline lighting load (kW) result in the baseline usage. This usage was calibrated to the baseline utility bills to verify the baseline lighting usage.

The post installation run hours for the City Hall Parking Garage fixtures receiving new photocells is agreed upon as a 30% reduction of the baseline burn hours.

The lighting run hour values will not be measured. The agreed upon run hours table can be found in section V Baseline Conditions above and in Schedule 1 room by room scope of work.

The post installation fixture power draw will be measured one time post installation using a true RMS meter. Fixtures with similar lamps and ballasts, counts and types, will be grouped together with a lamp/ballast code. A wattage sample reading (w) measured wattages will be used when possible. In

Johnson Controls, Inc. Initials: _____

Customer Initials: _____

some situations, such as when a certain type of lighting fixture was not available, typical wattages as published by ANSI (American National Standards Institute) will be used. No measurements will be taken on fixture types with less than 20 fixtures.

The as-built lighting quantity and fixture types will be compared to the proposed lighting quantity and fixture types listed in the savings calculation spreadsheets. Corrections will be made to the original building FIM spreadsheet calculations as appropriate. If such updates to the calculation spreadsheets are made they will be detailed and provided in the Post Installation Report with the revised energy savings.

Once adjustments described above have been made, thereafter, the post-retrofit savings for this measure will be deemed to have been measured and verified and no further M&V activities will be performed for the remainder of the term.

**FIM 2 & 3 Lighting Retrofit Savings Calculation:
Energy (kWh)**

$$Annual\ kWh\ Savings_{Lighting} = \sum_u [Connected\ kW\ Savings_u \times Hours\ of\ Operation]_{t,u}$$

where:

Hours of Operation = number of operating hours during the time period *t* for the usage group *u*

The energy savings will be applied using the appropriate utility rate, based on the Lighting Blended rate shown above in Section IV and escalated annually by the actual utility cost escalation but such escalation shall be no less than the mutually agreed “floor” escalation rate of five percent (4%) during the performance period.

**Option B:
FIM 1 Photovoltaic (PV) for WWTP (NEM-A)**

Energy savings from this renewable resource FIM result from the displacement of utility provided electricity by the PV array produced electricity at the baseline utility rates. The energy production was estimated by the industry-standard PV-Syst calculation program utilizing Typical Meteorological Year 3 (TMY3) weather data. The PV-Syst program uses local hourly solar radiation data to calculate electrical energy output for a given PV array DC rating, AC derate factor and panel orientation. A insolation meter will be installed at the site to measure the solar radiation and will be monitored by the Data Acquisition System.

This measure will utilize an IPMVP Option B M&V approach. JCI will validate the energy production and savings realized from the implementation of this FIM by:

Verify, via monitoring system that the equipment is being maintained and functioning properly

Monthly review of the on-line monitoring data such as solar irradiation, temperature and kWh/kW provided by the monitoring systems included with the FIM. This will require remote access for JCI.

Using an Excel based spreadsheet, JCI will compile the data on the PV System actual performance for use in determining the Performance Period Energy. Data to be collected shall align with the PG&E utility rate periods and include at minimum the following parameters:

- Solar Insolation (Global Horizontal) (kWh/m²)
- Array Energy Output to Grid (MWh)

Johnson Controls, Inc. Initials: _____

Customer Initials: _____

Baseline adjustments will be made for solar insolation and for outages due to acts of nature/God and vandalism. A 0.5% (one half of one percent) degradation rate shall be applied to the guaranteed production rate annually to account for PV module power output degradation.

An annual loss of energy production due to soiling of -4% is accounted for in JCI's performance guarantee. Refer to Schedule 3 for Customer's responsibilities for PV panel washings. No loss of energy production is accounted for due to snow accumulation on PV panels.

JCI will perform the above M&V activities for the Guarantee Term of the Agreement.

Photovoltaic Baseline (Proposed Performance Period Energy Production)

City of Placerville Proposed Performance Period PV Production (PV SYST Results)			
Site / Arrays	Solar Insolation Annual Total (GlobHor) (kWh/m ²)	PV System Size kW	Array Energy Output Annual Total (E_Array)(MWh)
FIM 1 WWTP NEM-A	1814.6	831.92	1384.9

PV System Calculation:

Annual Cost Savings = (Adjusted Performance Period Energy and Demand) X Baseline Rate

where:

Adjusted Performance Period Energy (MWh) = (Photovoltaic Measured Results + (Less Energy Due to Outages)) x (Measured Solar Insolation/ Solar Insolation Annual Total)

Performance Period Energy= Measured Array Energy Output

As shown above in Section IV, the existing electric Utility Rate (E-19S) will be used to calculate the PV Energy Savings and escalated annually by the actual utility cost escalation but such escalation shall be no less than the mutually agreed "floor" escalation rate of five percent (5%) during the performance period.

VII. MEASUREMENT & VERIFICATION SERVICES

JCI will provide the M&V Services set forth below in connection with the Assured Performance Guarantee.

1. During the Installation Period, a JCI Performance Assurance Specialist will track Measured Project Benefits. JCI will report the Measured Project Benefits achieved during the Installation Period to Customer within 60 days of the commencement of the Guarantee Term.
2. Within 60 days of each anniversary of the commencement of the M&V Term, JCI will provide Customer with an annual report containing:
 - A. an executive overview of the project's performance and Project Benefits achieved to date;
 - B. a summary analysis of the Measured Project Benefits accounting; and

Johnson Controls, Inc. Initials: _____

Customer Initials: _____



- C. depending on the M&V Option, a detailed analysis of the Measured Project Benefits calculations.
3. During the M&V Term, a JCI Performance Assurance Specialist will monitor the on-going performance of the Improvement Measures, as specified in this Agreement, to determine whether anticipated Measured Project Benefits are being achieved. In this regard, the Performance Assurance Specialist will periodically assist Customer, on-site or remotely, with respect to the following activities:
- A. review of information furnished by Customer from the facility management system to confirm that control strategies are in place and functioning;
 - B. advise Customer's designated personnel of any performance deficiencies based on such information;
 - C. coordinate with Customer's designated personnel to address any performance deficiencies that affect the realization of Measured Project Benefits; and
 - D. inform Customer of opportunities to further enhance project performance and of opportunities for the implementation of additional Improvement Measures.
4. For specified Improvement Measures, JCI will:
- A. conduct pre and post installation measurements required under this Agreement;
 - B. confirm the building management system employs the control strategies and set points specified in this Agreement; and
 - C. analyze actual as-built information and adjust the Baseline and/or Measured Project Benefits to conform to actual installation conditions (e.g., final lighting and water benefits calculations will be determined from the as-built information to reflect the actual mix of retrofits encountered during installation).
 - D. confirm that the appropriate metering and data points required to track the variables associated with the applicable Improvement Measures' benefits calculation formulas are established; and
 - E. set up appropriate data capture systems (e.g., trend and totalization data on the facility management system) necessary to track and report Measured Project Benefits for the applicable Improvement Measure.
 - F. Trend data records maintained in the ordinary course of system operation shall be used and relied upon by Johnson Controls in connection with Project Benefit calculations. Johnson Controls will use commercially reasonable efforts to ensure the integrity of the data collected to calculate the required metrics. In the event data is lost due to equipment failure, power failure or other interruption in data collection, transmission or storage, Johnson Controls will use reasonable engineering methods to estimate the impact of or replace the lost data.

Johnson Controls, Inc. Initials: _____

Customer Initials: _____

CUSTOMER RESPONSIBILITIES

In order for JCI to perform its obligations under this Agreement with respect to the Work, the Assured Performance Guarantee, and the M&V Services, Customer shall be responsible for:

- (1) Providing JCI, its subcontractors, and its agents reasonable and safe access to all facilities and properties that are subject to the Work, the Assured Performance Guarantee, and M&V Services;
- (2) Scheduling for shut downs of affected locations during installation;
- (3) Providing reviews and approvals of design submissions and other project documents within timeframes specified on the project schedule;
- (4) Providing the following information, as available, with respect to the project and project site within three weeks following JCI's request:
 - (a) Any and all available surveys describing the property, boundaries, topography and reference points for use during construction, including existing service and utility lines;
 - (b) Any and all available geotechnical studies describing subsurface conditions, and other surveys describing other latent or concealed physical conditions at the project site.
 - (c) temporary and permanent easements, zoning and other requirements and encumbrances affecting land use, or necessary to permit the proper design and construction of the project and enable JCI to perform the Work;
 - (d) a legal description of the project site;
 - (e) as-built and record drawings of any existing structures at the project site; and
 - (f) Environmental studies, reports and impact statement describing the environmental conditions, including hazardous conditions or materials, in existence at the project site.
- (5) Securing and executing all necessary agreements with adjacent land or property owners that are necessary to enable JCI to perform the Work;
- (6) Providing assistance to JCI in obtaining any permits, approvals, and licenses that are necessary for the performance of the Work and are JCI's responsibility to obtain as set forth in Schedule 1;
- (7) Properly repairing and performing appropriate preventative maintenance on, all equipment and building systems affecting the Assured Performance Guarantee in accordance with manufacturers' standards and specifications; including, but not limited to, the following:
 - (a) PV system repairs and maintenance,
 - (b) PV panel washing, minimum three per year. (An annual loss of energy production due to soiling of -4% is accounted for in JCI's performance guarantee. The frequency of Customer's panel washings may vary and additional washings may be required to prevent exceeding this loss.)
Note: Customer may elect to contract with JCI for the PV maintenance and panel washing and thereby assign these responsibilities to JCI.
 - (c) PV systems monitoring using Draker, or equal, Data Acquisition System including any annual subscription costs.
- (8) Provide JCI a copy of the PV System maintenance report with dated logs of maintenance performed 30 days prior to the annual anniversary of the Final Completion Date.
- (9) Providing the utility bills, reports, and similar information reasonably necessary for administering JCI's obligations under the Assured Performance Guarantee within ten (10) days of Customer receipt and/or generation or JCI's request therefore;
- (10) Providing all records relating to energy and/or water usage;
- (11) Providing and installing utility sub-meters on all new construction and/or additions built during the Guarantee Term as recommended by JCI or, alternatively, paying JCI's applicable fees for calculating necessary adjustments to the Assured Performance Guarantee as a result of the new construction;
- (12) Promptly notifying JCI of any change in use or condition described in Section III of Schedule 2 or any other matter that may impact the Assured Performance Guarantee;
- (13) Taking all actions reasonably necessary to achieve the Non-Measured Project Benefits;
- (14) Providing JCI, its subcontractors, and its agents reasonable and safe access to all facilities and properties that are subject to the Work, the Assured Performance Guarantee, and M&V Services;
- (15) Obtaining any permits, approvals, and licenses that are necessary for the performance of the Work and are not JCI's responsibility to obtain as set forth in Schedule 1, including, but not limited to:
 - (a) Applying for and obtaining PG&E electric rates relating to the new PV system(s)

Johnson Controls, Inc. Initials: _____

Customer Initials: _____

Schedule 3

- (b) Providing CEQA permit for the PV systems at the WWTP not later than July 1, 2017. The City of Placerville will contract directly with others for the Hangtown Creek Waste Water Treatment Photovoltaic scope of work as it relates to the CEQA Environmental assessment and permit documents, including but not limited to, the topographic and boundary survey, supplemental MND and the critical environmental analysis.
- (c) Storm Water Pollution Prevention Plan (SWPPP) Construction Site Monitoring Program (CSMP) monitoring cost and fees.
- (16) Electric service upgrades per utility company requirements, either on site, offsite or elsewhere as may be required by the utility company.
- (17) Furnishing cellular phone, and data connection, or equivalent, and service for the following:
 - (a) Data Acquisition Systems for PV system
- (18) Providing area during construction for equipment and material laydown.

Johnson Controls, Inc. Initials: _____

Customer Initials: _____

PRICE AND PAYMENT TERMS

Customer shall make payments to JCI pursuant to this Schedule 4.

1. Compensation. The Lump Sum Guaranteed Maximum Price (GMP) for the project is \$3,473,996 and is made up of two (2) separate values:

Waste Water Fund Project of:	\$3,195,823
General Fund Project of:	<u>\$278,173</u>
Total:	\$3,473,996

The amounts shown above include all costs associated with completing the project including but not limited to general conditions, PS&E, construction, construction management, construction engineering, materials, services, commissioning, and geological testing, etc.

Should JCI not receive the Initial Notice to Proceed Attachment 1A by July 1, 2017 the City will be responsible for any and all cost increases as a result of the delay as more specifically set forth in paragraph 3 of this Agreement.

The Project Development Fee, for the Water Enterprise Fund, approved by City Council on November 24, 2015 for \$156,735 is not included in the above project cost. The fee of \$129,966 will be invoiced separately.

2. Payments. Are made up of three (3) separate components: a). Initial Payment, b). Progress Payments and c). Retention.

- a. **Initial Payment:** A payment of twenty five (25%) percent, will be due within thirty (30) days of Customer issuing JCI the Notice to Proceed. The Initial Payment includes ten (10%) percent for Project Development and Engineering completed and an additional fifteen (15%) percent for Mobilization.
- b. **Progress Payments:** Monthly progress payments, based upon percent of work completed as defined by the Project Schedule of Values for work. A Schedule of Values will be submitted to the Customer within ten (10) business days of JCI receiving the Notice to Proceed. Included in the work completed calculation, will be all costs for stored materials. JCI will provide invoices for the remaining payments on a monthly basis, and shall be based upon the percentage of work completed to date. Such invoices will be paid once the work is inspected to ensure the work is in compliance with and in furtherance of the Agreement, including the guarantees provided herein. Such inspection, approval and payment by the Customer with respect to each invoice shall be done within thirty (30) days of Customer's receipt of such invoice. In the event that Customer raises an issue regarding the compliance and/or completion of the Work, Customer shall pay all amounts that are not in dispute within such thirty (30) day period.
- c. **Retention:** The Progress Payments will continue up to ninety five percent (95%) percent of the total price. The final five (5%) percent shall be billed once the Final Notice of Completion is approved by the Customer.

3. Payments Instructions. Payments shall be submitted by either by a Wire Transfer or Overnight Mail. The instructions for the payments are listed below:

Remit via Wire Transfer

JP Morgan Chase
 One First National Plaza
 Chicago, IL 60670
 Credit to Johnson Controls Inc.
 Job Number 6PZ7-0006
 Water Enterprise Fund
 ABA# 071-000013 Depositor Acct #55-14347
 Account type: Checking

Remit via Overnight

JP Morgan Chase Bank
 14800 Frye Rd TX1-0029
 Fort Worth, TX 76155
 Attn: Johnson Controls Inc. PO Box 730068
 Phone 817-399-5042

4. Planned Services Agreement for Post Construction Measurement & Verification Services. The price for JCI's M&V Services, in addition to the above, as detailed on Schedule 2 of this Agreement, is **\$222,730**. Refer to Attachment 4 for additional information. These payments will be due and payable when Customer receives JCI's invoice and in advance of the services JCI is to provide, and shall be made throughout the Guarantee Term.

INITIAL NOTICE TO PROCEED 1A

Johnson Controls, Inc.
103 Woodmere Rd. Suite 110
Folsom CA 95630

ATTN: Christopher Schulken, V.P. Regional General Manager, Energy Solutions

Re: Notice to Proceed for City of Placerville Performance Contract

Dear Christopher Schulken:

This Notice to Proceed is being issued by City of Placerville ("Customer") to Johnson Controls, Inc. ("JCI") pursuant to that certain Performance Contract entered into between Customer and JCI for the purpose of notifying JCI to commence all final design, engineering and equipment procurement under such contract.

In the event that this Notice to Proceed is delivered by Customer prior to the execution of the Performance Contract by Customer and JCI, Customer understands and expects JCI will incur significant costs and expenses in complying with this Notice to Proceed. In the event the Performance Contract is not executed by the parties, for any reason, Customer agrees to pay JCI for its costs and fees incurred in complying with this Notice to Proceed on a time and material basis. Customer agrees to pay amounts billed by JCI no later than thirty (30) days after Customer receives JCI's payment application. JCI will continue to submit payment applications to Customer until the Performance Contract is executed. Once the Performance Contract is executed, JCI will begin submitting its payment applications to Customer in accordance with the terms and conditions set forth therein. Any amounts already paid by Customer will be credited towards the Performance Contract price.

By signing and dating this Notice to Proceed, the parties hereto agree to these terms and represent and warrant they have the authority to execute this Notice to Proceed on behalf of their respective organizations.

CITY OF PLACERVILLE

JOHNSON CONTROLS, INC.

Signature: _____

Signature: _____

Printed Name: M. Cleve Morris

Printed Name: Chris Schulken

Title: City Manager

Title: V.P. Regional General Manager, Energy Solutions

Date: _____

Date: _____

Johnson Controls, Inc. Initials: _____

Customer Initials: _____



CONSTRUCTION NOTICE TO PROCEED 1B

Johnson Controls, Inc.
103 Woodmere Rd. Suite 110
Folsom CA 95630

ATTN: Christopher Schulken, V.P. Regional General Manager, Energy Solutions

Re: Notice to Proceed for City of Placerville Performance Contract

Dear Christopher Schulken:

The City of Placerville ("Customer") is satisfied with Johnson Controls, Inc. ("JCI") good faith effort to seek competitive proposals for the purpose of involving local sub contractor's, suppliers and/or vendors in the project, and therefore is issuing JCI this Notice to Proceed pursuant to that certain Performance Contract for the purpose of notifying JCI to commence work under such contract. The foregoing notwithstanding, JCI shall not commence construction until it has received from Customer a duly executed Initial Notice to Proceed 1A.

By signing and dating this Notice to Proceed, the parties hereto agree to these terms and represent and warrant they have the authority to execute this Notice to Proceed on behalf of their respective organizations.

CITY OF PLACERVILLE

JOHNSON CONTROLS, INC.

Signature: _____

Signature: _____

Printed Name: M. Cleve Morris

Printed Name: Chris Schulken

Title: City Manager

Title: V.P. Regional General Manager, Energy Solutions

Date: _____

Date: _____

CHANGE ORDER

Performance Contract dated _____, 20____ between Johnson Controls, Inc. and Customer	Change Order No.	Date (mo/day/yr)
Customer City of Placerville		
The above referenced Performance Contract is hereby modified to the extent described below in accordance with the Terms and Conditions of the CHANGE ORDERS section thereof.		
Scope of Work changed as follows:		
Total amount of this Change Order	\$	
Total Performance Contract amount as revised by this Change Order	\$	
The time for completion is: <input type="checkbox"/> increased, <input type="checkbox"/> decreased, <input type="checkbox"/> unchanged. The new completion date resulting from this Change Order is:	(mo, day, yr)	
[check if applicable] Assured Performance Guarantee changed as follows:		
Unless specifically changed by this Change Order, all terms, conditions and provisions of the above referenced Performance Contract remain unchanged and in full effect.		
JOHNSON CONTROLS, INC.	CUSTOMER	
Signature:	Signature:	
Printed Name:	Printed Name:	
Title:	Title:	

CERTIFICATE OF SUBSTANTIAL COMPLETION

PARTIES: JOHNSON CONTROLS, INC. ("JCI")
103 Woodmere Rd. Suite 110
Folsom CA 95630

City of Placerville ("Customer")
3101 Center St
Placerville, CA 95667

PROJECT: City of Placerville Performance Contract dated _____, 20__ between JCI and Customer

By executing this Certificate of Substantial Completion, Customer acknowledges the following:

- a. The work set forth in the Performance Contract is substantially complete.
- b. Customer has received the manuals, warranty information, and training required under the Performance Contract.
- c. The following punch list items must be completed by JCI (check as applicable):
 - punch list attached
 - punch list complete
- d. Upon completion of the punch list items, or if such punch list items are complete, JCI and Customer shall sign the Certificate of Final Completion attached hereto.

Dated _____, 20__ .

CITY OF PLACERVILLE

JOHNSON CONTROLS, INC.

Signature: _____

Signature: _____

Printed Name: Cleve Morris

Printed Name: Chris Schulken

Title: City Manager

Title: V.P. Regional General Manager, Energy Solutions

Date: _____

Date: _____

Signature: _____

Name: Sandra Spencer

Title: Project Assurance Manager

Date: _____



CERTIFICATE OF FINAL COMPLETION

PARTIES: JOHNSON CONTROLS, INC. ("JCI")
103 Woodmere Rd. Suite 110
Folsom CA 95630

City of Placerville ("Customer")
3101 Center St
Placerville, CA 935667

PROJECT: City of Placerville Performance Contract dated _____, 20__ between JCI and Customer

By executing this Certificate of Final Completion, Customer acknowledges the following:

- a. The work set forth in the Performance Contract has been reviewed and determined by Customer to be fully complete.
b. Customer accepts the work as complete and hereby releases JCI's obligations under any performance and payment bonds posted for the project as of the date set forth below.

Dated _____, 20__ .

Signature: _____

Printed Name: Cleve Morris

Title: City Manager

Date: _____

Signature: _____

Printed Name: Chris Schulken

Title: V.P. Regional General Manager, Energy Solutions

Date: _____

Signature: _____

Name: Sandra Spencer

Title: Project Assurance Manager

Date: _____



M&V SERVICES AGREEMENT

CITY OF PLACERVILLE ("Customer")
 3101 Center St
 Placerville, CA 95667
 Proposal Date: February 22, 2017

Scope of Services

Johnson Controls, Inc. ("JCI") and the Customer (collectively the "Parties") agree Services, as defined in Scope of Work (below), will be provided by JCI at the Customer's facility. Terms and Conditions of this Agreement are as set forth in the Performance Contract and incorporated by this reference and cover the rights and obligations of both the Customer and JCI. This Service Agreement and the Price and Payment Terms are set forth fully herein (collectively the "Agreement"),

Term

This Agreement takes effect on the day the Certificate of Final Completion for the Performance Contract is approved by the Customer and JCI, and will continue for sixty (60) consecutive months ("Original Term").

Price and Payment Terms

The total Contract Price for JCI's Services during the Original Term is **\$222,730**. This amount will be paid to JCI in bi-annual installments of (see following table). These payments will be due and payable in advance of services within thirty (30) days of the invoice date and such timely payment by Customer shall be a condition precedent to JCI's obligation to perform its Services. A penalty of one and a half percent (1.5%) of the amount due per month shall accrue for payments received after the payment due date. If the Customer elects to cancel M&V Services, the Customer must do so in writing within 30 days of the renewal date, otherwise full service will continue for the remainder of the year and the Customer will be responsible for payment of the full year.

Bi-Annual Payment	Waste Water Fund		General Fund	Total
	M&V Services	Solar PV Maintenance	M&V Services	
1	\$8,631	\$10,575	\$3,728	\$22,933
2	\$8,631	\$10,575	\$3,728	\$22,933
3	\$8,537	\$10,892	\$1,710	\$21,138
4	\$8,537	\$10,892	\$1,710	\$21,138
5	\$8,793	\$11,219	\$1,761	\$21,772
6	\$8,793	\$11,219	\$1,761	\$21,772
7	\$9,057	\$11,555	\$1,814	\$22,425
8	\$9,057	\$11,555	\$1,814	\$22,425
9	\$9,328	\$11,902	\$1,868	\$23,098
10	\$9,328	\$11,902	\$1,868	\$23,098
Total	\$88,688	\$112,285	\$21,758	\$222,730

Scope of Work**Measurement & Verification Services**

The M&V scope of work is described in detail in Schedule 2 of the Performance Contract agreement under the heading “Detailed Description of M&V Activities and Deliverables”. Please refer to that section for the specific work to be completed under this service agreement.

Solar Photovoltaic System Maintenance

JCI shall provide the following maintenance services for the Solar Photovoltaic system(s):

1. System-Wide Maintenance		
Item	Service Description	Frequency
1	Complete and submit service report outlining any and all activity performed at the Facility. Maintenance Logs shall be submitted to Customer within 5 business days of completion of the activity on site.	Per visit
2	Inspect the mechanical functionality of the project – including but not limited to inspecting the fastening/mounting elements, equipment connection and coupling cases, verifying that the threaded connections are tight, visual inspection of all parts of the equipment and checking the cabling.	1x per year
3	Inspect all electrical boxes, combiner boxes and electrical equipment for water damage or signs of significant water accumulation in underground conduit	1x per year
4	Scan combiner boxes with Infrared camera to identify loose or broken connections.	1x per year
5	Inspect cabling for signs of cracks, defects, pulling out of connections, overheating, arcing, short or open circuits, and ground faults.	1x per year
6	Check for abnormal corrosion on parts of the Facility and service any parts with the potential for corrosion to remove long-term risks.	1x per year
7	Check the mechanical functionality of the built-in components and interrupters (ground fault circuit interrupters and circuit breakers).	1x per year
8	Check the functionality of the meters (meters are operating, communicating reliably and measuring coherent values as compared to the backup meters).	1x per year
9	Visually inspect and basic cleaning of pyranometers according to the manufacturer’s recommendations (calibration depends on manufacturer’s specifications and would be provided on a T&M basis).	1x per year
10	Visual inspection of racking, searching for impacts, corrosion and condition of the protective paint, and absence of water deposits.	1x per year
11	Thermal camera testing of medium and high voltage electrical current connections and circuit breakers.	1x per year
2. Panel Maintenance		
Item	Service Description	Frequency
1	Visual inspection of possible glass breakage, normally caused by external actions, and visually inspect for evidence of thermal fatigue arising from assembly errors.	1x per year
2	Visual inspection for oxidation in the circuits and welding of the photovoltaic cells, normally due to the entrance of dampness into the panel because of a fault or breakage of the sealing layers.	1x per year
3	Visual inspection for change of color to yellow or brown (known as “yellowing” and “browning”) of the sealant or encapsulant.	1x per year
4	Visual inspection for issues with the panel back sheet (inflammations in this area could be a symptom of a hot point in the module).	1x per year
5	Visual inspection for deformations in the junction boxes of the module due to overheating of the bypass diodes and/or high contact resistance because of bad tightness of an electrical terminal.	1x per year
6	Check the tightness and condition of the terminals with cables connected to the Panels.	1x per year
7	Undertake comparative measurement of string DC currents.	1x per year

3. Inverter Maintenance		
Item	Service Description	Frequency
1	Annual maintenance performed by Service Provider as required in order to meet the manufacturer's warranty requirements (provided by Customer).	1x per year
2	General visual observation of the condition and functioning of the inverter.	1x per year
3	Check wiring and the connections of the parts. In the event of anomalies (especially after violent weather conditions), check the DC overvoltage surge arresters and the AC overvoltage surge arresters. Check fuses and replace damaged (if applicable).	1x per year
4	Verify that the site of the inverter is clean, dry and well ventilated and insulated. Check cooling fans.	1x per year
5	Check that the inverter works properly and that unusual noises are not coming from inside it.	1x per year
6	Check that inverter location maintains suitable temperatures, so that this equipment can operate within the temperature range specified by the inverter manufacturer.	1x per year
7	Check the equipment protection and alarms.	1x per year
8	Clean equipment; in particular, the lower grill on the wiring box through which the air for cooling the heatsink passes and the heatsink itself. (If applicable, then replacement of components such as air filters would be ordered through the manufacturer, and Service Provider would replace air filters on a T&M basis)	1x per year
4. Component Testing		
Item	Service Description	Frequency
1	Test all DC source circuits and input circuits VOC and ISC	1x per year
2	Test all OCPDs and disconnects	1x per year
3	Verify accuracy of all meters, sensors, monitoring devices, communications equipment, weather station, security equipment (if installed and accessible)	1x per year
5. Ground Site Maintenance		
Item	Service Description	Frequency
1	Visual inspection of the general site conditions, vegetation, animal damage, and erosion that could affect the system performance.	1x per year
2	Inspection for animal nests, dead animals, and other obstructions in vicinity of array, electrical equipment servicing zones or other key access areas.	1x per year

In the event of an alarm from the Solar PV systems' Data Acquisition System (DAS) the following parties shall be notified: Customer's representative, JCI Performance Engineer and the PV Maintenance subcontractor. The JCI Performance engineer shall determine the appropriate response to the alarm and the party responsible for any required actions.

Photovoltaic Array Cleaning

JCI shall provide the following array cleaning services for the Photovoltaic system(s) three times per year:

Using clean fresh water, conduct soft brush abrasion and spray washing on problematic areas of module surface areas only. Procedure involves initial wetting of the modules, followed by non-abrasive soft bristle brush agitation based on site conditions, followed by a final rinse.

Water is available on site within 150 ft of the array and is provided for by Customer at zero cost to JCI.

Photovoltaic maintenance service and array cleaning in not subject to prevailing wage requirement.

CITY OF PLACERVILLE

JOHNSON CONTROLS, INC.

Signature: _____

Signature: _____

Name: M. Cleve Morris

Name: Christopher Schulken

Title: City Manager

Title: V.P. Regional General Manager, Energy Solutions

Date: _____

Date: _____

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