

# NOTICE TO CONTRACTORS: REQUEST FOR QUALIFICATIONS/REQUEST FOR PROPOSALS

## INTRODUCTION

The City of Trinidad (OWNER) solicits proposals responsive to this Request for Qualifications/Request for Proposals (RFQ/RFP) from interested Energy Service Companies (ESCOs) to provide all design, permitting, labor, materials, equipment, and testing for the City of Trinidad (OWNER) for the Trinidad Town Hall Solar Project depicted on the specifications including, but not limited to, a) design and installation of a roof-mounted, grid-tied solar photovoltaic (PV) array, and b) design and installation of a grid-tied battery backup system capable of providing emergency power to Town Hall in the event of a utility outage, at 409 Trinity Street, Trinidad, California 95570, in Humboldt County California.

Separate sealed bids will be received to provide all design, permitting, labor, materials, equipment, and testing for the City of Trinidad's Town Hall Solar Project, depicted in the **Scope of Services, Attachment A: Solar PV Site Plan**, and **Attachment B: Solar Feasibility Study**, including, but not limited to, a) installation of a roof-mounted, grid-tied solar photovoltaic (PV) array, to be mounted on the roof of Trinidad Town Hall, at 409 Trinity Street, Trinidad in Humboldt County California and b) design and installation of a grid-tied battery backup system capable of providing emergency power to Town Hall. Proposers shall design an installation that will make use of PG&E's Aggregated Net Energy Metering (NEM-2A) arrangement with the solar PV array, located on the roof of Town Hall, sized to offset approximately 100% of the annual electric load of Trinidad's Town Hall, Civic Club and Firehouse.

**Electronic bids will be received by the Project Manager at [mavcollie@redwoodenergy.org](mailto:mavcollie@redwoodenergy.org) until 3:00 pm Pacific Standard Time (PST), September 3<sup>rd</sup>, 2020 and then publicly opened and read aloud via ZOOM meeting. Please e-mail request to attend bid opening to the Project Manager for the ZOOM meeting information. All contractor questions must be submitted by 5:00 pm on August 31<sup>st</sup>, 2020. Questions received after that time will not be responded to prior to bid due date.**

To bid on this project, ESCOs must hold a contractor's license type C-10, C-46 or B. This is a public works project so all bidders must be registered with the Department of Industrial Relations, pay the prevailing wage (this includes, travel, subsistence, holiday pay, designated days off and overtime), determined by the Director of the DIR according to the type of work and location.

Copies of the Contract documents, Specifications and Plans may be obtained at Trinidad Town Hall 409 Trinity Street, P.O. Box 390, Trinidad, California or may be requested via email from the CITY, [cityclerk@trinidad.ca.gov](mailto:cityclerk@trinidad.ca.gov), or (707) 677-0223.

**A mandatory pre-bid meeting will be held at 409 Trinity Street, Trinidad California, on August 13<sup>th</sup>, 2020 from 2:00 pm to 3:00 pm.** The site visit and forum are designed to increase the likelihood that respondents have the applicable and appropriate information necessary to deliver proposed solutions that meet the City's expressed needs. The City has determined this is an essential service. All attendees should wear a face mask and practice social distancing requirements as directed by the Humboldt County Health Officer's Orders while the Order(s) are in effect. Information regarding the county order can be found here: <https://humboldt.gov.org/2725/Local-Orders>

## **OVERVIEW**

This solicitation seeks proposals for design and installation of a roof-mounted, grid-tied solar PV array at the property owned by the City at 409 Trinity Street, Trinidad California. The expected work product will be to design and implement the following energy measures: **a) Design, permit, install and commission a roughly 14 kW (DC) solar PV system that will use a Aggregated Net Energy Metering (NEM-2A) arrangement to offset up to 100% of the electric consumption from Trinidad's *Town Hall, Civic Club and Firehouse* electric accounts, b) ESCO will design a system capable of offsetting up to 100% of the annual electric load of those three (3) electric accounts, roughly 18,900 kWh (AC) annually, while adhering to the Project's available funding limits, c) Design, permit, install and commission a Battery Energy Storage System (BESS) capable of delivering approximately 26 kWh (AC) of emergency service and maximum power output rating of 10 kW (or system of similar size and capacity).** A preliminary assessment has identified roof locations for PV panels as described in **Attachment A: Solar PV Site Plan**. Total funding available to the Owner for the solar PV portion of the project, including permitting and design, is \$49,280.00. The City of Trinidad will rely on other sources of funding for the BESS (Additive Alternates A and B) scopes of work. The selected ESCO will work with the Owner to determine the best installation options/location(s), taking into account initial installation costs, long-term maintenance and operational costs, technical feasibility, permitting restrictions, aesthetics, customer preferences and future facility upgrades.

**This procurement for design build services is authorized as an energy service contract pursuant to Government Code section 4217.12.** Prior to the potential award of a contract to the selected ESCO, the Trinidad City Council will adopt a resolution as required by Government Code section 4217.12, finding that the anticipated cost to the OWNER for electrical power generation to be provided by the proposed project will be less than the anticipated marginal cost to the OWNER of electrical energy that would have been consumed by the OWNER in the absence of this project. The contract with the selected ESCO will be the sole contract the OWNER will hold for the completion of this project.

**All Contractor questions must be submitted by 5:00 pm PST on August 31<sup>st</sup>, 2020.**  
**Questions received after 5:00 pm PST on August 31<sup>st</sup>, 2020 will not be responded to prior to the bid opening.**

Each proposal must be submitted on the prescribed form and accompanied by a certified check or Bid Bond in an amount of not less than 10 percent of the amount bid. Successful bidders will be required to furnish both a Payment Bond and Performance Bond in the full amount of the Contract Price.

Eli Naffah  
City Manager  
City of Trinidad

8/6/2020  
Date

## Part 1 – BIDDING REQUIREMENTS

### INFORMATION FOR BIDDERS

Electronic bids will be received by the Project Manager at [mavcollie@redwoodenergy.org](mailto:mavcollie@redwoodenergy.org) until 3:00 pm Pacific Standard Time (PST), September 3<sup>rd</sup>, 2020 and then publicly opened and read aloud via ZOOM meeting. Please e-mail request to attend bid opening to the project manager for the ZOOM meeting information. All contractor questions must be submitted by 5:00 pm on August 31<sup>st</sup>, 2020. Questions received after that time will not be responded to prior to bid opening.

This is a Public Works project so all contractors/subcontractors listed on the bid form, bidding and/or working on the project must pay prevailing wages and be registered with the Department of Industrial Relations (DIR), <https://dir.ca.gov/Public-Works/Contractors.html>. Copies of the prevailing rate of per diem wages are on file at City Hall and shall be made available to any interested party upon request.

Contractor must hold a valid California construction license with the following classifications(s): C-10 (Electrical), C-46 (Solar), or B (General).

The Contract Documents are attached and may be examined at the following locations: The City of Trinidad, 409 Trinity Street, Trinidad CA 95570, or via email from [cityclerk@trinidad.ca.gov](mailto:cityclerk@trinidad.ca.gov).

Bids must be submitted as an electronic document attachment via email to [mavcollie@redwoodenergy.org](mailto:mavcollie@redwoodenergy.org)

All bids must be made on the required bid form. All blank spaces for bid prices must be filled in, in ink or typewritten, and the bid form must be fully completed and executed when submitted. Only one copy of all the bid documents is required.

Each proposal must be submitted on the prescribed form and accompanied by a certified check or Bid Bond in an amount of not less than 10 percent of the amount of bid.

In accordance with Public Contract Code Section 10263 the Contractor will be allowed to substitute securities for monies normally withheld by OWNER to insure performance under this contract.

### ESCO PROFILE & QUALIFICATIONS

The OWNER may award the contract to the firm that, in its sole opinion, is the most capable of providing the range of services described in this RFQ/RFP. To be considered for this Project, a proposer must, at a minimum, have demonstrated knowledge and experience in design, engineering and construction capabilities relevant to the scope of this RFP. The proposal must contain a response to each of the following:

- **Answer all questions or state “N/A” if not applicable.**
  - **Please number and re-state each subheading or question, followed by your response. This improves clarity and makes it much easier to evaluate your response.**
  - **Number all pages.**
1. Name, address, contact numbers, email, website, and summary of the responding ESCO's experience with public works projects and energy upgrades.
  2. If the responding ESCO is a business entity, provide information on the type of entity, its ownership, size, and location of its principal office.
  3. All applicable licenses including license numbers and expiration dates.
  4. Detailed resume(s) of personnel to be assigned to the Project.
    - a. Identify proposed sub-contractors by name, address, and work to be performed.
    - b. Summarize the scope of services (design, construction, training, etc.) directly offered by ESCO.
    - c. Describe your qualifications and ability to design and install the proposed scope of work and solar PV arrays.
  5. List at least three (3) applicable design and/or construction projects completed by the ESCO and proposed sub-contractors within the past five (5) years that are similar in size and scope. Identify similar projects by name, location, owner, size, and date constructed.
    - a. Include a list of references including contact names and telephone numbers for the representative projects.
    - b. Source of funds used for the project (if known).
  6. Describe your general approach to designing and constructing building systems and how the OWNER will be involved in the process.
  7. Provide a preliminary implementation plan that includes but is not limited to:
    - a. Recommended location and required ancillary activities necessary to successfully install and grid-tie the proposed system.
    - b. Steps to ensure all applicable building codes and/or state requirements are met.
    - c. Steps to ensure all applicable labor compliance requirements are met.
    - d. Number of trainees and or apprentices to be used.
    - e. Proposed installed kW.
    - f. Proposed first year kWh production values that meet or exceeds project goals.
    - g. Estimated first year energy cost savings.

The respondent must use the following format to present PV project metrics.

<b><i>PV System Size (kW DC)</i></b>	<b><i>Year 1 Production (kWh)</i></b>	<b><i>Effective Useful Life (years)</i></b>	<b><i>Year 1 Energy Cost Savings (\$)</i></b>	<b><i>Inverter Size (kW)</i></b>	<b><i>Measure Cost (\$)</i></b>

The respondent must use the following format to present BESS project metrics for Additive Alternate A:

<i>Usable Energy (kWh)</i>	<i>Max Power Rating (kW)</i>	<i>Nominal Voltage (V)</i>	<i>Allowable Depth of Discharge (%)</i>	<i>Round Trip Efficiency (%)</i>	<i>Warranted # of Discharge Cycles</i>	<i>Effective Useful Life (years)</i>	<i>Estimated SGIP Incentive (\$)</i>	<i>System Cost (\$)</i>

9. Public works ESCOs and sub-contractors must be registered with DIR, as specified in Labor Code section 1771.1(a). Projects under \$25,000.00 are not subject to compliance monitoring and enforcement by DIR.
10. Confirm and briefly discuss labor, panel and inverter warranties.
11. Proposed Price
  - a. The proposed price shall include all project costs (including design fees, permits, materials, labor, testing, commissioning, inspection, etc.).

## SELECTION PROCESS

A selection committee will review the proposals and may select a short list of finalists for oral interviews.

- **REFERENCE CHECK:** The OWNER will conduct a background/reference check of the responding firms. Proposed ESCOs that appear to have the necessary qualifications and who are acknowledged as competent to provide the services requested may be placed on the short list of finalists and interviewed.
- **INTERVIEW:** The OWNER may interview selected respondents.
- **FINAL SELECTION:** Predicated upon thorough review of proposals submitted and upon interviews with selected firms, the OWNER will make a final selection and notify all finalists in writing.

The OWNER will negotiate the final terms for services with the firm approved by the OWNER Board. If it is not possible to reach mutual agreement with the designated firm, the OWNER reserves the right to enter into negotiations with another firm.

The final selection will be made on the basis of best value, which includes, but is not be limited to the following criteria:

- Completeness and adherence to the requirements of this RFP.
- Qualifications and past similar experience.
- References.
- Fee and rates and base price proposal.

The OWNER reserves the right to postpone selection for its own convenience, to withdraw this Request for Proposal at any time, and to reject any and all submittals without indicating any reason for such rejection. Submitted proposals become the property of the OWNER.

As part of the negotiation process, the OWNER reserves the right to require correction of technical errors in the proposal and to modify the published Statement of Work and to approve or disapprove the list of sub-contractors. Should the OWNER determine that specific expertise is lacking in the project team, the Owner will reserve the right to request specific consultants with specific expertise to be added to the team. Any interpretation of, or change in, this Request for Proposal will be made by addendum, and shall become part of the Request for Proposal and any contract awarded.

ESCO receiving a Notice of Award is required to execute the Agreement and furnish the required bonds and Contractor's certificates of insurance within fourteen (14) calendar days from the date this Notice is received by you.

## SCOPE OF SERVICES

The scope of services provided by the selected ESCO shall include all tasks required to design, fabricate, store, deliver, install and commission a fully operational energy system for the OWNER. Any required ancillary equipment is included in the scope of work. The scope shall also include, but not be limited to, securing all permits and approvals from governing agencies, all labor, taxes, services, permit fees, training and equipment necessary to produce fully operational systems.

The selected ESCO will be expected to work with the OWNER to design all systems to meet the OWNER'S specific design and funding criteria, and to maximize energy savings and solar energy resources, taking into consideration the OWNER'S electrical demand, load patterns, proposed installation site, available solar resources, existing site conditions, proposed future site improvements, and other relevant factors. In addition, the selected ESCO will be expected to complete installation and integration of the system based on a schedule as dictated by the OWNER's funding sources for this project.

The selected ESCO will:

1. **Base Bid:** Provide, Install and Commission a Grid-tied Solar PV System.
  - a. Provide all design, labor and materials for a turn-key, code compliant installation of a 14 kw (DC) grid tied solar photovoltaic array, or similar sized array, capable of producing roughly 18,900 kWh /year.
  - b. The system shall be designed to offset 100% of the electric load at three (3) metered locations, Town Hall, Civic Club and Firehouse using an Aggregated Net Energy Metering (NEM-2A) arrangement
  - c. The PV array should be installed on the south facing roof of Trinidad's Town Hall.  
**See Attachment A: Solar PV Site Plan.**
  - d. Equipment
    - i. Provide and install all solar modules, rapid shutdown devices, grid-tied inverter, racking system, means of disconnect for all AC and DC components, and all other balance of system equipment, including conduit,

- conductors and over current protection devices required for a code compliant installation.
  - e. Permitting
    - i. Obtain all permits required for installation and interconnection to utility grid to operate the system under a NEM-2A arrangement.
2. **Additive Alternate A:** Design, Procure, Install, Test, and Commission a Battery Energy Storage System to be integrated with the Grid-tied Solar Array.
- a. Provide all design, labor, and materials for a turn-key, code compliant installation of a grid tied battery energy storage system, that can provide up to 26 kWh of available capacity and maximum power output rating of 10 kW (or system of similar size and capacity) capable of:
    - i. Delivering emergency battery backup for the facility and operating in “Island Mode” in case of power outages and
    - ii. Discharging the battery to site loads during “Peak” times based on the applicable time-of-use utility rate during normal grid operating conditions.
  - b. Battery bank should be installed inside Town Hall or the Civic Club, close to the existing electric service panel and existing generator transfer switch, final location to be determined in coordination with City staff. **See Attachment A: Solar PV Site Plan.**
  - c. Design should include an Energy Management System and Battery Management System that includes an inverter/charge controller/transfer switch combination capable of accepting incoming power from an AC generator or battery backup system to allow multiple forms of backup power in the event of utility outage.
  - d. Equipment
    - i. Provide and install all batteries, dual-function inverter, charge controllers, means of disconnect for all AC and DC components, and all other balance of system equipment, including conduit, conductors and over current protection devices required for a code compliant installation. ***Proposer shall include the following information about the proposed battery energy storage system:***
      - 1. Allowable depth of discharge,***
      - 2. Round-trip efficiency,***
      - 3. Warranted number of discharge cycles and***
      - 4. Average degradation rate.***
  - e. Permitting
    - i. Obtain all permits required for installation and interconnection to utility grid.
3. **Additive Alternate B:** Include incremental price increase for a bidirectional inverter for the Battery Energy Storage System that is also capable of accepting generator input and will be able to charge the battery storage system during prolonged grid outages.



The proposal shall contain a detailed explanation of the complete project and delineation of all work tasks to be performed by the awarded ESCO. The proposer must have the technical capability and demonstrated experience to complete the project as set out in this RFP.

The selected ESCO will be expected to furnish any and all electrical, structural and mechanical designs and specifications that are requested and/or required by any regulatory bodies with jurisdiction over the project.

The selected ESCO will work with the OWNER and its representatives to determine the best approach for design. Final scope approval will be given prior to installation.

The ESCO shall provide approved training for OWNER'S personnel in the operation of the new equipment including the operation and maintenance of inverters, transfer switches, panel board, disconnects, and other features as requested by the OWNER. The ESCO shall provide the OWNER with written instructions and procedures for shutdown and start-up activities for all components of the PV system and for all other installed systems.

All equipment provided by the ESCO for this Project shall have a history of successful operating experience in similar installations and shall be in new, unused condition. This equipment shall be current technology with readily available non-proprietary replacement parts. All equipment used for this Project shall be approved by the OWNER prior to installation.

Contractor's duties shall include, but may not be limited to the following:

- Prepare construction documents where necessary.
- If necessary, hire design professionals to create plans and specifications.
- Ensure compliance with governing codes and standards including, but not limited, to Title 24 Standards and the California Building Code.
- Ensure compliance with all requirements for photovoltaic installations contained in the National Electric Code (NEC) and the California Electric Code (CEC), including, but not limited to, Articles 250, 310 and 690.
- Ensure OWNER participation and feedback in scoping process.
- Provide a schedule for completion of Project.
- Ensure delivery of all materials and equipment to Site(s).
- Construct/Install Project.
- Manage all Subcontractors.
- Meet regularly to update the OWNER and representatives as to Project progress.
- Obtain and maintain all licenses, permits, and authorizations as needed for the Project.
- Commission Project and provide training on equipment/systems and monitoring if requested.
- Provide project closeout which may include As-Builts, operations and maintenance information, warranties, certified payroll reports and completion documentation.

## PROPOSED PROJECT SCHEDULE

The following schedule is the proposed schedule and may change during the project.

ACTIVITY	DATE
Issue RFQ/RFP	<u>August 6, 2020</u>
Pre-Proposal Site Visit	<u>August 13, 2020</u>
Responses Due	<u>September 3, 2020</u>
Review and Selection of Finalist(s)	<u>September 8, 2020</u>
Interviews Scheduled and Conducted	<u>TBD</u>
ESCO Selected/Notice of Award issued	<u>September 11, 2020</u>
Contract Finalized/Notice to Proceed issued	<u>September 25, 2020</u>
Conduct Design Work	<u>October 2020</u>
Finalize Design	<u>November 1, 2020</u>
Build Project	<u>November-December 2020</u>
Construction Complete	<u>January 2021</u>
Project Close-out and System Commissioning	<u>February 2021</u>

## BIDDERS' CHECKLIST

This checklist has been prepared and furnished to aid bidders in including all necessary supporting information with their bid. Bidders' submittals should include, but are not limited to the following:

<u>Item</u>	<u>Checked</u>
1. Bid Form	
2. Subcontractor List Form	
3. Bid Bond	
4. Be sure to include Energy Service Company (ESCO) Profile and Qualifications	

## BID FORM

BID Proposal of \_\_\_\_\_ (hereinafter called "Bidder"), organized and existing under the laws of the State of California, doing business as \_\_\_\_\_ \* (*\*Insert "a corporation," "a partnership," or "an individual" as applicable.*) to the City of Trinidad, a political subdivision of the State of California (hereinafter called "OWNER"). In compliance with your Advertisement for Bids, Bidder hereby proposes to perform all work for the **Trinidad Town Hall Solar Project** in strict accordance with the Contract Documents, within the time set forth therein, and at the prices stated below.

In the event of a difference between a price quoted in words and a price quoted in figures for the same quotation, the words shall be the amount bid.

By submission of this bid, each bidder certifies, and in the case of a joint bid, each party certifies as to his own organization, that his bid has been arrived at independently, without consultation, communication, or agreement as to any matter relating to this bid with any other bidder or with any competitor.

Bidder hereby agrees to commence work under this Contract on or before a date to be specified in the Notice to Proceed and to fully complete the project within one hundred eighty (180) consecutive calendar days thereafter.

Receipt of the following Addendum is acknowledged:

Addenda No. Date

_____	_____
_____	_____
_____	_____

## BID SCHEDULE

Respondent should use the following format to present PV project metrics for Base Bid:

<b><i>PV System Size (kW DC)</i></b>	<b><i>Year 1 Production (kWh)</i></b>	<b><i>Effective Useful Life (years)</i></b>	<b><i>Year 1 Energy Cost Savings (\$)</i></b>	<b><i>Inverter Size (kW)</i></b>	<b><i>Measure Cost (\$)</i></b>

Respondent should use the following format to present BESS project metrics for Additive Alternate A:

<i>Usabl e Ener gy (kWh)</i>	<i>Max Powe r Ratin g (kW)</i>	<i>Nomin al Voltage (V)</i>	<i>Allowabl e Depth of Discharg e (%)</i>	<i>Round Trip Efficienc y (%)</i>	<i>Warrant ed # of Discharg e Cycles</i>	<i>Effectiv e Useful Life (years)</i>	<i>Estimate d SGIP Incentive (\$)</i>	<i>Syste m Cost (\$)</i>

Respondent should use the following format to present PV project metrics for Additive Alternate B:

<i>Inverter Size (kW)</i>	<i>Incremental Cost Increase (\$)</i>

Bidder agrees to perform all the work described in the Base Bid in the Contract Documents for the following unit prices or lump sum: \$ \_\_\_\_\_

Bidder agrees to perform all the work described in the Additive Alternate A in the Contract Documents for the following unit prices or lump sum: \$ \_\_\_\_\_

Bidder agrees to perform all the work described in the Additive Alternate B in the Contract Documents for the following unit prices or lump sum: \$ \_\_\_\_\_

NOTE: Bids shall include sales tax and all other applicable taxes and fees.

In compliance with your Bid Solicitation, BIDDER hereby proposes to perform all work for the Trinidad Town Hall Solar Project in accordance with the Contract Documents, within the time set forth therein, and at the prices stated below.

By submission of this bid, each bidder certifies that his bid has been arrived at independently, without consultation, communication, or agreement as to any matter relating to this bid with any other bidder or with any competitor.

BIDDER hereby agrees to commence work under this Contract on or before a date to be specified in the Notice to Proceed and to fully complete the project or pay the liquidated damages as provided in Article 5.8 of the Construction Services Agreement.

The representations made herein are made under penalty of perjury.

Submitted By (Company) \_\_\_\_\_

Date \_\_\_\_\_

Name (Written) \_\_\_\_\_

Signature \_\_\_\_\_

Signature Title \_\_\_\_\_

License Number \_\_\_\_\_

License Expiration Date \_\_\_\_\_

(SEAL - If Bid is by Corporation)

## SUBCONTRACTOR LIST FORM

Each bidder shall list below the name and location of place of business for each Subcontractor who will perform a portion of the Contract work in an amount in excess of 1/2 of 1 percent of the total contract price. The nature of the work to be subcontracted shall also be described. Per SB96 Public Contract Code 4104, please list the DIR registration number for each Subcontractor.

DESCRIPTION OF WORK	NAME	LOCATION	LICENSE # & DIR #
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## BID BOND

KNOW BY ALL MEN THESE PRESENTS, that we, the undersigned,

\_\_\_\_\_ as  
Principal, and \_\_\_\_\_, as  
Surety, are hereby held and firmly bound unto OWNER in the penal sum of  
\_\_\_\_\_ for the payment of which, well and truly to be made, we  
hereby jointly and severally bind ourselves, successors and assigns.

Signed this \_\_\_\_\_ day of \_\_\_\_\_, 2019.

The Condition of the above obligation is such that whereas the Principal has submitted to  
\_\_\_\_\_ a certain bid, attached hereto and hereby made a part hereof to enter  
into a contract in writing, for the:

Trinidad Town Hall Solar Project.

NOW, THEREFORE,

- (a) If said bid shall be rejected, or
- (b) If said bid shall be accepted be accepted and the Principal shall execute and deliver a contract in the Form of Contract attached hereto (properly completed in accordance with said Bid), and shall furnish a bond for his faithful performance of said contract, and for the payment of all persons performing labor or furnishing materials in connection therewith, and shall in all other respects perform the agreement created by the acceptance of said bid,

then this obligation shall be void, otherwise the same shall remain in force and effect; it being expressly understood and agreed that the liability of the Surety for any and all claims hereunder shall, in no event, exceed the penal amount of this obligation as herein stated.

The Surety, for value received, hereby stipulates, and agrees that the obligations of said Surety and its bond shall be in no way impaired or affected by any extension of the time within which the CITY may accept such bid; and said Surety does hereby waive notice of any such extension.



In witness whereof the above-bound parties have executed this instrument under their several seals this \_\_\_\_\_ day of \_\_\_\_\_, 2020, the name and corporate seal of each corporate Party being hereunder affixed, and these presents duly signed by its undersigned representative, pursuant to the authority of its governing body

(Corporate Seal)

\_\_\_\_\_

Principal/Contractor

By \_\_\_\_\_

Title: \_\_\_\_\_

(Corporate Seal)

\_\_\_\_\_

Surety

Attach Attorney-In-Fact Certificate

By \_\_\_\_\_

\_\_\_\_\_

Title

*To be signed by Principal and Surety and Acknowledgment and Notary Seal to be attached.*

# CONSTRUCTION SERVICES AGREEMENT Providing Payment of Prevailing Wages

(City of Trinidad / Contractor)

## 1. IDENTIFICATION

This CONSTRUCTION SERVICES AGREEMENT ("Agreement") is entered into by and between the City of Trinidad, a California municipal corporation ("City"), and \_\_\_\_\_, a \_\_\_\_\_ ("Contractor").

## 2. RECITALS

2.1. City has determined that it requires the following construction services from a contractor: **Design Build Services for a 14 kW (DC) Grid Tied Solar PV array and an emergency backup Battery Energy Storage System to be installed at Trinidad Town Hall.**

2.2. This is a public works project, so all contractors/subcontractors working on the project must be registered with the Department of Industrial Relations, pay the prevailing wage, and submit certified payroll records (CPRs) to the Labor Commissioner using DIR's electronic certified payroll reporting system.

2.3. Contractor represents that it is fully qualified to perform such professional services by virtue of its experience and the training, education and expertise of its principals and employees. Contractor further represents that it is willing to accept responsibility for performing such services in accordance with the terms and conditions set forth in this Agreement.

NOW, THEREFORE, for and in consideration of the mutual covenants and conditions herein contained, City and Contractor agree as follows:

## 3. DEFINITIONS

3.1. "Scope of Services": Such professional services as are set forth in Contractor's **[enter Contractor's proposal date]** proposal to City attached hereto as Exhibit A and incorporated herein by this reference.

3.2. "City Standards and Specifications": The City's set of technical specifications, which are incorporated herein by reference. These specifications shall provide the technical standards for work as applicable, in the opinion of the Director of Public Works. Copies are available at City Hall.

3.3. "Authorized Representative": The Authorized Representative for this project is Eli Naffah, City Manager. All services under this Agreement shall be performed at the request of the Authorized Representative.

3.4. "Project Manager":

Mike Avcollie, Project Manager  
Redwood Coast Energy Authority  
633 3rd Street, Eureka, CA 95501

Phone: (707) 382-0187

Fax: (707) 269-1777

Email: [mavcollie@redwoodenergy.org](mailto:mavcollie@redwoodenergy.org)

The Project Manager shall be the principal point of contact at the City for this project and shall supervise all repair or construction work authorized by the City Council. The Project Manager will establish the timetable for completion of services and any interim milestones. City reserves the right to change this designation upon written notice to Contractor.

3.5. "Maximum Amount": The highest total compensation and costs payable to Contractor by City under this Agreement. The Maximum Amount under this Agreement is Forty-nine Thousand, Two Hundred Eighty Dollars (\$49,280.00).

3.6. "Commencement Date": September 25<sup>th</sup>, 2020.

3.7. "Termination Date": February 25<sup>th</sup>, 2021

#### 4. TERM

The term of this Agreement shall commence at 12:00 a.m. on the Commencement Date and shall expire at 11:59 p.m. on the Termination Date unless extended by written agreement of the parties or terminated earlier under Section 18 ("Termination") below. Contractor may request extensions of time to perform the services required hereunder. Such extensions shall be effective if authorized in advance by City in writing and incorporated in written amendments to this agreement.

#### 5. CONTRACTOR'S DUTIES

5.1. **Services.** Contractor shall perform the services identified in the Scope of Services. City shall have the right to request, in writing, changes in the Scope of

Services. Any such changes mutually agreed upon by the parties, and any corresponding increase or decrease in compensation, shall be incorporated by written amendment to this Agreement.

- 5.2. **Coordination with City.** In performing services under this Agreement, Contractor shall coordinate all contact with City through its Project Manager.
- 5.3. **Budgetary Notification.** Contractor shall notify the Project Manager, in writing, when fees and expenses incurred under this Agreement have reached eighty percent (80%) of the Maximum Amount. Contractor shall concurrently inform the Project Manager, in writing, of Contractor's estimate of total expenditures required to complete its current assignments before proceeding, when the remaining work on such assignments would exceed the Maximum Amount.
- 5.4. **Business License.** Contractor shall obtain and maintain in force a City business license for the duration of this Agreement.

**Professional Standards.** Contractor shall perform all work to the highest standards of Contractor's profession and in a manner reasonably satisfactory to City. Contractor shall keep itself fully informed of and in compliance with all local, state, and federal laws, rules, and regulations in any manner affecting the performance of this Agreement, including all Cal/OSHA requirements, the conflict of interest provisions of Government Code § 1090 and the Political Reform Act (Government Code § 81000 et seq.).

- 5.5. **Appropriate Personnel.** Contractor has, or will secure at its own expense, all personnel required to perform the services identified in the Scope of Services. All such services shall be performed by Contractor or under its supervision or by subcontractor(s) of Contractor, and all personnel engaged in the work shall be qualified to perform such services. [Name of CONTRACTOR Project Manager] shall be Contractor's project administrator and shall have direct responsibility for management of Contractor's performance under this Agreement. No change shall be made in Contractor's project administrator without City's prior written consent.
- 5.6. **Project Site.** Contractor shall perform the Services in such a manner as to cause a minimum of interference with City's operations and the operations of other contractors at each Project site and to protect all persons and property thereon from damage or injury. Upon completion of the Services at a Project site, Contractor shall leave such Project site clean and free of all tools, equipment, waste materials and rubbish. Each Project site may include all buildings, offices, and other locations where Services are to be performed, including any access

roads. Contractor shall be solely responsible for the safe transportation and packing in proper containers and storage of any equipment required for performing the Services, whether owned, leased or rented. City will not be responsible for any such equipment which is lost, stolen or damaged or for any additional rental charges for such equipment. Equipment left or stored at a Project site, with or without permission, is at Contractor's sole risk. City may assume that anything left on the work site an unreasonable length of time after said work is completed has been abandoned. Any transportation furnished by City shall be solely as an accommodation and City shall have no liability, therefore. Contractor acknowledges and agrees that it shall assume the risk and is solely responsible for its use of any City owned equipment and property provided by City for the performance of Services. City shall have no liability to Contractor, therefore. In addition, Contractor further acknowledges and agrees that it shall assume the risk and is solely responsible for its owned, non-owned and hired automobiles, trucks or other motorized vehicles as well as any equipment, tolls, or other property which is utilized by Contractor on each Project site.

- 5.7. **Prevailing Wages.** This Agreement is subject to the prevailing wage law as more fully set forth in Section 8 (Labor Code), for all work performed under this Agreement for which the payment of prevailing wages is required under the California Labor Code. In particular, Contractor acknowledges that prevailing wage determinations are available for work performed under this Agreement.
- 5.8. **Unauthorized Delay.** In accordance with Government Code 53069.85, and all other applicable law, the Contractor agrees to forfeit and pay City the amount of Two Hundred Dollars (\$200.00) per day for each and every day of unauthorized delay beyond the Termination Date, which shall be deducted from any monies due to Contractor. This payment shall be considered liquidated damages. Contractor agrees that such liquidated damages are reasonable under the circumstances existing at the time of execution of the contract, that such liquidated damages are to compensate City for losses that are difficult to measure, and that such damages are not a penalty.
- 5.9. **Unforeseeable Delay.** Contractor shall not be deemed in breach of this Agreement and no forfeiture due to delay shall be made because of any delays in the completion of the Scope of Services due to unforeseeable causes beyond the control and without the fault or negligence of Contractor provided Contractor requests from the Project Manager an extension of time in writing. Unforeseeable causes of delay beyond the control of Contractor shall include acts of God, acts of a public enemy, acts of the government, acts of City, or acts of another contractor in the performance of a contract with City, fires, floods,

epidemics, quarantine restrictions, strikes, freight embargoes, and weather, or delays of subcontractors due to such causes, or delays caused by failure of the owner of a utility to provide for removal or relocation of existing utility facilities. Delays caused by actions or negligence of Contractor or its agents, servants, employees, officers, subcontractors, directors, or of any party contracting to perform part or all of the Scope of Services or to supply any equipment or materials shall not be unforeseeable delays. Unforeseeable delays (those beyond Contractor's control) shall not entitle Contractor to any additional compensation beyond the Maximum Amount. The sole recourse of Contractor shall be to seek an extension of time from the Project Manager.

- 5.10. Defective Work.** All work which is defective in its construction or deficient in any of the requirements set by City Reference Specifications/Contract Documents shall be remedied or replaced by Contractor in an acceptable manner at its own expense. Defective work shall not entitle Contractor to any additional compensation beyond the Maximum Amount.
- 5.11. Permits and Approvals.** Contractor shall obtain, at its sole cost and expense, all permits and regulatory approvals necessary for Contractor's performance of this Agreement. This includes, but shall not be limited to, professional licenses, encroachment permits and building and safety permits and inspections.
- 5.12. Notification of Organizational Changes.** Contractor shall notify the Project Manager, in writing, of any change in name, ownership or control of Contractor's firm or of any subcontractor. Change of ownership or control of Contractor's firm may require an amendment to this Agreement.
- 5.13. Records.** Contractor shall maintain any and all ledgers, books of account, invoices, vouchers, canceled checks, and other records or documents evidencing or relating to charges for services or expenditures and disbursements charged to City under this Agreement for a minimum of three (3) years, or for any longer period required by law, from the date of final payment to Contractor under this Agreement. All such documents shall be made available for inspection, audit, and/or copying at any time during regular business hours, upon oral or written request of City. In addition, pursuant to Government Code Section 8546.7, if the amount of public funds expended under this Agreement exceeds ten thousand dollars, all such documents and this Agreement shall be subject to the examination and audit of the State Auditor, at the request of City or as part of any audit of City, for a period of three (3) years after final payment under this Agreement.

## 6. HEALTH AND SAFETY PROGRAMS

- 6.1. As appropriate for the scope of work to be performed, the Contractor shall establish, maintain, and enforce safe work practices, and implement an accident/incident prevention program intended to ensure safe and healthful operations under their direction. The program shall include all requisite components of such a program under Federal, State and local regulations and shall comply with all City site programs.
- 6.2. Contractor will be responsible for acquiring job hazard assessments as necessary to safely perform all duties of each Project and provide a copy to City upon request.
- 6.3. Contractor will be responsible for providing all employee health and safety training and personal protective equipment in accordance with potential hazards that may be encountered in performance of Project and provide copies of the certified training records upon request by City. Contractor shall be responsible for proper maintenance and/or disposal of their personal protective equipment and material handling equipment.
- 6.4. Contractor is responsible for ensuring that its lower-tier subcontractors are aware of and will comply with the requirements set forth herein.
- 6.5. City, or its representatives, shall periodically monitor the safety performance of the Contractor working on the Project. All Contractors and their subcontractors shall be required to comply with the safety and health obligations as established in the Agreement. Non-compliance with safety, health, or fire requirements may result in cessation of work activities, until items in non-compliance are corrected. It is also expressly acknowledged, understood and agreed that no payment shall be due from City to Contractor under this Agreement at any time when, or for any Services performed when, Contractor is not in full compliance with this Section 10.
- 6.6. Contractor shall immediately report any injuries to the City site safety representative. Additionally, the Contractor shall investigate and submit to the City site safety representative copies of all written accident reports, and coordinate with City if further investigation is requested.
- 6.7. Contractor shall take all reasonable steps and precautions to protect the health of their employees and other site personnel with regard to their Scope of Services. Contractor shall conduct occupational health monitoring and/or sampling to determine levels of exposure of its employees to hazardous or toxic

substances or environmental conditions. Copies of any sampling results will be forwarded to the City site safety representative upon request.

- 6.8. Contractor shall develop a plan to properly handle and dispose of all hazardous wastes they generate within the Scope of Services.
- 6.9. Contractor shall advise its employees and subcontractors that any employee, who jeopardizes his/her safety and health, or the safety and health of others, may be subject to actions including removal from Project.
- 6.10. Contractor shall, at the sole option of the City develop and provide to the City a Hazardous Material Spill Response Plan that includes provisions for spill containment and clean-up, emergency contact information including regulatory agencies and spill sampling and analysis procedures. Hazardous Materials to include diesel fuel used for trucks owned or leased by the Contractor.

## 7. SUBCONTRACTING AND ASSIGNMENT

- 7.1. **General Prohibition of Assignment.** This Agreement covers construction services of a specific and unique nature. Except as otherwise provided herein, Contractor shall not assign or transfer its interest in this Agreement or subcontract any services to be performed without amending this Agreement.
- 7.2. **Contractor Responsible.** Contractor shall be responsible to City for all services to be performed under this Agreement.
- 7.3. **Subcontracting.** Contractor shall not subcontract any portion of the performance contemplated and provided for herein unless (1) such subcontracting is specifically described in the proposal attached hereto or (2) the City provides prior written approval. In any event, Contractor shall supervise all work subcontracted by Contractor in performing the Services and shall be responsible for all work performed by a subcontractor as if Contractor itself had performed such work. The subcontracting of any work shall not relieve Contractor from any of its obligations under this Agreement with respect to the Services. Contractor is obligated to ensure that any and all subcontractors performing any Services shall be fully insured in all respects and to the same extent as set forth under Section 13, to City's satisfaction.
- 7.4. **Compensation for Subcontractors.** Contractor shall be liable and accountable for any and all payments, compensation, and federal and state taxes to all subcontractors performing services under this Agreement. City shall not be liable for any payment, compensation, or federal and state taxes for any subcontractors.



- 7.5. **Warranty.** In addition to any and all warranties provided or implied by law or public policy, Contractor warrants that all Services (including but not limited to all equipment and materials supplied in connection therewith) shall be free from defects in design and workmanship, and that Contractor shall perform all Services in accordance with all applicable engineering, construction and other codes and standards, and with the degree of high professional skill normally exercised by or expected from recognized professional firms engaged in the practice of supplying services of a nature similar to the Services in question. Contractor further warrants that, in addition to furnishing all tools, equipment and supplies customarily required for performance of work, Contractor shall furnish personnel with the training, experience and physical ability, as well as adequate supervision, required to perform the Services in accordance with the preceding standards and the other requirements of this Agreement. In addition to all other rights and remedies which City may have, City shall have the right to require, and Contractor shall be obligated at its own expense to perform, all further services which may be required to correct any deficiencies which result from Contractor's failure to perform any Services in accordance with the standards required by this Agreement. Moreover, if, during the term of this Agreement (or during the one (1) year period following the term hereof), any equipment, goods or other materials or Services used or provided by Contractor under this Agreement fail due to defects in material and/or workmanship or other breach of this Agreement, Contractor shall, upon any reasonable notice from City, replace or repair the same to City's satisfaction. Unless otherwise expressly permitted, all materials and supplies to be used by Contractor in the performance of the Services shall be new and best of kind.

Contractor hereby assigns to City all additional warranties, extended warranties, or benefits like warranties, such as insurance, provided by or reasonably obtainable from suppliers of equipment and material used in the Services.

## 8. COMPENSATION

- 8.1. **General.** City agrees to compensate Contractor for the services provided under this Agreement on a periodic basis, based on invoices for design, labor and/or materials and Contractor agrees to accept payment, not to exceed the Maximum Amount in full satisfaction for such services. Compensation shall not exceed the Maximum Amount. Contractor shall not be reimbursed for any expenses unless provided for in this Agreement or authorized in writing by City in advance.
- 8.2. **Retention.** City may retain up to 5% of each payment until project completion. Contractor may at its own expense substitute securities equivalent to the amount withheld as retention (or the retained percentage) in accordance with Public

Contract Code 22300. At the request and expense of Contractor, securities equivalent to the amount withheld shall be deposited with City, or with a state or federally chartered bank in this state as the escrow agent, who shall then pay those monies to City. Upon satisfactory completion of this Agreement, the securities shall be returned to Contractor.

- 8.3. **Invoices.** Contractor shall submit to City an invoice, on a monthly basis or as otherwise agreed to by the Project Manager, for services performed pursuant to this Agreement. Each invoice shall identify the Maximum Amount, the services rendered during the billing period, the amount due for the invoice, and the total amount previously invoiced. Contractor shall include a copy of each subcontractor invoice, if any, for which reimbursement is sought in the invoice.
- 8.4. **Taxes.** City shall not withhold applicable taxes or other payroll deductions from payments made to Contractor except as otherwise required by law. Contractor shall be solely responsible for calculating, withholding, and paying all taxes.
- 8.5. **Compensation Disputes.** The parties agree to meet and confer at mutually agreeable times to resolve any disputed amounts contained in an invoice submitted by Contractor.
- 8.6. **Additional Work.** Contractor shall not be reimbursed for any expenses incurred for work performed outside the Scope of Services unless prior written approval is given by the City on a time-and-materials basis pursuant to a written change order. Contractor shall not undertake any such work without prior written approval of the City. A written change order may be issued without an amendment to this Agreement, so long as such written change order does not cause the Maximum Amount to be exceeded. Contractor shall only be compensated for such additional work at the rates and costs for labor and materials included in the bid or proposal.
- 8.7. **City-Initiated Changes** - City may propose in writing changes to Contractor's work within the Scope of Services described. If Contractor is of the opinion that any proposed change causes an increase or decrease in the cost, or a change in the schedule for performance, of the services, Contractor shall notify City in writing of that fact within five (5) days after receipt of written proposal for changes.
- 8.8. **Contractor-Initiated Changes** – Contractor may propose in writing changes to the Scope of Services, upon identifying a condition which may change the Scope of Services as agreed at the time of execution of this Agreement. Contractor must notify the City's Project Manager of any changed conditions upon discovery and before they are disturbed. The Public Works Director shall investigate, and

if the Public Works Director determines that the conditions will materially affect costs, will issue a Change Order adjusting the compensation for such portion of the Scope of Services. If the Public Works Director determines that conditions are changed conditions and they will materially affect performance time, the Contractor, upon submitting a written request, will be granted an extension of time. If the Public Works Director determines that the conditions do not justify an adjustment in compensation or time, the Contractor will be notified in writing. This notice will also advise the Contractor of its obligation to notify the Project Manager in writing if the Contractor disagrees.

When and if City and Contractor reach agreement on any such proposed change and its effect on the cost and time for performance, they shall confirm such agreement in writing as an amendment to this Agreement. Contractor may not cease work or delay progress on the original project pending negotiations over changes and must continue to diligently complete the project.

Should the Contractor disagree with the decision, it may submit a written notice of potential claim to the Project Manager before commencing the disputed work. In the event of such a dispute, the Contractor shall not be excused from any scheduled completion date provided by the Contract and shall proceed with all work to be performed under the Contract. However, the Contractor shall retain any and all rights provided by either Contract or law which pertain to the resolution of disputes and protests between the contracting parties.

The Contractor's failure to give notice of changed conditions promptly upon their discovery and before they are disturbed shall constitute a waiver of all claims in connection therewith.

## **9. LABOR CODE**

- 9.1. Prevailing Wage Law.** This is a public works project, so this Agreement is subject to the requirements of the prevailing wage laws, including, but not limited to, Labor Code Section 1720 et seq., and Labor Code Section 1770 et seq., as well as Code of Regulations, Title 8, Section 16000 et seq., which require payment of prevailing wage rates and the performance of other requirements on certain "public works" and "maintenance" projects. Contractor shall defend, indemnify, and hold harmless City, and its officers, employees, agents, and volunteers free and harmless from any claim or liability arising out of failure or alleged failure of Contractor to comply with such prevailing wage laws.
- 9.2. Payment of Prevailing Wages.** Contractor shall pay the prevailing wage rates for all work performed under this Agreement. When any craft or classification is omitted from the general prevailing wage determinations, the Contractor shall

pay the wage rate of the craft or classification most closely related to the omitted classification.

- 9.3. **Forfeiture.** Contractor shall forfeit as a penalty to City Two Hundred Dollars (\$200.00), or any greater penalty provided in the Labor Code, for each calendar day, or portion thereof, for each worker paid less than the prevailing wage rates for any work done under this Agreement employed in the performance of the Scope of Services by Contractor or by any subcontractor of Contractor in violation of the provisions of the Labor Code. In addition, the difference between such prevailing wage rates and the amount paid to each worker for each calendar day, or portion thereof, for which each worker was paid less than the prevailing wage rate shall be paid to each worker by Contractor.
- 9.4. **Apprentices.** Contractor shall comply with the provisions of Labor Code 1777.5 concerning the employment of apprentices on public works projects. Contractor shall be responsible for ensuring compliance by its subcontractors with Labor Code 1777.5.
- 9.5. **Payroll Records.** Pursuant to Labor Code 1776, Contractor and any subcontractor(s) shall keep accurate payroll records, showing the name, address, social security number, work classification, straight time and overtime hours worked each day and week, and the actual per diem wages paid to each journeyman, apprentice, worker, or other employee employed by Contractor in connection with this Agreement. Each payroll record shall contain or be verified by a written declaration that it is made under penalty of perjury, stating both of the following: (1) The information contained in the payroll record is true and correct; and (2) The employer has complied with the requirements of Labor Code 1811 and Labor Code 1815 for any work performed by his or her employees on the public works project. The payroll records shall be certified and shall be available for inspection at all reasonable hours as required by Labor Code 1776.
- 9.6. **8-Hour Workday.** This Agreement is subject to 8-hour workday and wage and hour penalty laws, including, but not limited to, Labor Code 1810 and Labor Code 1813. Contractor and any subcontractor(s) of Contractor shall strictly adhere to the provisions of the Labor Code regarding 8-hour workday and 40-hour work week requirements, and overtime, Saturday, Sunday, and holiday work. Pursuant to the Labor Code, eight hours' labor shall constitute a legal day's work. Work performed by Contractor's employees in excess of eight hours per day, and 40 hours during any one week, must include compensation for all hours worked in excess of eight hours per day, or 40 hours during any one week, at not less than one and one-half times the basic rate of pay. Contractor shall forfeit as a penalty to City \$25.00, or any greater penalty set forth in the Labor Code,

for each worker employed in the execution of the work by Contractor or by any subcontractor(s) of Contractor, for each calendar day during which such worker is required or permitted to the work more than eight hours in one calendar day or more than 40 hours in any one calendar week in violation of the Labor Code.

- 9.7. **Registration with DIR.** Contractor and any subcontractor(s) of Contractor shall comply with the provisions of Labor Code 1771 and Labor Code 1725.5 requiring registration with the Department of Industrial Relations (DIR).
- 9.8. **Labor Compliance Monitoring.** The project is subject to compliance monitoring and enforcement by the Department of Industrial Relations. The contractor shall post job site notices, as prescribed by regulation. Each contractor and subcontractor shall furnish the records specified in Section 1776 directly to the Labor Commissioner, in the following manner: At least monthly in a format prescribed by the Labor Commissioner.

## **10. PUBLIC CONTRACT CODE.**

- 10.1. **Prompt Payment.** This Agreement is subject to the provisions of Article 1.7 (commencing at § 20104.50) of Division 2, Part 3 of the Public Contract Code regarding prompt payment of contractors by local governments. Article 1.7 mandates certain procedures for the payment of undisputed and properly submitted payment requests within 30 days after receipt, for the review of payment requests, for notice to the contractor of improper payment requests, and provides for the payment of interest on progress payment requests, which are not timely made in accordance with this Article. This Agreement hereby incorporates the provisions of Article 1.7 as though fully set forth herein.
- 10.2. **Public Works Claims Less Than \$375,000.** To the extent applicable, this Agreement is further subject to the provisions of Article 1.5 (commencing at Section 20104) of Division 2, Part 3 of the Public Contract Code regarding the resolution of public works claims of less than \$375,000. Article 1.5 mandates certain procedures for the filing of claims and supporting documentation by the contractor, for the response to such claims by the contracting public agency, for a mandatory meet and confer conference upon the request of the contractor, for mandatory nonbinding mediation in the event litigation is commenced, and for mandatory judicial arbitration if the parties fail to resolve the dispute through mediation. This Agreement hereby incorporates the provisions of Article 1.5 as though fully set forth herein.
- 10.3. **Ineligible Subcontractor(s).** This Agreement is further subject to the provisions of Public Contracts Code 6109 which prohibits Contractor from performing work

on this project with a subcontractor who is ineligible to perform work on the project pursuant to Labor Code 1777.1 or Labor Code 1777.7.

- 10.4. Assignment of Actions.** Contractor and any and all subcontractors shall offer and agree to assign to City all rights, title, and interest in and to all causes of action it/they may have under Section 4 of the Clayton Act (15 U.S.C. Sec. 4) or under the Cartwright Act (Chapter 2 [commencing with Section 16700] of Part 2 of Division 7 of the Business and Professions Code), arising from purchases of goods, services, or materials pursuant to this Agreement. This assignment shall be made and become effective at the time City tenders final payment to Contractor, without further acknowledgment by the parties.

## **11. OWNERSHIP OF WRITTEN PRODUCTS**

All reports, documents or other written material ("written products" herein) developed by Contractor in the performance of this Agreement shall be and remain the property of City without restriction or limitation upon its use or dissemination by City except as provided by law. Contractor may take and retain copies of such written products as desired, but no such written products shall be the subject of a copyright application by Contractor.

## **12. RELATIONSHIP OF PARTIES**

- 12.1. General.** Contractor is, and shall at all times remain as to City, a wholly independent contractor.
- 12.2. No Agent Authority.** Contractor shall have no power to incur any debt, obligation, or liability on behalf of City or otherwise to act on behalf of City as an agent. Neither City nor any of its agents shall have control over the conduct of Contractor or any of Contractor's employees, except as set forth in this Agreement. Contractor shall not represent that it is, or that any of its agents or employees are, in any manner employees of City.
- 12.3. Independent Contractor Status.** Under no circumstances shall Contractor or its employees look to the City as an employer. Contractor shall not be entitled to any benefits. City makes no representation as to the effect of this independent contractor relationship on Contractor's previously earned California Public Employees Retirement System ("CalPERS") retirement benefits, if any, and Contractor specifically assumes the responsibility for making such a determination. Contractor shall be responsible for all reports and obligations including, but not limited to: social security taxes, income tax withholding, unemployment insurance, disability insurance, and workers' compensation, and other applicable federal and state taxes.

- 12.4. Indemnification of CalPERS Determination.** In the event that Contractor or any employee, agent, or subcontractor of Contractor providing services under this Agreement claims or is determined by a court of competent jurisdiction or CalPERS to be eligible for enrollment in CalPERS as an employee of the City, Contractor shall indemnify, defend, and hold harmless City for the payment of any employee and/or employer contributions for CalPERS benefits on behalf of Contractor or its employees, agents, or subcontractors, as well as for the payment of any penalties and interest on such contributions, which would otherwise be the responsibility of City.

### **13. INDEMNIFICATION**

- 13.1. Definitions.** For purposes of this Section 13, "Contractor" shall include Contractor, its officers, employees, servants, agents, or subcontractors, or anyone directly or indirectly employed by either Contractor or its subcontractors, in the performance of this Agreement. "City" shall include City, its officers, agents, employees and volunteers.
- 13.2. Contractor to Indemnify City.** To the fullest extent permitted by law, Contractor shall indemnify, hold harmless, and defend City from and against any and all claims, losses, costs or expenses for any personal injury or property damage arising out of or in connection with Contractor's alleged negligence, recklessness or willful misconduct or other wrongful acts, errors or omissions of Contractor or failure to comply with any provision in this Agreement.
- 13.3. Scope of Indemnity.** Personal injury shall include injury or damage due to death or injury to any person, whether physical, emotional, consequential or otherwise, Property damage shall include injury to any personal or real property. Contractor shall not be required to indemnify City for such loss or damage as is caused by the sole active negligence or willful misconduct of the City.
- 13.4. Attorney's Fees.** Such costs and expenses shall include reasonable attorneys' fees for counsel of City's choice, expert fees and all other costs and fees of litigation. Contractor shall not be entitled to any refund of attorneys' fees, defense costs or expenses in the event that it is adjudicated to have been non-negligent.
- 13.5. Defense Deposit.** The City may request a deposit for defense costs from Contractor with respect to a claim. If the City requests a defense deposit, Contractor shall provide it within 15 days of the request.
- 13.6. Waiver of Statutory Immunity.** The obligations of Contractor under this Section 13 are not limited by the provisions of any workers' compensation act or similar

act. Contractor expressly waives its statutory immunity under such statutes or laws as to City.

**13.7. Indemnification by Subcontractors.** Contractor agrees to obtain executed indemnity agreements with provisions identical to those set forth here in this Section 13 from each and every subcontractor or any other person or entity involved in the performance of this Agreement on Contractor's behalf.

**13.8. Insurance Not a Substitute.** City does not waive any indemnity rights by accepting any insurance policy or certificate required pursuant to this Agreement. Contractor's indemnification obligations apply regardless of whether or not any insurance policies are determined to be applicable to the claim, demand, damage, liability, loss, cost or expense.

## **14. INSURANCE**

**14.1. Insurance Required.** Contractor shall maintain insurance as described in this section and shall require all of its subcontractors, Contractors, and other agents to do the same. Approval of the insurance by the City shall not relieve or decrease any liability of Contractor. Any requirement for insurance to be maintained after completion of the work shall survive this Agreement.

**14.2. Documentation of Insurance.** City will not execute this agreement until it has received a complete set of all required documentation of insurance coverage. However, failure to obtain the required documents prior to the work beginning shall not waive the Contractor's obligation to provide them. Contractor shall file with City:

- Certificate of Insurance, indicating companies acceptable to City, with a Best's Rating of no less than A:VII showing. The Certificate of Insurance must include the following reference: [Trinidad Town Hall Solar Project]
- Documentation of Best's rating acceptable to the City.
- Original endorsements effecting coverage for all policies required by this Agreement.
- Complete, certified copies of all required insurance policies, including endorsements affecting the coverage.

**14.3. Coverage Amounts.** Insurance coverage shall be at least in the following minimum amounts:

- Professional Liability Insurance: \$1,000,000 per occurrence,  
(if applicable) \$2,000,000 aggregate



- General Liability:
  - General Aggregate: \$2,000,000
  - Products Comp/Op Aggregate \$2,000,000
  - Personal & Advertising Injury \$1,000,000
  - Each Occurrence \$1,000,000
  - Fire Damage (any one fire) \$ 50,000
  - Medical Expense (any 1 person) \$ 5,000
- Workers' Compensation:
  - Workers' Compensation Statutory Limits
  - EL Each Accident \$1,000,000
  - EL Disease - Policy Limit \$1,000,000
  - EL Disease - Each Employee \$1,000,000
- Automobile Liability
  - Any vehicle, combined single limit \$1,000,000

Any available insurance proceeds broader than or in excess of the specified minimum insurance coverage requirements or limits shall be available to the additional insured. Furthermore, the requirements for coverage and limits shall be the greater of (1) the minimum coverage and limits specified in this Agreement, or (2) the broader coverage and maximum limits of coverage of any insurance policy or proceeds available to the named insured

- 14.4. General Liability Insurance.** Commercial General Liability Insurance shall be no less broad than ISO form CG 00 01. Coverage must be on a standard Occurrence form. Claims-Made, modified, limited or restricted Occurrence forms are not acceptable.
- 14.5. Worker's Compensation Insurance.** Contractor is aware of the provisions of Section 3700 of the Labor Code, which requires every employer to carry Workers' Compensation (or to undertake equivalent self-insurance), and Contractor will comply with such provisions before commencing the performance of the work of this Agreement. If such insurance is underwritten by any agency other than the State Compensation Fund, such agency shall be a company authorized to do business in the State of California.
- 14.6. Automobile Liability Insurance.** Covered vehicles shall include owned if any, non-owned, and hired automobiles and, trucks.

- 14.7. Additional Insured Endorsements.** The City, its City Council, Commissions, officers, and employees of Trinidad must be endorsed as an additional insured for each policy required herein — other than Auto, Workers Compensation and Professional Errors and Omissions — for liability arising out of ongoing and completed operations by or on behalf of the Contractor. The City must be named as an additionally insured for Auto Insurance policies for ongoing operations. Contractor's insurance policies shall be primary as respects to any claims related to or as the result of the Contractor's work. Any insurance, pooled coverage or self-insurance maintained by the City, its elected or appointed officials, directors, officers, agents, employees, volunteers, or consultants shall be non-contributory. All endorsements shall be signed by a person authorized by the insurer to bind coverage on its behalf. General liability coverage can be provided using an endorsement to the Contractor's insurance at least as broad as ISO Form CG 20 10 11 85 or both CG 20 10 and CG 20 37.
- 14.8. Failure to Maintain Coverage.** In the event any policy is canceled prior to the completion of the project and the Contractor does not furnish a new certificate of insurance prior to cancellation, City has the right, but not the duty, to obtain the required insurance and deduct the premium(s) from any amounts due the Contractor under this Agreement. Failure of the Contractor to maintain the insurance required by this Agreement, or to comply with any of the requirements of this section, shall constitute a material breach of this Agreement.
- 14.9. Notices.** Contractor shall provide immediate written notice if (1) any of the required insurance policies are terminated; (2) the limits of any of the required policies are reduced; (3) or the deductible or self-insured retention is increased. Contractor shall provide no less than 30 days' notice of any cancellation or material change to policies required by this Agreement. Contractor shall provide proof that cancelled or expired policies of insurance have been renewed or replaced with other policies providing at least the same coverage. Such proof will be furnished at least two weeks prior to the expiration of the coverages. The name and address for Additional Insured Endorsements, Certificates of Insurance and Notices of Cancellation is: City of Trinidad, PO Box 390, Trinidad, CA 95570.
- 14.10. Contractor's Insurance Primary.** The insurance provided by Contractor, including all endorsements, shall be primary to any coverage available to City. Any insurance or self-insurance maintained by City and/or its officers, employees, agents or volunteers, shall be in excess of Contractor's insurance and shall not contribute with it.

**14.11. Waiver of Subrogation.** Contractor hereby waives all rights of subrogation against the City. Contractor shall additionally waive such rights either by endorsement to each policy or provide proof of such waiver in the policy itself.

**14.12. Report of Claims to City.** Contractor shall report to the City, in addition to the Contractor's insurer, any and all insurance claims submitted to Contractor's insurer in connection with the services under this Agreement.

**14.13. Premium Payments and Deductibles.** Contractor must disclose all deductibles and self-insured retention amounts to the City. The City may require the Contractor to provide proof of ability to pay losses and related investigations, claim administration, and defense expenses within retention amounts. Ultimately, City must approve all such amounts prior to execution of this Agreement.

City has no obligation to pay any premiums, assessments, or deductibles under any policy required in this Agreement. Contractor shall be responsible for all premiums and deductibles in all of Contractor's insurance policies. The amounts of deductibles for insurance coverage required herein are subject to City's approval.

**14.14. Duty to Defend and Indemnify.** Contractor's duties to defend and indemnify City under this Agreement shall not be limited by the foregoing insurance requirements and shall survive the expiration of this Agreement.

## **15. MUTUAL COOPERATION**

**15.1. City Cooperation in Performance.** City shall provide Contractor with all pertinent data, documents and other requested information as is reasonably available for the proper performance of Contractor's services under this Agreement.

**15.2. Contractor Cooperation in Defense of Claims.** If any claim or action is brought against City relating to Contractor's performance in connection with this Agreement, Contractor shall render any reasonable assistance that City may require in the defense of that claim or action.

## **16. NOTICES**

Any notice required to be given to Contractor shall be deemed to be duly and properly given if mailed to Contractor, postage prepaid, addressed to:

**[Contractor name]**

[address]

or personally delivered to Contractor at such address or at such other addresses as Contractor may designate in writing to the City.

Any notice required to be given to City shall be deemed to be duly and properly given if mailed postage prepaid, addressed to:

City of Trinidad  
P. O. Box 390  
Trinidad, CA 95570-0390

or personally delivered to the City of Trinidad at such address or at such other addresses as the City may designate in writing to Contractor.

## **17. SURVIVING COVENANTS**

The parties agree that the covenants contained in paragraph 5.12 (Records), paragraph 12.4 (Indemnification of CalPERS Determination), Section 13 (Indemnity), paragraph 14.8 (Claims-Made Policies), paragraph 15.2 (Contractor Cooperation in Defense of Claims), and paragraph 20.1 (Confidentiality) of this Agreement shall survive the expiration or termination of this Agreement, subject to the provisions and limitations of this Agreement and all otherwise applicable statutes of limitations and repose.

## **18. TERMINATION**

- 18.1. City Termination.** City may terminate this Agreement for any reason on five calendar days' written notice to Contractor. Contractor agrees to cease all work under this Agreement on or before the effective date of any notice of termination. All City data, documents, objects, materials or other tangible things shall be returned to City upon the termination or expiration of this Agreement.
- 18.2. Contractor Termination.** Contractor may terminate this Agreement for a material breach of this Agreement upon 30 days' notice.
- 18.3. Compensation Following Termination.** Upon termination, Contractor shall be paid based on the work satisfactorily performed at the time of termination. In no event shall Contractor be entitled to receive more than the amount that would be paid to Contractor for the full performance of the services required by this Agreement. The City shall have the benefit of such work as may have been completed up to the time of such termination.

- 18.4. **Remedies.** City retains any and all available legal and equitable remedies for Contractor's breach of this Agreement.

## 19. INTERPRETATION OF AGREEMENT

- 19.1. **Governing Law.** This Agreement shall be governed and construed in accordance with the laws of the State of California.
- 19.2. **Integration of Exhibits.** All documents referenced as exhibits in this Agreement are hereby incorporated into this Agreement. In the event of any material discrepancy between the express provisions of this Agreement and the provisions of any document incorporated herein by reference, the provisions of this Agreement shall prevail. This instrument contains the entire Agreement between City and Contractor with respect to the transactions contemplated herein. No other prior oral or written agreements are binding upon the parties. Amendments hereto or deviations herefrom shall be effective and binding only if made in writing and executed on by City and Contractor.
- 19.3. **Headings.** The headings and captions appearing at the commencement of the sections hereof, and in any paragraph thereof, are descriptive only and for convenience in reference to this Agreement. Should there be any conflict between such heading, and the section or paragraph thereof at the head of which it appears, the language of the section or paragraph shall control and govern in the construction of this Agreement.
- 19.4. **Pronouns.** Masculine or feminine pronouns shall be substituted for the neuter form and vice versa, and the plural shall be substituted for the singular form and vice versa, in any place or places herein in which the context requires such substitution(s).
- 19.5. **Severability.** If any term or provision of this Agreement or the application thereof to any person or circumstance shall, to any extent, be invalid or unenforceable, then such term or provision shall be amended to, and solely to the extent necessary to, cure such invalidity or unenforceability, and shall be enforceable in its amended form. In such event, the remainder of this Agreement, or the application of such term or provision to persons or circumstances other than those as to which it is held invalid or unenforceable, shall not be affected, and each term and provision of this Agreement shall be valid and be enforced to the fullest extent permitted by law.
- 19.6. **No Presumption Against Drafter.** Each party had an opportunity to consult with an attorney in reviewing and drafting this agreement. Any uncertainty or

ambiguity shall not be construed for or against any party based on attribution of drafting to any party.

## **20. GENERAL PROVISIONS**

- 20.1. Confidentiality.** All data, documents, discussion, or other information developed or received by Contractor for performance of this Agreement are deemed confidential and Contractor shall not disclose it without prior written consent by City. City shall grant such consent if disclosure is legally required. All City data shall be returned to City upon the termination or expiration of this Agreement.
- 20.2. Conflicts of Interest.** Contractor maintains and warrants that it has not employed nor retained any company or person, other than a bona fide employee working solely for Contractor, to solicit or secure this Agreement. Further, Contractor warrants that it has not paid nor has it agreed to pay any company or person, other than a bona fide employee working solely for Contractor, any fee, commission, percentage, brokerage fee, gift or other consideration contingent upon or resulting from the award or making of this Agreement. Contractor further agrees to file, or shall cause its employees or subcontractor to file, a Statement of Economic Interest with the City's Filing Officer if required under state law in the performance of the services. For breach or violation of this warranty, City shall have the right to rescind this Agreement without liability. For the term of this Agreement, no member, officer, or employee of City, during the term of his or her service with City, shall have any direct interest in this Agreement, or obtain any present or anticipated material benefit arising therefrom.
- 20.3. Non-assignment.** Contractor shall not delegate, transfer, subcontract or assign its duties or rights hereunder, either in whole or in part, without City's prior written consent, and any attempt to do so shall be void and of no effect. City shall not be obligated or liable under this Agreement to any party other than Contractor.
- 20.4. Binding on Successors.** This Agreement shall be binding on the successors and assigns of the parties.
- 20.5. No Third-Party Beneficiaries.** Except as expressly stated herein, there is no intended third-party beneficiary of any right or obligation assumed by the parties.
- 20.6. Time of the Essence.** Time is of the essence for each and every provision of this Agreement.
- 20.7. Non-Discrimination.** Contractor shall not discriminate against any employee or applicant for employment because of race, sex (including pregnancy, childbirth,

or related medical condition), creed, national origin, color, disability as defined by law, disabled veteran status, Vietnam veteran status, religion, age (40 and above), medical condition (cancer-related), marital status, ancestry, or sexual orientation. Employment actions to which this provision applies shall include, but not be limited to, the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; or in terms, conditions or privileges of employment, and selection for training. Contractor agrees to post in conspicuous places, available to employees and applicants for employment, the provisions of this nondiscrimination clause.

- 20.8. Waiver.** No provision, covenant, or condition of this Agreement shall be deemed to have been waived by City or Contractor unless in writing signed by one authorized to bind the party asserted to have consented to the waiver. The waiver by City or Contractor of any breach of any provision, covenant, or condition of this Agreement shall not be deemed to be a waiver of any subsequent breach of the same or any other provision, covenant, or condition.
- 20.9. Excused Failure to Perform.** Contractor shall not be liable for any failure to perform if Contractor presents acceptable evidence, in City's sole judgment that such failure was due to causes beyond the control and without the fault or negligence of Contractor.
- 20.10. Remedies Non-Exclusive.** Each right, power and remedy provided for herein or now or hereafter existing at law, in equity, by statute, or otherwise shall be cumulative and shall be in addition to every other right, power, or remedy provided for herein or now or hereafter existing at law, in equity, by statute, or otherwise. The exercise, the commencement of the exercise, or the forbearance from the exercise by any party of any one or more of such rights, powers or remedies shall not preclude the simultaneous or later exercise by such party of any or all of such other rights, powers or remedies.
- 20.11. Attorneys' Fees.** If legal action shall be necessary to enforce any term, covenant or condition contained in this Agreement, each party shall pay its own costs, including any accountants' and attorneys' fees expended in the action.
- 20.12. Venue.** The venue for any litigation shall be Los Angeles County, California and Contractor hereby consents to jurisdiction in Los Angeles County for purposes of resolving any dispute or enforcing any obligation arising under this Agreement.

**20.13. General Dispute Resolution.** If any dispute arises between the Parties that cannot be settled after engaging in good faith negotiations, City and Contractor agree to resolve the dispute in accordance with the following:

Each Party will designate a senior management or executive level representative to negotiate the dispute. Through good faith negotiations, the representatives will attempt to resolve the dispute by any means within their authority. If dispute remains unresolved after fifteen (15) days of good faith negotiations, the Parties shall attempt to resolve the disagreement by mediation through a disinterested third person as mediator selected by both Parties. Mediation will begin within thirty (30) days of the selection of this disinterested third party, and will end fifteen (15) days after commencement. The Parties shall equally bear the costs of any third party in any alternative dispute resolution process.

The alternative dispute resolution process is a material condition to this Agreement and must be exhausted as an administrative remedy prior to either Party initiating legal action. This alternative dispute resolution process is not intended to nor shall be construed to change the time periods for filing a claim or action specified by Government Code § 900, et. seq.

**TO EFFECTUATE THIS AGREEMENT,** the parties have caused their duly authorized representatives to execute this Agreement on the dates set forth below.

“City”  
City of Trinidad

“Contractor”  
[Name of Company or Individual]

By: \_\_\_\_\_

By: \_\_\_\_\_

\_\_\_\_\_  
*Signature*

\_\_\_\_\_  
*Signature*

Printed: \_\_\_\_\_

Printed: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Title: \_\_\_\_\_

Title: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Date: \_\_\_\_\_

Date: \_\_\_\_\_

**Attest:**



By: \_\_\_\_\_  
Gabriel Adams, City Clerk

Date: \_\_\_\_\_

## ATTACHMENT A: SOLAR PV SITE PLAN

1. Potential solar installation area, south facing roof, Trinidad Town Hall



2. Three (3) metered locations to be included in NEM-2A arrangement



## ATTACHMENT B: RCEA'S SOLAR FEASIBILITY STUDY

### Executive Summary

The City of Trinidad is working with Redwood Coast Energy Authority's (RCEA) Public Agency Solar Program. As part of that work, RCEA performed an analysis of the energy consumption, efficiency opportunities, and solar photovoltaic installation opportunities at four metered locations controlled by the City of Trinidad including Trinidad Town Hall, Trinidad Civic Club, the Fire Hall, and the Water Treatment Plant. The most promising option would be to install one solar PV array at Town Hall that would offset power from the Civic Club, the Fire Hall and Town Hall. This option would take advantage of PG&E's aggregated net energy metering program known as NEM-2A. RCEA believes that a solar PV installation at Trinidad Town Hall would qualify for loan funding under the California Energy Commissions (CEC) Energy Conservation and Assistance Act (ECAA) 1% interest loan program for qualified efficiency and renewable energy projects.

A 14 kW DC array installed at Trinidad Town Hall could provide the following benefits:

- Offset of 99% of the annual electricity consumption from Town Hall, Civic Club and Fire Hall
- Offset of 96% of the annual electricity bill from the three accounts
- A simple payback period of 11.4 years
- A Net Present Value of savings of \$48,165 *after loan re-payment*
- Greenhouse gas abatement of 28 metric tons over the life of the project

Table 1 below shows a summary of the costs and benefits of the potential solar PV project at Town Hall.

*Table 1 Summary of solar PV project options for the City of Trinidad.*

Town Hall PV System Summary	
PV System Size (kW DC)	14.1
Annual Energy Production (kWh)	18,956
Estimated System Cost (\$)	\$49,280
First Year Bill Savings (\$)	\$4,360
Estimated Energy Offset from PV (%)	99%
Estimated Bill Offset from PV (%)	96%
Simple System Payback (Years)	11.3
NPV of Savings at 25 Years (\$)	\$48,165
Lifetime Avoided CO <sub>2</sub> emissions (Metric Tons)	28

### Introduction

RCEA began working with the City of Trinidad as part of RCEA's Public Agency Solar Program in May of 2018. After an initial kick-off meeting with city staff, RCEA began its analysis of the energy consumption, efficiency opportunities, and solar photovoltaic installation opportunities at four

metered locations controlled by the city including Trinidad Town Hall, Trinidad Civic Club, Trinidad Fire Hall, and the Water Treatment Plant.

## Electric Load Analysis

RCEA performed an electric load analysis of Trinidad's electric consumption using utility data from the previous 12 months of use covering the period from January 2018 to December 2018. Trinidad receives electric service from PG&E and is enrolled in RCEA's Community Choice Energy program; Town Hall, the Civic Club and the Fire Hall are all on an A-1 time-of-use electric rate. RCEA's and PG&E's electric rates and time-of-use periods used throughout this analysis can be found in **Appendix A** of this document. Table 2 and Figure 1 below show a summary of the annual electric consumption across the four electric meters analyzed in this report.

*Table 2 Summary of electric use at (4) meters analyzed in this report.*

City of Trinidad Electricity Use Summary							
Site Name	Address	Rate	Total Load (kWh)	Percent of Load (%)	Total Charges (\$)	Percent Charges (%)	Cost /kWh (\$)
Town Hall	409 Trinity St	HA1X	9,094	17%	\$2,111	18%	\$0.23
Civic Club	409 Trinity St	HA1X	9,224	17%	\$2,088	18%	\$0.23
Fire Hall	Trinity St.	HA1X	2,409	4%	\$640	5%	\$0.27
Water Treatment Plant	1313 Westhaven Dr.	HA10S X	34,249	62%	\$6,924	59%	\$0.20
Totals			54,976	100%	\$11,763	100%	\$0.23

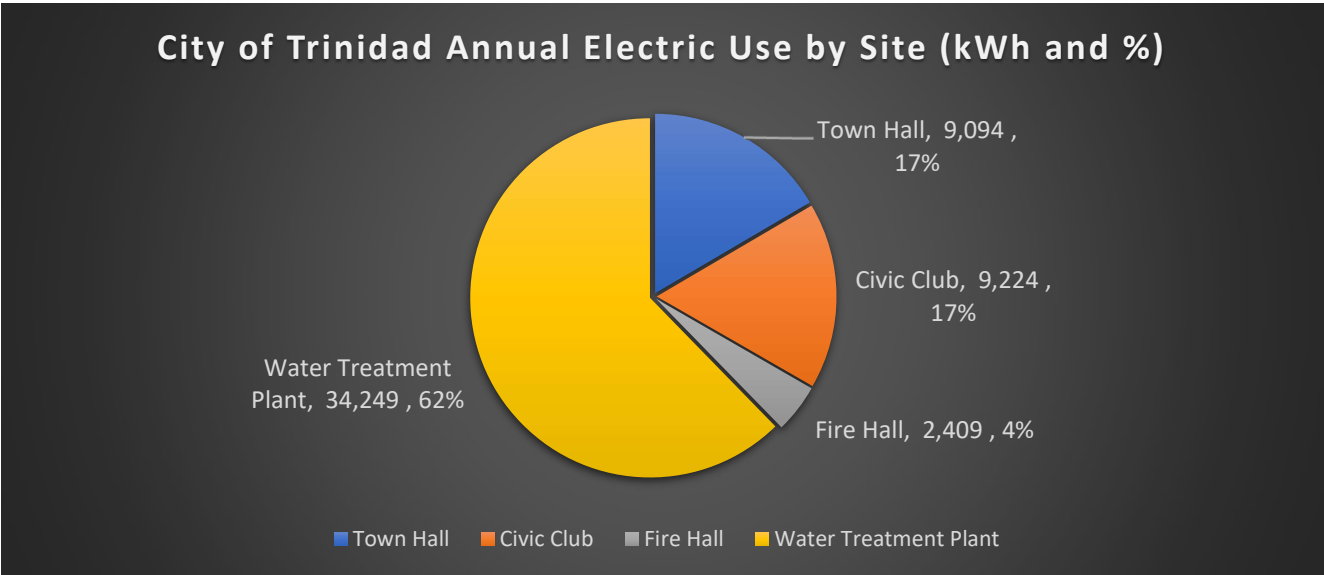


Figure 1 Annual electric use from Trinidad's four meters analyzed in this report.

**Town Hall/Civic Club/Fire Hall**

There are three electric meters located on or near Trinidad Town Hall that are identified by the following designations: Town Hall, Civic Club, and Fire Hall. Trinidad Town Hall offers the most promising location for a solar PV installation. The roof at Town Hall could be used to install one solar PV array that could offset the electric consumption from all three meters at Town Hall, the Civic Club and the Fire Hall using PG&E's Aggregated Net Energy Metering Program known as NEM-2A. NEM-2A requires that all meters be controlled or owned by one entity and all meters must be on the same parcel or on contiguous parcels. The three meters at or adjacent to Town Hall meet this requirement. Table 3 below shows the annual electric use summary for these three meters.

Table 3 Annual summary of electric use at Trinidad's Town Hall, Civic Club and Fire Hall.

Trinidad Annual Electricity Summary-Town Hall, Civic Club, Fire Hall	
Annual Electric Consumption (kWh)	20,727
Annual Electricity Costs (\$)	\$4,839
Average Electricity Rate (\$/kWh)	\$0.23

Figure 2 below shows the contiguous, city owned parcels that contain the three metered locations included in RCEA's solar site analysis for Trinidad's Town Hall, Civic Club and Fire Hall.



Figure 2 Town Hall map showing contiguous parcels in blue and meter locations in red.

### Efficiency Opportunities: LED Lighting Upgrade

RCEA performed a lighting efficiency analysis at Town Hall, the Civic Club and the Fire Hall and found that the city of Trinidad could see modest energy and financial savings by upgrading the existing interior T-8 fluorescent lighting to linear LED lighting at the Civic Club. RCEA did not find opportunities for significant savings at Town Hall or the Fire Hall. An LED lighting upgrade could reduce the electrical consumption at the Civic Club by 17%. Table 4 below shows a summary of the available savings from an LED lighting upgrade.

Table 4 RCEA's estimate of savings available from LED lighting upgrade at Trinidad's Civic Club.

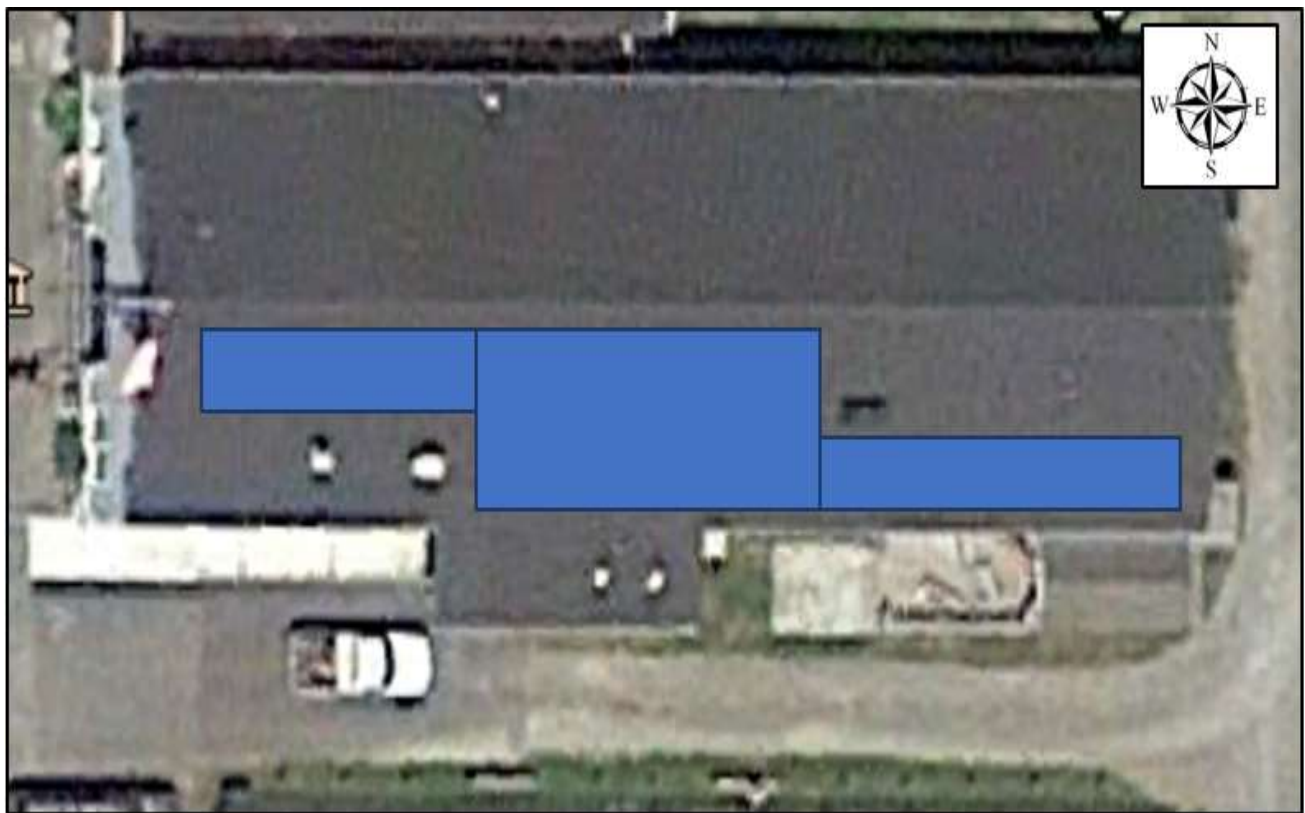
Summary of Savings from Lighting Upgrade at Civic Club	
Annual Energy Savings (kWh)	1,566
Annual Energy Offset (%)	17%
Annual Bill Savings (\$)	\$330
Monthly Bill Savings (\$)	\$27

### Solar Photovoltaic (PV) Site Analysis

RCEA performed a detailed solar site analysis at Trinidad's Town Hall, Civic Club and Fire Hall on July 24, 2018. The Town Hall and Civic Club are housed in a single-story building; the roof has a 7-in-12 pitch (30.5°), the roofing material is composition shingle. The roof is in very good



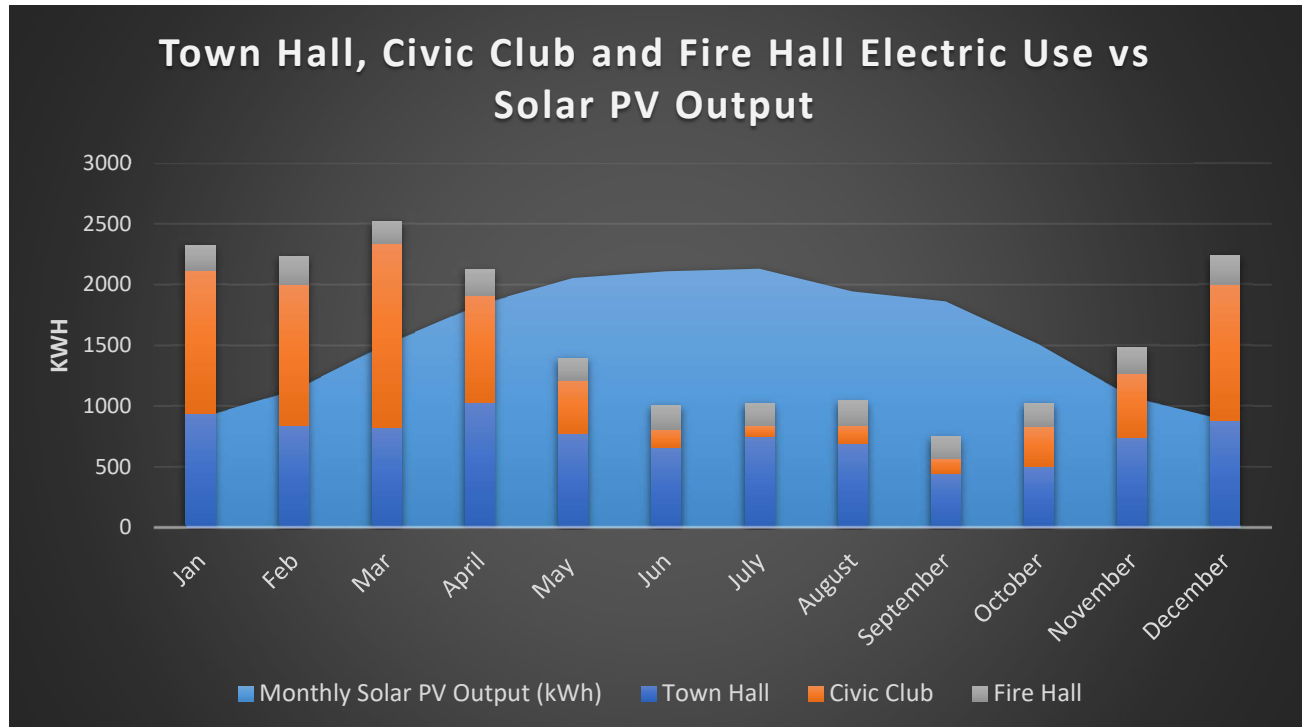
condition; city staff indicated that the existing roof is less than five years old. The south face of the Town Hall roof is oriented 5 degrees west of due south (185°) and has enough open space to host a solar PV array that could offset roughly 99% of the electrical use and 96% of the annual bills for the Town Hall, Civic Club and Fire Hall electric meters combined post lighting efficiency. A shading analysis was performed using a Solar Pathfinder tool, which showed that the total annual shading at this location is less than 2%, making it an ideal solar installation location. California Fire Marshal guidance for solar PV installations require 4' setbacks from gable ends and ridges of the roof. After accounting for shading effects and Fire Marshal setbacks the available area for installation of a solar PV array would be approximately 1,500 square feet. Figure 3 below shows the available area for installation on the roof of Town Hall outlined in blue.



*Figure 3 Available roof area for solar PV installation at Town Hall.*

### Solar Photovoltaic (PV) System Size

RCEA estimates that a 14 kW DC PV array would offset approximately 99% of electric consumption from the Town Hall, Civic Club and Fire Hall meters and 96% of the electric bills after the lighting efficiency work at the Civic Club. The assumptions and inputs used in RCEA's solar PV system sizing calculations can be found in **Appendix B** of this document. Figure 4 below shows the estimated electric usage and solar PV production under the above assumptions.



*Figure 4 Electric use and solar PV output at Town Hall with 14 kW DC solar array.*

### Solar Photovoltaic (PV) System Cost

RCEA's has recent history with solar PV installations for public works projects in California's Proposition 39 program. The average installed price of a roof-mounted solar PV system, including all labor, materials, engineering, permitting and design has been about \$3.50/DC watt. This would yield a system cost of approximately \$49,000. Table 5 below shows a break-down of the estimated costs for the proposed PV system.

*Table 5 Estimated costs for a 14 kW DC solar PV array at Trinidad Town Hall.*

PV System Cost Estimate	
PV Modules	\$ 12,320
Inverters	\$ 6,406
Electrical/Structural Balance of Systems	\$ 7,392
Labor	\$ 9,856
Engineering and Design	\$ 4,928
Permitting and Interconnection	\$ 1,478
Overhead and Profit	\$ 6,899
<b>Total Cost</b>	<b>\$ 49,280</b>

Table 6 below shows a summary of the proposed solar PV system including system size, annual production estimate, kilowatt hour offset, and bill offset.

*Table 6 PV system summary for proposed array at Trinidad Town Hall.*



PV System Summary	
PV System Size (kW DC)	14.08
Estimated System Cost	\$49,280
Annual Energy Production (kWh AC)	18,956
Annual kWh Offset from PV (%)	99%
Annual Bill Offset from PV (%)	96%

### Electric Utility Bill Analysis

Any solar PV installation will operate under a Net Energy Metering (NEM) agreement. NEM allows the PV system owner to receive energy credits when the system produces more energy than the building consumes and is charged their normal rates when the PV system produces less energy than the building consumes. RCEA performs a *monthly* “true-up” of generation charges as part of their billing, so energy production credits and debits are reconciled each month. PG&E performs an *annual* “true-up” of transmission and distribution charges that reconciles energy credits and debits on yearly basis. In addition, PG&E assesses meter charges of \$0.32/day per meter, which cannot be offset with solar energy. An estimated annual billing cycle for this potential arrangement at Trinidad Town Hall is shown in figure 5 below.

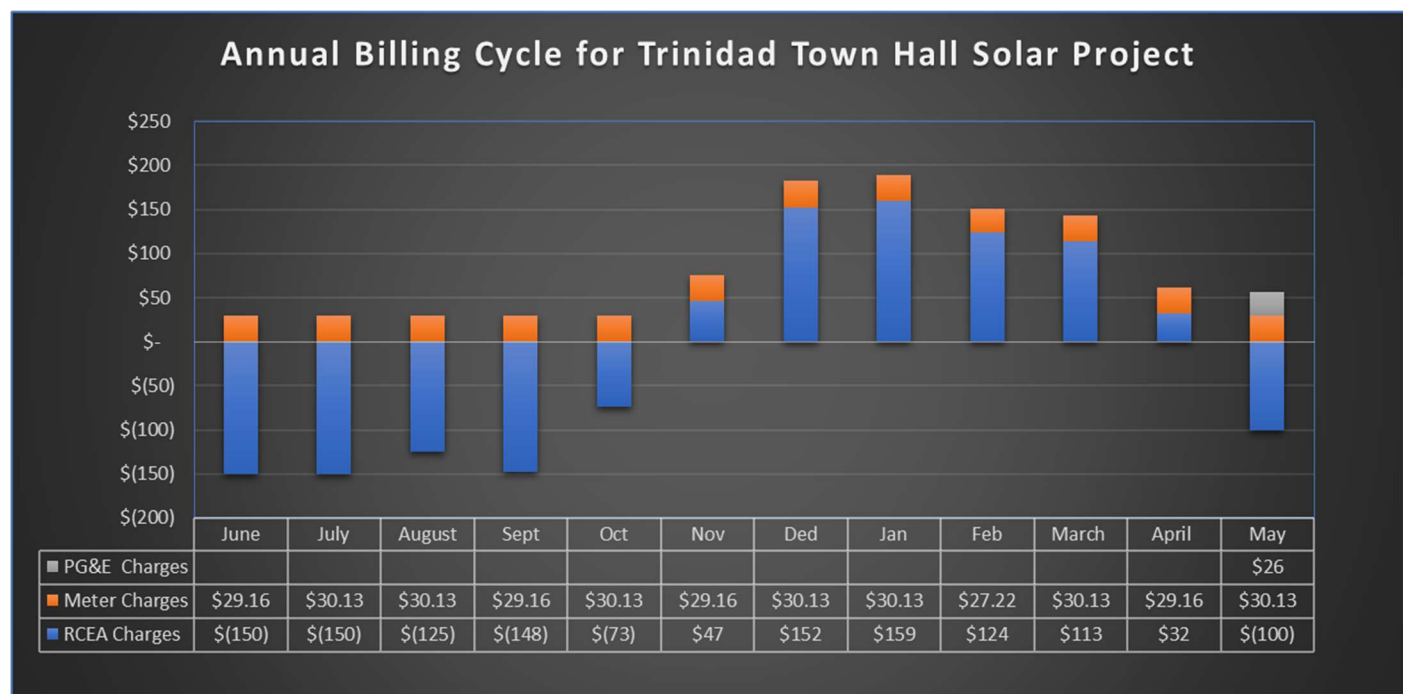


Figure 5 Example of NEM billing cycle energy credits and debits for solar PV project at Town Hall.

### Solar PV Financial Analysis

RCEA performed a financial analysis for the Town Hall solar installation. The assumptions that were used in RCEA’s economic modeling can be found in **Appendix C** of this document. Table 7

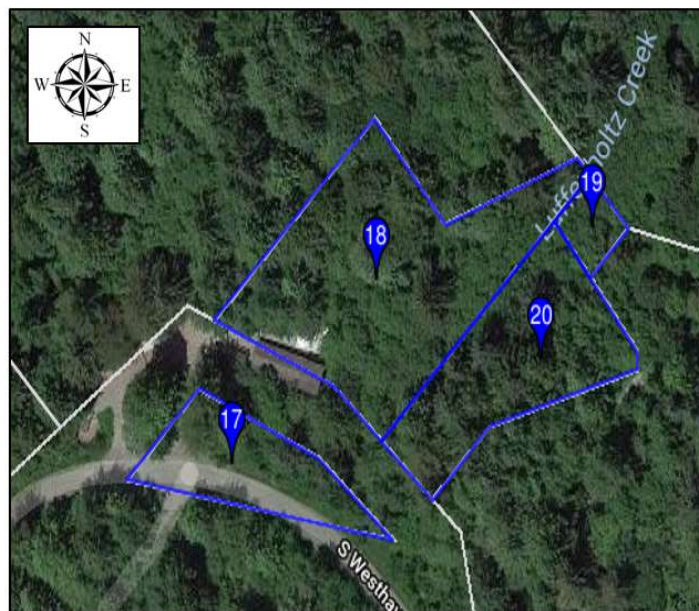
below shows the results of RCEA's economic analysis of a 14 kW DC solar PV array at Trinidad's Town Hall.

*Table 7 Financial analysis of a 14 kW DC solar PV project option at Trinidad Town Hall.*

Town Hall PV System Financial Summary	
PV System Size (kW DC)	14.1
Annual Energy Production (kWh)	18,956
Estimated System Cost (\$)	\$49,280
First Year Bill Savings (\$)	\$4,360
Estimated Energy Offset from PV (%)	99%
Estimated Bill Offset from PV (%)	96%
Simple System Payback (Years)	11.3
NPV of Savings at 25 Years (\$)	\$48,165
Lifetime Avoided CO <sub>2</sub> emissions (Metric Tons)	28

## Water Treatment Plant

RCEA performed a preliminary solar site assessment of Trinidad's Water Treatment Plant on July 24, 2018. This initial assessment found that the WTP does not have enough available unshaded area to host a solar PV array. Using a Solar Pathfinder tool at the site revealed that, at the best possible location, the site is shaded 90% of the time. Figure 6 below shows a photo of the Solar Pathfinder with unshaded area outlined in red and an aerial photograph of the city owned parcels at Trinidad's WTP showing limited open space. RCEA will continue to work with the city to identify pump efficiency projects that are eligible for incentives that could reduce the electric load and operating costs at the WTP.



*Figure 6 Photo of Solar Pathfinder tool with shading analysis and aerial imagery of WWTP parcels.*

## **Findings**

Based on the analysis of the potential project option outlined above, RCEA finds that a solar PV installation at Town Hall is possible and would likely meet all the requirements of the CEC's 1% interest loan program for eligible renewable energy projects. Projects with a simple payback period of less than 17 years are eligible for the 1% interest loan. RCEA's initial assessment indicates that a solar PV installation at the Water Treatment Plant would not be feasible. There is not enough unshaded available area to install a solar PV array at the WTP or at any of the neighboring city owned parcels.

The City of Trinidad could see significant economic benefits from enacting a solar PV installation at Town Hall in conjunction with the lighting efficiency work at the Civic Club. RCEA's analysis of these sites indicates the project would meet the requirements of PG&E's NEM-2A program, which allows for the installation of one solar array (at Town Hall) that would offset the electricity from qualified benefitting electric accounts (Town Hall, Civic Club and Fire Hall).

## **Next Steps**

RCEA's study indicates that a solar PV project at Town Hall is feasible. CEQA documentation has been prepared. The City of Trinidad's City Council has resolved to move forward with a solar PV project and has signed off on the application forms and the CEQA compliance. RCEA will to prepare the remaining technical documents required of the CEC loan application. The next steps for Trinidad to pursue if this project is to move forward are:

- Submit CEC ECAA loan application
- Secure and accept CEC loan if awarded
- Begin planning, permitting, and basic design

## **Study Methodology**

RCEA analyzed the required PV system size to offset almost 100% of the kWh consumed at Trinidad's Town Hall, Civic Club and Fire Hall. RCEA downloaded insolation data from PV Watts for global horizontal irradiance on a flat plane. Table 8 below shows the insolation data on a horizontal plane; Table 9 shows insolation at an azimuth of 185° (almost due south) on a surface tilted to 30.5°.

*Table 8 Average global horizontal irradiance on a flat plane for Trinidad's Town Hall.*

Average Daily Insolation for Trinidad, CA (latitude 41.01° N, longitude 124.13° W, from PV Watts)													
Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Average

Average Insolation (kW/m <sup>2</sup> /day)	1.71	2.62	3.66	5.11	5.99	6.58	6.34	5.41	4.77	3.28	2.09	1.58	4.10
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*Table 9 Average global horizontal irradiance at azimuth 185 degrees and a tilt of 30.5 degrees.*

Average Daily Insolation for Trinidad CA at 185° azimuth and tilt of 30.5°													
Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Average
Average Insolation (kW/m <sup>2</sup> /day)	2.57	3.54	4.29	5.38	5.83	6.18	6.04	5.51	5.46	4.28	3.14	2.51	4.56

RCEA's system sizing methodology starts with the daily energy production goal, derived by dividing the total, annual kWh consumed on site by 365. This is divided by the average daily insolation to estimate a required inverter AC output. The output is then de-rated for inverter efficiency to estimate the required array DC output in kW. A further de-rating (10%) is applied to account for module mismatch, soiling, wire loss, shading and other system losses. This is further de-rated by accounting for temperature corrected output at nominal operating cell temperature of 40° C and again de-rated based on the module manufacturer's power guarantee. This method is adopted from and detailed in *Photovoltaic Systems* by James Dunlop. Module specs are based on Q-Cell Peak-G5 320-watt modules. Inverter efficiency and MPPT efficiency based on SMA-TL-US inverter. Table 10 below shows the steps and results of this methodology for system sizing.

RCEA analyzes the annual AC energy production by using the solar inverters AC output and multiplying this by the average solar irradiance for each month multiplied by the days in the month. This output is multiplied by the average cost of electricity to estimate the dollar value of the first year's energy production. Tables 11 and 12 below show the steps in this process. RCEA has provided an Excel spreadsheet with complete calculations.

*Table 10 Example of RCEA's solar PV system sizing.*

DC System Size Based on Annual Electric Load	
Average Daily Insolation (kWh/m <sup>2</sup> /day)	4.56
Daily Energy Production Goal (kWh)	51.45
Required Inverter AC Output (kW)	11.27
Inverter Efficiency	0.97
Maximum Power Point Tracking Efficiency	1.00
Required Array DC Output (kW)	11.62
De-rate Factor (Soiling, Wire Loss, Mismatch) (%)	0.10
Required Temp Corrected Array Power Output	12.91
Average Operating Temperature (°C)	40.00
Temperature Coefficient of Power (/°C)	-0.0037
Required Array Guaranteed Power Output	13.67
Module DC Rating (Watts)	320.00

Manufacturer Power Guarantee (%)	0.98
Number of Modules in Array	44.0
<b>DC System Size (kW)</b>	<b>14.08</b>

*Table 11 Summary of RCEAs annual energy production analysis.*

Annual AC Energy Production Based on System Size	
Module DC Rating (Watts)	320.00
Manufacturer Power Guarantee (%)	0.98
Number of Modules in Array	44.00
Array Guaranteed Power Output (kW)	13.80
Average Operating Temperature (°C)	40.00
Temperature Coefficient of Power (%/°C)	-0.0037
Temp Corrected Array Power Output (kW)	13.03
De-rate Factor (Soiling, Wire Loss, Mismatch) (%)	0.10
Net Array DC Output	11.73
Inverter Efficiency (%)	0.97
Maximum Power Point Tracking Efficiency	1.00
Inverter AC Output	11.38
Average Daily Insolation	4.56
Daily Energy Production (kWh)	51.93
<b>Annual AC Energy Production (kWh)</b>	<b>18,956</b>

*Table 12 Monthly solar PV production and estimated bill offset.*

Month	Days/ Month	Solar Radiation (kWh/m <sup>2</sup> /day)	Monthly AC Output (kWh)	Average Cost of Electricity (\$/kWh)	Monthly Bill Offset
January	31	2.57	907	\$ 0.23	\$ 208.67
February	28	3.54	1,129	\$ 0.23	\$ 259.71
March	31	4.29	1,513	\$ 0.23	\$ 347.98
April	30	5.38	1,838	\$ 0.23	\$ 422.65
May	31	5.83	2,056	\$ 0.23	\$ 472.83
June	30	6.18	2,110	\$ 0.23	\$ 485.25
July	31	6.04	2,132	\$ 0.23	\$ 490.35
August	31	5.51	1,943	\$ 0.23	\$ 446.87
September	30	5.46	1,862	\$ 0.23	\$ 428.25
October	31	4.28	1,510	\$ 0.23	\$ 347.29
November	30	3.14	1,073	\$ 0.23	\$ 246.72
December	31	2.51	884	\$ 0.23	\$ 203.30

Total Annual Energy Production (kWh) and Cost (\$)	18,956	\$ 0.23	\$ 4,359.88
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## Appendices

### Appendix A: Electricity rate schedules used for solar PV feasibility analysis.

*Table 13 A-1 time-of-use electric rate schedule.*

A-1 Time of Use Electric Rates						
Season	PG&E T&D Rate	RCEA Gen Rate	Total A-1 Rates	Months	Days	Time
Summer Peak	\$0.128210	\$0.135645	\$0.263855	May-Oct	Mon-Fri	12pm-6pm
Summer Part-Peak	\$0.128210	\$0.112704	\$0.240914	May-Oct	Mon-Fri	8:30am-12:00pm AND 6:00pm-9:30pm
Summer Off-Peak	\$0.128210	\$0.086175	\$0.214385	May-Oct	Mon-Fri Sat-Sun	9:30pm-8:30am All Day
Winter Part-Peak	\$0.110270	\$0.112520	\$0.222790	Nov Apr	Mon-Fri	8:30am-9:30pm
Winter Off-Peak	\$0.110270	0.0922276	\$0.110270	Nov Apr	Mon-Fri Sat-Sun	9:30pm-8:30am All Day



**Appendix B: Assumptions and inputs used in RCEA's solar PV system sizing.***Table 14: Assumptions and inputs for PV system analysis at Trinidad's Town Hall.*

Town Hall PV System Sizing Inputs	
Array Orientation (Degrees)	185
Array Tilt (Degrees)	30.5
Average Daily Insolation (kWh/m <sup>2</sup> /day)	4.56
Inverter Efficiency (%)	97%
De-rate Factor (Soiling, Wire Loss, Mismatch) (%)	10%
Shading	1%
Average Operating Cell Temperature (°C)	40
Temperature Coefficient of Power (Wp/°C)	-0.0037
Module DC Rating (Watts)	320
Manufacturer Power Guarantee (%)	98%

**Appendix C: Assumptions and inputs used in RCEA's financial analysis.***Table 15: Assumptions and inputs for financial analysis of solar PV installation for Trinidad Town Hall.*

Financial Analysis Assumptions	
Inflation rate	2%
Discount rate	5%
Electricity escalation rate	3%
Added maintenance	0.3%
Annual PV production degradation rate	0.5%
Cost to replace inverter at year 15	\$0.30/watt
System price for roof mount	\$3.50/watt