

SAN PASQUAL BAND



OF MISSION INDIANS

**2019 Request for Proposals
(RFP)
San Pasqual Tribal Government Complex Solar + Storage Microgrid**

**Issued
November 4, 2019**

**Proposals Due
December 16, 2019**

**Email questions/comments to
jsimmons@prospersustainably.com**

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I. Glossary of Terms & Abbreviations

The “proposer” refers to the prime EPC contractor responding to this request for proposals.

The “EPC” generally refers to the selected engineering, procurement, and construction contractor or contracting team. Unless otherwise specified, requirements that apply to the prime contractor in an EPC team also apply to any subcontractors contributing to that team.

AC alternating current
ATS automatic transfer switch
BEMS building energy management system
BESS battery energy storage system
BtM behind the meter
CSI Construction Specifications Institute
DAS data acquisition system
DC direct current
DR demand response
EM energy management
EPA Environmental Protection Agency
EPC engineering procurement and construction [contractor]
ETL Electrical Testing Laboratories
FM Factory Manual
GPR ground penetrating radar
IEC International Electrotechnical Commission
IEEE Institute of Electrical and Electronics Engineers
kWh kilowatt-hour
kW kilowatt
kV Kilovolts
LCOE levelized cost of energy
LP liquefied propane
MDP main distribution panel
MPPT maximum power point tracking
NEC National Electrical Code
NEMA National Electrical Manufacturers Association
NFPA National Fire Protection Association
NPV net present value
NREL National Renewable Energy Laboratory
NRTL nationally recognized testing laboratory
NSRDB National Solar Radiation Database
NTP notice to proceed
O&M operations and maintenance
POA plane of array
POI point of interconnection
PV photovoltaic

QCP Quality Control Plan
RECs renewable energy certificates
RFP request for proposals
SoC state of charge
SOPO statement of project objectives
SPBMI San Pasqual Band of Mission Indians
SPPWD San Pasqual Public Works Department
STC standard test conditions
UL Underwriters Laboratories
V volts
WBS work breakdown structure

II. Introduction and Overview

Project Summary

The San Pasqual Band of Mission Indians, (hereinafter referred to as “SPBMI”) has issued this Request for Proposals (RFP) to obtain firm fixed price proposals for full-scope design-build services for a hybrid solar+storage+liquefied propane (LP) gas-fueled microgrid. The proposed microgrid will provide resilient electricity service for the SPBMI Tribal Administration Campus, including six (6) facilities that are essential to the tribe’s health and safety. The microgrid will also integrate approximately 24 kW DC of existing rooftop solar PV that is currently serving one of the campus facilities. Additional project scope includes training eight (8) volunteer solar installers and deploying and integrating six (6) electric vehicle (EV) charging stations.

Funding for complete project scope has been authorized by the SPBMI Business Committee and includes grant funding from the U.S. Department of Energy (DOE).

Project Goals

The project is intended to support four primary goals:

1. Ensure the availability of resilient electricity supplies for six essential tribal facilities
2. Provide solar generation sufficient to achieve net-zero energy consumption at the site
3. Reduce the tribe’s lifetime levelized costs of energy (LCOE)
4. Reduce the tribe’s environmental impacts, including greenhouse gas emissions

Secondary project goals include:

5. Provide EV charging capabilities for six (6) electric vehicles at the Tribal Hall parking lot
6. Provide PV installation training and experience for several volunteers/trainees
7. Increase SPBMI experience and knowledge of DERs and advanced energy solutions

Background

SPBMI is a federally recognized tribe, and a tax-exempt purchaser. SPBMI is governed by a Business Committee of five tribal members who are elected by Tribal Members. The San Pasqual Reservation encompasses approximately 2,656 acres and was established in 1910. The Reservation population is approximately 1,500 total residents, occupying 350 homes.

SPBMI’s energy and resiliency strategies are implemented by the San Pasqual Environmental Department, which has established a vision to ensure a clean, safe, and healthy environment for current and future generations of the San Pasqual Tribal community, consistent with the tribe’s mission. To achieve this vision, the Environmental Department developed an Energy & Resiliency Plan, with a mission of making San Pasqual energy independent by 2021 – by producing enough locally generated renewable electricity to offset all electricity consumption on the reservation, and by supporting essential tribal energy loads with reliable and cost-effective onsite energy supplies.

The tribe has been pursuing its energy and environmental goals for several years, including through a community solar deployment program that so far has resulted in the installation of more than 230 kW (AC) of PV generating capacity. Additionally, the tribe is working to decrease annual energy consumption by 5% annually, through energy efficiency, to reach its goal of 25% reduction from 2015 baseline usage by 2021. To address the risk of long-duration electric utility outages, the tribe has resolved to deploy resilient energy systems, including the proposed microgrid, to ensure continuity of services that are critical to the health, safety, and welfare of San Pasqual tribal members and residents.

The project site comprises a contiguous campus of five buildings and a small wastewater treatment plant (WWTP) situated on a hillside at the corner of Kumeyaay Way and South San Pasqual Road in the SPBMI Reservation. Table 1 summarizes the facilities to be served by the microgrid and their electric load history.

Table 1. SPBMI Tribal Administration Microgrid Loads

<i>Facility</i>	<i>Essential Purpose</i>	<i>Essential Electric Loads</i>	<i>Square Footage</i>	<i>Electric Load (kWh/yr*)</i>
Tribal Administration and Tribal Hall (built 2001, expanded 2018)	Red Cross evacuation center; emergency public shelter; tribal management command and control	HVAC, lighting, telecommunications	19,908	140,432
Housing & Security (built 2002)	First response (police); public safety and security monitoring	Telecom/IT, security camera monitoring, lighting	3,475	33,958
Fire Department (built 1998)	First response (residential fire station); 911 emergency dispatch	Telecom/IT, lighting, overhead door operation	5,362	37,855
Education Building (built 1980, expanded 2004)	Emergency public shelter	HVAC, food storage, food service, lighting	10,279	9,011/ 45,825*
Preschool (built 2005)	Emergency public shelter	HVAC, lighting	2,874	15,435
Wastewater Treatment Plant (built late 2013) (new, maybe)	Wastewater treatment for Tribal Admin complex	Wastewater pumps	NA	9,822
Total - Six Facilities‡			41,898	246,514 / 283,328†

Notes:

* SDG&E energy consumed after net-metered offsets totaled 9,278 kWh. The Education Building's total annual usage including net-metered solar production was 45,825 kWh (with 36,814 kWh offset by existing PV).

† Net-metered annual combined usage at SDG&E meters totaled 246,514 kWh with an annual combined peak demand of 101.46 kW. Annual usage including consumption offset by existing solar totaled 283,328 kWh with an annual combined peak demand of 110.94 kW.

‡ Estimated loads for the proposed new EV charging stations are not included in this table.

Key RFP Dates

Table 2 below summarizes the key RFP milestones and dates.

Table 2. RFP Milestones and Dates

Milestone	Date(s)
RFP released	November 04, 2019
Site visit (required)	November 13, 2019 at San Pasqual Tribal Government Center, 16400 Kumeyaay Way, Valley Center, CA 92082
Q&A questions due	November 18, 2019
Q&A responses posted	November 22, 2019
Proposals due	December 16, 2019 by 11:59pm Pacific Time
Interviews & negotiations	December 16, 2019 - January 31, 2019
Notification of finalists	January 10, 2019
Final EPC selection	January 31, 2019

III. Project Objectives and Scope

The scope of the project engineering, procurement, and construction (EPC) contract shall include all components and tasks that are necessary to design, build, and deploy a turn-key microgrid system that meets San Pasqual goals, objectives, and requirements, excluding tasks designated for completion by the San Pasqual Band of Mission Indians Public Works Department (SPPWD) as specified below. Project objectives are summarized as follows.

Project Objectives

- A. Install solar photovoltaic (PV) system**
- B. Install battery energy storage system (BESS)**
- C. Install liquefied propane (LP)-fueled genset and storage tank**
- D. Install and integrate microgrid controls, DER controls, and load controls**
- E. Complete electrical infrastructure reconfiguration and upgrades, including utility 3-phase power upgrade, and utility interconnection and protection**
- F. Interconnect, test, and commission microgrid**

Each of these six (6) project objectives are described in greater detail below.

A. Install solar photovoltaic (PV) system

The EPC shall complete all tasks necessary to design, engineer, install, and deploy a new solar PV system that is sized to serve 105% of the annual electricity load of the entire Tribal Government Complex served by the SDG&E grid (approximately 246,514 kWh as measured at the combined meters for all facilities within the government complex from September 1, 2018

through August 31, 2019). This solar PV system shall be installed on carport structures (to be installed by SPPWD) in the north parking lot of the Administration Complex.

The EPC shall be responsible for all aspects of design, engineering, permitting, interconnection, procurement, installation, commissioning, deployment, etc. for this PV system, except that the SPPWD will construct the carport structures in the north parking lot to which the solar panels will be attached, that meet detailed specifications provided by the EPC.

The SPPWD will utilize all of their own personnel, tools, and equipment except for a boom lift to be provided by the EPC. The EPC will procure all construction supplies required for the complete construction of the carports by the SPPWD, including steel framing, concrete footings, and all installation hardware and materials. The EPC will also periodically inspect the work of SPPWD during and upon completion of carport installation, providing direction as needed to ensure that the job is completed to the satisfaction of the EPC.

A-1: Provide solar installation training (Discrete Scope)

Project scope funded by the U.S. Department of Energy includes providing on-the-job training for up to 10 trainees (volunteers and SPPWD staff) who will be recruited and pre-screened by SPBMI in coordination with the EPC. This training is expected to provide at least one (1) classroom session on solar installation safety and basics, followed by hands-on solar installation experience for the trainee volunteers. To the greatest practical degree, the EPC shall employ trainee labor to reduce solar installation costs. Responsive proposals shall include a separate budget cost estimate, including estimated labor hours to be performed by volunteer trainees, and a brief description of the proposed approach to supporting this training scope in a way that provides marketable knowledge and experience for trainees.

A-2: EV Chargers (Discrete Scope)

Project scope includes installing EV Level 2 charging systems for up to six (6) electric vehicles as part of the solar carport system at the Tribal Hall parking lot. These EV chargers shall be integrated to enable microgrid control of loads. Responsive proposals shall describe EV charger procurement and deployment as a discrete scope for SPBMI evaluation, and the budget proposal shall quantify pricing for EV chargers on a per-unit basis.

B. Install battery energy storage system (BESS)

Battery energy storage capacity shall be the primary grid-forming resource, with LP-fueled generation as a secondary grid-forming resource for use when BESS resources are unavailable or excessively depleted. Assuming optimal BESS state of charge (SoC) at the outset of microgrid islanding, as well as application of appropriate load-control protocols, storage resources shall be specified to provide power and energy capacity sufficient to support at least

one (1) hour of microgrid service in “normal resiliency” mode,¹ without startup of LP generation. The EPC’s design and engineering scope includes optimizing resource sizing and performance as described below in the section Technical Specifications and Performance Requirements.

The BESS is to be located at the southeast corner of the Housing/Police Building, as shown on the attached Preliminary Design.

The EPC shall be responsible for all aspects of design, engineering, permitting, interconnection, procurement, installation, commissioning, deployment, etc. for this BESS, except that the SPPWD will construct the concrete pad that the BESS (and standby generator, as noted below) will be mounted on to the exact specifications provided by the EPC.

The SPPWD will utilize all of their own personnel, tools, and equipment in constructing the concrete pad. The EPC will procure all construction supplies required for the complete construction of the concrete pad to be constructed by the SPPWD, which are expected to include concrete, rebar, etc. The EPC will also periodically inspect the work of SPPWD during and upon completion of this work, providing direction as needed to ensure that the job is completed to the satisfaction of the EPC.

The EPC shall be responsible for installing exclusionary chain-link fences with gates and visual screens to protect the BESS and the LP generator. SPPWD shall be responsible for installing any required firebreaks and vegetation control systems around the BESS and LP generator to the exact specifications of the EPC and using materials supplied by the EPC. All fencing, firebreak, and vegetation control systems shall be designed and installed in compliance with applicable building codes, fire codes, and manufacturer recommendations.

C. Install liquid propane (LP) generator and storage

The EPC shall complete all tasks necessary to design, engineer, install, and deploy a new standby LP generator that is sized to meet site load requirements either alone or in combination with BESS or PV generation. SPBMI expects to provide space for the LP generator and LP storage tank at the southeast corner of the Housing/Police Building, as shown on the attached preliminary design.

The EPC shall complete all tasks necessary to design, engineer, install, and deploy a new 500 gallon LP tank that serves the new LP generator, and also a new LP supply-line connection between the new generator and a second, 500-gallon LP tank that already is in service on the site. The new LP tank is to be located near the generator at the southeast corner of the Housing/Police Building. The existing LP tank is located between the Housing/Police building and the Administration building, approximately 170 feet from the designated site for the LP generator. A map of the preliminary piping run has been included in the Supplemental RFP Information & Data package. The existing LP tank must also continue to serve LP-burning

¹ Refer to section titled “Control Functionality and Integration” for description of user-configurable operating mode criteria, including “normal resiliency” mode.

appliances in the Administration building, and the connection to the generator must include an electrically-or-manually controlled monitor valve, normally in the closed position and opened by pipeline pressure, to switch generator LP supply from the new LP tank to the existing LP tank when the new tank is depleted.

The EPC shall be responsible for all aspects of design, engineering, permitting, procurement, installation, commissioning, deployment, etc. for new generator, new propane tank, and existing propane tank connection except for the following SPPWD scope items:

- 1) SPPWD will construct the concrete pad that the generator (and BESS, as noted above) will be mounted on to the exact specifications provided by the EPC.
- 2) SPPWD will construct a second concrete pad for the new 500-gallon propane tank to the EPC's specifications.
- 3) SPPWD will trench and install the underground LP pipe between the generator and the existing LP tank to the specifications provided by the EPC, filling all trenches upon completion. The SPPWD will not connect the piping to the generators or tanks. The EPC shall be responsible for LP supply line connections and valve installation, quality assurance, and inspections.
- 4) SPPWD will trench and install the underground LP pipe between the generator and the new LP tank to the specifications provided by the EPC, filling all trenches upon completion. The SPPWD will not connect the piping to the generators or tanks. The EPC shall be responsible for LP supply line connections and valve installation, quality assurance, and inspections.

The SPPWD will utilize all of their own personnel, tools, and equipment in constructing the concrete pads and installing the underground LP pipe. The EPC will procure all construction materials required for the complete construction of the concrete pads and the installation of the underground LP pipe to be constructed/installed by the SPPWD. Materials are expected to include concrete, rebar, piping, etc. The EPC will also periodically inspect the work of SPPWD during and upon completion of SPPWD's scope, providing direction as needed to ensure that the job is completed to the satisfaction of the EPC.

The EPC shall be responsible for installing exclusionary chain-link fences with gates and visual screens to protect the BESS and the LP generator. SPPWD shall be responsible for installing any required firebreaks and vegetation control systems around the BESS and LP generator to the exact specifications of the EPC and using materials supplied by the EPC. All fencing, firebreak, and vegetation control systems shall be designed and installed in compliance with applicable building codes, fire codes, and manufacturer recommendations.

D. Install and integrate microgrid controls, DER controls, load controls, monitoring, and interfaces

The EPC shall complete all tasks necessary to design, engineer, install, and configure all communications, telemetry, controls, and human interfaces required to manage and execute all

microgrid functions. The microgrid controls and resources shall be integrated to support automatic islanding of the microgrid during grid outages, including integration of onsite DERs (both electric supply and controllable loads).

Preferred control solutions will be capable of automatically managing a seamless transition between grid-connected and islanded states, assuming sufficient onsite power at the time of an outage, with no loss of electricity at any of the facilities served by the microgrid. *If the EPC's proposed control approach requires incremental costs to achieve seamless transitions, then those incremental costs should be presented separately in the proposed budget.*²

The microgrid shall include electric load-management systems designed and integrated to perform a range of functions, including adjusting or curtailing various electric loads to manage inrush currents, prevent coincident peaks, and manage continuous loads during both grid-connected and islanded operations. New energy management systems are expected to control existing heating, ventilation, and air conditioning (HVAC) systems; proposed new EV charging systems; and other load controls to be identified by the EPC.

The proposed microgrid shall include telemetry and monitoring systems and processes (the "Data Acquisition System" or DAS) that support all tribal objectives for: allocating energy consumption and costs to each facility in the microgrid; tracking and analyzing energy usage as well as the performance of each component in the microgrid; producing data sets for compliance with applicable regulations as well as grant agreement periodic reporting requirements; and providing public information and education about resilient and renewable energy system performance.

The project objectives include public outreach and education to inform tribal members about the performance and benefits of the microgrid. The EPC scope shall support these objectives by, at a minimum, developing and integrating a system that produces a real-time or near real-time visualization of the microgrid in operation, presenting current status and lifetime production information, for example, with data provided by the DAS. The visualization system will post information publicly on SPBMI websites via a dedicated web portal, as well as on screens in such locations as the Tribal Hall and Education building.

The EPC scope shall include developing secure communication and control protocols and human operator interface systems for monitoring and managing all microgrid subsystems. The EPC scope shall include producing a Microgrid System Integration and Control Manual (the "Microgrid Control Manual"), describing the microgrid control systems, subsystems (e.g., DER and load management controls), and human interface systems, how they are integrated for interoperation, and all onsite user control and data retrieval processes.

² To support SPBMI's evaluation of its options, responsive proposals shall show the incremental cost difference between a system capable of seamless transitions versus one designed to produce a short outage (of no more than 5 minutes) when switching between islanded and grid-connected states.

E. Complete electrical infrastructure reconfiguration and upgrades, including utility 3-phase power upgrade, and utility interconnection and protection

Currently the project site is served by SDG&E via one single-phase distribution line with eight separate meters energized at several service entrances. The EPC scope shall include consolidating, reconfiguring, and upgrading onsite power distribution so that all site loads are served from a new microgrid bus,³ with a new single point of interconnection (POI) to a new SDG&E three-phase distribution line. EPC scope also shall include supporting SPBMI in specifying the 3-phase upgrade and scheduling and managing its execution by SDG&E.

The EPC's proposed budget shall include itemized estimates of all costs related to onsite distribution, utility interconnection, and 3-phase utility distribution upgrades, including:

- All equipment, materials, and civil engineering costs;
- EPC labor and related costs for design, engineering, and management;
- SDG&E costs for reconfiguration of service to a single POI;
- SDG&E costs for 3-phase upgrade;⁴ and
- SDG&E costs for interconnection application and study requirements.

The EPC scope shall also include integration of two existing rooftop solar PV systems located on the Education Building into the microgrid system. These grid-tied systems are known as the Education Front Solar (9.6 kW DC) and Education Back Solar (14.4 kW DC) and currently serve two separate meters. The latest annual production for these meters (from September 2018 through August 2019) is 14,972 kWh for the Education Front Solar and 21,842 kWh for the Education Back Solar (totaling 36,814 kWh).

SPBMI's design for the Tribal Hall parking lot anticipated future installation of covered-parking PV and EV charging systems, and included underground conduit for new cable runs. Conduit also has been run between the Tribal Administration building meter and Tribal Hall meter, as well as between the Tribal Hall and Housing Building. It is unclear whether any or all of this conduit will be sufficient for the project. Responsive infrastructure design proposals will utilize this conduit to the greatest practical degree before proposing any additional conduit from the parking lot to the Tribal Hall.

Where feasible, new onsite distribution cables shall be installed in underground conduits, through a combination of trenched conduit, trenchless conduit, and intrabuilding conduit. Where trenching or trenchless installation is deemed infeasible or too costly (*e.g.*, vicinity of the SPBMI Education Department building), onsite cable shall be installed in protected conduits, and not in overhead configuration. A map of preliminary conduit runs has been included in the Supplemental RFP Information & Data package.

The EPC scope of responsibility shall include all interconnection, protection, and safety systems, including microgrid-integrated automatic transfer switch (ATS) and other switching

³ Voltage level to be determined in consultation with SPBMI.

⁴ SDG&E's service cost estimator tools produce a \$70,000 estimate of 3-phase upgrade costs.

systems as required to support stable transitions to and from island-mode operations. Preferred systems will support seamless transitions and automatic resynchronization and reconnection to the SDG&E distribution system when utility power is restored.

The EPC shall be responsible for all aspects of design, engineering, permitting, procurement, installation, and commissioning for new and reconfigured microgrid infrastructure, including all required electrical and communications cables and other electrical infrastructure, with exceptions as discussed below:

- 1) The SPPWD will trench and install all underground conduit (not cable) required for the project, both for electrical and communications as applicable, to specifications provided by the EPC, except for areas where the EPC shall install trenchless conduit using angle boring. The EPC's scope (not SPPWD's) shall include all cabling and electrical work, as well as installation of any trenchless conduit and external conduit on above-ground structures. The SPPWD's task scope also shall include filling in all trenches to the EPC's specifications but will not include replacing any asphalt removed. Replacing asphalt removed during trenching by SPPWD, the EPC, or any other party for the microgrid project shall be the EPC's responsibility.

The SPPWD will utilize all of its own personnel, tools, and equipment in installing the underground conduit. The EPC will procure all construction supplies required for SPPWD to install the underground conduit, which is expected to include the conduit, fittings, boxes, connectors, and other hardware and supplies. The EPC will also periodically inspect the work of SPPWD during and upon completion of this work, providing direction as needed to ensure that the scope is completed to the satisfaction of the EPC.

- 2) SDG&E will install new 3-phase service to the site and a new single point of interconnection (POI), using its own personnel, equipment, and/or contractors. The EPC's scope shall include supporting SPBMI in specifying the single POI and 3-phase upgrades, and scheduling and managing its execution by SDG&E. *To support SPBMI's budgeting process, responsive proposals shall include all interconnection estimated costs, single POI upgrade estimated costs, and 3-phase upgrade estimated costs that are to be paid directly by SPBMI to SDG&E as separate items in the detailed budget submitted as part of the proposal.*

F. Interconnect, test, and commission microgrid

The EPC shall coordinate and perform all tasks required to obtain interconnection approval from SDG&E, install and test interconnection protection and control systems, verify the safety and code compliance of installed systems, test and validate the system's performance, and commission the system for ongoing operations.

Commissioning shall include providing a complete operations and maintenance (O&M) manual, and training to enable SPBMI staff to perform required operational tasks and routine maintenance.

As mentioned in the prior section, to support SPBMI's budgeting process, responsive proposals shall include all estimated interconnection costs, including for the interconnection application and any required interconnection study, that are to be paid directly by SPBMI to SDG&E as a separate item in the detailed budget submitted as part of the proposal.

Project Task Scope

Responsive proposals shall propose a task scope that addresses all six of the Project Objectives described above, and meets all Technical Specifications and Performance Requirements described below. The proposed scope shall include, at a minimum, the following project Tasks:

1. Complete full design and engineering for the entire project

- Review and update analysis of energy load and cost data provided by SPBMI.
- Perform review of onsite electrical and other relevant systems, and produce:
 - As-built system documentation⁵ the EPC deems necessary to support system design and engineering; and
 - Safety, code, and efficiency recommendations resulting from onsite systems review.
- Prepare and submit engineering and design documents for SPBMI review and approval; designs shall include the full scope of project engineering requirements including civil engineering and construction, microgrid energy systems, onsite distribution systems, and interconnection systems.
- The EPC scope shall include the design of electrical and structural systems, materials, equipment, fabrication, installation, and tests in conformity with applicable codes and professionally recognized standards.
- The electrical design shall be fully developed, including but not limited to the following:
 1. Description and supportive calculations for all power and grounding systems.
 2. Location and layout of all system equipment.
 3. Site plans, elevations, schedules, equipment arrangement and detailed drawings
 4. Single-line diagrams including local utility system tie-ins.
 5. Evaluation of existing switchgear and utility transformers for interconnection compatibility.
 6. All other drawings, calculations, details, and schedules required for the system design.
- All items of a given type shall be the products of the same manufacturer.

⁵ The EPC should assume that no blueprints, diagrams, or specifications are available for any existing buildings or systems. Any required as-built documentation must be created or collected as part of Task 1 scope.

- Construction Documents shall be designed and signed by a validated, registered professional engineer in the State of California.

The EPC shall provide draft and final project plans, specifications, and supporting documentation, as described in Table 3 (*at a minimum*):

Table 3. Design Plan Submittal Stages

Submittal Requirement	30%	50%	90%
Cover Sheet (TOC, project details, designers of record, DER summary table, etc.)	x	x	x
DER Capacity, Production Estimates, and Lifetime (20-year) Energy and Economic Analysis	x		x
Site Plan and Drawings (including DER locations, POI, and conduit routes)	x		x
Interconnection Plan	x		x
Interconnection Equipment Assessment	x		x
Electrical Single-Line diagrams	x		x
Wiring plans (with inverter locations and IDs)			x
Demolition Plans (if required)	prelim		x
Structural Drawings			x
BESS and LP Generator Pads and Mounting Details			x
Signage, Trenching, Installation, and Grounding Details			x
Monitoring and Measurement System Details			x
Lighting Plan, Details, and Photometric Plans			x
Complete Design Package Sufficient for SPBMI Review			x
Complete Construction-Grade Specifications		x	x
Geotechnical Reports and Associated Drawings		x	x
Equipment Manufacturer’s Cut Sheets and Details		x	x
Interconnection Application and Supporting Documents		x	x
List of Subcontractors, Service Providers, etc.		x	x
Commissioning Plan			x
Construction Schedule	Prelim		Detailed

DELIVERABLES:

- As-built system review documentation and remediation recommendations.
 - Documentation of design modeling and cash-flow modeling.
 - Three (3) sets of project final plans, signed by a California registered professional engineer, printed and signed on 11"x17" paper, with additional electronic versions in editable native file format and text-searchable PDF format.
 - A high resolution, electronic version of the final construction-grade specifications in editable native file format and text-searchable PDF.
 - Updated construction, integration, and commissioning plan and schedule.
 - Notice to proceed with construction from SPBMI.
- 2. Secure all required permits and approvals (including interconnection application)**
- Identify, secure, adhere to, and close out all required government permits and approvals, and complete any required filings and notices, including but not limited to:
 - Electrical permits and approvals

- Air quality permits and approvals, if applicable
- Wetlands permits and approvals, if applicable
- Storm water runoff permits and approvals, if applicable
- Complete SDG&E Rule 21 interconnection application, coordinate interconnection study processes, and support SPBMI engagement with SDG&E throughout the interconnection application and agreement process.
 - Responsive proposals shall provide itemized estimated cost for the interconnection application, study, and approval fees for the proposed microgrid (including any fees that are to be paid by SPBMI directly to SDG&E), as well as budgeted costs for interconnection control and protection systems and installation.
 - SPBMI shall be responsible for paying any SDG&E interconnection application and study fees.

DELIVERABLES:

- All required filings, notices, permits, and approvals
- SDG&E interconnection application
- SDG&E interconnection agreement
- Updated budget for interconnection control and protection systems

3. Procure and deliver all equipment, supplies, services, etc. (tax exempt)

Responsive proposals shall describe microgrid procurement and delivery processes, including *at a minimum*:

- Develop Procurement Plan for SPBMI review and approval.
- Coordinate with SPBMI to develop delivery schedule and storage plans.
- Update detailed specifications and equipment schedule to reflect any changes or additions established during permitting and pre-construction inspection processes.
- Arrange and manage procurement, delivery, and secure storage of all equipment and materials.
- Arrange and schedule all services required to execute construction and installation.

All equipment and accessories supplied shall be free from defects and listed by Underwriter's Laboratories, Inc., or bearing its label or label of a Nationally Recognized Testing Laboratory (NRTL). All specified equipment and software shall be designed and rated to support project objectives, and shall conform to all applicable industry and government codes and standards, which the EPC shall identify in all proposed plans and specifications.

All materials shall be delivered to the job site in their original containers with all labels intact and legible at time of use and stored in strict accordance with approved manufacturers' recommendations. All deliveries are to be made to approved storage location(s). Under no circumstances shall SPBMI be responsible for accepting deliveries.

In the event of damage, EPC immediately shall make all repairs and replacements necessary to the approval of SPBMI and at no additional cost to SPBMI.

EPC shall personally, or through an authorized representative, check all materials upon receipt at jobsite for conformity with approved shop drawings and/or plans and specifications.

DELIVERABLES:

- Approved Procurement Plan
- Delivery schedule and materials storage plan
- Bill of lading for all procured and delivered equipment and materials
- Manufacturer/vendor manuals, specifications, and other documentation

4. Complete construction and installation of microgrid and balance of systems

Responsive proposals shall describe the full scope of microgrid construction, installation, and interconnection with the utility system, including *at a minimum*:

- Coordinate all schedules and sequencing of construction and electrical work with designated SPBMI staff.
- Plan and execute all work to minimize disruption to use of the site, including but not limited to disruptions due to accessibility and noise.
- Plan, schedule, and execute all site civil engineering, construction, and installation tasks in EPC scope.
- Manage site civil engineering and construction tasks in SPPWD scope.
- Install all microgrid systems (cabling, metering, communications, switching, DAS; carports, PV systems, charge controllers, EV chargers; BESS, inverters, LP gensets; interconnection control and protection systems; and microgrid controls, DER controls, energy management and load controls), and public information visualization and display system.
- Execute Quality Control Plan (QCP) including quality assurance reviews, final inspections, and code check.
 - Coordinate quality assurance reviews by qualified independent engineer (to be engaged directly by SPBMI)
 - Coordinate applicable final inspections and code check

Prior to the EPC beginning construction:

- EPC shall secure all required permits and approvals, in coordination with SPBMI, and shall make available to SPBMI copies of filed applications and secured permits and approvals.
- SPBMI shall provide written NTP for construction upon receipt of acceptable plan set with all necessary permitting approvals and all required proof of bonding.
- EPC shall provide a comprehensive onsite Construction Management and Safety Plan for the construction of the Project in accordance with all applicable laws, policies, and OSHA-compliant safety practices. Plan shall include, at a minimum, address of local emergency medical facilities, project directory, information on subcontractors, coordination with SPBMI staff during specific construction tasks, and communication protocols.
- EPC shall provide a complete Construction Schedule that includes EPC scope as well as SPPWD, utility, and subcontractor scope.

- EPC shall develop a Quality Control Plan (QCP) including quality assurance reviews, final inspections, and code check procedures.
- EPC shall provide Manufacturers' Installation Manuals for major project components, including, but not limited to: PV modules, carport systems, BESS, inverters, EV charging systems, DAS, all control systems, and other major electrical and communication systems. SPBMI shall apply manufacturer recommendations as the basis for reviewing and approving commissioning, inspection, and installation procedures.
- Prior to ordering equipment and materials, EPC shall verify all measurements at the project site and notify SPBMI in writing about any changes from earlier plans.
- EPC shall submit any proposed changes to the design or scope of work to SPBMI before any changes are made. Change submittals shall contain all required descriptive details and costs, and changes also shall be noted as applicable on updated system capacity, production estimates, and economic analyses.

During construction, EPC shall:

- Present to SPBMI the final Construction Plan and Schedule during a construction kickoff meeting to occur within 5 days of site mobilization.
- Provide to SPBMI updated three-week forecast schedules on a weekly basis, and updated Construction Schedule every two weeks or as required by SPBMI.

Table 4. Construction Submittal Schedule

Construction Submittal	Submittal Schedule
Construction Management and Safety Plan	At least 15 days before site mobilization
Construction Schedule	Three-week forecast schedule updated and submitted weekly prior to the weekly meeting; Detailed schedule regularly maintained, and update provided every two weeks or as requested.
Manufacturers' Installation Manuals	No more than 5 days after construction kickoff meeting.
Weekly Meeting Minutes	At least one day before the next scheduled project meeting
Test Reports	As available
Factory Tests	As available
Field Tests	As available
Design Changes and Approvals	As needed; EPC shall accurately and legibly detail all changes on Construction Plans and shall present changes to SPBMI for approval. EPC shall record any approved final changes on as-built drawings.
Proposed Change Orders	As needed; EPC shall submit in writing any requested change orders to SPBMI for approval. EPC shall not proceed with any changed work until SPBMI provides written approval of changes.

DELIVERABLES:

- Executed construction NTP from SPBMI
- Construction Management and Safety Plan, Construction Schedule, and other construction submittals noted in Table 4

- Quality Control Plan
- Inspection reports
- All required permits and approvals
- Construction kickoff meeting presentation
- Documentation of any approved changes in scope and plans (if applicable)

5. Complete integration and configuration of all system controls

Responsive proposals shall describe integration and configuration of all system controls, including *at a minimum*:

- Provide for SPBMI review and approval complete Microgrid Integration Plan.
- Provision and validate integrated control and communications, including integration of DAS and external data acquisition systems defined by the EPC to provide inputs such as weather forecast data, market pricing data, and any APIs or other required interoperating systems.
- Properly configure settings for microgrid components including microgrid controls, DER controls, energy management systems, and load controls.
- Develop, program, and provide simple user-interface tools for user-configurable operating modes to manage BESS SoC to support such use cases as: normal resiliency; extended resiliency; maximum resiliency; normal economic optimization; and maximum economic optimization, as described in “Control Functionality and Integration” below.

DELIVERABLES

- Microgrid Integration Plan
- Integration validation brief

6. Complete full microgrid system commissioning

Responsive proposals shall describe microgrid system commissioning processes and tests, including *at a minimum*:

- Prepare for SPBMI review and approval a Microgrid Commissioning Plan that describes in detail all procedures and tests that will be performed to validate operational performance of all systems during commissioning.
- Microgrid commissioning scope will include, at a minimum:
 - Execute the approved Microgrid Commissioning Plan
 - Coordinate commissioning reviews and verification by SPBMI’s independent QA engineer
 - Perform acceptance tests (application of external power to equipment to prove integrity) for power transformers, switchboard, protective relays and controls, instrument transformers, grounding, power metering, and network devices and software
 - Perform functional tests (complete operational check of installed assemblies) for protective relays and controls, control circuits, power metering devices, and lighting systems
 - Perform coordination study for circuit breakers

- Visually inspect for physical damage, clean equipment, perform insulation resistance and continuity tests, and verify proper equipment installation and connection and conductor connection torque values
- Perform thermal imaging checks of electrical components and systems
- Perform data network and DAS testing
- Inspect and test each DER component
- Inspect and test ATS and other switches including dielectric tests, mechanical tests, electrical operation tests, control wiring tests, and polarity tests
- Perform in-service testing of equipment components, microgrid subsystems, and full microgrid system, including communication and control protocols and cybersecurity
- Verify system performance monitoring, metering/measurement, data logging, and public information visualization and display functionality
- Confirm signage and placards meet plan requirements
- Coordinate pre-parallel inspections, testing, and verifications with SDG&E
- Obtain SDG&E authorization of synchronization and parallel operation
- Prepare and provide to SPBMI the final Commissioning Report

DELIVERABLES:

- Microgrid Commissioning Plan
- Documentation of Functional Test Procedures and Testing Results
- Commissioning Test Certification and Verification of SDG&E-approved Settings
- SDG&E Authorization of Synchronization and Parallel Operation
- Final Commissioning Report

7. Complete construction closeout

Responsive proposals shall describe the construction closeout process and documentation, including *at a minimum*:

- Submit digital as-built record drawings for SPBMI review and approval, in both editable native file format and PDF prior to commercial operation. Record drawings shall incorporate all changes from earlier plan sets including final plans issued for construction, and locations of all infrastructure including underground and above-ground conduits.
- Complete and submit documentation of final punch-list completion.
- Submit executed performance guarantee agreement updated with final commercial operation dates and as-built metrics.
- Deliver complete microgrid system manuals and other documentation.
- Submit any other project documentation as required by SPBMI.

DELIVERABLES:

- As-built record drawings and documentation
- Construction closeout report including completed punch lists
- Updated performance guarantee agreement

8. Train SPBMI staff on microgrid system operations and maintenance

Responsive proposals shall describe microgrid O&M training processes and documentation, including *at a minimum*:

- Deliver complete microgrid system O&M documentation including Microgrid Control Manual.
- Deliver DAS Manual and Visualization System Manual and associated documentation.
- Deliver Security Manual describing user authentication and cybersecurity and physical protection systems, protocols, and procedures.
- Deliver Operator Training Document Set and provide formal training in all functions to be performed by site staff, including configuring and adjusting control modes, monitoring and analyzing performance, managing transitions between grid-connected and islanded states, retrieving system data logs and reports, and basic troubleshooting.
- Deliver schedule of recommended periodic maintenance and testing, including identification of maintenance and testing steps required for manufacturer warranties and compliance with safety protocols and other operating standards.

All operator manuals and instructions shall be well organized, clearly described, accurate, and sufficient to support training and operations by SPBMI site staff. All operator manuals shall be subject to SPBMI review and approval before they are deemed final and accepted for system operation and training.

DELIVERABLES:

- Microgrid Manual
- DAS Manual
- Visualization System Manual
- Security Manual
- Operator Training Document Set
- Other system O&M Manuals as appropriate
- Schedule of Periodic Maintenance and Testing

9. Perform project management responsibilities

Responsive proposals shall describe full-scope project management plan (PMP) including *at a minimum*:

- Statement of project objectives (SOPO)
- Subtask-level project schedule/work breakdown structure (WBS)
- Organizational structure and points of contact and authority
- Communication and documentation control plans
- Finance and administration plan
- Risk-management and contingency plans
- Other plans and procedures as required to manage fulfillment of project objectives

The EPC shall provide qualified and experienced project management resources to efficiently manage execution of the approved PMP. The project manager shall provide regular updates on project progress, including at a minimum:

- Weekly progress updates and 3-week forecast updates
- Biweekly schedule updates
- Monthly finance and accounting reports

DELIVERABLES:

- Project Management Plan (PMP)
- Project kickoff presentation
- Weekly update summaries
- Monthly progress reports
- Invoicing, accounting, and labor reports
- Project closeout report
- Annual reports of microgrid performance on all metrics specified in performance guarantees
- Other project documentation as required by SPBMI

Discrete Scope Items

The proposer may suggest additional project objectives and scope tasks that the proposer believes would add substantial value to the project. Any additional scope shall be treated as optional for SPBMI evaluation, with associated pricing presented separately.

Additionally, responsive proposals shall include the following discrete scope tasks, which also shall be treated as optional scope for SPBMI evaluation, with associated pricing presented separately:

10. Provide Solar Installation Training (Discrete Scope)

Responsive proposals shall describe the EPC’s approach to training solar installers and utilizing trainee/volunteer labor, including *at a minimum*:

- On-the-job training for up to 10 trainees (volunteers and SPPWD staff) who will be recruited and pre-screened by SPBMI.
- At least one (1) classroom session on solar installation safety and basics
- Hands-on solar installation experience for the trainee/volunteers whose labor hours may contribute in-kind resources toward SPBMI’s grant match obligation. Accordingly, volunteer labor should be utilized for solar installation to the greatest practical degree.

Responsive proposals shall include a separate budget, estimated labor hours to be performed by volunteer trainees, and a brief description of the proposed approach to supporting this training scope in a way that provides marketable knowledge and experience for trainees and maximizes volunteer labor value.

DELIVERABLES

- Solar Installer Training Methodology
- Training modules, tools, equipment, and supplies
- Training Evaluation Report

- Trainee Labor and In-Kind Cost Report

11. Electric Vehicle Charging Stations (Discrete Scope)

Responsive proposals shall include EV charging stations, including *at a minimum*:

- Design, procure, install, and integrate six (6) Level-2 electric vehicle (EV) chargers as part of the project solar carport systems at the Tribal Hall parking lot.
- Integrate EV charging for microgrid control, enabling curtailment of EV charging during island-mode operations.
- Develop and provide Charge Control and Integration Manual, describing operations, maintenance, and control of the EV charging systems.

Budget cost for EV charging-station scope shall be presented separately, with costs itemized on a per-unit basis.

DELIVERABLES

- EV Charging System Design
- Charge Control and Integration Manual

SPPWD Scope Items

The EPC scope shall include specifying, planning, coordinating, and managing task scope that shall be performed by SPBMI Public Works Department (SPPWD). The EPC shall procure and deliver all construction supplies required for SPPWD to execute its project scope. SPPWD shall utilize all of its own personnel, tools, and equipment except for a boom lift or other special equipment to be provided by the EPC. The EPC shall provide detailed specifications for SPPWD’s work, and the EPC periodically shall inspect all work performed by SPPWD during and upon completion, providing direction as needed to ensure that work is completed to the satisfaction of the EPC.

SPPWD shall be responsible for executing the following scope:

#	Scope Item	Description
1	Install Solar Carports	Construct the carport structures in the north parking lot to which the solar panels will be attached. The EPC shall procure all construction supplies required for the complete construction of the carports by SPPWD, including steel framing, concrete footings, and all installation hardware and materials.
2	Trench and Install Underground Conduit	Trench and install all underground conduit (not cable) required for the microgrid, both for electrical and communications as applicable, except for areas where the EPC shall install trenchless conduit using angle boring.
3	Trench and Install LP Supply Lines	Trench and install underground LP supply lines between the generator and the existing LP tank. The SPPWD <u>shall not</u> connect the LP supply lines to the generators or tanks. The EPC shall be responsible for LP supply line connections and valve installation, quality assurance, and inspections.

4	Fill Trenches	Fill all trenches; However, SPPWD's scope shall <u>not</u> include replacing any asphalt removed.
5	Construct Concrete Pads	Construct concrete pads and mounting systems for the generator, the BESS, and the new 500-gallon LP tank
6	Install Firebreaks and Vegetation Control Systems	Install any required firebreaks and vegetation control systems around the BESS and LP generator

IV. Technical Specifications and Performance Requirements

General Technical Specifications

Proposals shall describe technical specifications for major components, and shall cite applicable standards, codes, and manufacturer recommendations upon which EPC specifications shall be based. Task scope for development of detailed construction-grade specifications shall be included in EPC project scope.

Responsive proposals shall define the following specifications, at a minimum, for proposed generation, energy storage, and balance-of-plant systems:

- Solar PV Specifications
 - PV cell type
 - Nominal system capacity (kW DC and kW AC)
 - Module DC rating (Watts)
 - Module quantity (#)
 - Modules per string (#)
 - Azimuth (degrees)
 - Tilt (degrees)
 - Product warranty (years)
 - Annual production degradation (%)
 - Performance guarantee (% of target production)
 - Manufacturer
 - Model #

- Charge Controllers Specifications
 - Max power rating (amps)
 - Operating voltage (volts)
 - Product warranty (years)
 - Manufacturer
 - Model #

- BESS Specifications

- Battery type/chemistry
 - Maximum power (kW)
 - Continuous power (kW)
 - Nominal energy capacity (kWh)
 - Usable energy capacity (kWh)
 - Depth of discharge (%)
 - Round-trip efficiency
 - Warrantied charge/discharge cycle life (# of cycles)
 - Warrantied lifetime throughput (MWh)
 - End of life capacity (%)
 - Ambient temperature range rating (Min and Max degrees Fahrenheit)
 - Ingress Protection rating for outdoor installation (must be yes)
 - Battery performance warranty (years)
 - BESS product warranty (years)
 - Manufacturer
 - Model #
- LP Genset Specifications
 - Maximum power capacity (kW)
 - Continuous power capacity (kW)
 - Minimum recommended loading (%)
 - Warrantied for microgrid operation (must be yes)
 - Rated for standby, prime, or continuous operation?
 - Fuel usage at 100% loading (LP gallons/hour)
 - Supports grid forming (must be yes)
 - Supports load sharing (must be yes)
 - Enclosure description
 - Sound level at full load (dbA at 7 m)
 - Product warranty (years)
 - Genset Manufacturer
 - Genset Model #
 - Controller Manufacturer
 - Controller Model #
- Inverter Specifications
 - Maximum power rating (kW)
 - Continuous power (kW)
 - Product warranty (years)
 - Manufacturer
 - Model #
- Solar Carport Design
 - Proposals must include representative images carport structures proposed for this project. Images must match as closely as possible to the proposed design

and proposals must note any differences between the images and what is proposed.

Performance Criteria

Responsive proposals shall meet the minimum performance criteria as described in Table 5 below.

Table 5. Performance Criteria

#	Criterion	Elements
1	CONTROL FUNCTIONALITY AND USER INTERFACE	Microgrid controls capable of: <ul style="list-style-type: none"> Managing automatic transitions from grid-connected to safely islanded operating modes (seamless transition capabilities preferred) Applying user-configurable operating modes Dispatching resources Managing BESS SoC Signaling controls for dispatchable loads including networked thermostats and other high-demand, end-use loads such as EV charging stations Other functional requirements as described below to support microgrid control and energy management objectives
2	ZERO NET ANNUAL GRID POWER CONSUMPTION	Renewable generation resources (new solar PV, plus existing 24 kW rooftop PV systems) capable of achieving a condition of zero net annual consumption of grid-supplied electricity at the Project site, based on site 12-month usage (246,534 kWh)
3	BATTERY-ONLY AUTONOMY	BESS capacity capable of supporting renewable-charged battery-only autonomy in island mode for at least 60 minutes during maximum loading conditions (plus 35% capacity reserve), in “Normal Resiliency Mode,” given maximum optimal BESS SoC at the outset of island-mode operations.
4	MAXIMUM COST SAVINGS	PV, BESS, and load-control capacity sufficient to minimize lifetime (20-year) site energy costs by displacing consumption of higher-cost energy supplies, shifting utility-served loads from peak-pricing periods to off-peak periods, and reducing demand charges. Lifetime cost estimates and cash-flow projections shall account for accelerated battery degradation and replacement costs due to daily battery-charge cycling to achieve economic objectives. Cost-savings strategies also shall apply the optimal SDG&E tariff to support lifetime cost savings.
5	PROPANE REDUNDANCY	LP-fueled generation capacity sufficient to sustain maximum loading conditions (plus 35% margin) during island-mode operations for an indefinite period of time, subject to onsite availability of propane.
6	CAPITAL COST CONTROL	Design and procurement strategies minimize total system capital costs in achieving all other performance criteria and requirements.

Resources and Design Parameters

Proposals shall be supported with resource and design modeling results demonstrating how the EPC optimized the proposed system – including all DERs (generation, storage, and controllable loads) – to support the Performance Criteria described above for six facilities (Tribal Government Center, Housing & Security Building, Fire Department, Education Building, Preschool, and onsite wastewater treatment system) with electric loads totaling approximately 283,328 kWh/year and a coincident peak demand of 111 kW (including power supplied by both the SDG&E grid and existing solar PV systems).⁶ *Additionally, the proposed system shall include a capacity reserve of 35% to accommodate future load growth and provide redundant capacity.*

Proposed solutions must integrate existing 24 kW (DC) of onsite PV as well as new DER capacity to be proposed, including carport-mounted PV systems, BESS, energy management systems, and LP-fueled genset rated and warranted to support project operating requirements.

Design objectives include minimizing reliance on LP-fueled generation. BESS therefore shall be the primary grid-forming resource, with LP-fueled generation as a secondary grid-forming resource for use when BESS resources are unavailable or excessively depleted. DER capacity and functionality shall be sufficient to support at least one (1) hour of battery-only autonomy during peak-loading conditions (*including a 35% capacity reserve*), without startup of LP generation, assuming optimal BESS SoC at the outset of island-mode operations, and assuming the application of load-control functionality.

Control Functionality and Integration

Responsive proposals shall describe functional capabilities specified in all control and integration systems, and cite vendor documentation supporting the specified functionality. Proposed microgrid controls shall comply with applicable industry standards, notably including IEEE 2030.7-2017, and shall support safe transitions to and from grid-connected modes in compliance with utility interconnection standards.

As noted in Table 5 “Performance Criteria,” microgrid controls shall be designed and integrated to enable user-configurable operating modes, to be defined in cooperation with SPBMI building management staff. Microgrid operating modes shall provide energy management services both in islanded and grid-connected modes, supporting economic objectives with such functionality as demand response (DR), peak-shaving, and load-shifting functions. For example, configurable modes would support, *at a minimum*:

- Normal Resiliency (maintain BESS SoC for short-duration outages (<1 hour))
- Extended Resiliency (maintain BESS SoC for extended outages (1+ hour) with uninterrupted LP refueling)
- Maximum Resiliency (maintain BESS SoC for indefinite outages with no LP refueling)
- Normal Cost Savings (maintain BESS SoC to enable moderate peak shaving, load shifting, demand charge reduction, etc.)

⁶ The 111 kW peak demand figure is based on historic metering data and does not include any proposed new electric loads, most notably EV chargers described in this solicitation.

- Maximum Cost Savings (maintain BESS SoC to enable maximum peak shaving, load shifting, demand charge reduction, ancillary services (if applicable))

SPBMI prefers that proposed DERs and controls are capable of responding to utility signals for grid services. If providing such grid-responsive functionality will incur additional incremental capital costs, then those costs shall be separately identified and proposed as optional for SPBMI consideration.

Responsive proposals shall describe how DERs and controllable loads will be signaled during normal utility operations as well as during outages, and shall explain how connectivity and control of all integrated systems will be maintained during utility outages.

The microgrid control systems will be designed and integrated to perform the following primary energy management system functions, *at a minimum*:

- Upgraded controls for building HVAC systems, integrated to enable microgrid management of inrush currents, coincident peaks, and continuous loads during both grid-connected and islanded operations;
- Controls for proposed (discrete scope) electric vehicle (EV) level-2 chargers integrated to enable the microgrid to curtail or enable EV charging during applicable operating modes; and
- New load controls or circuit-level switching for wastewater treatment pumps and other specific high-demand appliances or circuits as identified by the EPC, as appropriate, and integrated into the microgrid control scheme.

Facilities at the site currently do not have any building energy management systems (BEMS) or advanced controls, with the exception of some motion-activated lighting systems and Nest thermostats in some occupied spaces. The EPC proposal may or may not include new BEMS or advanced load management systems beyond the minimum primary energy management functions described in the preceding paragraph.

The microgrid DAS shall, at a minimum, measure, log, and support application program interface (API) and human user interface reporting of the following metrics, in intervals no longer than 15 minutes:

- PV production
- Battery state of charge
- Battery charge/discharge state and current
- Weather data
- Energy demand and consumption by facility
- Total energy demand and consumption
- System electrical functions (e.g., AC and DC system voltage and amperage, peak value tracking with timestamps, instantaneous and cumulative power output (kW and kWh), etc.)
- Pounds of CO₂e avoided by system operation including emissions attributable to PV displacement of utility supplied power

The DAS shall support Western Renewable Energy Generation Information System (WREGIS) format sufficient for registering Renewable Energy Credits (REC) from the system's renewable generation. The DAS shall provide lifetime logging and access to all logged data, and shall support secure API access to all logged data at no cost to SPBMI or SPBMI's third-party designee.

If the proposed control system requires automatic or operator-assisted data inputs or procedures for establishing optimal economic configurations, the EPC proposal shall describe such inputs and procedures, as well as any associated APIs or external service functionality and costs.

SPBMI's strategic plans include exploration of integrated approaches to energy management, including coordinated control of DERs to support aggregated demand response (DR) and ancillary services. Responsive proposals shall describe the interoperability attributes and limitations of all control systems, and shall identify which systems are proprietary and which are open-sourced.

SPBMI's public outreach and education objectives include informing tribal members about the benefits and performance of the microgrid. To support these objectives, the microgrid shall include public information visualization and display functionality that, *at a minimum*:

- Produces a real-time/near real-time visualization of the microgrid in operation, presenting current status and lifetime production information, for example, with data from microgrid telemetry and data-logging systems; and
- Online portal that displays the microgrid visualization through on online portal, on SPBMI websites, and through visual displays in the Tribal Administration building and Education building.

All human user interfaces and operator controls shall be designed and provisioned to support ease of operability by site staff with limited and basic instruction. The EPC proposal shall describe how the operator will configure the microgrid controls, and how the proposed integrated control system will manage DERs, including controllable loads, for both resiliency and economic objectives.

Responsive proposals shall include documentation and diagrams illustrating the capabilities of proposed interfaces for all systems requiring operator interaction (at a minimum the microgrid user-configurable controls, DAS, and public information visualization system), including as applicable, product cut sheets, screen shots, and preliminary process flow diagrams.

The EPC may specify either wired or wireless communications systems for integration of all microgrid components. However, any wireless systems must perform with efficiency, reliability, and security equivalent to a high quality, dependable wired system.

Responsive proposals shall address cybersecurity strategies and shall identify applicable security standards to which control systems shall conform. Integration scope shall include security testing and validation, and the Microgrid Control Manual shall describe user authentication and system protection protocols and procedures.

Required functional capabilities of controls are detailed in Table 6 below.

Table 6. Microgrid and Distributed Controls - Functional Capabilities

Function	Capabilities
General functional requirements	Load sharing (BESS, PV, propane genset(s)) Grid-to-island transition (seamless transition capability preferred) Intentional islanding (seamless transition capability preferred) Unintentional islanding (seamless transition capability preferred) Black start (islanded grid formation from blackout) Energy management (grid-connected) (for economic optimization) Energy management (islanded) (for stability and resilience) Microgrid stability control Island-to-grid transition (re-synchronization) Cyber security and intrusion detection and prevention Energy performance data logging and reporting Real-time/near real-time visualization and display of microgrid performance User-configurable operating modes
Energy management capabilities	Signaling for building climate controls and other load controllers Demand-response management Peak load management Economic dispatch of BESS Building-specific and system-wide DAS with measurement, logging, and reporting of energy data including consumption and demand data
Stability management	Power quality management Synchronization (voltage, frequency, phase angle) Reactive power management Transient detection Transient management

V. Warranty, Service Agreement, and Performance Guarantees

Proposals must include minimum warranties, performance guarantees, and O&M service as described below, along with the proposed terms and conditions of each. The scope and extent of the minimum warranties, performance guarantees, and O&M service shall be an important factor in evaluating proposals. Proposals should also include optional annual extensions for warranties, performance guarantees, and O&M service. These extensions should be presented as separate budget items.

All specified components shall be manufacturer-warranted commercial products, and shall include, at minimum, industry standard warranties with coverage for the planned system applications. These warranties shall cover, but not be limited to, OEM equipment warranties and

workmanship warranties. The EPC's services and responsibilities shall include a full-wrap warranty against defects affecting all equipment and materials, including work performed by the SPPWD at the direction of the EPC, with a full repair-or-replace remedy. The EPC also shall provide a design and installation warranty with repair, replace, or re-performance remedies as applicable. A copy of the equipment and contractor warranties must be included in proposals for this project.

Proposals must include proposed performance guarantees for the project, including for solar PV system energy generation and BESS performance. The performance guarantees shall cover at least a five (5) year period from the date of microgrid commissioning.

Proposals must include a proposed operations and maintenance (O&M) service agreement for the project. This agreement shall, at minimum, cover the same period as the included performance guarantees.

VI. Roles & Responsibilities

Responsive proposals must describe the organizational structure of the project team, covering both entities and individuals, in a manner that clearly shows roles and responsibilities regarding objectives and major scope items. The proposer must identify subcontractors and show how the scope will be divided between the Prime and these subcontractors. In addition, the proposal must identify and explain the roles of all key individuals. This description must be supplemented by an organizational chart for the project.

Responsive proposals must include resumes for all key individuals.

VII. Schedule

Proposals must include a detailed schedule that addresses, at minimum, all objectives and scope items set forth in this RFP. The project is expected to commence on or before February 1, 2020 and full system commissioning and deployment shall occur no later than October 31, 2020.

SPBMI prefers an earlier full system deployment date, if this can be reasonably achieved without compromising the quality and performance of the work to be completed and systems to be installed, and this will be factored into the evaluation of proposals. Proposals should also provide reasonable assurances and guarantees of timely performance, which will also be factored into SPBMI's evaluation of the proposals.

VIII. Preliminary Energy and Financial Analysis

Responsive project proposals shall include preliminary energy analysis and pro-forma along with a financial analysis and prof-forma. The modeling methods, tools, and key assumptions must be described. Proposals may include copies of models and modeling outputs.

The energy analysis shall include projected annual solar production and BESS utilization modeling. The weather data, degradation factors, and other assumptions considered and applied must be stated.

The financial analysis shall include an undiscounted 20-year cash-flow pro-forma with net-present value (NPV), payback period, and lifetime cost of energy (LCOE) that considers all expenses and seeks to maximize savings and revenues directly and clearly attributable to the project (with all expenses and sources of revenue/savings listed and clearly explained). The cash-flow modeling must utilize the most recent 12 months of SDG&E interval and billing data available as a baseline (with their effective rates and rate schedules) and apply 4% utility rate escalator. The cash-flow modeling should consider system O&M costs, LP fuel costs, BESS and solar degradation costs, system component replacement costs and other relevant costs along with reduced energy and demand charges, tariff optimization, load shifting, peak shaving, California Self-Generation Incentive Program (SGIP), and other relevant sources of revenue or savings.⁷ All assumptions considered and applied must be stated.

IX. Price and Budget

Proposals must include a firm, fixed price, subject to pre-contract negotiations. This price shall be presented in a detailed budget with appropriate narrative description and justification. The detailed budget must address all project objectives and scope items.

Note: SPBMI is a tax-exempt purchaser and all pricing must exclude taxes.

A Budget Template has been provided with this RFP that can be used for presenting the proposed budget. If the EPC's budget proposal utilizes any format other than the Budget Template, it must clearly address all the budget items that are described in the Budget Template.

X. Relevant Qualifications, Experience, and Capabilities

Responsive proposals shall describe the proposer's qualifications and experience relevant to project objectives.

If the proposer has been in business in California under the present company or business name and license number for less than two years, the proposer shall describe the resources it will

⁷ In September 2019 the California Public Utilities Commission ordered SGIP changes to include tribal governments in the definition of "disadvantaged communities" eligible for SGIP storage equity incentives.

<http://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M312/K684/312684664.PDF>

utilize to assure adequate local capacity to execute project scope, and to secure knowledge and expertise regarding regulations and standards affecting the project.

Responsive proposals must describe three relevant solar and energy storage projects and/or microgrids, either completed or ongoing, that the proposer has played a significant role in executing. If the experience is for a subcontractor to the proposed EPC, then the proposed role of that subcontractor in the project must be significant and similar.

The description of each relevant project must include:

- Name of the project
- Project owner
- Project owner contact information
- Proposer's role (prime/subcontractor/other)
- Name of prime EPC contractor (if not proposer)
- Project location (country, state, county, city)
- Brief description of proposer's scope of work
- Project start and completion dates, or expected duration if not yet completed

By submitting a proposal in response to this RFP, proposer authorizes SPBMI representatives to contact referenced project owners.

XI. References

Responsive proposals shall include at least three references from customers that the proposer has supported on a solar and energy storage project or microgrid. References shall include the company/organization name, the contact's name and title, the contact's phone number and email address, and a brief description of the work performed.

By submitting a proposal in response to this RFP, the proposer authorizes SPBMI representatives to contact the provided references.

XII. Minimum Qualifications and Requirements

The Proposal shall meet the following minimum qualifications and requirements. When evaluating the Proposals, the SPBMI will first evaluate the qualifications section of each Proposal which to see whether the proposal meets the minimum qualifications listed below.

Proposers should ensure they meet these minimum qualifications before preparing a proposal.

1. The proposal was submitted by 11:59pm on Monday, December 16, 2019.
2. The proposal includes the following statement entitled "CERTIFICATION UNDER PENALTY OF PERJURY," that has been signed by an owner, partner, or corporate officer authorized to sign on behalf of the proposer:

“I, the undersigned, certify and declare that I know the contents of all documents submitted pursuant to the RFP, have read all the foregoing answers and any attached sheets and know their contents. As the duly authorized representative of the proposer, I certify that the matters contained in, or submitted pursuant to the RFP, all documents submitted herewith, and all answers are true and accurate of my own knowledge and belief. I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct.”

3. The proposer can complete all objectives, scope items, and other requirements described in this RFP no later than October 31, 2020.
4. Within the past five years, proposer has successfully completed at least solar one PV project larger than 100 kW DC, at least one BESS project with a rated storage capacity of at least 50 kW DC, and at least one grid-tied microgrid project with integrated BESS, variable renewable energy generation, and active load controls. If the proposal relies upon the experience of one or more proposed subcontractors to meet these minimum requirements, the subcontractor(s) must have a substantially similar role in the submitted proposal.

Proposer and all subcontractors have sufficient bonding capacity for this project as set forth under the Health and Safety Requirements

The selected EPC and all subcontractors shall comply with all California and federal health and safety requirements as set forth by the Federal Occupational Safety and Health Administration (OSHA) and California Occupational Safety and Health Administration (CAL-OSHA). All labor and materials supplied in performance of work required by this RFP shall be provided and performed in accordance with all Industry Safety Standards, OSHA, CAL-OSHA, EPC’s existing safety requirements, all other applicable SPBMI, federal, and state laws.

Proposers must provide or describe the safety records that list and describe any OSHA and Cal-OSHA incidents over the past five years for the EPC and all subcontractors. These records must be updated for any previously unidentified subcontractors that are hired or expected to be hired for the project, prior to that subcontractor commencing any work on the project.

XIII. Department of Energy Terms and Conditions

This project will be partially funded by grant funding awarded to the SPBMI by the Department of Energy. The EPC and all subcontractors shall comply with any and all applicable flow-down terms and conditions included in the SPBMI’s grant agreement with the DOE for this project. A copy of these provisions will be included in the final contract and can be made available upon request.

5. Additional Terms and Conditions herein.

6. Proposer or subcontractor holds a California Class B and either a C-10 or C-46 license.
7. Proposer or subcontractor shall be duly licensed and registered as a both Civil and Electrical Engineer in the State of California.

Proposer can meet and will utilize installation contractor(s) who can meet the insurance requirements set forth in the Health and Safety Requirements

The selected EPC and all subcontractors shall comply with all California and federal health and safety requirements as set forth by the Federal Occupational Safety and Health Administration (OSHA) and California Occupational Safety and Health Administration (CAL-OSHA). All labor and materials supplied in performance of work required by this RFP shall be provided and performed in accordance with all Industry Safety Standards, OSHA, CAL-OSHA, EPC's existing safety requirements, all other applicable SPBMI, federal, and state laws.

Proposers must provide or describe the safety records that list and describe any OSHA and Cal-OSHA incidents over the past five years for the EPC and all subcontractors. These records must be updated for any previously unidentified subcontractors that are hired or expected to be hired for the project, prior to that subcontractor commencing any work on the project.

XIV. Department of Energy Terms and Conditions

This project will be partially funded by grant funding awarded to the SPBMI by the Department of Energy. The EPC and all subcontractors shall comply with any and all applicable flow-down terms and conditions included in the SPBMI's grant agreement with the DOE for this project. A copy of these provisions will be included in the final contract and can be made available upon request.

8. Additional Terms and Conditions herein.
9. Proposer has not been and will not utilize installation contractor(s) who have been terminated for cause or who have defaulted on a project during the last 10 years.
10. Proposer has not had a professional or contractor's license revoked at any time in the last five years; and will not utilize installation contractor(s) who have had a professional or contractor's license revoked at any time in the last five years.
11. Proposer and any of its owners, officers, or partners have not been found liable in a civil suit or convicted/found guilty in a criminal action within the last 10 years involving (a) a contract for a government construction project; (b) bidding or performance of a government contract; or (c) fraud, theft or any other act of dishonesty, including but not limited to the California False Claims Act, or Federal False Claims Act.

12. CAL OSHA or OSHA has not cited or assessed penalties against proposer for any serious, willful, or repeat violations of its safety or health regulations in the last five years; and will not utilize installation contractor(s) who have been cited or assessed for such penalties within the last five years.

13. Neither proposer, any of the proposer's affiliates, nor any of the proposer's respective managers, directors, officers, or employees in connection with the performance of the duties for or on behalf of the proposer's or any of proposer's affiliates has been debarred, suspended, proposed for suspension or debarment from bidding on any government contract, declared nonresponsible or ineligible, or otherwise excluded from participation in the award of any government contract or for any reason been listed on the List of Parties Excluded from Federal Procurement and Non-procurement Programs. Within the last ten (10) years, no debarment, suspension or exclusion proceeding has been initiated against proposer, any of proposer's affiliates or any of their respective directors, officers or employees in connection with the performance of the duties for or on behalf of proposer or any of proposer's affiliates. No circumstances exist that would warrant the institution of suspension or debarment proceedings against proposer, any of proposer's affiliates or any of their respective managers, directors, officers or employees in connection with the performance of the duties for or on behalf of proposer or any of proposer's affiliates. Should proposer, any of proposer's affiliates, or any of the proposer's respective managers, directors, officers, or employees appear on the suspended or debarred list, the proposer will be deemed ineligible to bid on the project set forth by SPBMI.

XV. Other Requirements

Applicable Laws and Standards

SPBMI is a federally recognized Indian tribe, and is the agency having jurisdiction (AHJ) over the federally recognized San Pasqual Indian Reservation, where the project is located. The EPC shall comply with all applicable SPBMI and federal laws, including ordinances, orders, rules, and regulations thereunder.

In executing all project tasks, the EPC and its subcontractors shall comply with California laws and standards to the extent that these laws and standards are not inconsistent with applicable SPBMI or federal laws, except that the State of California, including California courts and agencies, shall have no authority or jurisdiction over the administration or enforcement of these laws and standards unless expressly and lawfully granted by the SPBMI. In particular, the EPC shall comply with the most recent California Electrical Code, California Building Code, and California Fire Code.

The EPC and subcontractors shall comply with all other applicable laws and standards, including but not limited to:

1. Americans with Disabilities Act (ADA)

2. American National Standards Institute (ANSI)
3. American Society for Testing and Materials (ASTM)
4. California Building Code (CBC)
5. California Electrical Code
6. California Fire (CalFire) Solar Photovoltaic Installation Guidelines
7. California Geological Survey (CGS)
8. California Labor Code
9. California Title 20 and 24
10. Federal Communications Commission (FCC)
11. Institute of Electrical and Electronics Engineers (IEEE) 1547: Standard for Interconnecting Distributed Resources with Electric Power Systems, and IEEE 2030.7-2017: Standard for Specification of Microgrid Controllers
12. International Electrotechnical Commission (IEC) Technical Committee 82 (TC82)
13. National Fire Protection Association (NFPA), National Electric Code (NEC), Including NFPA 70 and NEC Article 690
14. National Electrical Manufacturers Association (NEMA)
15. Federal Occupational Safety and Health Administration (OSHA)
16. California Occupational Safety and Health Administration (CAL-OSHA)
17. Local Utility requirements including Net Energy Metering Rules, Interconnection Requirements and Tariffs
18. Storm Water Pollution Prevention Plan (SWPPP)
19. Underwriters Laboratories (UL) Standards, including 1703: Flat-plate Photovoltaic Modules and Panels and 1741-SA: Standard for Inverters, Converters, Controllers, and Interconnection System Equipment for Use with Distributed Energy Resources
20. Uniform Solar Energy Code – ICC

The SPBMI reserves the right to waive or modify any requirement or standard under California law. Such waivers or modifications shall only be valid if expressed in writing by an authorized SPBMI official.

Insurance Requirements

The EPC shall procure and maintain the following insurance at all times while performing any portion of the project scope:

1. Commercial General Liability Insurance. The EPC shall have a combined single limit for bodily injury and property damage of not less than Five Million Dollars (\$5,000,000) per occurrence to protect the EPC and each sub-contractor against claims for bodily injury or death and damage to property of others. This shall cover the use of all equipment, hoists, and vehicles on the site(s) not covered by Automobile Liability. If the EPC has a "Claims-made" policy, then the following additional requirements apply: the policy must provide a "retroactive date" which must be on or before the execution date of the Agreement; and the extended reporting period may not be less than five years following the completion date of the Agreement.

2. Automobile Liability Insurance. The EPC shall have Automobile Liability insurance against claims for bodily injury, death, or property damage resulting from the maintenance, ownership, or use of all owned or non-owned and hired automobiles, trucks, and trailers. The minimum acceptable limit that must be obtained is no less than Five Million Dollars (\$5,000,000) per any one accident or loss.
3. Workers' Compensation and Employers' Liability Insurance. For all EPC or subcontractor employees who are subject to the terms of the project EPC agreement, and to the extent required by the applicable state or federal law, the EPC and subcontractors shall maintain in full force and effect a Workers' Compensation policy. That policy shall provide minimum employer's liability coverage of One Million Dollars (\$1,000,000) per accident for bodily injury or disease. The EPC and subcontractors shall provide an endorsement that the insurer waives the right of subrogation against the SPBMI and its respective elected officials, officers, employees, agents, representatives, consultants, trustees, and volunteers.
4. Professional Liability (Errors and Omissions). Five Million Dollars (\$5,000,000) aggregate for errors and omissions as appropriate to profession of engineer designing the proposed systems, with coverage to continue through completion of construction plus two years thereafter.
5. Builder's Risk Insurance. On a replacement-cost value basis, the EPC shall procure and maintain, during the life of the EPC agreement, Builder's Risk (Course of Construction), or similar first-party property coverage to insure against all risks of accidental physical loss, and shall include without limitation the perils of vandalism and/or malicious mischief (both without any limitation regarding vacancy or occupancy), sprinkler leakage, civil authority, theft, sonic disturbance, earthquake, flood, collapse, wind, fire, war, terrorism, lightning, smoke, and rioting. Coverage shall include debris removal, demolition, increased costs due to enforcement of all applicable ordinances and/or laws in the repair and replacement of damaged and undamaged portions of the property, and reasonable costs for engineering services and expenses required as a result of any insured loss upon the work and project, including completed work and work in progress, to the full insurable value thereof.
6. Umbrella or Excess Liability. Five Million Dollars (\$5,000,000) per occurrence to meet the policy limit requirements of the required policies if the EPC's underlying policy limits are less than required. There shall be no gap between the per-occurrence amount of any underlying policy and the start of the coverage under the Umbrella Liability Insurance Policy. Any Umbrella Liability Insurance Policy shall protect the EPC and SPBMI, and in amounts, and that complies with all requirements for Commercial General Liability and Automobile Liability and Employers' Liability Insurance.

Other Insurance Provisions: The policies are to contain, or be endorsed to contain, the following provisions:

1. For the general liability and automobile liability policies:
 - a. The SPBMI, its representatives, consultants, trustees, officers, officials, employees, agents, and volunteers (“Additional Insureds”) are to be covered as additional insureds with respect to liability arising out of activities performed by or on behalf of EPC; instruments of Service and completed operations of the EPC; premises owned, occupied or used by EPC; or automobiles owned, leased, hired or borrowed by EPC. The coverage shall contain no special limitations on the scope of protection afforded to the Additional Insureds.
 - b. For any claims related to the project, EPC’s insurance coverage shall be primary insurance with respect to the Additional Insureds. Any insurance or self-insurance maintained by the Additional Insureds shall be in excess of the EPC’s insurance and shall not contribute with it. Any failure to comply with reporting or other provisions of the policies including breaches of warranties shall not affect coverage provided to the Additional Insureds.
2. EPC’s insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.
3. Each insurance policy required by this clause shall be endorsed to state that coverage shall not be suspended, voided, canceled by either party, reduced in coverage or in limits except after thirty (30) days prior written notice by certified mail, return receipt requested, has been given to the SPBMI.
4. EPC shall furnish the SPBMI with certificates of insurance showing maintenance of the required insurance coverage and original endorsements affecting coverage. The endorsements are to be signed by a person authorized by that insurer to bind coverage on its behalf. All endorsements are to be received and approved by the SPBMI before work commences. EPC must provide updates on the insurance coverage throughout the term of the EPC agreement to ensure that there is no break in coverage during the performance of the Work. Failure to provide evidence of current coverage shall be grounds for termination for breach of contract.
5. Insurance is to be placed with insurers with a current A.M. Best’s rating of no less than A:VII, unless otherwise authorized in writing by SPBMI.

Bonding Requirements

EPC shall not commence work on the project scope before providing to the SPBMI, in a form acceptable to the SPBMI, a payment (labor and material) bond and a performance bond, each in an amount equivalent to One Hundred Percent (100%) of the total EPC contract price. The

required bonds shall be issued by a surety agency that is admitted to issue bonds in the State of California and that is otherwise acceptable to the SPBMI.

Financial Health

The financial health of the proposer shall be among the factors evaluated in selecting an EPC to complete this project. Responsive proposals must include the proposer's DUNS number and latest financial statement. In addition, the SPBMI reserves the right to request the DUNS number and latest financial statement for any proposed subcontractors.

Health and Safety Requirements

The selected EPC and all subcontractors shall comply with all California and federal health and safety requirements as set forth by the Federal Occupational Safety and Health Administration (OSHA) and California Occupational Safety and Health Administration (CAL-OSHA). All labor and materials supplied in performance of work required by this RFP shall be provided and performed in accordance with all Industry Safety Standards, OSHA, CAL-OSHA, EPC's existing safety requirements, all other applicable SPBMI, federal, and state laws.

Proposers must provide or describe the safety records that list and describe any OSHA and Cal-OSHA incidents over the past five years for the EPC and all subcontractors. These records must be updated for any previously unidentified subcontractors that are hired or expected to be hired for the project, prior to that subcontractor commencing any work on the project.

XVI. Department of Energy Terms and Conditions

This project will be partially funded by grant funding awarded to the SPBMI by the Department of Energy. The EPC and all subcontractors shall comply with any and all applicable flow-down terms and conditions included in the SPBMI's grant agreement with the DOE for this project. A copy of these provisions will be included in the final contract and can be made available upon request.

XVII. Additional Terms and Conditions

In submitting a proposal to the SPBMI, the proposer represents and agrees to be bound by the terms and conditions set forth herein, as may be applicable. Any proposed deviations from these terms and conditions must be identified in the proposal. Exceptions or requested changes must be detailed with specificity.

1. Native American preference shall apply to all quotations received.
2. A TERO fee of 1% is applicable to all Contract Work that exceeds a total sum of \$5,000. For additional information regarding this requirement, see the following documents which are incorporated into this RFP by reference:

- a. Checklist of San Pasqual Tribal Government Procedures Regarding the San Pasqual TERO (Tribal Employment Rights Office) Ordinance
 - b. 8 October 2010 Letter Re: 1% TERO Fee on Contracts with San Pasqual
3. Prices are to remain firm for the duration of the contract.
4. Price and Payment Terms: Net 30 days after acceptable completion of work specified in SOW, completed no later than October 31, 2020, and upon receipt of an acceptable invoice.
5. All invoices must be submitted in triplicate, or via email, with taxes excluded to the attention of SPBMI's Accounts Payable department.
6. Prior to payment, all invoices shall be verified and approved by the following personnel:

ELENA ESPARZA, PROCUREMENT AGENT
JOHN FLORES, ENVIRONMENTAL DIRECTOR & DOMESTIC WATER MANAGER
JOSHUA SIMMONS, PROJECT CONSULTANT
7. Attachment A - "Seller Hold Harmless Clause", Form No.0004, dated 8/24/2011, is incorporated herein and made a part hereof by this reference. EPC accepts the provisions of this form upon signing the EPC contract or commencing work pursuant to said contract, whichever occurs first.
8. Any contract resulting from this RFP and any amendments or supplements hereto shall not be assignable by the EPC either voluntarily or by operation of law without the written approval of SPBMI. Assignment of this contract or any interest herein or any payment due or to become due hereunder shall void the EPC contract. Payment to assignee of any claim under this contract shall be subject to set-off or recoupment for any present or future claim or claims which SPBMI may have against EPC. The EPC agrees that SPBMI may assign its rights and/or delegate its duties in whole or in part.
9. EPC shall be responsible for compliance with all applicable laws and regulations applicable to any and all work performed, including any not mentioned in the RFP or contract.
10. The EPC is responsible for locating and protecting all underground utilities. EPC shall utilize ground penetrating radar (GPR) for all areas with underground construction. SPBMI shall assist by providing as-built information, where available. However, as-built information shall be for informational purposes only. SPBMI cannot verify and shall not certify the accuracy of any as-built drawings.
11. Lines of other services that are damaged as a result of this work shall promptly be repaired at no expense to the SPBMI and to the complete satisfaction of the SPBMI.

12. The EPC is responsible for returning disturbed areas to pre-construction conditions including repair of all pavement/concrete, street sweeping, restriping, landscape restoration, irrigation restoration, equipment track marks & scuffs on finished concrete surfaces, and removal of all survey and USA markings.
13. EPC is responsible for maintaining fire lane access and clearances at all easements at all times.
14. EPC shall coordinate site access through all phases of the project with key stakeholders and SPBMI identified staff at least 24 hours prior to any personnel arriving on site. EPC shall coordinate with and provide access and support to all inspectors, SPBMI staff, or consultants during testing and inspections of all systems.
15. EPC shall coordinate closely with SPBMI to ensure all construction activities minimize impact on operations and events at the project site.
16. EPC is responsible for on-site installation supervision throughout the duration of the project.
17. All active work areas must be fenced off from start of work at that area until completion or until the area is safe for entry, whichever is later. Temporary fencing and access control layouts shall be submitted to SPBMI and approved for each site prior to commencing construction. Temporary fencing also shall be installed to protect trees and vegetation adjacent to work areas from construction damage.
18. EPC shall meet applicable codes and specifications with regard to dust during construction, and shall take steps as reasonably necessary to minimize dust migration from the construction site.
19. EPC acknowledges that adjacent facilities may remain in operation during all or a portion of the project work, and it shall take all reasonable precautions to minimize noise as required by applicable laws and the contract documents. Notice of proposed noisy operations, including without limitation, operation of pneumatic demolition tools, concrete saws, and other equipment, shall be submitted to SPBMI a minimum of 48 hours in advance of their use onsite.
20. EPC is responsible for patching and repairing all building penetrations performed by the EPC during installation. Conduit installed on the exterior of SPBMI structures shall be painted to match those structures.
21. EPC is responsible for disposal of all generated trash. SPBMI owned dumpsters and trash bins may not be used for storage or disposal.

22. EPC shall clean all work areas on a daily basis and equipment after project completion. EPC shall ensure that work areas are clear of construction debris, spoils and that all demolition and repair has been completed prior to releasing work areas to public access.
23. EPC shall ensure all employees wear identifying clothing at all times when on-site.
24. EPC is responsible for becoming familiar with all discernible site conditions. No extra payment will be allowed for work required because of these conditions, whether specifically mentioned or not.
25. EPC shall take such steps as are reasonably necessary to ensure that employees of the EPC and its subcontractors do not use, consume, or work under the influence of any alcohol or mind-altering drugs while working on the project. Likewise the EPC shall take reasonably necessary steps to ensure employees do not use tobacco products while working on the project – except as may be permitted during authorized break times in designated smoking areas.
26. EPC shall prevent its employees or subcontractors' employees from bringing any animal onto the project.
27. EPC shall prevent any of its employees or its subcontracted employees from playing any recorded music devices or radios or wearing any radio headphone devices for entertainment while working on the project.
28. All equipment and accessories procured for the project shall be products of a manufacturer regularly engaged in their manufacture.
29. At least 5 working days prior to the delivery or use of any hazardous material, the EPC shall provide to the SPBMI purchasing agent the MSDS (Material Safety Data Sheet) for each item or material which contains hazardous substances. SPBMI will restrict all proprietary ingredient information to use by SPBMI's authorized representatives for the protection of its employees, except where disclosure to federal, state, or local agencies is required by federal, state, or local laws and regulations.
30. Technical Information, Language, and Measurement: All notices and binding communications and/or reports, drawings and other technical information shall be in English and shall employ the units of measure customarily used by SPBMI in the U.S.A.
31. Gratuities: The EPC and its employees, agents, and representatives shall not offer gratuities to any employee of SPBMI. Failure of the EPC to honor this commitment may result in termination of the EPC contract in accordance with the default clause hereof.
32. Inspection.

- a. At SPMI's option, goods and/or work performed under the EPC contract shall be subject to inspection at EPC's plant by representatives of SPBMI. EPC shall provide reasonable facilities for the safety and convenience of said representatives.
- b. Each item ordered will be subject to final inspection and acceptance by SPBMI at destination notwithstanding that title may have passed to SPBMI, that SPBMI may have made a prior payment or that SPBMI may have performed some type of source inspection. If at any time any of the items are found to be defective in material or workmanship or not in conformity with the drawings, specifications, samples, or other requirements of the EPC contract, SPBMI may, in addition to any other rights it may have under the EPC contract or otherwise, (i) correct or have corrected the nonconformity at EPC's expense or reject and return said item to EPC, and (ii) recover by offset or otherwise any and all costs, expenses and damages paid, incurred or suffered by SPBMI as a result of or relating to holding, return, replacement, correction or rejection of nonconforming items. Rejected articles may be returned at EPC's risk and expense. The EPC shall be responsible for the cost of transportation related to the return and reshipment of any articles rejected by SPBMI for failure to meet specifications. Delivery of defective items shall not be deemed to satisfy the delivery schedule required herein nor shall acceptance of any item be deemed to alter or affect the obligation of EPC or the rights of SPBMI under the Warranties article of the EPC contract. The inspection, review or approval by SPBMI of any work, drawing design or other document shall not relieve EPC of any of its obligations under the EPC contract or constitute a waiver of any defects or nonconformities in any articles.

33. Changes.

- a. SPBMI may, at any time, by written order, and without notice to sureties, if any, make changes within the general scope of the EPC contract in any one or more of the following: (1) drawings, design, specifications or other technical documents; (2) method of shipment or packing; (3) place of delivery, inspection or acceptance; (4) quantity of items; (5) delivery schedules; and (6) amount of SPBMI-furnished property. EPC shall comply immediately with such direction and avoid unnecessary costs related thereto. The EPC acknowledges and agrees that certain changes in delivery schedule are normal. EPC further agrees that the cost of such changes is included in the fixed prices established herein. Accordingly, EPC shall not be entitled to a price adjustment hereunder for any change in delivery schedule when deliveries are rescheduled within 12 months of the original delivery date. Except for delivery schedule changes within the foregoing parameters, if any such change to the delivery schedule causes an increase or decrease in the cost of or time required for performance of any work under the EPC contract, an equitable adjustment in the price and/or delivery schedule shall be made when justified by such change. However, no favorable

adjustment of any kind shall be afforded to EPC with respect to changes made necessary by reason of defects or potential defects in any item for which EPC would be liable under the terms of the EPC contract. EPC's claim for adjustment, stating the amount claimed and reasons therefore, shall be made in writing within 30 days from the date the change was ordered. EPC's failure to so assert its claim shall operate as a waiver. The Parties shall establish through negotiation whether or not any SPBMI-directed change is one which in fact authorizes an equitable adjustment under this article, and if so, the nature of such adjustment. Failure to agree with respect to any such negotiations shall be a dispute and either party may pursue its remedies as provided herein. Pending resolution of such dispute, EPC shall diligently pursue the performance of the Order as changed.

- b. No information, advice, approvals or instructions by SPBMI's personnel shall affect SPBMI's and EPC's rights and obligations hereunder, unless the same is in writing signed by an authorized representative of the SPBMI's purchasing department and which expressly states that it constitutes a change to this order. EPC shall notify SPBMI immediately in writing as to the nature of such conduct and its effect upon EPC's performance. Pending direction from SPBMI's authorized purchasing representative, EPC shall take no steps to implement any such change.
 - c. EPC shall make available for SPBMI's examination relevant books and records to verify EPC's claim for adjustment.
34. EPC warrants that all articles, materials, work or services furnished hereunder shall be free from defects in material and workmanship and that all items furnished will conform to applicable specifications, drawings, samples, and/or other descriptions. Unless manufactured pursuant to detailed design furnished by SPBMI, EPC assumes design responsibility and warrants the items to be suitable for the purpose intended. The warranties of EPC together with its service warranties and guaranties shall run to SPBMI, its assigns and each successive customer. In addition, EPC agrees to pass any warranty benefits to SPBMI that EPC receives from its suppliers of any item ordered hereunder.
35. Title to and the right of immediate possession of all Tools, Equipment, and/or Materials furnished or paid for as a direct charge or called out as a special item for use hereunder shall be and remain in SPBMI. SPBMI reserves the right to use all Tools, Equipment, and/or Material which are furnished, acquired or produced especially for use in the performance of the EPC contract. EPC agrees to include a similar provision in all related subcontracts.
36. Risk of Loss, Indemnification and Insurance:
- a. Whenever EPC shall, by virtue hereof, have in its possession property of SPBMI, EPC shall be deemed an insurer thereof and shall be responsible for its safe return to SPBMI.

- b. Unless otherwise provided in the EPC contract, EPC shall have title to and bear the risk of any loss of or damage to the items purchased hereunder until they are delivered in conformity with the EPC contract at the F.O.B. point specified on the face hereof and upon such delivery title shall pass from EPC and EPC's responsibility for loss or damage shall cease, except for loss or damage resulting from EPC's negligence or failure to comply with the EPC contract.
- c. EPC shall be an independent contractor and agrees to indemnify and hold harmless SPBMI, its officers, directors, affiliates and employees from any cost, damage, expense or other loss or liability incurred or paid, arising out of or on account of claims of or suits whether in law or in equity, which may be asserted or brought against any of the indemnified parties hereunder, for property damage or destruction, personal injury or death or any other damages of whatsoever nature or kind, including claims of consequential loss and breach of contract, as a result of the performance of the work, products, or workmanship, or the actions or omissions of the EPC or its employees, agents, or subcontractors, except for claims arising through the claimed sole and exclusive negligence of SPBMI. EPC agrees to pay or reimburse SPBMI for any expenditures, including reasonable attorney's fees and amounts paid in settlement, that SPBMI may make or become liable for in connection with the investigation, settlement, defense or otherwise by reason of such claims or suits and if requested in writing by SPBMI, will defend any such suits with counsel acceptable to SPBMI at the sole cost and expense of EPC; EPC agrees to pay and to discharge any judgment, orders or decrees rendered or entered against any of the indemnified parties for any matter indemnified hereunder; SPBMI may retain any money due or to become due to EPC sufficient to reimburse SPBMI against any such claims, demands, judgments or liability; EPC shall also maintain at all times during performance of said work adequate workers' compensation insurance to cover all of its general and special employees engaged in such work and insurance to insure against claims for injury to or death of persons or destruction or damage to property (including SPBMI's employees and property) which may arise from EPC's actions or omissions in the performance of said work by EPC; such insurance shall specifically include contractual liability coverage.

37. Default

- a. SPBMI may terminate this order in whole or from time to time in part in any of the following circumstances: (i) if EPC refuses or fails to deliver the items or any installment thereof or perform any service required by this order strictly within the time specified herein or any extension thereof granted by SPBMI in writing; (ii) the EPC fails to strictly comply with any other provision of this order, so fails to make progress as to endanger performance of this order in accordance with its terms, or repudiates this order; or (iii) if EPC suspends its business or becomes insolvent or subject to any law relating to bankruptcy, insolvency or relief of debtors. If SPBMI requests assurance of performance, EPC shall provide same within seven (7) working days.

- b. In the event of such termination, SPBMI may purchase or manufacture similar items without further payment and/or require EPC to transfer title and deliver to SPBMI in the manner and to the extent directed by SPBMI: (i) any completed items and (ii) such partially completed items and materials, parts, tools, plans, drawings, contract rights and other property and technical data as EPC has produced, acquired or used in performance of the EPC contract. SPBMI's liability to EPC shall be limited to payment to EPC at the contract price for items delivered pursuant to (i) above (equitably reduced if they are nonconforming), and for items delivered pursuant to (ii) above, the smallest of: (a) its fair market value, (b) its cost to EPC, or (c) the appropriate amount the settlement would have been, had the cancellation been pursuant to Clause 10 hereof.
 - c. EPC shall continue performance of the EPC contract to the extent not terminated. SPBMI's rights as set forth herein are in addition to all other remedies provided in law or equity. If after notice of termination of the EPC contract under the provisions of this clause, it is determined that for any reason EPC was not in default, the rights and obligations of the Parties shall be the same as if the notice of termination had been issued pursuant to clause 10 hereof.
38. SPBMI may terminate any agreement resulting from this RFP, without charge to SPBMI except for services rendered and materials procured, upon serving thirty (30) days written notice to EPC. Termination of the EPC contract shall also terminate any associated subcontracts and performance guarantees. Otherwise, the terms of the EPC contract shall remain in effect for the period specified in the contract.
39. Suspension of Work: SPBMI may order the suspension of all or part of the work for a period of ninety (90) days. Within such period, or any extension thereof to which the parties shall have agreed, SPBMI shall either: (i) cancel the stop work order, (ii) let such order expire or (iii) terminate the work covered by such order pursuant to Clause 10 herein. If a stop work order is canceled or the period of any extension expires, EPC shall resume work. If the suspension has a material effect on cost or delivery, an equitable adjustment shall be made in price (excluding profit) and/or delivery. No claim shall be allowed unless made in an amount stated within twenty (20) days after the suspension ends. SPBMI or his duly authorized representative shall have access to and the right to examine all pertinent books, records, and documents to substantiate such claim.
40. Release of Information: The EPC agrees not to make or cause to be made, or permit any of its subcontractors (including lower tier subcontractors) to make any public disclosure relative to the EPC contract, including any information generated thereunder, such as but not limited to company periodicals, press releases, public lectures, theses and the like, without first obtaining prior written approval from SPBMI.
41. Compliance with Statutes and Government Regulations: EPC warrants that in the performance of work under the EPC contract, it has complied with or will comply with all

applicable tribal, federal, state and local laws and ordinances and all lawful orders, rules and regulations thereunder, including but not by way of limitation, the Fair Labor Standards Act of 1938 as amended (29 U.S.C. Sec 201-219), the Walsh-Healey Public Contracts Act as amended (41 U.S.C. sec 35-45) or the Eight-Hour law of 1912 as amended (40 U.S.C. Sec. 324-326), Copeland Anti Kickback Act (41 U.S.C. Sec 51-54), Service Contracts Act of 1965 (41 U.S.C. Sec 351), Davis Bacon Act (40 U.S.C. sec 276 (a)), Contract Work Hours Standards Act of 1962 (40 U.S.C. Sec 327-330) as amended, Occupational Safety and Health Act of 1970, as amended (29 U.S.C. Sec 651-678), Executive Order 11246 Equal Employment Opportunity. EPC shall indemnify and hold harmless SPBMI from and against all losses, costs, fees and damages arising, directly or indirectly, from any actual or alleged failure by EPC to comply with any tribal, federal, state or local statutes or other legal obligations.

42. Labor Disputes: Whenever an actual or potential labor dispute is delaying or threatens to delay the timely performance of the EPC contract, EPC shall immediately give notice thereof to SPBMI. Such notice shall include all relevant information with respect to such dispute. Nothing contained herein shall be deemed a waiver of SPBMI's rights or remedies.
43. Waiver and Severability: Any action or inaction by SPBMI shall not constitute a waiver of any right or remedy herein. The failure of SPBMI to enforce at any time any of the provisions of the EPC contract or to exercise any option herein provided, or to require at any time performance of any of the provisions hereof, shall in no way be construed to be a present or future waiver of such provisions, nor in any way to affect the validity of the EPC contract or any part thereof, or the right thereafter to enforce each and every such provision. The express waiver (whether one (1) or more times) of any provision, condition or requirement of the EPC contract shall not constitute a waiver of any future obligation to comply with such provision, condition, or requirement. A determination that any portion of the EPC contract is unenforceable or invalid shall not affect the enforceability or validity of any of the remaining portions of the EPC contract.
44. Progress Reporting: Commencing at times and at intervals to be determined by SPBMI, EPC shall submit a progress report and other associated charts to provide complete visibility of planned program tasks and progress against such tasks. Reports and charts shall be prepared upon formats supplied by or approved by SPBMI. These reports shall be submitted once a month; however, they may be required on a weekly basis.
45. Order of Precedence: In the event of conflict between these General Terms and Conditions, Special Terms and Provisions set forth herein (such as, but not limited to statements of work, etc.), specifications or drawings applicable thereto, the order of precedence shall be as follows: (1) Special Terms and Provisions set forth on the face of the EPC contract and incorporated therein by reference; (2) General Terms and Conditions; (3) Specifications; and (4) Drawings. (Should any conflict arise, EPC shall contact SPBMI for specific clarification.)

46. Patent Protection: EPC shall conduct, at its own expense, the entire defense of any claim, suit or action alleging that, without further combination, the use or resale by SPBMI, or any subsequent purchaser or user of items delivered hereunder, directly infringes any patents of the nation in whose territory the SPBMI's, or subsequent purchaser's or user's principal office is located, but only on the conditions that: (a) EPC receives prompt written notice of such claim, suit or action and full opportunity and authority to assume the sole defense thereof, including settlement and appeals, and all information reasonable available to SPBMI for such defense; (b) said items are made according to a specification or design furnished by EPC or, if a process patent is involved, the process performed by the items is recommended in writing by EPC; and (c) the claim, suit or action is brought against SPBMI or parties indemnified by SPBMI. Provided all of the foregoing conditions have been met, EPC shall, at its own expense, either settle said claim, suit, or action, or shall pay all damages and costs awarded by the court therein and, if the use or resale of such items are finally enjoined EPC, shall, at EPC's option: (i) procure for defendant the right to use or resell the items, (ii) replace them with equivalent non-infringing items, or (iii) modify them so they become non-infringing but equivalent.
47. Confidential Disclosure: EPC shall protect as proprietary and keep confidential all proprietary information including but not limited to, designs, processes, drawings, specifications, reports, data, and other technical or business information and the features of all parts, equipment, tools, and other items furnished or disclosed to EPC by SPBMI. Unless otherwise provided herein or authorized by SPBMI in writing, EPC shall use such information and items, and the features thereof, only in the performance of the EPC contract. Upon completion or termination of the EPC contract, EPC shall, at EPC's expense make such disposition of all such proprietary and confidential information, items and goods as herein required or as may be subsequently directed by SPBMI. SPBMI shall have the right to audit all pertinent books and records of EPC in order to verify compliance with this clause. In all subcontracts for performance of work related to the EPC contract, EPC shall include provisions which provide to SPBMI the same rights and protections as provided in this clause.
48. EPC hereby grants to SPBMI the right to reproduce, disclose and use, and the right to authorize others to reproduce, disclose and use, in whole or in part, in any manner and for any purpose whatsoever in connection with SPBMI's business, all or any part of the reports, designs, processes, drawings, specifications and other technical information and data developed, designed or used under the EPC contract or any prior order for the same item.
49. EPC understands that San Pasqual Band of Mission Indians of California is a federally recognized Indian Tribe, and is deemed to be a Sovereign Nation. Further, EPC hereby agrees to be bound by all rules and regulations of the San Pasqual Band of Mission Indians, federal laws, and to the extent not inconsistent therewith, California laws.

50. Quality Assurance. EPC guarantees that EPC shall, at all times, provide product(s) and/or service(s) that are in compliance with the specifications of the EPC contract and all industry standards, and rules and regulations of any/and all applicable tribal, local, state and federal government regulatory agency.

51. EPC's response to this RFP must encompass only the terms and conditions set forth herein. Terms in EPC's proposal in addition to or not identical with the terms of this RFP will not become part of any resulting contract unless expressly agreed to in writing by SPBMI.

XVIII. Supplemental RFP Information & Data

Supplemental RFP information and data that will be necessary to complete a responsive proposal will be made available to interested proposers upon the execution of a non-disclosure agreement (NDA) with Prosper Sustainably, the RFP administrator. This information and data shall be treated as confidential by proposers and shall not be shared with others not subject to the NDA. In addition, the means to access the supplemental RFP information and data shall be treated as confidential and shall not be shared with other not subject to the NDA.

The supplemental RFP information and data includes:

- Preliminary conceptual project design
- SDG&E summary energy and cost data
- SDG&E 15-minute interval data
- SDG&E energy bills
- Pictures of SDG&E meters
- Existing solar PV system specs and summary data
- Solar PV system 15-minute interval data

An NDA form can be obtained by emailing jsimmons@prospersustainably.com.

XIX. RFP Requirements and Process

Proposal Submission Requirements

Proposals must be submitted in electronic format to jsimmons@prospersustainably.com in a PDF format. Excel spreadsheets are also an acceptable format for proposal documents, where appropriate.

Proposals must be received no later than 11:59pm Pacific Time on Monday, December 16, 2019.

Proposers Site Walk

A **mandatory** proposers site walk will be conducted on Wednesday, November 13, 2019 at 9:30am. Proposers must meet SPBMI representatives at the lobby of the San Pasqual Tribal Government Center located at:

16400 Kumeyaay Way
Valley Center, CA 92082

Proposers that do not attend the mandatory site walk will be disqualified from consideration.

RFP Questions & Answers

Questions related to the RFP must be submitted no later than **11:59pm Pacific Time on Monday, November 18, 2019**. Questions must be submitted in writing by email to jsimmons@prospersustainably.com. Questions must reference and include the relevant section number, title, and language, if applicable. Responses to submitted questions will be posted and distributed by Friday, November 22, 2019.

Evaluation, Interviews, Negotiations

Evaluation of responsive proposals will commence on Tuesday, December 17, 2019 and will consider the evaluation criteria described in this RFP. The evaluation period will last until an EPC contract has been executed for the project or until the RFP is otherwise withdrawn by SPBMI. SPBMI is seeking to have a contract executed for the project by January 31, 2019.

SPBMI may request interviews with proposers by phone, web conference, or in person at any point during the evaluation period. The SPBMI will attempt to schedule interviews at mutually agreeable times.

The SPBMI will attempt to select RFP finalists by January 10, 2019. Each proposer will be notified whether they were selected as a finalist or not within 2 business days following the selection.

RFP Administration

Prosper Sustainably has been contracted to manage this RFP on behalf of the San Pasqual Band of Mission Indians. All communications regarding the project should be directed to Josh Simmons at jsimmons@prospersustainably.com.

Required Proposal Package Contents

(X)	Required Item	Description	Relevant Section
	Cover Letter	Proposals must include a cover letter.	None
	Cover Page	Proposals must include a cover page.	None
	Table of Contents	Proposals must include a hyperlinked table of contents.	None

Basic Information	Proposals must include: proposer name, address, and website; primary contact name, title, phone, and email address; and brief history and background of firm	None
Proposed Design and Approach	Proposals must thoroughly describe the proposed design and approach for achieving all project goals, objectives, and scope items as well as technical specifications and performance requirements. This must include a preliminary conceptual design.	III. Project Objectives and Scope, IV. Technical Specifications and Performance Requirements
Quality Assurance Approach	Proposals must describe the EPC's quality assurance and quality control approach.	III. Project Objectives and Scope
Equipment and Software Cut-Sheets	Proposals must include cutsheets for proposed equipment and software that includes datasheets, specifications, and warranties.	IV. Technical Specifications and Performance Requirements
Monitoring Software Screen Shots	Proposals must include appropriate screen shots of proposed monitoring software.	IV. Technical Specifications and Performance Requirements
Pictures of Solar Carports Structures	Proposals must include representative images carport structures proposed for this project. Please ensure that the images match as closely as possible to the proposed design	IV. Technical Specifications and Performance Requirements
Warranties	Proposals must describe the scope and duration of included warranties as well as optional, extended warranties.	V. Warranty, Service Agreement, and Performance Guarantees
Performance Guarantees	Proposals must describe the scope and duration of included performance guarantees as well as optional, extended performance guarantees.	V. Warranty, Service Agreement, and Performance Guarantees
Service Agreement	Proposals must describe the scope and duration of included the O&M service agreement as well as optional, extended O&M service agreements.	V. Warranty, Service Agreement, and Performance Guarantees
Roles and Responsibilities	Proposals must describe the proposed organizational and individual roles and responsibilities for the project and include an organizational chart as well as resumes for key individuals.	VI. Roles & Responsibilities
Schedule	Proposals must include a detailed schedule that includes a Gantt chart.	VII. Schedule
Preliminary Energy and Financial Analysis	Proposals must include a preliminary energy and financial analyses for the proposed project design.	VIII. Preliminary Energy and Financial Analysis
Price and Budget	Proposals must include a firm fixed price plus pricing for optional items with all required and appropriate cost items described in a detailed budget.	IX. Price and Budget
Qualifications, Experience, and Capabilities	Proposals must describe the proposer's relevant qualifications, experience, and capabilities provide information on (3) three similar projects.	X. Relevant Qualifications, Experience, and Capabilities

	References	Proposals must include at least (3) three relevant references.	X. Relevant Qualifications, Experience, and Capabilities
	Minimum Qualifications and Requirements	Except where self-evident, clearly describe how the proposal meets each of the minimum qualifications and requirements (or where this has been addressed).	XII. Minimum Qualifications and Requirements
	Licenses	Proposals must include documentation of Class B License and any other applicable licenses.	XII. Minimum Qualifications and Requirements
	Insurance	Proposals must include evidence that insurance requirements can be met.	XII. Minimum Qualifications and Requirements, XV. Other Requirements
	Bonding	Proposals must include evidence that bonding requirements can be met.	XII. Minimum Qualifications and Requirements, XV. Other Requirements
	Financial Documents	Proposals must include the proposer's latest financial statement along with their DUNS number.	XV. Other Requirements
	Safety Records	Proposals must describe the proposing team's Cal-OSHA and OSHA compliance and incidents over the past 5 years.	XII. Minimum Qualifications and Requirements, XV. Other Requirements
	Litigation History	Proposals must include a summary of the proposing team's litigation History over the past 5 years.	XII. Minimum Qualifications and Requirements
	Proposal Certification	Proposals must include a certification of the truth and accuracy signed by an appropriate.	XII. Minimum Qualifications and Requirements

XX. Evaluation

Proposals received in response to this RFP that meet the minimum qualifications and requirements shall be evaluated according to the following factors:

- Project cost and value, including value added
- Quality and efficiency of approach
- Proposed design satisfies performance criteria
- Quality and expected performance of system components
- Levelized cost of energy and lifetime energy cost savings
- Proposed project schedule and guarantees of on time performance
- History of on-time delivery and performance
- Proposer qualifications and experience completing similar projects
- Quality of references
- Proposer's financial health
- Safety record
- In-house capacity
- Scope and extent of included warranties
- Scope and extent of included performance guarantees
- Scope and extent of included service agreement
- Thoroughness of proposal in meeting RFP requirements

- Other factors deemed relevant by the SPBMI

XXI. RFP Conditions and Limitations

The SPBMI reserves the right to accept or reject any or all proposals, to select a qualified proposer with or without interviews, to request additional information from any proposer, and to negotiate with any or more than one of the responsive proposers. The SPBMI reserves the right to accept or decline the whole or any part of any proposal. The SPBMI also reserves the right to modify or negotiate any aspect of this RFP or of any proposals received in response to this RFP, including proposed contract terms and conditions, at any time prior to executing an agreement for this work with a selected EPC. Persons who submit proposals do so without recourse against the SPBMI for rejection or failure to execute an agreement for any reason.

The SPBMI reserves the right to conduct independent investigation into each proposer, including contacting other organizations for whom the proposer has performed work, in order to research the proposer's quality of work, timeliness of performance, adherence to safety requirements, adherence to predetermined schedule, and maintenance of budget. The SPBMI may, in its sole discretion, factor the findings into its final selection of a proposer.

It shall be the sole responsibility of all proposers to independently perform geotechnical investigations as needed, and complete site due diligence prior to design and construction. In submitting its Proposal, the successful proposer warrants and accepts that the SPBMI shall not be liable for any misrepresentations or inaccuracies set forth in this RFP or any supplemental information and data provided with this RFP.

The SPBMI is providing, and will provide, all relevant information actually known to the SPBMI in good faith without any known defects in the information. However, the SPBMI cannot and will not warranty the completeness or accuracy of information provided, for which the proposer will be required to take appropriate measures, subject to legal limitations.

Proposers shall be responsible for any and all costs incurred in preparing Proposals and these costs shall not be charged to the SPBMI. Responses received from this RFP will be used in finalizing agreement(s) for the Projects, which are subject to review, negotiations, and approval of SPBMI.

All proposals and other materials submitted in response to this RFP shall become the property of the SPBMI. Proprietary or confidential material must be clearly marked as such. A blanket statement that an entire page or the entire proposal is confidential will not be considered clear indication and may result in rejection of the proposal. The SPBMI will make reasonable efforts to protect proposer's confidential information provided that such information is clearly identified. SPBMI reserves the right to disclose proposals to its consultants, counsel, or financiers for the purpose of assisting SPBMI in evaluating proposals.



ATTACHMENT "A" SELLER HOLD HARMLESS CLAUSE

PURCHASE ORDER NUMBER _____

DURING THE PERFORMANCE OF WORK UNDER THIS ORDER:

(A) WHENEVER SELLER SHALL, BY VIRTUE HEREOF, HAVE IN ITS POSSESSION PROPERTY OF BUYER, SELLER SHALL BE DEEMED AN INSURER THEREOF AND SHALL BE RESPONSIBLE FOR ITS SAFE RETURN TO BUYER.

(B) UNLESS OTHERWISE PROVIDED IN THIS ORDER, SELLER SHALL HAVE TITLE TO AND BEAR THE RISK OF ANY LOSS OF OR DAMAGE TO THE ITEMS PURCHASED HEREUNDER UNTIL THEY ARE DELIVERED IN CONFORMITY WITH THIS ORDER AT THE F.O.B. POINT SPECIFIED ON THE FACE HEREOF AND UPON SUCH DELIVERY TITLE SHALL PASS FROM SELLER AND SELLER'S RESPONSIBILITY FOR LOSS OR DAMAGE RESULTING FROM SELLER'S NEGLIGENCE OR FAILURE TO COMPLY WITH THIS ORDER. PASSING OF THIS TITLE UPON SUCH DELIVERY SHALL NOT CONSTITUTE ACCEPTANCE OF THE ITEMS BY BUYER.

(C) SELLER SHALL BE AN INDEPENDENT CONTRACTOR, BUT IF A CONTRACT LABORER (A "JOB-SHOPPER") IS PROVIDED, SELLER IS ALSO THE EMPLOYER CORPORATION. SELLER AGREES TO INDEMNIFY AND HOLD HARMLESS THE BUYER, ITS OFFICERS, DIRECTORS AND EMPLOYEES FROM ANY COST, DAMAGE, EXPENSE OR OTHER LOSS OR LIABILITY INCURRED OR PAID, ARISING OUT OF OR ON ACCOUNT OF CLAIMS OF OR SUITS WHETHER IN LAW OR IN EQUITY, WHICH MAY BE ASSERTED OR BROUGHT AGAINST ANY OF THE INDEMNIFIED PARTIES HEREUNDER, FOR PROPERTY DAMAGE OR DESTRUCTION, PERSONAL INJURY OR DEATH OR ANY OTHER DAMAGES OF WHATSOEVER NATURE OR KIND, INCLUDING CLAIMS OF CONSEQUENTIAL LOSS AND BREACH OF CONTRACT, AS A RESULT OF THE PERFORMANCE OF THE WORK, PRODUCTS, OR WORKMANSHIP, OR THE ACTIONS OR OMISSIONS OF THE SELLER OR ITS EMPLOYEES, AGENT, OR SUBCONTRACTORS, WHETHER OR NOT CONTRIBUTED TO BY THE ACTIONS OR OMISSIONS OF BUYER, EXCEPT FROM CLAIMS ARISING THROUGH THE CLAIMED SOLE AND EXCLUSIVE FAULT OF BUYER; SELLER AGREES TO PAY OR REIMBURSE BUYER FOR ANY EXPENDITURES, INCLUDING REASONABLE ATTORNEY'S FEES AND AMOUNTS PAID IN SETTLEMENT, THAT BUYER MAY MAKE OR BECOME LIABLE FOR IN CONNECTION WITH THE INVESTIGATION SETTLEMENT, DEFENSE OR OTHERWISE BY REASON OF SUCH CLAIMS OR SUITS AND IF REQUIRED IN WRITING BY BUYER, WILL DEFEND ANY SUCH SUITS WITH COUNSEL ACCEPTABLE TO BUYER AT THE SOLE COST AND EXPENSE OF SELLER; SELLER AGREES TO PAY AND TO DISCHARGE ANY JUDGMENT, ORDERS OR DECREES RENDERED OR ENTERED AGAINST ANY OF THE INDEMNIFIED PARTIES FOR ANY MATTER INDEMNIFIED HEREUNDER; BUYER MAY RETAIN ANY MONEY DUE OR TO BECOME DUE TO SELLER SUFFICIENT TO REIMBURSE BUYER AGAINST ANY SUCH CLAIMS, DEMANDS, JUDGMENTS OR LIABILITY; SELLER SHALL ALSO MAINTAIN AT ALL TIME DURING PERFORMANCE OF SAID WORK ADEQUATE WORKERS' COMPENSATION INSURANCE TO COVER ALL OF ITS GENERAL AND SPECIAL EMPLOYEES ENGAGED IN SUCH WORK AND INSURANCE TO INSURE AGAINST CLAIMS FOR INJURY TO OR DEATH OF PERSONS OR DESTRUCTION OR DAMAGE TO PROPERTY (INCLUDING BUYER'S EMPLOYEES AND PROPERTY) WHICH MAY ARISE FROM SELLER'S ACTIONS OR OMISSIONS IN THE PERFORMANCE OF SAID WORK BY SELLER; SUCH INSURANCE SHALL SPECIFICALLY INCLUDE CONTRACTUAL LIABILITY COVERAGE AND SHALL BE IN AMOUNTS NOT LESS THAN \$1,000,000 COMBINED SINGLE LIMIT AND BY CARRIERS ACCEPTABLE TO BUYER.

SELLER ACKNOWLEDGEMENT

BY: _____

COMPANY _____