AGREEMENT FOR SERVICES BETWEEN
THE CITY OF SALINAS AND ENGIE

Maintenance Services for City of Salinas Solar Photovoltaic Systems

THIS AGREEMENT is executed this 18th day of October, 2022, ("Agreement" or "Contract") between the City of Salinas, a California Charter city and municipal corporation (hereinafter "City") and **ENGIE Services US, Inc.**, a **Delaware corporation** (Hereinafter "Contractor").

IT IS HEREBY MUTUALLY AGREED AS FOLLOWS:

1. **Scope.** Contractor hereby agrees to provide to the City, as the scope of services under this Agreement, the following services: Provide inspection, preventive and routine PV system maintenance, responsive maintenance, and emergency repair services for the City's PV Systems. Scope of work is further discussed in the City's **Maintenance Services for City of Salinas Solar Photovoltaic Systems** Request for Proposals, Attachment B, Contractor's Proposal dated May 20, 2022 and Amended Price Proposal dated September 30, 2022, Attachment C.

2. **Timeliness.** Contractor shall perform all tasks in a timely fashion, as set forth more specifically in Section 3 below. Failure to so perform is hereby deemed a material breach of this Agreement, and City may terminate this Agreement with no further liability hereunder, or the city may agree in writing with Contractor to an extension of time.

3. **Term.** The work under this Agreement shall commence October 18, 2022 and shall be completed by October 17, 2027 unless City grants a written extension of time as set forth in Section 2 above.

4. **Payment.** City agrees to pay and Contractor agrees to accept as full and fair consideration for the performance of this Agreement, fixed annual fees of in the amount of sixty-four thousand, nine hundred and sixteen Dollars ($64,916) which are subject to a 3% annual escalator and estimates for hourly fees in the amounts according to the Contractor's fee schedule and Amended Price Proposal in Attachment C in the amount of fifty-nine thousand, six hundred and eighty-eight Dollars ($59,688), the sum of which is not to exceed one hundred twenty-four thousand, six hundred and four Dollars ($124,604) for the first year or six hundred twenty-three thousand and twenty Dollars ($643,088) for the 5-year term. Contractor has no right of reimbursement for expenses under this Agreement. Compensation shall become due and payable 30 days after City's approval of Contractor's submission of monthly written invoices to the City. The payment of any compensation shall be contingent upon performance of the terms and conditions of this Agreement to the satisfaction of the City. If City determines that the work set forth in the written invoice has not been performed in accordance with the terms of this Agreement, City shall not be responsible for payment until such time as the work has been satisfactorily performed.

5. **Meet & Confer.** Contractor agrees to meet and confer with City or its agents or employees with regard to services as set forth herein as may be required by City to insure timely and adequate performance of this Agreement.

6. **Insurance.** Contractor shall procure and maintain for the duration of this Agreement insurance meeting the requirements specified in Attachment A hereto.

7. **Indemnification.** Contractor shall hold harmless, defend at its own expense, and indemnify City and its officers, officials, employees, agents, and volunteers from and against all liability, claims, damages, losses, and/or expenses including reasonable City attorney fees arising from all acts or omissions of Contractor or its officers, agents, or employees arising out of the performance of the work under this Contract, caused in whole or in part by any negligent act or omission of the Contractor, any subcontractor, anyone directly or indirectly employed by any of them, or anyone for whose acts any of them may be liable, except where caused by the sole negligence or willful misconduct of the City.

8. **Licensing.** Contractor warrants that it is properly licensed to perform the work specified under this Agreement, including but not limited to possession of a current City business license.

9. **Termination.** City may terminate this Agreement upon ten days' written notice. The amount of damages, if any, as a result of such termination may be decided by negotiations between the parties or before a court of competent jurisdiction.

10. **Agency.** In performing the services specified under this Agreement, Contractor is hereby deemed to be an independent contractor and not an agent or employee of City.

11. **Non-Assignability.** The rights and obligations of Contractor hereunder are not assignable and cannot be delegated without written consent of City.

12. **Entire Agreement.** This Agreement constitutes the entire Agreement between the parties hereto and supersedes any and all prior agreements, whether oral or written, relating to the subject matter thereof. Any modification of the Agreement will be effective only if it is in writing signed by both parties hereto.

13. **Validity.** If any provision in this Agreement is held by a court of competent jurisdiction to be invalid, void or unenforceable, the remaining provisions will continue in full force without being impaired or invalidated in any way.

14. **Counterparts.** This Agreement may be executed in multiple originals, each of which is deemed to be an original, and may be signed in counterparts.

15. **Laws.** Contractor agrees that in the performance of this Agreement it will comply with all applicable State, Federal and local laws and regulations. This Agreement shall be governed

by and construed in accordance with the laws of the State of California, County of Monterey, and City of Salinas.

IN WITNESS WHEREOF, this Agreement is entered into by the parties hereto on the day and year first written above.

CITY OF SALINAS

_____
Steve Carrigan
City Manager

APPROVED AS TO FORM:

_____
Christopher A. Callihan, City Attorney, or
Rhonda Combs, Assistant City Attorney

CONTRACTOR

ENGIE Services US, Inc.

_____
By: Courtney Jenkins
Its: Vice President, Head of Distributed Energy Solutions

Attachment A

Insurance Requirements

Contractor shall procure and maintain for the duration of the contract, and for three years thereafter, insurance against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the work hereunder by the Contractor, his/her/its officers, agents, representatives, employees, and/or subcontractors.

MINIMUM SCOPE AND LIMIT OF INSURANCE
Coverage shall be at least as broad as:
1. **Commercial General Liability** ("CGL"): Insurance Services Office ("ISO") Form CG 00 01 covering CGL on an occurrence basis, including products and completed operations, property damage, bodily injury and personal & advertising injury with limits no less than **$2,000,000** per occurrence. If a general aggregate limit applies, either the general aggregate limit shall apply separately to this project/location (ISO Form CG 25 03 or 25 04) or the general aggregate limit shall be twice the required occurrence limit.
2. **Automobile Liability**: ISO Form CA 0001 covering Code 1 (any auto), with limits no less than **$1,000,000** per accident for bodily injury and property damage.
3. **Workers' Compensation**: as required by the State of California, with Statutory Limits, and Employers' Liability insurance with a limit of no less than $1,000,000 per accident for bodily injury or disease.
4. **Contractors' Pollution Legal Liability and/or Asbestos Legal Liability and/or Errors and Omissions** (if project involves environmental hazards): with limits no less than $1,000,000 per occurrence or claim, and $2,000,000 policy aggregate, on an annual basis.

If the Contractor maintains broader coverage and/or higher limits than the minimums shown above, the Contractor requires and shall be entitled to the broader coverage and/or higher limits maintained by the Contractor. Any available insurance proceeds in excess of the specified minimum limits of insurance and coverage shall be available to the City.

Self-Insured Retentions
Self-insured retentions must be declared to and approved by the City. At the option of the City, either: the Contractor shall cause the insurer shall to reduce or eliminate such self-insured retentions as respects the City, its officers, officials, employees, and volunteers; or the Contractor shall provide a financial guarantee satisfactory to the City guaranteeing payment of losses and related investigations, claim administration, and defense expenses. The policy language shall provide, or be endorsed to provide, that the self-insured retention may be satisfied by either the named insured or City.

Other Insurance Provisions
The insurance policies are to contain, or be endorsed to contain, the following provisions:
1. **The City, its officers, officials, employees, and volunteers are to be covered as additional insureds** on the CGL policy with respect to liability arising out of work or operations performed by or on behalf of the Contractor including materials, parts, or equipment furnished in connection with such work or operations and automobiles owned, leased, hired, or borrowed by

or on behalf of the Contractor. General liability coverage can be provided in the form of an endorsement to the Contractor's insurance (at least as broad as ISO Form CG 20 10, CG 11 85 or **both** CG 20 10, CG 20 26, CG 20 33, or CG 20 38; **and** CG 20 37 forms if later revisions used).

2. For any claims related to this project, the **Contractor's insurance coverage shall be primary** insurance coverage at least as broad as ISO CG 20 01 04 13 as respects the City, its officers, officials, employees, and volunteers. Any insurance or self-insurance maintained by the City, its officers, officials, employees, or volunteers shall be excess of the Contractor's insurance and shall not contribute with it.

3. Each insurance policy required by this clause shall provide that coverage shall not be canceled, except with notice to the City.

4. A copy of the claims reporting requirements must be submitted by Contractor to the City.

5. If the services involve lead-based paint or asbestos identification/remediation, the Contractor's Pollution Liability policy shall not contain lead-based paint or asbestos exclusions. If the services involve mold identification/remediation, the Contractor's Pollution Liability policy shall not contain a mold exclusion, and the definition of Pollution shall include microbial matter, including mold.

Acceptability of Insurers

Insurance is to be placed with insurers authorized to conduct business in the state with a current A.M. Best rating of no less than A: VII, unless otherwise acceptable to the City.

Waiver of Subrogation

Contractor hereby agrees to waive rights of subrogation which any insurer of Contractor may acquire from Contractor by virtue of the payment of any loss. Contractor agrees to obtain any endorsement that may be necessary to affect this waiver of subrogation. The Workers' Compensation policy shall be endorsed with a waiver of subrogation in favor of the City for all work performed by the Contractor, its employees, agents and subcontractors.

Verification of Coverage

Contractor shall furnish the City with original Certificates of Insurance including an additional insured endorsement and all required amendatory endorsements (or copies of the applicable policy language effecting coverage required by this clause) and a copy of the Declarations and Endorsement Page of the CGL policy listing all policy endorsements to City before work begins. However, failure to obtain the required documents prior to the work beginning shall not waive the Contractor's obligation to provide them. The City reserves the right to require complete, certified copies of all required insurance policies, including endorsements, required by these specifications, at any time.

Subcontractors

Contractor shall require and verify that all subcontractors maintain insurance meeting all the requirements stated herein, and Contractor shall ensure that City is an additional insured on insurance required from subcontractors. For CGL coverage subcontractors shall provide coverage with a form at least as broad as CG 20 38 04 13.

Maintenance of Insurance
Maintenance of insurance by Contractor as specified shall in no way be interpreted as relieving Contractor of its indemnification obligations or any responsibility whatsoever and the Contractor may carry, at its own expense, such additional insurance as it deems necessary.

Special Risks or Circumstances
City reserves the right to modify these requirements, including limits, based on the nature of the risk, prior experience, insurer, coverage, or other special circumstances.

Surety Bonds
Contractor shall provide the following Surety Bonds:
1. Performance bond

The Performance Bond shall be in a sum equal to the annual contract price. If the Performance Bond provides for a one-year warranty, a separate Maintenance Bond is not necessary. If the warranty period specified in the contract is for longer than one year a Maintenance Bond equal to 10% of the contract price is required. Bonds shall be duly executed by a responsible corporate surety, authorized to issue such bonds in the State of California and secured through an authorized agent with an office in California.

Attachment B

PUBLIC WORKS DEPARTMENT

SALINAS

RICH IN LAND | RICH IN VALUES

Maintenance Services for City of Salinas Solar Photovoltaic Systems

REQUEST FOR PROPOSALS

Proposals must be received by 4:00 p.m. on May 20, 2022

SECTION 1. NOTICE OF REQUEST FOR PROPOSALS

The City of Salinas (City) is requesting Proposals from qualified contractors to provide professional services to realize inspection, preventive and responsive maintenance, and emergency repair services for City of Salinas solar photovoltaic systems (PV systems).

A complete response to this RFP must include four (4) copies of the bound written technical proposal and a single Adobe Acrobat PDF format version of the technical proposal saved to a flash drive in one sealed envelope or package with the project title (see below) and due date/time clearly marked on the exterior. The price proposal (one original, one copy and a flash drive containing an Adobe Acrobat PDF version) must be in a separate sealed envelope or package, clearly marked as the price proposal for this solicitation, with firm name, due date and time. The price proposal should include completed tables contained in Attachment A – Cost and Rate Schedules in this RFP, which is comprised of an Inspection, Preventive, and Routine Maintenance Cost Schedule and a Responsive Maintenance and Emergency Repair Services Rate Schedule.

Proposals (technical proposal and price proposal) shall be delivered to the address below by **4:00 PM Pacific Time on May 20, 2022**. Proposals must be entitled "RFP: Maintenance Services for City of Salinas Solar Photovoltaic Systems" and submitted in a sealed envelope or package; all submittals must be signed by an authorized representative with the authority to bind the selected firm to make such commitments to the City set forth in the response.
Late proposals will not be considered. Respondents take full responsibility for City's receipt of Proposal. Proposals should be submitted to:

Brian Frus, Water, Waste and Energy Division Manager
City of Salinas Public Works Department
200 Lincoln Ave
Salinas, CA 93901
(831) 758-7485
brianf@ci.salinas.ca.us

SUBMITTALS WILL NOT BE ACCEPTED AFTER THIS DEADLINE. SUBMITTALS TRANSMITTED BY FAX WILL NOT BE ACCEPTED UNDER ANY CIRCUMSTANCES.

This RFP may be downloaded for free from City of Salinas' vendor portal of the e-procurement site PlanetBids: https://www.planetbids.com/portal/portal.cfm?CompanyID=22949. Note that failure to register as a prospective bidder for this RFP on the e-procurement website, PlanetBids, will preclude you from receiving updates or amendments, if issued. Questions regarding this RFP should be submitted through the Q&A section of the project page (on PlanetBids).

Interested firms or individuals are required to certify non-discrimination in employment practices and identify any potential or perceived conflict of interest (personal and/or property interest in the subject scope of work). Pre-qualification is not required. All interested firms and individuals responding to this RFP are required to comply with all applicable provisions of federal, state, and local law.

The City reserves the right to (1) reject any or all responses, (2) waive informalities in a response, (3) select a firm or individual who has submitted fully responsive Proposal and who is determined by the City to be a professional, qualified firm or individual to be in the best interest of the City, and (4) take whatever action or make whatever decision it determines to be appropriate. The City of Salinas assumes no obligation in this general solicitation and all costs and expenses incurred responding to this RFP shall be borne by the interested firms or individuals.

Public Works Contractor Registration

If the scope of services to be provided pursuant to this RFP includes a public works project as defined by Labor Code Section 1720, et seq. and 1770, et seq., then pursuant to Labor Code sections 1725.5 and 1771.1, all contractors and subcontractors that wish to bid on, be listed in a bid proposal, or enter a contract to perform public work must be registered with the Department of Industrial Relations. No proposal will be accepted, nor any contract entered without proof of the contractor's and subcontractors' current registration with the Department of Industrial Relations to perform public work. If awarded a contract, the proposer, and its applicable subcontractors, of any tier, shall maintain active registration with the Department of Industrial Relations for the duration of the Project. Please see Attachment B, Department of Industrial Relations' State Labor Code.

SECTION 2. BACKGROUND AND SCOPE OF WORK

The City of Salinas owns and operates seven PV systems, located at five different locations totaling 3.6MW in peak capacity. The systems are either on fixed ground mounts, horizontal trackers, or parking canopies. All systems were put into service between March and June of 2016. Since that time, regular routine and preventative maintenance and detailed performance monitoring has been performed on the systems. Please see Attachment C, PV System Drawings.

In general, the work to be performed consists of providing inspection, preventive and routine PV system maintenance, responsive maintenance, and emergency repair services for the City's PV Systems at the locations listed below. Contract duration is for a five-year period.

PV System Locations

Site Name	Site Address (Salinas, CA)	PV System Rating (kWp-DC)	Structure Type
Animal Shelter	144 Hitchcock Rd.	115	Ground Mount-Tracker
Industrial WWTP	240 Davis Rd at Salinas River	927	Ground Mount-Fixed
MRWPCA	146 Hitchcock Rd.	1,280	Ground Mount-Tracker
Municipal Airport	30 Mortensen Ave.	127	T-type Canopy
Permit Center	65 W Alisal St.	104	Post and Beam Canopy
RESBCT	146 Hitchcock Rd.	845	Ground Mount-Tracker
Sherwood Hall	940 N. Main St.	184	T-type Canopy

Covered Equipment

During the term of the agreement the Contractor shall perform all maintenance, repair and inspection services on the following components of the PV Systems (Covered Equipment):

1. Inverters
2. Transformers
3. Panels, AC and DC
4. Combiner boxes
5. Array structures and mounting hardware (Includes tracker mechanisms, joints, motors, dampers, controllers, etc.)
6. Internet connections (modems, routers, hubs, etc.)
7. PV cable, supports and management
8. Disconnect switches, AC and DC
9. AC and DC conductors
10. Customer side meters (data logging, integral to inverters, etc.)

11. Data acquisition systems
12. Data acquisition communication wire
13. Conduit
14. Penetrations to panels, inverters, etc.
15. Service lighting
16. Weather stations
17. Signage

Not included in contract:
1. Utility meters and switch gear
2. Roofing
3. Paint or finish
4. Concrete
5. Asphalt
6. Bollards

Inspection, preventive, and routine maintenance

The Contractor shall furnish all necessary staff, supplies, materials and equipment to provide the City with inspection, preventive and routine PV System maintenance services.

The Contractor shall carry on a program of continuing comprehensive preventive and routine maintenance designed to eliminate or reduce the incidence of potential malfunctions and extend the useful life of the City's PV Systems. The program shall include regular inspection, testing, record keeping, cleaning, repair and replacement of components and equipment as necessary.

<u>System Inspections - General</u>

1. At minimum the PV Systems shall be inspected annually. All Covered Equipment listed above shall be included in the inspections. Inspections shall be summarized in a Field Service Report which shall include photo documentation, a detailed check list of all items and components inspected and highlight any concerns, issues, problems, defects, safety concerns, damage and/or abnormal wear.
2. The Contractor shall identify whether defective, damaged, or worn components can be corrected under a current equipment warranty and note the location and relevant serial numbers of any such components in the Field Service Report
3. Check for ground erosion near the footings of a ground mount system
4. Confirm proper system signage is in place
5. Confirm electrical enclosures are only accessible to authorized personnel, are secured with padlocks or combination locks, and have restricted access signage
6. Check for corrosion on the outside of enclosures and the PV mounting systems
7. Check for cleanliness throughout the site, there should be no debris built up, in the inverter pad area, near panels, enclosures or such that they could cause fire
8. Check for signs of wildlife, nesting of birds, rodents, etc
9. Check for vegetation that may shade modules, is growing near panels or inverters, impedes access or poses a risk of fire

Tracker Inspection

1. At each inspection Contractor shall lubricate all unsealed friction points on the tracker frames in particular the gas springs joints on a semi-annual basis
2. Check voltage inside the controller box
3. Use a digital level to check the calibration and positioning of the inclinometers
4. Check for loose hanging wires in the array
5. Check array for signs of wear, friction, abnormal contact or rubbing between parts
6. Check wind-stow operation

I-V Curve Measurement and Report

Contractor shall take I-V curve measurements and produce a report for each system to include histograms of current, voltage, overlay plots of I-V curves, irradiance, module temperature and identification of outlier results. Solmetic PVA series I-V curve tracer and companion data analysis tool and reporting software or equivalent shall be used for all such measurements, analysis and reporting. I-V curves shall be generated down to the string combiner level on each system.

Module Inspections using Infrared Imaging Technology

Based on results of I-V curve report, the Contractor shall further isolate any abnormalities by conducting an Infrared Imaging survey on the suspected strings or arrays of modules. Contractor shall inspect the individual modules in the suspected string or PV Array(s) utilizing industry-standard infrared (IR) imaging technology as necessary until the problem is isolated.

Visual Inspection of Modules

In addition to the above and as required to isolate string or array problems, the contractor shall walk through each row of the PV Arrays and check the PV modules for signs of the following damages:

1. Cracked or broken glass and/or underlying burn marks or patterns behind glass.
2. Significant discoloration or peeling of films on front or back face of module.
3. Significant discoloration of encapsulants.
4. Delamination of encapsulant and/or cells.
5. Detached or shorted junction box on back of module.
6. Burn marks and/or pattern visible on back sheet.
7. Cracking, discoloration, and/or delamination of back sheet.
8. Shorted and/or damaged lead wires.
9. Dented and/or bent module frame.

Electrical Equipment Inspection (AC & DC)

The Contractor shall inspect all AC and DC switchgear, disconnects, combiner boxes and inverters using infrared (IR) technology and voltage and current measurements to reveal any issues. Electrical equipment inspections shall be conducted at minimum semi-annually. The Contractor shall report any damage to the City and note whether the damage can be corrected under a current equipment warranty. The Contractor shall include the location and relevant serial numbers of damaged electrical equipment to include in the Field Service Report.

AC-Electrical Switchgear, Transformers, Conduit and Conductors: For common electrical switchgear components (overcurrent protection switches, disconnects, transformers, cabinetry, conduit and conductors).

DC Disconnect Switch Inspection: The Contractors shall check to make sure that the DC Disconnect switch is in the proper position and that all electrical connections are secure.

Combiner Box Inspection: The Contractor shall open each combiner box and check that no fuses have blown. The Contractor shall ensure that all electrical connections are tight. The Contractor shall use an infrared camera to identify any loose connections.

Inverter Inspection: Maintenance measures as prescribed by inverter manufacturer shall be followed. No actions that invalidate inverter warranty shall be undertaken by Contractor. The Contractor shall observe indicators on the faceplate of the inverter to ensure that the amount of power being generated by the PV System is typical of the conditions. The Contractor shall inspect the inverter, clean the inside of the cabinet, test fans for proper operation, check fuses, check torque on terminations, check gasket seal, confirm warning labels are in place, look for discoloration from excessive heat buildup check integrity of lightning arrestors, check continuity of systems ground and equipment grounding, check mechanical connection of the inverter to the wall or ground, check internal disconnect operation, verify that current software and/or firmware is installed, and clean filters. Inspect for any physical maintenance required, if present. If physical maintenance is present and requires further action, the Contractor, depending on the solution, will perform that required maintenance and include the service(s) performed in the Field Service Report.

Electrical Conduit Pipe Inspection: The Contractor shall visually inspect all conduit pipe to ensure the structural integrity of the pipe mounting structures and the pipe itself. The Contractor shall check the conduit pipe connections and mounts to ensure they are tight and secure.

Cable Inspection: The contractor shall inspect the cabling for signs of cracks, defects, pulling out of connections, overheating, arcing, short or open circuits, and ground faults. Contractor shall test cabling for integrity of insulation (resistance).

Module Wire Management: The Contractor shall inspect the components that hold the PV module wires (cabling) and prevent undesired movement, which can cause wires to be compromised and lead to electrical faults.

Grounding Continuity: The PV System's grounding equipment shall be checked for continuity to earth as per the NEC.

General Cleaning

Remove dust, dirt and debris from outside cabinets of combiner boxes, inverters, transformers, and disconnect switches on semi-annual basis.

Module Cleaning

Contractor shall choose cleaning method that complies with module manufacturer's instructions. No method utilized by the Contractor shall void the module warranty. Cleaners used on the modules shall be mild water-soluble soaps or detergents. The Contractor shall not use high-pressure water, hard bristled brushes, or any types of solvents, abrasives, and harsh detergents.

Module Cleaning Cycles

Contractor to provide cleaning services during the following selected months:

Salinas, California – Rural Agricultural Location with Winter Rains

Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec
					X			X			

Cleaning dates based on the City's geographical location where rainy winters and dry, dusty summers are common, the Contractor may provide suggested alternative dates along with supporting reasoning.

Handling of Modules to Prevent Damage

Under no circumstances shall Contractor walk or lean on modules or set equipment atop. Contractor shall replace mishandled module(s) if a power loss of more than 20% is indicated.

If PV Array is of flat style with little or no access pathways, then Contractor shall use minimum 4" thick rigid polystyrene sheets (or other approved method) to create a temporary means to access interior sections of PV Array(s).

Monitoring Instrumentation, Telemetry and Weather Station Inspection

The Contractor, shall check the monitoring, telemetry and weather station equipment per manufactures guidelines to ensure that they are operational and within the manufacturer's specifications. Calibration of meters, sensors, and weather instruments shall be checked and corrected annually if necessary.

Contractor shall use commercially available means to ensure and monitor the internet connectivity of the Monitoring and Telemetry equipment. Contractor shall be given access to the PV Systems data portal such that Contractor may make use of data regarding the performance of, and output from the PV Systems to perform remote diagnosis and trouble shooting.

Data Ownership: All Data resulting from PV maintenance services generated and recorded, including that stored on a clouded server is exclusively the City's property.

Responsive Maintenance and Emergency Repair

All work not identified as Preventive and Routine Maintenance will be considered Responsive Maintenance or Emergency Repair and shall be performed by the Contractor at the direction of the City. These include situations where the PV System(s) require corrective measures encountered during routine inspection, repairs due to equipment failure or damage which may cause decreased performance, and/or pose danger to the public, personnel, and/or property.

Responsive Maintenance shall be handled as follows: Contractor shall provide a written estimate and scope of work to City outlining the work to be performed, a schedule that defines the work including start and end dates and the associated fee that includes a breakdown of labor hour, material cost, and any other details that may be requested by the City in order to restore the PV System(s) to normal operational condition. When requested by the City, the Contractor shall submit a proposal provide a response with staff on site within five working days. Responsive Maintenance work is performed on a time and materials basis according to the labor and billing rates submitted in response to this RFP. Contractor's proposal shall indicate any items that are covered under warranty.

For Emergency Repair directed by the City, Contractor shall take such immediate action as may be reasonable and necessary to prevent, avoid, or mitigate injury, damage, or loss to the PV System(s) and any adjacent and/or adjoining structures. The Contractor shall respond with personnel on-site within 24 hours or less. If work is of such urgency that an estimate and scope of work cannot be prepared in a timely manner, the City may give oral direction to the Contractor. The Contractor shall submit a proposal for all

urgent or emergency work within 2 working days from the time the oral direction is issued with the understanding that it may also include work already performed.
The Contractor shall, as soon as possible, update the City on relevant information regarding the Emergency. If requested, the Contractor shall provide the City with a report after any incident involving safety issues. Contractor shall make reasonable efforts to minimize any costs associated with remedial action in case of such an Emergency.

Contractor shall perform Emergency Repair work on a time and materials basis according to the labor and billing rates submitted in response to this RFP in the tables provided in Attachment A. Once emergency (and danger to the public, personnel, and/or property) has been mitigated, Contractor shall proceed according to the procedures outlined for Responsive Maintenance.

Primary Contact and Consultation
The Contractor shall designate representatives in the organization, one of whom shall be always available to the City for as a primary contact and for consultation. This may include but not limited to review of cost estimates for PV Systems Responsive Maintenance or Emergency Repair, diagnosis, technical aspects of services performed and PV System operational characteristics.

SECTION 3. MINIMUM QUALIFICATIONS AND CRITERIA FOR EVALUATION

The purpose of this RFP is to obtain proposals from firms qualified and capable of maintaining and inspecting PV Systems safely. To be considered, a firm must possess staff who have received training, certifications and demonstrated skills and knowledge in the construction and operation of electrical equipment and installations and understands the hazards involved. Registration, training and certificates at minimum include possession of a CSLB C-10 Electrical Contractors License and NABCEP PV Installer Certification, but may also include California Professional Engineering Registration and training and certifications from IBEW and OSHA.

All personnel and individuals must be familiar with the skills and techniques necessary to identify exposed live parts from other parts of electrical equipment, the skills and techniques necessary to determine the nominal voltage of exposed live parts, the clearance distances specified by OSHA in the Code of Federal Regulations (CFR) Part 1 910.333 (“Working on or near energized parts”) and the corresponding voltages to which the qualified person will be exposed, the pertinent sections of the NEC, the characteristics of PV sources and hardware typically used in PV systems, and the characteristics of the hardware used in the PV systems the person is working on.

The contractor’s employees must be familiar with, and committed to safety procedures in order to prevent accident or injury. Major safety requirements during PV servicing include the proper use of lockout/tagout procedures, the use of personal protective equipment (PPE), procedures for safely disconnecting live circuits, and appropriate observation of and compliance with all PV-specific system signage and warnings

The following minimum qualifications and will be evaluated on the following criteria:

1. Demonstrated knowledge and understanding of project scope.
2. Ability to bring a complete, competent team addressing all necessary disciplines.
3. Quality of the information presented in the Proposal and completeness, relevance, and organization of the information and materials presented.
4. Qualifications of maintenance team members to lead the project effort. This must include identification of the actual team members who will be assigned to this project, rather than available staff.
5. Response of references.
6. Clarity, consciousness, and organization of the proposal.

Each proposal will be initially evaluated and ranked by City of Salinas. Evaluation factors to be considered, and the corresponding weight for each, shall be as follows:

EVALUATION CRITERIA	Weight
Understanding of Scope of Work to be Done	25%
Experience with Similar Kinds of Work	25%
Quality of Staff Designated to Project	20%
Capability of Developing Innovative or Advanced Techniques	10%
Demonstrated Technical Ability	20%
TOTAL:	**100%**

A selection committee will review the Proposals submitted in response to this RFP and may request interviews with some firms or individuals. The selection committee will rank the top firms and individuals based on the Proposals and interviews (if conducted).

SECTION 4. REQUEST FOR PROPOSALS: RESPONSE FORMAT

The Contractor shall submit information with explanatory narratives to clearly demonstrate their understanding of and approach to accomplishing the complexity and magnitude of requirements set forth in the RFP. Each of the topics below must be included as part of the submission:

1. A complete description of the work tasks the Contractor will undertake to complete the work set forth in the Proposal.
2. Description of experience with procedures, various subtasks and equipment comprising the PV Systems to include:
    a. System diagnosis
    b. Electrical inspections and testing
    c. I-V Curve Measurement and Reporting
    d. Infrared Imaging Technology
    e. Calibration of meters, sensors, and weather instruments
    f. Data monitoring
    g. Plans and procedures for response to routine, responsive and emergency service requests.

3. Demonstrate experience operating, and maintaining PV Systems similar in scope, size, type, and complexity to those identified in the RFP. Include up to three examples of similar work in the past five years.
4. Resumes, including responsibilities, background and relevant experience of key personnel that will be working directly on this project.
5. Names of three to five individuals that can be contacted as references concerning the capabilities of your firm to perform on this project for up to five (5) solar PV projects of similar size, contract type, complexity, and scope.
6. Company history.
7. Additional information or materials that you believe communicate the capabilities of your firm to perform this project.
8. A completed Labor and Billing Rates sheet attached to this RFP that includes the fixed cost items and rates for labor and material mark up for time and material work (in a sealed envelope).

SECTION 5. GENERAL PROVISIONS

Each prospective firm or individual submitting a Proposal in response to this RFP agrees that the preparation of all materials for submittal to the City and all presentations are at the firm's or individual's sole cost and expense, and the City will not, under any circumstance, be responsible for any costs or expenses incurred by a prospective firm or individual. In addition, each prospective firm understands and agrees that all documentation and materials submitted with a Proposal will remain the property of the City and will become a public record; the City will assume ownership of all documents and deliverables submitted by prospective firms and individuals.

Release of this RFP does not commit the City to the selection of a firm or an individual and does not commit the City to enter into any agreement with a firm or an individual identified by the City through this process as the most qualified to provide the services described in this RFP.

Prospective firms and individuals are responsible for making necessary investigations and examination of records. Failure to do so will not act to relieve any condition of a potential professional services agreement or the requirements set out in this RFP. It is mutually understood and agreed that the submission of a Proposal shall be considered evidence that the prospective firm has made such examinations and investigations. No request for modification of a Proposal shall be considered after its submission on the grounds that the prospective firm or individual was not fully informed as to any fact or condition.

A prospective firm or individual may withdraw their proposal at any time prior to the date and the time which is set forth herein as the deadline for submittal of Proposals.

The City reserves the right to request additional information at any time from all prospective firms or individuals as deemed necessary by the City to evaluate the proposals. This process may not be used, however, as an opportunity to submit missing documentation or to make substantive revisions to the original Proposal.

If a prospective firm or individual has a question or requests clarification pertaining to this RFP, such question or request for clarification must be put in writing and submitted through the Q&A section of the project page (on PlanetBids). The City will provide all prospective firms or individuals who have registered as Prospective Bidders for this project on the e-procurement site, PlanetBids, with a list of all questions and requests for clarification, as well as the answers to the questions and responses to the requests for clarification.

All Proposals will remain in effect and legally binding for at least one hundred twenty (120) days from the date of submission.

This Request for Proposals shall be governed in accordance with the laws of the State of California and the jurisdiction of any disputes hereunder shall be had in Monterey County or in the appropriate federal court with jurisdiction over the matter.

Unless otherwise directed, all communications regarding this RFP, including all questions, should be submitted through the Q&A section of the project page (on PlanetBids).

SECTION 6. TENTATIVE SCHEDULE

The following is the City's tentative schedule for selection of a Contractor:

April 22, 2022	RFP Release Date
May 16, 2022	Deadline for Submittal of Questions or Requests for Clarification
May 20, 2022	RFP Response Submittals Due to City
May 23 to 27, 2022	City Staff Review
May 31 to June 3, 2022	Interviews (if necessary)
June 21, 2022	Anticipated Award of Professional Services Agreement

Attachments:

Attachment A - Cost and Rate Schedules
- Inspection, Preventive, and Routine Maintenance Cost Schedule
- Responsive Maintenance and Emergency Repair Services Rate Schedule

Attachment B - Department of Industrial Relations State Labor Code

Attachment C - PV System Drawings
- Municipal Airport
- Permit Center
- Sherwood Hall
- Industrial WWTP As-builts
- Hitchcock Rd As-builts (MRWPCA, RESBCT and Animal Shelter)

Attachment D – Sample Agreement and Insurance Requirements

Attachment A – Cost and Rate Schedules

Inspection, Preventive, and Routine Maintenance Cost Schedule

	Expense Category	Quantity	Unit	Unit Cost	Extended Annual Total
1	Module Cleaning	2	Per Event		
2	General System and Tracker Inspections	1	Per Year		
3	I-V Curve, Module, String and Array Inspections	1	Per Year		
4	Electrical Inspection and General Cleaning	2	Per Year		
5	Monitoring, Telemetry and Weather Station Inspections	1	Per Year		
6	Consumables	1	Per Year		

Attachment A – Cost and Rate Schedules

Responsive Maintenance and Emergency Repair Services Rate Schedule

Labor or Item Description	Minimum Required Certifications and Typical Tasks	Unit	Rate or Amount
PV Electrical Journeyman Technician	Diagnostics, visual inspection, testing. Module, inverter, and fuse/breaker replacement, conduit routing, wiring, and ground fault repair. Trained in arc-flash, lock-out/tag-out, and other special protective equipment and procedures. NABCEP PV Installer certification; experience in the design of medium-voltage electrical PV Systems.	$/hr	
PV Electrical Apprentice Technician	Diagnostics, visual inspection, testing. Operate, maintain, and repair photovoltaic equipment. Module and fuse/breaker replacement, wiring, and ground fault repair. NABCEP PV Installer Certification.	$/hr	
Mechanic	Maintenance and repair/replace of tracking mount components.	$/hr	
Network/IT	Internet/network and monitoring equipment repair. Knowledge of specific monitoring devices, network connections, wireless/cellular modems. Knowledge of Modbus, DNP3, and other protocols. HMI operator interfaces.	$/hr	
Pest Control	Remove any and all nesting vermin. Trained in safe handling of animal and detritus. Trained in any required pesticide applications.	$/hr	
Engineering	Diagnostics, specifications, drawings, modeling and analysis, codes, and standards. Preferred B.S. in engineering; registered PE; NABCEP PV Installer Certification; knowledge of IEEE, NEC, NESC, and other codes & standards for PV Systems; required level of errors and omissions standards.	$/hr	
Administrative	Record-keeping, service confirmation, correspondence. Must be experienced with management of contractors and quality.	$/hr	
Mileage		$/mile	
Material mark-up percentage		%	
Sub Contract mark-up percentage		%	
Lift fee		$/day	

DEPARTMENT OF INDUSTRIAL RELATIONS' STATE LABOR CODE

Labor Law Requirements

(CCR Title 8, Section 16421)

This public works project is subject to compliance monitoring and enforcement by the California Department of Industrial Relations ("DIR"). All work shall be in accordance with wage scales and applicable determinations made by the Director of the DIR, as provided by Article 2, Chapter 1, Division 2, Part 7 of the Labor Code of the State of California, commencing with §1771.

Penalties for violations may be applied by the DIR pursuant to the Labor Code §1813 and §1815. The Contractor shall indemnify, hold harmless, and defend the City (with counsel reasonably approved by the City) against any claim for damages, compensation, fines, penalties, or other amounts arising out of the failure or alleged failure of any person or entity (including Contractor and its subcontractors) to pay prevailing wages as determined pursuant to Labor Code §1720, and hereby agrees to, §§1771-1774; to employ apprentices pursuant to Labor Code §1777.5 et seq., and/or to comply with the other applicable provisions of Labor Code §1720 et seq., §§1771-1774, §1777.5 et seq., and the implementing regulations of the DIR in connection with the scope of work. This indemnification section shall survive the expiration of the Term.

The Federal and State Labor Law requirements applicable to the Agreement are composed of, but not limited, to the following items:

1. **Payment of Prevailing Wage Rates**: All contractors, including subcontractors, shall pay no less than the prevailing rate of wages (Labor Code §1775), including the rates for holidays and overtime work (Labor Code §§1813 and 1815), to all workers employed in the execution of the contract (Labor Code §1774), pursuant to Labor Code §§1720-1784. The prevailing rates are those issued as wage determinations by the DIR, for each craft, classification and type of work. The current wage rate information can be found at the DIR's website at: https://www.dir.ca.gov/oprl/DPreWageDetermination.htm.

   Copies of the prevailing rate of per diem wages are on file at City's Public Works Department (principal place of office). Contractor shall post a copy of the determination of the Director of DIR of the prevailing rate of per diem wages at each job site.
2. **Apprentices**: Contractor and subcontractors shall employ registered apprentices on this public works Agreement pursuant to Labor Code §1777.5. All contractors on this project (prime and subcontractors) are required to submit the Division of Apprenticeship Standards' ("DAS") Public Works Contract Award Information (DAS 140) form to all applicable apprenticeship committees no later than 10 days before commencing work. Additionally, all contractors are required to request registered apprentices (DAS 142 form).

   Penalties for failure to pay prevailing wages (for non-exempt projects) and failure to employ apprentices include forfeitures and debarment under Labor Code §§1775 and 1777.7.
3. **Certified Payroll Records**: All contractors, including subcontractors, must maintain and file certified payroll records ("CPRs") pursuant to Labor Code §1776. Additionally, all contractors and subcontractors must furnish **certified payroll records into the DIR's Electronic Certified Payroll Reporting ("eCPRs") database (https://efiling.dir.ca.gov/eCPR/pages/eCPROnlineForm.jsp). Penalties apply to Contractor and any Subcontractors for failure to do so** under Labor Code §1777.

4. **Subcontracting**: Contractors are required to list all subcontractors hired to perform work on this public works agreement.
5. **Proper Licensing/Registration**: All contractors and subcontractors are required to be properly licensed, in accordance with the Provisions of Chapter 9 of Division 3 of the Business and Professions Code and subject to the requirements of §4104 of the Public Contract Code. In addition, all contractors including subcontractors must submit proof of current registration to perform public work, pursuant to Labor Code §1771.1. Contractors are required to be properly licensed and to require all subcontractors to be properly licensed. Penalties for employing workers while unlicensed under Labor Code §1021 and under the California Contractors License Law, found at Business and Professions Code §7000 et. seq.
6. **Job Site Notices**: Contractors are required to post all required notices (posters) on the job site in an area accessible to all workers, including subcontractors. Posters must be readable and placed in visible areas allowing workers to access the posters before, during, and after work shifts. Jobsites with multiple locations must include a portable poster board to ensure continued access to the information. Posters placed in foreman, supervisor, or employee vehicles, in an offsite job trailer, or inside a temporary restroom do not meet the posting requirement. Posters may be printed from the DIR's website at: http://www.dir.ca.gov/wpnodb.html.
7. **Nondiscrimination in Employment – Equal Employment Opportunity ("EEO")**: Employment discrimination is prohibited, pursuant to Labor Code §1777.6, the Government Code, and Title VII of the Civil Rights Act of 1964.
8. **Kickbacks Prohibited**: Contractors and subcontractors are prohibited from recapturing wages illegally by accepting or extracting "kickbacks" from employee wages pursuant to Labor Code §1778.
9. **Acceptance of Fees Prohibited**: Contractors and subcontractors are prohibited from accepting fees for registering any person for public work or for filling work orders on public works contracts, pursuant to Labor Code §§1779 and 1780.
10. **Unfair Competition Prohibited**: Contractors and subcontractors are prohibited from engaging in unfair competition as specified under Business and Professions Code §§17200 - 17208.
11. **Workers' Compensation:** Contractors and subcontractors must be properly insured for Workers' Compensation under Labor Code §1861. Contractor hereby represents that Contractor is aware of the provisions of Section 3700 of the Labor Code, which require every employee to be insured against liability for Workers' Compensation or to undertake self-insurance in accordance with the provisions of that Code, and Contractor will comply with such provisions before commencing the performance of the work of this agreement.
12. **OSHA:** Contractors and subcontractors must abide by the Occupational, Safety, and Health Laws and regulations that apply.

Attachment C

City of Salinas

Maintenance Services for City of Salinas Solar Photovoltaic Systems

Technical Proposal

May 20, 2022

Prepared For:
City of Salinas Public Works Department
200 Lincoln Avenue
Salinas, CA 93901

Brian Frus
Water, Waste and Energy Division Manager
831-758-7485
brianf@ci.salinas.ca.us

Prepared By:
ENGIE
500 12th Street, Suite 300
Oakland, CA 94607

Jamal Aboueljoud
Director, Customer Care Field Services
916-358-0024
Jamal.aboueljoud@engie.com

This proposal, in whole or in part, is to be used only for evaluation purposes. If the proposal is accepted and a contract entered into then, to the extent, federal or state law requires disclosure, advance notice to ENGIE Services U.S. Inc. is requested with a right to oppose or seek to narrow the disclosure. The data subject to this restriction is contained in all sheets marked, “Use or disclosure of data contained on this sheet is subject to the restriction on the title page of this proposal or quotation.”

ENGIE Services U.S. Inc. is not a municipal advisor and cannot give advice with respect to municipal securities or municipal financial products. This information is provided for educational purposes about possible financing options and is not the provision of advice, or a recommendation to pursue, any financing option. Consult with your municipal advisor or financial advisor about the financing option appropriate for your situation.

ENGIE Services U.S. Inc. can provide information to your municipal advisor or financial advisor about the hypothetical assumptions and educational scenarios used in these materials. To ensure compliance with requirements imposed by the IRS under Circular 230, we inform you that any U.S. federal tax advice contained in this communication (including any attachments), unless otherwise specifically stated, was not intended or written to be used, and cannot be used, for the purpose of (1) avoiding penalties under the Internal Revenue Code or (2) promoting, marketing or recommending to another party any matters addressed herein.

The information contained herein is general in nature and based on authorities that are subject to change. ENGIE Services U.S. Inc. recommends that you consult your tax adviser to understand its applicability to specific situations. ENGIE Services U.S. Inc., the Respondent, is a wholly owned subsidiary of ENGIE Holdings Inc.

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Cover Letter

Cover Letter

May 20, 2022

Brian Frus
Water, Waste and Energy Division Manager
City of Salinas Public Works Department
200 Lincoln Avenue
Salinas, CA 93901

RE: Maintenance Services for City of Salinas Solar Photovoltaic Systems

Dear Mr. Frus:

ENGIE Services U.S. (ENGIE) is pleased to submit the enclosed proposal to the City of Salinas for a Photovoltaic (PV) Systems Preventative Maintenance contract. We firmly believe that ENGIE is the ideal partner for your solar PV system maintenance and energy monitoring needs.

Unmatched experience assisting public and private sector agencies with technical solutions: For over 48 years, ENGIE has engineered, financed, and implemented comprehensive energy programs as the prime design-build general contractor for **more than 500 public sector agencies** in the U.S., including over 150 in California. Our North American solar PV portfolio consists of more than 4,200 MW of customer-sited and utility-scale solar PV in operation and development. In California alone, our team has delivered over 250 MW of customer-sited solar PV including **more than 800 sites currently under maintenance agreements.**

Our Operation and Maintenance (O&M) team is comprised of technicians with many years of experience working as warranty technicians for inverter vendors. We are job creators, generating California solar jobs though apprenticeship programs throughout the State. Our involvement in training and educating, of not only our apprentices but also our customer's personnel, ensures appreciation and interest for the next generation of solar industry workers. Our 28-person team is located across California—including staff in Salinas— who can quickly react to your needs.

Excellent safety record: ENGIE is committed to safe conditions for everyone on every job site and is proud of our industry-leading safety record. All of our ENGIE Journeymen are CA certified electricians. Every worker is required to take NEC and NFPA70E training and annual refresher courses and is OSHA 30 certified. ENGIE has a comprehensive electrical safety program and an energized work permit review process to ensure all work is done in the safest manner and that all workers are adhering to our safe work policies.

Customer Centric Approach: We strive to ensure our customers have the best experience possible and as a seamless part of their everyday operations. At a minimum, we reach out annually for feedback from our customers on ways to improve our approach and operations—helping to confirm our customer's top priorities are recognized and addressed. We have standard operating procedures for both O&M and monitoring services to ensure repeatable, streamlined execution to quickly address customer concerns.

On the Operations and Maintenance side, our O&M Project Coordinator calls ahead to schedule all planned activities including panel washing and preventative maintenance. Your dedicated O&M technician will promptly report to the site contact and perform the planned work. All panel washing and preventative maintenance reports will be generated after the work is performed. Additionally, all reports are housed on a dedicated server for you to retrieve any time. If an accident to the PV system occurs (e.g., truck damage to carport) or there is a request outside of the contractual scope, upon request, our technicians will arrive on site to assess the damage and provide an emergency safe-off and repair proposal to address the issue.

On the monitoring side, we have a web-based system (UtilityVision®) and team who monitor the performance of each PV system and manage all alarms and tickets that are manually or automatically generated. We will first attempt to address the ticket remotely. If we are unable to address the issue remotely, the ticket will be immediately assigned to your dedicated service technician who will respond and schedule a site visit to take care of the issue. All our customers have access to an online dashboard that allows them to view real-time and historical data. In addition, the dashboard includes features to contact customer support should any questions or issues arise. We provide our customers with UtilityVision training and can provide refresher courses upon request.

We, here at ENGIE, look forward to the opportunity to further showcase the value of our partnership with the City of Salinas after being selected as your preferred energy partner. Should you require any clarification, please do not hesitate to reach out to your **primary point of contact:**

Jamal Aboueljoud
Director, Customer Care Field Services
500 12th Street, Suite 300, Oakland, CA 94607
916-358-0024
jamal.aboueljoud@engie.com

Sincerely,

Courtney Jenkins
Vice President & General Manager
Authorized to Sign on Behalf of ENGIE

1. Work Tasks

1. Work Tasks

ENGIE will provide inspection, preventative and routine PV systems maintenance, responsive maintenance, and emergency repair services for the City's PV Systems as detailed in **Section 2. Background and Scope of Work** in the RFP at the locations listed below. ENGIE will provide the O&M Services with respect to the Generating Facilities at the Project Locations, for up to five (5) years:

Site Names	Site Address (Salinas, CA)	PV System Rating (kWp-DC)	Structure Type
Animal Shelter	144 Hitchcock Rd.	115	Ground Mount-Tracker
Industrial WWTP	240 Davis Rd. at Salinas River	927	Ground Mount-Fixed
MRWPCA	146 Hitchcock Rd.	1,280	Ground Mount-Tracker
Municipal Airport	30 Mortensen Ave.	127	T-type Canopy
Permit Center	65 W Alisal St.	104	Post and Beam Canopy
RESBCT	146 Hitchcock Rd.	845	Ground Mount-Tracker
Sherwood Hall	940 N. Main St.	184	T-type Canopy

PV System Locations

The primary contact for the City for all matters will be:

Carrie Dixon, P.E.
PV Operations & Maintenance Manager
M. 415.361.9488
carrie.dixon@engie.com

2. Experience with Procedures

2. Experience with Procedures

Included are the following descriptions of procedures, subtasks and equipment comprising the City of Salinas' Systems.

2.1 System Diagnosis – Semi-Annual

2.1.1 Solar Panel Inspection and Cleaning

Safety First

- Walking on solar panels will not be allowed at any time for any reason. Proper equipment, PPE and planning is required for all work to be performed.
- Polarized safety glasses will be required at all times when working above solar panels.

Array Visual Inspection – Semi-Annual

- Visually inspect arrays, panel mounting clips, solar panel ground clips, solar panel ground wire, DC string wiring, and DC combiner boxes. Note any rust, missing labels, clips, wire chaffing/deterioration, hanging wires, water infiltration, structural damage, or other problems.
- Identify broken modules on a site plan for follow up replacement.
- Take 'Before Washing' photos.

Array Cleaning – Semi-Annual

- Proper lift equipment will be used as needed when reaching above solar modules.
- Parking lot canopies will be required to be roped-off/isolated from any vehicles.
- Water used for cleaning will be near ambient temperature.
- Will avoid washing broken solar panels to prevent electrical shortage.
- Clean modules surface & frames, according to solar panel **manufacturer's warranty specifications.**
- ENGIE is proud to be one of the first companies in North America to offer state-of-the-art services using a solar cleaning robot. The robot provides a safe and efficient cleaning method without harming your panels and it also provides a superior quality of cleaning.

2.2 Electrical System Inspections and Testing (AC & DC) – Semi-Annual

ENGIE Services U.S. will provide the following O&M Services during the term.

System Inspection Preventative and Routine Maintenance:

- Inspect PV module arrays, panel mounting, wiring, and array support structure.

Check PV Modules for:

- Cracked or broken glass and/or underlying burn marks or patterns behind glass.
- Significant discoloration or peeling of films on front or back face of module.
- Significant discoloration of encapsulants.
- Delamination of encapsulant and/or cells.
- Detached or shorted junction box on back of module.
- Burn marks and/or pattern visible on back sheet.
- Cracking, discoloration, and/or delamination of back sheet.
- Shorted and/or damaged lead wires.
- Dented and/or bent module frame.

Monitoring Data Acquisition System:

- Inspect monitoring equipment and weather stations to ensure in good working order.
- Clean exterior of Weather Station enclosure.
- Open enclosure, inspect and clean interior.
- Inspect all conduit penetrations for proper support & water tightness.
- Inspect signage integrity.
- Inspect Pyranometer's mounting plate integrity.
- Measure Pyranometer's mounting angle.
- Clean Pyranometer top surface of sensor eye.
- Inspect module Temperature Sensor installation.
- Calibrate/replace environmental sensor.

Electrical Inspection:

- Prior to preventative maintenance visits remotely evaluate inverter efficiency and system performance against predictive models to confirm the amount of power being generated by the PV System is typical of the conditions. Confirm firmware is up to date. Identify any suspected problems to be looked for during preventative maintenance.
- Remove dust, dirt and debris from outside cabinets of combiner boxes, inverters, fans intake, transformers, and disconnect switches. Note any problems with rust, corrosion, or wildlife.
- Check for the presence and condition of labels and safety signage.
- Photo the readings on HMI and note any problems with display.
- Turn off inverter, remove covers, and inspect gaskets for proper seal
- Visually inspect the interior of the inverters for damage, discoloration, or corrosion on any internal component such as wire termination points, wire insulation, contactors, door gasket material, fuses, bus bars, etc.
- Take thermal images to inspect string wiring, and feeder terminations for signs of overheating while under load.
- For string inverters: check mounting bracket integrity at backside of the inverter to the unistrut racking, wall or steel column.
- With system operating, listen for any unusual sounds from each inverter or other components.
- Inspect electrical conduit for proper support, ductseal and signs of any water intrusion.
- Check grounding system for signs of lightning strike, theft or damage.

Electrical Testing:

- Inverter Maintenance: Follow manufacturer's recommendation from Operation & Maintenance Manuals. Typically, this includes:
  - Test fans for proper operation, check fuses, check and mark torque on terminations, test power supplies output voltage is within range. Check disconnects for proper operation. Check integrity of surge suppressors, continuity of systems ground, and equipment grounding.
  - For central inverter systems: perform solmetric IV testing at combiner boxes with inverter off. Test through the string circuit to confirm all string fuses are good. Torque all electrical connections to spec.

- Ensure equipment is bonded to ground.
- Confirm the sum of the inverter output matches the Net Generation Output Meter reading.
- Torque and mark wiring connections where needed.

Tracker Inspection:

- Inspect and lubricate all unsealed friction points on the tracker frames, in particular the gas springs joints on a semi-annual basis.
- Check voltage inside the controller box.
- Use a digital level to check the calibration and positioning of the inclinometers.
- Check for loose hanging wires in the array.
- Check array for signs of wear, friction, abnormal contact, or rubbing between parts.
- Check wind-stow operation.
- Inspect tracker control boxes and clean any debris from enclosures.
- Observe tracker or any out of the order movement during operation.
- Check for the presence and condition of labeling.
- Inspect condition of tracker actuators.
- Visually inspect the mounting hardware.
- Conduct preventative maintenance as prescribed by OEM.

2.3 I-V Curve Measurement and Reporting

Contractor will take I-V curve measurements and produce a report for each system to include histograms of current, voltage, overlay plots of I-V curves, irradiance, module temperature, and identification of outlier results. Solmetic PVA series I-V curve tracer and companion data analysis tool and reporting software or equivalent shall be used for all such measurements, analysis, and reporting. I-V curves shall be generated down to the string combiner level on each system.

Based on results of I-V curve report, our technician will identify causes of any abnormalities by conducting an Infrared Imaging survey on the suspect modules within the array.

2.3.1 Reporting

Our annual Comprehensive Maintenance Report is created using the same process described above for corrective and reactive maintenance and includes, but is not limited to, the following:

- ***Executive Summary:*** Includes an overview and summary of services and system performance issues.
- ***Service Summary:*** A general overview of system performance, including any items to keep an eye-on over the coming year. This summary will provide tables indicating dates of services performed at each site as well as identify issues found requiring follow-up such as broken solar panels or missing safety placards.
- ***Site Report Summary:*** Detailed testing results and photographs organized by site/array/equipment label as applicable.

An annual meeting with the City facilities staff will be scheduled to review the Comprehensive Maintenance Report including a review of the PV System Energy Performance and City Energy Usage summary.

2.3.2 Responsive/Corrective and Reactive Maintenance

Our field personnel are outfitted with smart phones and tablets on which we utilize a custom application to create all our service reports in real time. For corrective or reactive maintenance, the reports include time-stamped originating alert information, jobsite safety checklists, the technician's evaluation notes, details on repairs made, parts used, and photographs. This report is available instantly to our management and after a brief review is shared with the City either via email, ENGIE SharePoint customer maintenance website, or Dropbox based on customer preference.

Responsive Maintenance shall be handled as follows: Contractor shall provide a written estimate and scope of work to City outlining the work to be performed, a schedule that defines the work including start and end dates and the associated fee that includes a breakdown of labor hour, material cost, and any other details that may be requested by the City in order to restore the PV System(s) to normal operational condition. When requested by the City, the Contractor shall submit a proposal provide a response with staff on site within five working days.

Responsive Maintenance work is performed on a time and materials basis according to the labor and billing rates submitted in response to this RFP. Proposal shall indicate any items that are covered under warranty.

Emergency Repair directed by the City: Contractor shall take such immediate action as may be reasonable and necessary to prevent, avoid, or mitigate injury, damage, or loss to the PV System(s) and any adjacent and/or adjoining structures. The Contractor shall respond with personnel on-site within 24 hours or less. If work is of such urgency that an estimate and scope of work cannot be prepared in a timely manner, the City may give oral direction to the Contractor. The Contractor shall submit a proposal for all urgent or emergency work within 2 working days from the time the oral direction is issued with the understanding that it may also include work already performed.

The Contractor shall, as soon as possible, update the City on relevant information regarding the Emergency. If requested, the Contractor shall provide the City with a report after any incident involving safety issues. Contractor shall make reasonable efforts to minimize any costs associated with remedial action in case of such an Emergency. Contractor shall perform Emergency Repair work on a time and materials basis according to the labor and billing rates submitted in response to this RFP in the tables provided in Attachment A. Once emergency (and danger to the public, personnel, and/or property) has been mitigated, Contractor shall proceed according to the procedures outlined for Responsive Maintenance.

2.4 Infrared Imaging Technology

All Engie field technicians have received at minimum Level 1 Thermography Training to use thermal imaging cameras properly for the specific tasks pertaining to solar maintenance. Our crews are equipped with FLIR One Pro and FLIR C3/C5 thermal cameras. Thermography is used on all terminations in inverters, combiner boxes, feeders, breakers, ACDS fuses. IR is performed only as needed on solar panels in response to problems indicated by I-V analysis from monitored data or solmetric IV testing.

2.5 Calibration of Meters, Sensors, and Weather Instruments

Our remote monitoring system compares site weather data to nearby weather stations and will alarm on calibration or communication failure at any time throughout the year. During preventative maintenance our field crew cleans the irradiance sensor. Our technicians are able to utilize the monitoring system to view live readings from the onsite weather station and confirm calibration with a calibrated handheld meter. Sensors found damaged or out of calibration will be recommended for replacement.

The meters installed at these project sites are revenue grade commercial digital meters, which do not require any calibration. Our remote monitoring system will alarm if the total of inverter output read from the inverters does not match the meter and initiate a trouble ticket for mismatch or communication loss. Our field crews are experts at diagnosing meter problems and will be able to recommend replacement parts for any meter issues that arise.

2.6 Data Monitoring

The automated alarming system will notify both the City and our field team simultaneously of any issue via email. Our field staff will then be in contact with the City facilities staff, that day or the following business day, to coordinate a schedule to field-investigate unplanned problems.

The City will be enabled to utilize the monitoring platform for your facilities energy management needs for no additional cost.

Regular review of the PV Performance Reports enables us to track performance loss and recommend corrective maintenance to minimize lost production and downtime. Automated production analysis will alert all parties to shortfalls as compared to a predictive model.

Analytic and performance reports are available 24/7/365 from the monitoring system website. Unlimited users can instantly pull up-to-date reports as needed. Additionally, users can subscribe to automated customized reports that are emailed at the frequency the user selects. We will assist you in building these customized reports so you get exactly the information you want and need. While these need to be set up only one time, upon request we can augment and adapt the automated reports to your changing needs.

ENGIE offers Total Data Transparency. We do not manipulate, hide, or limit customer access to all site metered data. We can set up full access to create your own custom alerts and provide additional power-user training. The monitoring system not only monitors the solar, but also your building main electric meters in both import and export directions. While the scope of this RFP is solar, **the City will be enabled to utilize the monitoring platform for your facilities energy management needs for no additional cost.**

System performance is evaluated by comparing onsite solar Net Generation Output Meter (NGOM) production data and actual onsite measured weather data to the production values predicted by PVsyst modeling software. These weather-adjusted evaluations are performed automatically within the monitoring system software and always available as reports on the website. These production evaluations are also alarmed if production is deficient by 5% or more from the predictive model. We look for these greater-than-predicted degradations, which may indicate the need for further inspection and possible recommendations for panel washing.

2.7 Plans and Procedures

2.7.1 Warranty Management

ENGIE will manage your remaining equipment warranty with the manufacturer and handle all required paperwork. All new equipment and systems installed under this program are covered with a minimum one-year materials and workmanship warranty.

2.7.2 Time and Material Repair Services

ENGIE will provide repairs for the PV system as required to restore the generating facilities to normal operating parameters or to replace deteriorated, damaged parts.

“Repairs” will include any of the following as necessary:

- procuring parts or materials
- removing damaged or out-of-specification parts or materials
- installing repaired or replacement parts or materials and testing.

If ENGIE determines repair services are necessary, we shall provide for those repairs and receive payment on a time and materials basis.

3. Experience with O&M

3. Experience with O&M

Please find three project references listed below. All scopes include annual preventative maintenance, annual panel washing, and continuous monitoring services.

City of Gonzales (6 Sites)

Size	Type	Length of Contract	Years in Contract	Year 1 Contract Price (escalated annually)
664kW	Canopy/Ground Mount	10 Years	6	$35,956

City of Dublin (8 Sites)

Size	Type	Length of Contract	Years in Contract	Year 1 Contract Price (escalated annually)
916kW	Canopy	10 Years	8	$24,679

City of Escalon (5 Sites)

Size	Type	Length of Contract	Years in Contract	Year 1 Contract Price (escalated annually)
582kW	Canopy/Ground Mount	5 Years	1	$14,326

4. Resumes

4. Resumes

One-page resumes of our three key staff members start below.

Jamal Aboueljoud, CEM, LEED-AP, CALCTP-AT

Director,
Post Construction Services

EDUCATION, LICENSES, AND CERTIFICATIONS

- MS, Mechanical Engineering – Manufacturing Processes, Lawrence Technological University, Southfield, MI
- BS, Mechanical Engineering, Lawrence Technological University, Southfield, MI
- Certified Energy Manager
- LEED-AP Certified
- CALCTP-AT Certified
- Association of Energy Engineers Member
- CALCTP Member
- US Green Buildings Member

At ENGIE, Jamal ensures the success of Operations & Energy Services (OES) projects throughout their entire life cycle. Jamal has a proven record of impactful leadership in energy and environmental fields. He is responsible for all post-construction commitments, including operations and maintenance (O&M) and warranty service. He is a key connection point for future engagement phases, customer relation, and revenue growth.

Jamal is an analytical, growth-minded engineering manager with over 25 years of extensive experience planning, executing, and directing complex initiatives within energy and environmental industries. He is a tactical decision-maker skilled in uncovering and capitalizing on new areas of improvement across cost, project, and quality effectiveness. Jamal's areas of expertise include energy management, business development, portfolio management, project life cycle, customer relations, team leadership, training and development, educator, professional consulting, cross-team collaboration, and communications.

Before joining ENGIE, Jamal directed the daily operations, strategic planning, and a team of six engineers in management of lighting and energy audits resulting in $100M+ worth of contracting projects. He cultivated and strengthened customer relationships while fostering positive experiences through responsive communications. The wide range of clients he served spanned across education, healthcare, manufacturing, government, and wastewater municipalities.

Key Achievements:

- Founded and launched business development ideation of energy consultative services
- Successfully maintained less than 0.12% shortfall

REPRESENTATIVE PROJECT EXPERIENCE

Project	Description
City of Salinas	• **Current O&M Provider** • **Salinas City Elementary School District** • **Salinas Union High School District – Solar across 14 sites**
City of Gonzales	• Current O&M Provider for 66 kW Solar Canopy and Ground mount across 6 sites
City of Dublin	• Current O&M Provider for 916 kW Solar Canopies across 8 sites
City of Yuba	• 3-Phased Project: I. solar PV, solar pool water heating, LED building lighting upgrades, plus HVAC and EMS upgrades; II. 2.1 MW solar and 1.5 MWh BESS; III. solar and BESS for Police Station

Carrie Dixon, LEED AP

O&M Manager

EDUCATION, LICENSES, AND CERTIFICATIONS

- BS, Architectural Engineering, University of Kansas, Lawrence KS
- Intern Engineer-Kansas
- Leadership in Energy and Environmental Design Accredited Professional (LEED AP) – U.S. Green Building Council
- CA Electrician Journeyman License 162512
- Arc Flash/70E
- OSHA 30
- Satcon Inverters Certified Level II Technician
- Fronius Inverters Certified Service Provider – IG Plus
- International Society of Automation Member

Carrie is primarily responsible for managing the operations and maintenance of our photovoltaic systems. These responsibilities include commissioning/recommissioning, scheduled maintenance, unplanned outage management, contractor management, site safety management, and customer service.

Carrie has a passion for renewable energy and an extensive background in a variety of photovoltaic systems, metering, and control technologies. She is a valuable resource that is committed to sharing her knowledge and love of renewable energy through participation in various STEM/STREAM programs in the communities we serve. Additionally, Carrie has implemented a training program to partner with local trade training councils across California. These programs work to educate and train the next generation of electrical workers, providing employment opportunities, and interest in solar photovoltaics.

Carrie successfully manages a growing photovoltaic asset portfolio of over 145 MW at over 500 locations. Her training and experience in the field gives us a leading edge in maintenance of systems and troubleshooting problems from power flow to data collection. In her current role, she provides support and dispatches her team of field electricians while ensuring all work complies with OSHA safety standards and manufacturers' maintenance recommendations.

At the University of Kansas, Carrie elected to concentrate her studies in the areas of sustainable design and energy management. Her continuing education opportunities in California have included water conservation and involvement with California Coastal Commission.

REPRESENTATIVE PROJECT EXPERIENCE

City of Salinas	• **Current O&M Provider** • **Salinas City Elementary School District** • **Salinas Union High School District – Solar across 14 sites**
City of Gonzales	• Current O&M Provider for 66 kW Solar Canopy and Ground mount across 6 sites
City of Dublin	• Current O&M Provider for 916 kW Solar Canopies across 8 sites
City of Yuba	• 3-Phased Project (worked on phases I&II): I. solar PV, solar pool water heating, LED building lighting upgrades, plus HVAC and EMS upgrades; II. 2.1 MW solar and 1.5 MWh BESS

Amar Tiwari

Customer Account Manager

EDUCATION, LICENSES, AND CERTIFICATIONS

MBA, University of California, Berkeley, CA

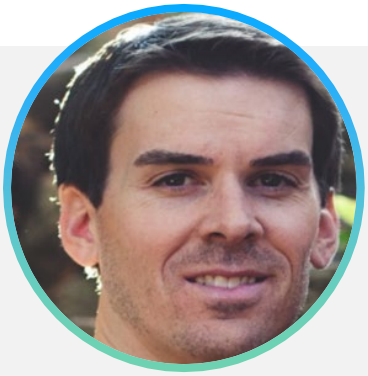
BS, Chemical Engineering, Auburn University, Auburn, AL

Amar brings over 10 years of experience as a Process Design Engineer and Project Manager. As a Customer Account Manager at ENGIE, he is responsible for managing customer lifecycle from project development through to post-construction.

Amar also supports new business development initiatives and keeps up to date on new technologies available. Through these exercises, he has developed a strong comprehension of new energy saving technologies and understands best fit for the customer.

REPRESENTATIVE PROJECT EXPERIENCE

City of Salinas	• **Current O&M Provider** • **Salinas City Elementary School District** • **Salinas Union High School District – Solar across 14 sites**
City of Hercules, CA	• Program Developer: led financial analysis and supported program development of 483 kW solar PV, new HVAC, and facility and street lighting
Solano County, CA	• Customer Account Manager: Development and financial analysis for 5 MW solar PV project including energy storage, microgrid controls, EV charging, lighting upgrades, HVAC upgrades and water upgrades.
Adventist Health Statewide, CA	• Customer Account Manager: Program development of project estimates of 20 MW solar PV
Various ENGIE customers, CA	• Customer Account Manager: Managed extension of existing O&M agreements with number of customers to continue to maintain PV systems so they operate and maximize energy savings



Edward Jakimzak, CEM, CMVP, CDSM

Team Lead,
ENGIE Customer Care

EDUCATION, LICENSES, AND CERTIFICATIONS

MS, Energy Management, New York Institute of Technology, Old Westbury, NY

BS, Electrical Engineering, California State University, Northridge, CA

Certified Energy manager (CEM) – Association of Energy Engineers

Certified Measurement & Verification Professional (CMVP) – Association of Energy Engineers

Certified Demand-Side Manager (CDSM) – Association of Energy Engineers

Ed oversees and manages all measurement and verification (M&V) work and ongoing customer services for ENGIE projects in California. These include government office buildings, commercial and industrial facilities, public schools, community colleges, and state universities. He is responsible for coordinating and performing all physical measurements as well as creating the reports necessary to fulfill M&V responsibilities in accordance with the International Performance Measurement and Verification Protocol (IPMVP). Additionally, he is responsible for all ongoing services necessary to fulfill performance contracting responsibilities. Ed joined ENGIE after spending five years working in the energy management industry in both engineering and sales capacities. His experience includes HVAC replacement and controls, lighting system design and retrofits, and solar PV power systems.

REPRESENTATIVE PROJECT EXPERIENCE

City of Salinas	• **Current O&M provider** • **Salinas City Elementary School District** • **Salinas Union High School District – solar across 14 sites**
City of Gonzales	• Current O&M provider for 66 kW solar canopy and ground mount across 6 sites
City of Dublin	• Current O&M provider for 916 kW solar canopies across 8 sites
City of Yuba	• 3-phased project (worked on phases I&II): I. solar PV, solar pool water heating, LED building lighting upgrades, plus HVAC and EMS upgrades; II. 2.1 MW solar and 1.5 MWh BESS
City of Gonzales	• Current O&M provider for 66 kW solar canopy and ground mount across 6 sites
City of Dublin	• Current O&M provider for 916 kW solar canopies across 8 sites
City of Madera	• 1.1 MW solar PV canopies, 3.3 MW solar PV ground mount • Citywide LED lighting and solar street lighting • HVAC/controls upgrades
County of Kings	• Phase I: 600 kW cogeneration system, new chiller for library, and new roofs • Phase II: new central heating and cooling plant, thermal energy storage, HVAC upgrade, EMS, and building lighting retrofit • Phase III: HVAC upgrades, solar PV systems, LED lighting upgrades, and irrigation system upgrades

5. References

5. References

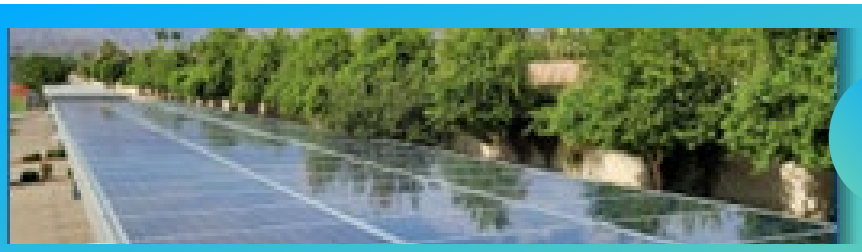
References of similar solar PV projects follow.

City of Gonzales

1

Patrick M. Dobbins, Public Works Director/City Engineer
City Hall | 831-675-5000 | https://gonzalesca.gov/services/public-works

City of Yuba



2

Claire Shawver, Construction Project Manager
Public Works Department | 530-822-4713 | cshawver@yubacity.net

City of Dublin

3

Lowell Dean McDonald, Public Works Maintenance Superintendent
925-833-6630 | dean.mcdonald@dublin.ca.gov

6. ENGIE History

6. ENGIE History

We firmly believe that ENGIE is the ideal partner to continue your solar PV system maintenance and energy monitoring needs. ENGIE began working with the City of Salinas when the project was first designed in 2014 and has been maintaining the project since April 2017.

City of Salinas

ENGIE helps government, and other public sector customers become more efficient, productive, and sustainable. Over the past 48+ years, hundreds of our customers have improved the performance of their facilities in terms of reliability, safety, comfort, and resource use. ENGIE worldwide has more than 170,000 employees in 70 countries and is the number one supplier of energy efficiency and renewable services in the world.

ENGIE offers more resources in California than any of our competitors, with over 170 personnel dedicated to the state, including 15 operations and maintenance professionals committed to supporting public sector entities throughout California. At its heart, **ENGIE is a local company**: our national headquarters and much of our leadership team are in nearby Oakland. We bring the best of global and local to the table – a local team that is responsive, communicative, and experienced, and a global parent company that has innovative reach, vision, and unmatched financial strength and leadership.

7. Additional Information

7. Additional Information

As an advocate for sustainability, ENGIE utilizes environmentally sustainable practices, both in the field and in the office.

ENGIE considers all damaged or broken solar photovoltaic panels as hazardous e-waste. As such, we send all damaged panels to a 3rd party recycling center who attempts to recover minimally damaged panels. The recycling vendor has a zero-landfill policy and all materials are recycled to manufacture new solar panels or into different products. A recycling certificate is provided for each transaction to maintain record of proper disposal.

During our PV module cleaning activities, ENGIE takes every precaution to collect and properly dispose of run-off water per local jurisdiction requirements.

In 2019, ENGIE recognized a significant opportunity to reduce the environmental impact of our office buildings and create a more sustainable space for our employees. ENGIE began a pilot program for environmental self-audits focused on energy, water, and waste. With baseline data from the facilities that took part in the pilot program, ENGIE is developing custom sustainability initiatives for our office buildings that will enable employees at the local level to drive participation in identifying opportunities to reduce environmental impact. ENGIE also is transitioning to operating as a paperless environment, with the goal of no paper products, plates, or plastic utensils. In addition, ENGIE employs charitable donations, resales, and recycling to responsibly redistribute no longer needed workplace items.

8. Labor and Billing Rates

8. Labor and Billing Rates

A completed Labor and Billing Rates sheet (Attachment A – Cost and Rate Schedules) includes the fixed cost items and rates for labor and material mark up for time and material work. This information is contained in the Price Proposal, which is included in this response in a separately sealed envelope.

ENGIE
500 12th Street, Suite 300
Oakland, CA 94607
www.engie-na.com

City of Salinas

Maintenance Services for City of Salinas Solar Photovoltaic Systems

Price Proposal

May 20, 2022

Prepared For:
City of Salinas Public Works Department
200 Lincoln Avenue
Salinas, CA 93901

Brian Frus
Water, Waste and Energy Division Manager
831-758-7485
brianf@ci.salinas.ca.us

Prepared By:
ENGIE
500 12th Street, Suite 300
Oakland, CA 94607

Jamal Aboueljoud
Director, Customer Care Field Services
916-358-0024
Jamal.aboueljoud@engie.com

City of Salinas

PRICE PROPOSAL

Maintenance Services for City of Salinas Solar Photovoltaic Systems

May 20, 2022

PREPARED FOR:
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Water, Waste and Energy Division Manager
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This proposal, in whole or in part, is to be used only for evaluation purposes. If the proposal is accepted and a contract entered into then, to the extent, federal or state law requires disclosure, advance notice to ENGIE Services U.S. Inc. is requested with a right to oppose or seek to narrow the disclosure. The data subject to this restriction is contained in all sheets marked, “Use or disclosure of data contained on this sheet is subject to the restriction on the title page of this proposal or quotation.”

ENGIE Services U.S. Inc. is not a municipal advisor and cannot give advice with respect to municipal securities or municipal financial products. This information is provided for educational purposes about possible financing options and is not the provision of advice, or a recommendation to pursue, any financing option. Consult with your municipal advisor or financial advisor about the financing option appropriate for your situation.

ENGIE Services U.S. Inc. can provide information to your municipal advisor or financial advisor about the hypothetical assumptions and educational scenarios used in these materials. To ensure compliance with requirements imposed by the IRS under Circular 230, we inform you that any U.S. federal tax advice contained in this communication (including any attachments), unless otherwise specifically stated, was not intended or written to be used, and cannot be used, for the purpose of (1) avoiding penalties under the Internal Revenue Code or (2) promoting, marketing or recommending to another party any matters addressed herein.

The information contained herein is general in nature and based on authorities that are subject to change. ENGIE Services U.S. Inc. recommends that you consult your tax adviser to understand its applicability to specific situations. ENGIE Services U.S. Inc., the Respondent, is a wholly owned subsidiary of ENGIE Holdings Inc.

8. Labor and Billing Rates

8. Labor and Billing Rates

A completed Labor and Billing Rates sheet (Attachment A – Cost and Rate Schedules) includes the fixed cost items and rates for labor and material mark up for time and material work. This information is included on the following pages in this Price Proposal, which is included in this response in a separately sealed envelope.

Attachment A – Cost and Rate Schedules

Inspection, Preventive, and Routine Maintenance Cost Schedule

	Expense Category	Quantity	Unit	Unit Cost	Extended Annual Total
1	Module Cleaning	2	Per Event	$ 26,488	$ 52,975
2	General System and Tracker Inspections	1	Per Year	$ 2,631	$ 2,631
3	I-V Curve, Module, String and Array Inspections	1	Per Year	$ 1,754	$ 1,754
4	Electrical Inspection, and General Cleaning	2	Per Year	$ 15,170	$ 30,339
5	Monitoring, Telemetry and Weather Station Inspections	1	Per Year	$ 351	$ 351
6	Consumables	1	Per Year	$ 150.00	$ 150

Attachment A – Cost and Rate Schedules

Responsive Maintenance and Emergency Repair Services Rate Schedule

Labor or Item Description	Minimum Required Certifications and Typical Tasks	Unit	*Straight Rate or Amount
PV Electrical Journeyman Technician	Diagnostics, visual inspection, testing. Module, inverter, and fuse/breaker replacement, conduit routing, wiring, and ground fault repair. Trained in arc-flash, lock-out/tag-out, and other special protective equipment and procedures. NABCEP PV Installer certification; experience in the design of medium-voltage electrical PV Systems.	$/hr	County Labor Rate
PV Electrical Apprentice Technician	Diagnostics, visual inspection, testing. Operate, maintain, and repair photovoltaic equipment. Module and fuse/breaker replacement, wiring, and ground fault repair. NABCEP PV Installer Certification.	$/hr	County Labor Rate
Mechanic	Maintenance and repair/replace of tracking mount components.	$/hr	County Labor Rate
Network/IT	Internet/network and monitoring equipment repair. Knowledge of specific monitoring devices, network connections, wireless/cellular modems. Knowledge of Modbus, DNP3, and other protocols. HMI operator interfaces.	$/hr	County Labor Rate
Pest Control	Remove any and all nesting vermin. Trained in safe handling of animal and detritus. Trained in any required pesticide applications.	$/hr	County Labor Rate
Engineering	Diagnostics, specifications, drawings, modeling and analysis, codes, and standards. Preferred B.S. in engineering; registered PE; NABCEP PV Installer Certification; knowledge of IEEE, NEC, NESC, and other codes & standards for PV Systems; required level of errors and omissions standards.	$/hr	$170
Administrative	Record-keeping, service confirmation, correspondence. Must be experienced with management of contractors and quality.	$/hr	$65
Mileage		$/mile	IRS Rate
Material mark-up percentage		%	15
Sub Contract mark-up percentage		%	15
Lift fee		$/day	Current Market Price

**Trade Hourly rate will be adjusted based on the current year of the local prevailing wage determination plus Burden, requirement for either travel or subsistence and lodging, and markup for services being requested. Rates are Escalated according to an inflation rate to the year in which service will occur. Standard Business Hours are M-F, 7am to 5pm. Non-business Hours & Saturdays Equals 1.5x Rates. Sundays & Holidays Equals 2.0x Rates.*

ENGIE
500 12th Street, Suite 300
Oakland, CA 94607
www.engie-na.com

City of Salinas

AMENDED PRICE PROPOSAL

Maintenance Services for City of Salinas Solar Photovoltaic Systems

September 30, 2022

PREPARED FOR:
Brian Frus
Water, Waste and Energy Division Manager
City of Salinas Public Works Department
200 Lincoln Avenue
SALINAS, CA 93901
831-758-7485
brianf@ci.salinas.ca.us

PREPARED BY:
ENGIE
500 12th Street, Suite 300
Oakland, CA 94607

Jamal Aboueljoud
Director, Customer Care Field Services
916-358-0024
Jamal.aboueljoud@engie.com

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ENGIE Services U.S. Inc. can provide information to your municipal advisor or financial advisor about the hypothetical assumptions and educational scenarios used in these materials. To ensure compliance with requirements imposed by the IRS under Circular 230, we inform you that any U.S. federal tax advice contained in this communication (including any attachments), unless otherwise specifically stated, was not intended or written to be used, and cannot be used, for the purpose of (1) avoiding penalties under the Internal Revenue Code or (2) promoting, marketing or recommending to another party any matters addressed herein.

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8. Labor and Billing Rates

A completed Labor and Billing Rates sheet (Attachment A – Cost and Rate Schedules) includes the fixed cost items and rates for labor and material mark up for time and material work.

Attachment A – Cost and Rate Schedules

Inspection, Preventive, and Routine Maintenance Cost Schedule

	Expense Category	Quantity	Unit	Unit Cost	Extended Annual Total
1	Module Cleaning	1	Per Event	$ 26,488	$ 26,488
2	General System and Tracker Inspections	1	Per Year	$ 2,631	$ 2,631
3	I-V Curve, Module, String and Array Inspections	1	Per Year	$ 1,754	$ 1,754
4	Electrical Inspection, and General Cleaning	2	Per Year	$ 15,170	$ 30,340
5	Monitoring, Telemetry and Weather Station Inspections	1	Per Year	$ 351	$ 351
6	Consumables	1	Per Year	$ 150.00	$ 150

Year 1 - Total Field Services =$61,714

	Expense Category	Quantity	Unit	Unit Cost	Extended Annual Total
1	“Base” Monitoring	1	Per Year	$ 2,414	$ 2,414
2	Wash Analysis	1	Per Event	$ 788	$ 788

Year 1 - Total Monitoring Service = $3,202

Attachment A – Cost and Rate Schedules

Responsive Maintenance and Emergency Repair Services Rate Schedule

Labor or Item Description	Minimum Required Certifications and Typical Tasks	Unit	*Straight Rate or Amount	Estimated Annual Repair Budget
PV Electrical Journeyman Technician	Diagnostics, visual inspection, testing. Module, inverter, and fuse/breaker replacement, conduit routing, wiring, and ground fault repair. Trained in arc-flash, lock-out/tag-out, and other special protective equipment and procedures. NABCEP PV Installer certification; experience in the design of medium-voltage electrical PV Systems.	$/hr	County Prevailing Wage Labor Rate	$3,500
PV Electrical Apprentice Technician	Diagnostics, visual inspection, testing. Operate, maintain, and repair photovoltaic equipment. Module and fuse/breaker replacement, wiring, and ground fault repair. NABCEP PV Installer Certification.	$/hr	County Prevailing Wage Labor Rate	$2,200
Mechanic	Maintenance and repair/replace of tracking mount components.	$/hr	County Prevailing Wage Labor Rate	$15,000
Network/IT	Internet/network and monitoring equipment repair. Knowledge of specific monitoring devices, network connections, wireless/cellular modems. Knowledge of Modbus, DNP3, and other protocols. HMI operator interfaces.	$/hr	County Prevailing Wage Labor Rate	$3,000
Pest Control	Remove any and all nesting vermin. Trained in safe handling of animal and detritus. Trained in any required pesticide applications.	$/hr	County Prevailing Wage Labor Rate	Upon Request
Miscellaneous Items	Additional PV module cleaning and or other maintenance repairs not specified in the above items	$/hr.	County Prevailing Wage Labor Rate	$26,488
Engineering	Diagnostics, specifications, drawings, modeling and analysis, codes, and standards. Preferred B.S. in engineering; registered PE; NABCEP PV Installer Certification; knowledge of IEEE, NEC, NESC, and other codes & standards for PV Systems; required level of errors and omissions standards.	$/hr	$170	Upon Request
Administrative	Record-keeping, service confirmation, correspondence. Must be experienced with management of contractors and quality.	$/hr	$65	$500
Mileage		$/mile	IRS Rate	$900
Material mark-up percentage	Ground Mount PV Tracking System	%	15	$2,250
Sub-Contract mark-up percentage	Ground Mount PV Tracking System	%	15	$2,250
Lift fee		$/Yr.	Current Market Price	$3,600

Annual Total Responsive Maintenance and Emergency Repair Budget = $59,688.00

Total Annual Year 1 Estimated Cost = $ 124,604.00

Year	Inspection Preventative and Routine Maintenance Services*	Monitoring Service*	Responsive Maintenance and Emergency Repair Services	Annual Total
Year 1	$ 61,714	$ 3,202	$ 59,688	$ 124,604
Year 2	$ 63,565	$ 3,298	$ 59,688	$ 126,551
Year 3	$ 65,472	$ 3,397	$ 59,688	$ 128,557
Year 4	$ 67,437	$ 3,499	$ 59,688	$ 130,623
Year 5	$ 69,460	$ 3,604	$ 59,688	$ 132,752
Total Contract 5-Year Term				**$ 643,088**

* Includes 3% annual escalator

**The above hourly labor rates are based on the 2022 published County prevailing Wage. Trade Hourly rate will be adjusted based on the current year of the local prevailing wage determination plus Burden, requirement for either travel or subsistence and lodging, and markup for services being requested. Rates are Escalated according to an inflation rate to the year in which service will occur. Standard Business Hours are M-F, 7am to 5pm. Non-business Hours & Saturdays Equals 1.5x Rates. Sundays & Holidays Equals 2.0x Rates.*