TRUSTEES OF THE CALIFORNIA STATE UNIVERSITY

REQUEST FOR PROPOSAL PW22-3

SOLAR PHOTOVOLTAIC (PV) PROJECT ON CAL POLY HUMBOLDT CAMPUS

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SECTION 1 OVERVIEW

1.1 PURPOSE

This purpose of this request for proposals (RFP) is to solicit proposals from potential development partners (System Provider) to design, install, operate, and own a multi-megawatt, distributed solar photovoltaic (PV) system on the California State Polytechnic Humboldt henceforth Cal Poly Humboldt, campus.

The PV systems will become generation sources for a campus wide renewable energy microgrid that will enable the campus to electrically island during a power outage. The microgrid will also serve as a real-world teaching tool for on campus programs.

Concurrent to this RFP, Cal Poly Humboldt is issuing a Battery Energy Storage System (BESS) RFP for the other major component of a campus microgrid. Interested providers are encouraged to submit proposal for both PV and BESS. While the Solar and BESS proposals are being issued, and will be evaluated separately, the Campus prefers to contract with one entity for both systems.

Background
Through this RFP process, Cal Poly Humboldt is seeking a System Provider to provide generation and/or energy storage resources (through a separate, parallel RFP) that will be integrated into a campus microgrid. The Schatz Energy Research Center, (Schatz Center or Center), is located on campus and is acting as Owner's Representative and Design Engineers for Cal Poly Humboldt Facilities Management in this microgrid deployment effort. The selected partner(s) will work in close collaboration with Cal Poly Humboldt Facilities Management and the Schatz Center to deploy generation and storage that is appropriately sized and configured to support the microgrid concept. The Schatz Center will provide the microgrid control system and be responsible for integrating the battery and solar systems with the microgrid control system to support islanding the campus for resiliency purposes. The Schatz Center will also interface with Pacific Gas & Electric and facilitate the interconnection agreement approvals.

The Cal Poly Humboldt campus is well suited for a microgrid due a complete replacement of the medium voltage (MV) switchgear at the point of common coupling (PCC) with PG&E in 2018. The PCC circuit breaker and the four feeder breakers for the campus grid are all new motor operate vacuum breakers supervised and controlled by SEL-751 protection relays. One of the 1200 Amp MV feeder breakers is a spare, which will be used for the BESS interconnection. The Schatz Center will program all protection relays for this project.

The effort to develop a microgrid is in response to several recognized value streams on campus:

Educational opportunities: Cal Poly Humboldt is a leader in sustainable energy education, and the offerings for students are significantly expanding with the recent designation as the third polytechnic university in the Cal State System and the first in Northern California. New programs include Energy Systems Engineering and Mechanical Engineering, and range of others where students can learn from a living microgrid lab.

Energy Resilience: Humboldt County has experiences regular disruption to power service from Public Safety Power Shutoffs, earthquakes, winter storms, and other challenges to an aging power grid. A campus microgrid will enable continuity of educational service and support operations during emergency response.

Clean Energy: Cal Poly Humboldt is working towards installation of clean energy generation and battery storage on campus to support low-carbon and sustainable energy as outlined in our Climate Action Plan. A microgrid will enhance the value of these resources by enabling them to provide resilient electrical service for campus.

Engineering Team Experience
Developing a campus microgrid will be a challenging technical effort. Cal Poly Humboldt and the Schatz Center are seeking a System Providers that are willing to work collaboratively, within well-defined boundaries, throughout the design, installation, and commissioning process, and then transitioning to a mutually beneficial business relationship for the duration of the contract term. The Schatz Center has demonstrated experience implementing microgrids as the prime contractor on the following projects:

Blue Lake Rancheria Community Microgrid (500 kW PV, 1MW/2MWH BESS, 1MW DG). This microgrid is capable of seamless transitions to and from islanded state, inverter-only islanded operations (BESS and PV), and load sharing between BESS and DG with optimal PV utilization while islanded. This microgrid has been operating reliably since July 2017.

- Blue Sky Use Case: Demand charge management and energy arbitrage
- Islanded Use Case: Resiliency for Blue Lake Rancheria campus which supports surrounding communities as has been demonstrated during PSPS events and other weather related extended power outages

Blue Lake Rancheria Solar Plus Microgrid (65 kW/130kWh BESS) capable of seamless transition to and from islanded state with inverter-only islanding a non-paralleling diesel generator for deep backup. This microgrid has been operating reliably since July 2019.

- Blue Sky Use Case: Demand charge management and energy arbitrage
- Islanded Use Case: Resiliency for gas station/convenience store

Redwood Coast Airport Microgrid, the first from of the meter Community Microgrid on PG&E distribution system (2.3 MW BESS with 2.3 MW of DC PV, 300 kW BTM PV, telemetry and microgrid islanding control vested in PG&E Rocklin Distribution Control Center. Operating since June 2022

- Blue Sky Use Case: Participation in the following CAISO markets; day-ahead and real-time energy, Ancillary Services; regulation up and down, spin/non-spin
- Islanded Use Case: Resiliency for commercial airport, US Coast Guard Air Station, and 18 other retail customers

The three projects described above are fully operational and are within 15 miles of the Cal Poly Humboldt campus. The Schatz Center can arrange for tours of these microgrids to demonstrate their operational capabilities in the context of the plans for the Cal Poly Humboldt Microgrid.

1.2 SUMMARY AND INSTRUCTIONS TO PROPOSERS

The following summary describes what the Trustees are seeking from the System Provider, specifically with regards to the solar voltaic systems that will be deployed on campus.

The selected System Provider shall finance, design, engineer, construct, own, operate, and maintain, solar photovoltaic array systems and sell electrical output to Trustees on a 10th of a cent/kWh (AC) basis at a competitive rate, pursuant to fully-executed 3rd party owned and operated solar agreement at locations described in Rider A1 Map in Attachment 2 to this RFP. The Trustees are seeking up to 3 MW_AC of solar photovoltaic capacity to be installed on rooftops and carports throughout campus.

System provider shall also submit a cost proposal with a cash price that at the campus' sole option may be selected. The Cost Proposal information and bid form are included in Section 6 of this RFP. Bidders are instructed to complete Form 4 for each array proposed on campus to indicate the guaranteed and expected

energy production (kWh/yr) from each array for each year of the contract. The Trustees are seeking a 20 year agreement term with the selected System Provider.

Proposer shall be solely responsible for all costs related to, and necessary for, the design, construction, commissioning, and on- going operations of the solar PV systems as proposed. In addition, Proposer should reference Section 3.10, Transaction Fee, within the Solar Site License and Power Purchase Agreement (SLPPA,) which shall reimburse the Trustees for incurred project costs. **Transaction Fee shall be fixed for the purposes of bidding on the project at $2,685,000.**

The Schatz Center has prepared a Microgrid Comprehensive Plan for Cal Poly Humboldt that is available to Proposers upon request. Proposers are responsible for ascertaining relevant site conditions and making its own findings and determinations regarding appropriate system sizes and associated energy production.

The current interconnection agreement was developed in the context of protection for campus cogeneration unit operations, and has a non-export requirement. The interconnection agreement will be updated as part of the development of the microgrid and associated generation and storage requirement, and therefore is outside the scope of the RFP. **Interconnection costs will be the responsibility of Cal Poly Humboldt and should be excluded in the RFP cost proposal.**

Proposals will be evaluated using a points system. The quality points (600 points) will be added to the cost proposal points (400 points) for a total points score. The quality points will be determined as described in Section 5 and the cost proposal points will be determined as described in Section 6 of this RFP. The proposal offering the highest total points specified in the RFP will be recommended for award by the Trustees at its sole discretion.

As mentioned previously, the Trustees prefer to award this RFP and the parallel RFP for solar PV systems on the Cal Poly Humboldt campus to the same System Provider. This would reduce administrative burden, simplify the development process, and may reduce mobilization and construction management costs. To accommodate this possibility, the Cost Proposal format includes two sets of pricing inputs, one for the case where the Proposing System Provider is awarded one of the RFPs only (Score A) and the other for the case where they are awarded both (Score B). For System Providers that submit proposals under both RFPs, both sets of pricing inputs will be evaluated and if they achieve the highest Score B on both RFPs, they will be in position to be awarded both projects. If they achieve the highest Score B on one RFP but not the other, then they will be ranked based on their Score A inputs under both RFPs. If a Proposing System Provider is only submitting a proposal under one of the RFPs they may omit Score B in their Cost Proposal for that RFP. If a Proposing System Provider is submitting proposals under both RFPs and the pricing they can offer is independent of whether they are awarded one or both of the RFPs, they may provide the same pricing information for both Score A and Score B inputs.

1.3 SCHEDULE OF EVENTS

The schedules contained in the RFP Coversheet outline critical timelines associated with the RFP and subsequent award. System Provider may be disqualified for failing to adhere to the dates and times specified therein. The Trustees reserve the right to adjust this schedule at any time.

1.4 TERM

The Term of this Agreement is described in the RFP Coversheet and shall commence on the Effective Date and shall continue for the period indicated from the Commercial Operation Date of the System unless terminated earlier pursuant to the provisions of the SLPPA.

1.5 SOLAR SITE LICENSE AND POWER PURCHASE AGREEMENT (SLPPA)

The Solar Site License and Power Purchase Agreement (SLPPA) shall serve as the basis for negotiations of a final agreement between the Trustees and the selected System Provider. The terms of the SLPPA include a definition of the scope of work, requirements for the use of Trustees facilities, construction and installation requirements, operations and maintenance provisions, insurance requirements, pricing mechanism, billing requirements, termination rights, events of default, default remedies, assignment, termination fee, end of term provisions, including option to buy out the system, and other terms and conditions. Upon award, the Selected System Provider shall negotiate in good faith to reach a mutual agreement, and if negotiations are successful, sign and be responsible for complying with the terms and conditions of the SLPPA. The SLPPA is included in Attachment 2: Draft Contract Documents.

1.6 PRE-BID CONFERENCE

There is a mandatory pre-bid conference at a date and time noted in the RFP Coversheet, all Proposers are required to attend virtually to be eligible to submit a proposal. Proposers are encouraged to ask questions during the conference to gain a better understanding of the project. Any answers that cannot be answered at the conference will be responded to in writing.

1.7 PRE-BID SITE WALK

There is an optional pre-bid site walk at a date and time noted in the RFP Coversheet. Proposer will be able to see proposed locations and existing electrical infrastructure. The Trustees will make a good faith effort to convey by addenda the information exchanged during the site walk to all Proposers who attended the pre-bid conference. However, questions and answers discussed during the site walk may not be fully documented. Accordingly, Proposers who do not attend the site walk may not receive all of the information that was made available during the site walk.

1.8 QUESTIONS

Aside from verbal questions asked during the pre-bid conference and site walk, all questions, interpretations or clarifications, either administrative or technical regarding this RFP must be submitted in writing and directed to the staff identified in the Campus Contact Information for Solicitation field of the RFP Coversheet. All questions submitted will be answered in writing and conveyed via written addenda to all Proposers. Oral statements concerning the meaning or intent of the contents of this RFP by any person is unauthorized and invalid. The deadline for all questions is as noted the RFP Coversheet.

1.9 SUBMISSION OF PROPOSALS

Technical Proposals and Cost Proposals must be delivered to Campus Contact provided below on or before the time and date set forth in the RFP Coversheet. **PROPOSALS WILL NOT BE RECEIVED AT ANY OTHER LOCATION**. It is the Proposer's responsibility to ensure that proposals are received at the correct time and place. Mistakes or delays in the mail or other means of delivery employed by the Proposer are entirely the responsibility of the Proposer. **LATE SUBMITTALS WILL NOT BE ACCEPTED**.

Technical Proposals:

Technical Proposals must be received on or before the date and time specified in the RFP Coversheet. Packages can be emailed to

Addie Dunaway, Procurement Specialist
addie.dunaway@humboldt.edu

Proposal shall be labelled as

Technical Proposal - Solar Photovoltaic (PV) RFP PW22-3

Cost Proposals:

Cost proposals must be submitted on the Cost Proposal Form provided by the Trustees, on or before the date and time specified in the RFP Coversheet. Proposals shall be emailed to:

Addie Dunaway, Procurement Specialist
addie.dunaway@humboldt.edu

Cost Proposal shall be labelled

Cost Proposal- Solar Photovoltaic (PV) RFP PW22-3

End of Section

SECTION 2 RFP GENERAL PROVISIONS

2.1 COMPLETION OF PROPOSAL

Proposals shall be completed in all respects as required by the RFP provisions, including Forms 1, 2, 3, and 4 and the Bid Form in Section 6 of this RFP. A proposal may be rejected if conditional, incomplete, inaccurate in its representation, or if it contains any alterations of form or other irregularities of any kind. Proposals which contain false or misleading statements, or which provide references that do not support an attribute(s) or conditions(s) claimed by the Proposer, may be rejected. All statements made by the Proposer shall also be without ambiguity and with adequate elaboration where necessary for clear understanding.

2.2 REJECTION OF PROPOSALS

The Trustees reserve the right to reject any or all proposals and to waive informalities and minor irregularities in proposals received. The Trustees' waiver of an immaterial defect shall in no way modify the RFP documents or excuse the Proposer from full compliance with the specifications if proposer is awarded an Agreement. Proposals which include terms and conditions other than the Trustees terms and conditions, may be rejected as being non-responsive.

2.3 CANCELLATION OF PROPOSAL

This solicitation does not obligate the Trustees to enter into an Agreement. The Trustees reserve the right to cancel this RFP at any time, for any reason deemed in the best interests of the Trustees. No obligation either expressed or implied, exists on the part of the Trustees to make an award or to pay any costs incurred in the preparation or submission of a proposal.

2.4 COST OF PROPOSALS

All costs associated with responding to this Request for Proposal are entirely the responsibility of the Proposer and shall not be chargeable in any way to the Trustees.

2.5 USE OF PROPOSALS

The Trustees may use any or all ideas or concepts presented in any proposal without compensation to the Proposer. Selection or rejection of the proposal does not affect this right. All materials submitted in response to this RFP will become the property of the Trustees.

2.6 ALTERNATIVE PROPOSALS

Proposer shall submit only one proposal in response to this Cal Poly Humboldt Solar Photovoltaic RFP. Multiple proposals by the same Proposer for solar photovoltaic systems will result in the rejection of all proposals submitted by that Proposer. As noted previously, Cal Poly Humboldt encourages System Providers who are submitting a proposal under this RFP to also submit a proposal under the Cal Poly Humboldt Battery Energy Storage System RFP, which is being advertised separately and in parallel to this RFP.

2.7 ADDENDA

The Trustees may modify this Request for Proposal or any of its contents or attachments, prior to the date fixed for submission of proposals by issuance of a written addendum. All Addenda will be dated and numbered consecutively. All addenda must specifically be acknowledged, addressed, and accepted in the proposal.

2.8 NON-COLLUSION AFFIDAVIT

By signing the proposal response, Proposer hereby certifies that the proposal is not made in the interest of, or on behalf of, any undisclosed party; that the proposal is genuine and not collusive, false, or sham; that the proposer has not directly or indirectly induced or solicited any other proposer to put in a false or sham bid, and has not directly or indirectly agreed with any proposer or anyone else to put in a false or sham bid, or to refrain from bidding; that the Proposer has not in any manner, directly or indirectly, sought to fix any overhead, profit or cost element of the bid, of that of any other Proposer, or to secure any advantage against the public body awarding the contract or anyone interested in the proposed contract.

2.9 ERRORS AND OMISSIONS

Before submitting a response to this solicitation, Proposers should thoroughly review and identify any and all errors or omissions for clarification and confirm compliance requirements with the RFP. Proposers should submit all relevant inquiries regarding contents of the RFP, including the Attachment 2: Draft Contract Documents in a timely manner in accordance with the RFP timelines.

2.10 CONFIDENTIALITY

The Trustees shall make every effort to protect the confidentiality of submitted proposals however, Proposer clearly understands California State University, is a public entity subject to disclosure laws.

2.11 ON-ENDORSEMENT

Once a proposal is accepted and an award is made, the successful Proposer shall not issue any news releases or other statements pertaining to the award or servicing of the Agreement which state or imply Trustees endorsement of Proposer's services.

2.12 DISPUTES

The Trustees encourage all Proposers to resolve issues regarding the requirements or the procurement process through written correspondence and discussions. The Trustees wish to foster cooperative relationships and to reach fair and objective resolutions in a timely manner. In the event a Proposer feels that the specifications and/or requirements may be unfair or unreasonable, written notification must be submitted to the Contracts and Procurement Office prior to the scheduled proposal submittal deadline.

2.13 PROTESTS

Proposer's filing a protest must do so within three (3) working days after Notice of Intent to Award is issued. The Proposer shall submit a full and complete written statement detailing the facts in support of the protest. Protests must be sent by certified or registered mail, or delivered in person to the Director, or designee, at the Campus Contact Information for Solicitation listed on the RFP Coversheet.

An impartial evaluator(s) selected by the Trustees shall perform a review of the protest. Selection of the evaluator shall be at the discretion of the campus. The evaluator shall review the merits and timeliness of the

protest and submit a decision in writing within ten (10) working days. The decision will be sent via email or certified or registered mail, to the protesting firm. **THE DECISION OF THE TRUSTEES IS FINAL.**

End of section

SECTION 3 PROCUREMENT REQUIREMENTS

3.1 PREVAILING WAGE

Successful Proposer, and any subcontractor thereof shall pay the rate of wages for regular, overtime and holiday work plus employer payments for all benefits generally prevailing in the locality in which the work is to be performed, to the extent required by law, as outlined in Attachment 2, Draft Contract Documents.

3.2 INSURANCE

Prior to commencement of work, Successful Proposer shall provide evidence of insurance as required in the RFP and Attachment 2: Draft Contract Documents.

3.3 CONTRACTOR'S LICENSE INFORMATION

The Successful Proposer shall be an individual or firm licensed to do business in California and shall obtain at his/her expense all license(s) and certification(s) required by law for accomplishing any work required in connection with the final executed contract. See Attachment 2: Draft Contract Documents for further details.

The following license(s) are required for this solicitation:

1. At a minimum, the installation Proposer must have a General Contractor's license and a C- 10 Electrical Contractor or C-46 Solar Contractor license.
2. Any licensing or certification requirements as developed and required for the receipt of any solar subsidies and incentives. These may include, but not necessarily limited to, an active A (General Engineering Contractor, where applicable to unique projects), B (General Contractor), C-10 (Electrical Contractor), or a C-46 (Solar Contractor) for photovoltaic systems. For ground-mounted solar installations, a Class B license is required.
3. Any company that subcontracts installation work to a C-10 or C-46 Contractor must have a Class B license.

3.4 SMALL BUSINESS PREFERENCE

The State of California requires agencies to provide a 5% preference when awarding contracts to small businesses or a non-small business that commits 25% of the contract value to a certified small business. Only small businesses certified by the Office of Small Business and DVBE Services (OSBDS) or a non-small business that commits 25% of the contract value to a certified small business are eligible to receive the preference. Proposers wishing to claim the Small Business Preference must comply with and complete the Small Business Preference and Certification Request Form, Form 1.

3.5 DISABLED VETERAN BUSINESS ENTERPRISE (DVBE) AND INCENTIVES

Disabled Veteran-Owned Business Enterprise participation requirements have been waived for this solicitation in the best interests of the University, however the following DVBE incentives are still offered.

Proposed DVBE Participation Level	DVBE Incentive %

4% to 4.99%	1%
5% to 5.99%	2%
6% or more	3%

The minimum incentive a qualifying Proposer can receive is 1%. The combination of preferences with a DVBE incentive cannot exceed 10% or $100,000, whichever is less. A non-small business cannot displace a California certified small business from the top-ranked position due to application of preferences or incentive.

End of Section

SECTION 4 SCOPE OF SERVICES

4.1 SPECIFICATIONS AND REQUIREMENTS

This Section delineates the minimum technical and installation specifications required of the Successful Proposer by the Trustees for this Project.

The Successful Proposer must guarantee a portion of the annual estimated electricity output at a minimum level equal to 80% of the annual estimated electricity output. Failure to meet the guaranteed minimum electricity output during an operational year will result in Proposer's payment to the Trustees of the difference between the actual cost of replacement electricity and the Price times the number of KWh below 80% of expected electrical production.

The design of the on-site solar PV systems will be the responsibility of the Successful Proposer; however, the systems must be compliant with applicable Trustees design guidelines.

4.2 DESIGN

Proposer shall provide complete architectural, engineering, and consulting services as required to construct the project in all details in accordance with good practice, industry standards, applicable building codes, CSU guidelines, and this RFP. System design documents shall be prepared, stamped, and signed by an engineer or engineers licensed in the State of California. Proposer also understands that System design documents that are submitted for review without the appropriate professional engineering stamp will not be reviewed and will be returned to Proposer as incomplete and insufficient System documentation.

Successful Proposer shall submit system design documents in phases, as described in this Section. System design documents will include, but not be limited to, the following:

1. Site plan
2. System layout
3. System schematics
4. System capacity calculations - Power capacity should be included separately for each site location and should be measured at the inverter AC output using the PVUSA Test Conditions (PTC)
5. System production simulations
6. System single line electrical diagrams
7. System three-line diagrams
8. Points of interconnection single line electrical diagrams
9. Points of interconnection three-line diagrams
10. Construction documents—plans, elevations, sections, details, specifications, etc.
11. Structural calculations and structural and mounting details
12. Wind loading and seismic calculations
13. List of equipment and materials schedule
14. Manufacturers' data and cut sheets on solar photovoltaic panels, inverters and balance of systems equipment
15. Geotechnical report as applicable
16. Construction Specifications
17. Lighting Plan and Photometrics
18. Monitoring system design and documentation
19. Operations and Maintenance Plan
20. Training Plans and training materials

The Successful Proposer agrees to design and construct the System in accordance with all applicable building codes and standards. System design documents will expressly identify the applicable building codes and standards. The system design documents shall be submitted to the Trustees for review and approval. The Successful Proposer shall allow sufficient time in the project schedule for this review to take place and not be less than 10 working days.

Proposer shall:

1. Provide comprehensive project management services for the duration of the project, commencing at contract execution. Proposer shall be responsible for assigning a single project manager who will act as the lead for the design and construction phases of the project. Proposer shall be responsible for conducting weekly project management meetings, producing agendas and minutes for the weekly meetings, and keeping an up-to-date issues/actions log. Proposer shall implement and maintain an internal records management and document control system as required, to support the project. Additionally, Proposer shall be responsible for developing a CPM schedule, which shall be updated and submitted weekly, showing the project's critical path as well as all activities required to complete the work (including the design, construction, testing, and close-out phases of the project) in sufficient detail to manage the complete scope of the project. The project schedule shall include all activities necessary to coordinate the work with other parties (e.g., campus, consultants, inspectors, etc.) and will explicitly show the dependencies between all tasks. At the Trustees' option, Proposer shall submit the schedule in either MS Project or Primavera format. In addition, schedules must also be submitted in Adobe Acrobat format.
    1. Conduct detailed site audits and geotechnical studies to confirm the existing site conditions. The geotechnical analysis shall be provided by Proposer and performed by a qualified geotechnical engineering firm. The results of the analysis shall be used when designing the foundations for the structures on the site(s) and for electrical cabling and grounding systems. As part of the site audit, and upon request of Proposer, Trustees will provide information related to each site, including information regarding: (1) the utility service account number associated with the Site where the System installed; (2) twelve (12) months of billing data for the meter behind which the System will be installed; (3) a general description of Trustees operations at the site; (4) the energy or capacity reductions related to the system and consumption by Trustees at the site; and (5) a legal description of the physical location of the system and the property where the utility service account associated with the site is located (6) existing geotechnical studies of the site (7) engineering site plans.
    2. Complete the design for all elements of the project, including but not limited to: civil, structural, electrical, fire access and specialty consulting areas. Drawings shall be prepared and stamped by an engineer (or engineers) licensed in the State of California.
    3. Incorporate the requirements of permitting agencies as may become apparent in the course of design. The Licensee will apply for and secure all required permits and provide all necessary reports, studies and support required to obtain any permits for any agency that has jurisdiction.
    4. Include the cost of all permit fees. This comprises the Office of State Fire Marshal, California Environmental Quality Act (CEQA), and Campus Building Inspector.
    5. Submit design for review at 60% completion of construction documents; at 95% completion of construction documents; and after incorporating any corrections and changes required by the Trustees, for back-check of 100% complete construction documents, before commencing construction. After each submittal the Proposer will attend "comments resolution meeting." The Proposer will review the Trustees comments at this meeting and will be prepared, with the appropriate people in attendance, to resolve the Trustees' comments. All comments will be resolved to the Proposer's and the Trustees' mutual satisfaction. The Trustees may employ peer reviewers at its expense as part of the review process.

6. Proposer shall develop and review the construction documents, taking into account quality of materials and equipment to ensure an efficient design. Proposer shall initiate design decisions by providing information, estimates, schemes, and recommendations regarding construction materials, methods, systems, phasing, and costs that shall provide the highest quality building within the budget and schedule. The plans and specifications shall identify the design codes, standards, and requirements used for the development of the plans, including the edition and applicable sections. The construction documents shall include a quality control program and an implementation plan to ensure that the completed project complies with the approved project criteria. The design professional-of-record shall specify within the construction documents all tests and inspections that are required by the building code and those that are appropriate to achieve compliance with the SLPPA (Attachment 2). Proposer shall retain the design professional-of record to provide in a professional capacity, timely construction administration services. These services shall include shop drawing review, response to requests for information regarding the construction documents, and periodic visits to the site to observe the quality of the work.
   The final, approved-for-construction set of construction documents shall be signed and stamped by the respective California-licensed professionals who prepared the documents, certifying their compliance with codes, standards, practices and regulations. The design professionals-of-record shall retain full responsibility for the design
7. Prepare draft Operations and Maintenance Plan to serve two functions: (1) the Plan shall specify the services to be provided, their frequency, and the reporting and documentation that will be made available to the Campus throughout the duration of the project, consistent with the O&M requirements specified herein; and (2) the Plan shall be the basis for preparing the final Operations Manual(s) during the Construction phase.
8. Provide all submittals digitally in AutoCAD 2015 (or newer version) for drawings and Microsoft Word for specifications; in addition, provide three sets of half-size drawings on white bond paper for all reviews, and three sets of full-size drawings on white bond paper at the time of construction. Provide the As-built Documents digitally as noted above, as well as three sets of full-size As-built Documents on white bond paper at the completion of construction.

4.3 CONSTRUCTION

The Successful Proposer shall construct the Project in accordance with Trustee-approved plans, specifications and submittals prepared by the Licensee to meet or exceed all requirements of the Trustees.

Proposer shall:

1. Conduct weekly meetings, as necessary, with the Trustees to provide schedules, status updates and technical input. The Licensee is responsible to provide meeting notes, in electronic format within three (3) working days from conclusion of the meeting.
2. Provide required shop drawings and material data submittals. All shop drawings shall be submitted as full-size drawings at a scale usual for the given system, and sufficient to fully show and explain all relevant features, dimensions, etc.
3. Provide complete management, supervision, and reporting of all aspects of the construction of this Project, including but not limited to scheduling and conducting weekly meetings with the Trustees.
4. Provide engineering and contract administration, and pay for all inspections and other related services via the Trustees Transaction Fees, as described in the SLPPA (Attachment 2), including special inspections, necessary for the functional, safe, and on-schedule completion of the Project, starting with the issuance of a Notice-to-Proceed from the Trustees and extending through issuance of Notice of

Completion and Acceptance. The Trustees staff will perform inspection to verify compliance with the contract documents.

5. Ensure compliance with applicable local, state, and federal codes, building and environmental permit requirements.
6. Provide any laboratory, surveying, and other contracted services as required to complete project construction.
7. Continue to prepare and maintain a schedule for the duration of a project, consistent with the requirements in Section 4.2, above. The schedule will be updated and presented at the weekly meeting with the Trustees.
8. Continue to maintain an internal records management and document control system as required, to support project operations.
9. Implement a Safety Program. This includes but is not limited to the following activities:
    - Assign a Safety Engineer to monitor and control this program for the Project.
    - Develop an on-site Project Safety Plan for review and approval by the Trustees.
    - Administer and apply the Trustee approved on-site Project Safety Plan.
    - Enforce all Project Safety Plan requirements at all times pertaining to safety and health issues relating to all personnel on the Project Site including workers, consultants, subcontractors, material suppliers, equipment suppliers, and visitors.
10. Report accidents, claims, and other on-going safety related issues to the Trustees.
11. Adhere strictly to construction access requirements as established by the Trustees and provided in writing during the entire length and scope of the project construction. This shall include the Successful Proposer, its employees, contractors, and/or agents.
12. Realistic schedules including a brief narrative of resources and planning should be included. Electrical shutdown needs to be coordinated with the Trustees well in advance, should be conducted during periods when least disruptive to normal operations, and receive prior approval from the Trustees.

4.4 SOLAR PV SYSTEM SPECIFICATIONS

The Proposer shall provide the solar modules, inverters, and balance of systems, referred to as the solar PV system that meets the following minimum technical specifications:

1. IEEE 1262 "Recommended Practice for Qualifications of Photovoltaic Module
2. UL 1703 – "Flat-Plate Photovoltaic Modules and Panels"
3. IEEE 929-2000 – "Recommended Practice for Utility Interface of Photovoltaic Systems"
4. UL 1741 SA– "Inverters, Converters, Controllers and Interconnections System Equipment for use With Distributed Energy Resources"
5. Other technical codes that will apply include:
    - AMSE PTC 50 (solar PV performance)
    - ANSI Z21.83 (solar PV performance and safety)
    - NFPA 853 (solar PVs near buildings)
    - NEPA 70 (electrical components)
    - IEEE 1547 (interconnections)
    - National Electrical Safety Code – ANSI C2 – 2012
    - PG&E Greenbook Manual (for relevant PCC aspects)
    - PG&E Electric Rule 21 (in particular: smart inverter requirements in Section H)
    - All applicable State Building Codes and requirements

6. Systems must be designed and installed using UL or ETL listed components, including mounting systems.
7. Power provided must be fully compatible with the Trustees campus electrical distribution system at each point of interconnection.
8. Solar modules must be on the California Energy Commission's approved list of solar modules available at https://www.energy.ca.gov/programs-and-topics/programs/solar-equipment-lists
9. Solar inverters must be on the California Energy Commission's approved list of grid support inverters available at https://www.energy.ca.gov/programs-and-topics/programs/solar-equipment-lists

4.5 SOLAR PV SYSTEM INSTALLATION

The Proposer shall provide the labor necessary to install all solar PV equipment, materials, and components to interconnect to the local utility grid with the exception of required equipment supplied and/or installed by the Trustees.

Installation must comply with the following codes and regulations:

1. PV systems must be installed in compliance with all applicable State building codes including OSHA and the State Building Standards Code
2. PV system must be installed in compliance with all applicable State building codes, including but not limited to the National Electrical Code:
    - Article 690 – Solar Photovoltaic Systems
    - Article 705 – Interconnected Electrical Power Production Sources
3. IEEE 929-2000 – Recommended Practice for Utility Interface of Photovoltaic (PV) Systems
4. National Electrical Safety Code – ANSI C2-2012
5. ANSI/IEEE 519 2014
6. IEEE 1262 Recommended Practice for Qualifications of Photovoltaic Modules
7. 2013 California Code of Regulations Title 24 – California Building Code part 2 - vol. 1 and 2, California Fire Code -part 9, and California Electrical Code – part 3
8. California State Fire Marshal Information Bulletin 14-002 Addendum issued April 29, 2014 https://osfm.fire.ca.gov/media/8423/ib14002addendumpvfireclassificationdelay.pdf
9. California State Fire Marshal Office "California Solar Permitting Guidebook" located at: http://opr.ca.gov/docs/20190226-Solar_Permitting_Guidebook_4th_Edition.pdf
10. PG&E Rule 21

All Balance of Systems (wiring, component, wiring, conduits, and connections) must be suited for conditions for which they are to be installed. Inverters shall be installed in all-weather enclosures (NEMA4X) suitable for exterior location due to the near-ocean environment at the project site.

4.6 RULE 21 APPLICATION

Rule 21 interconnection applications will be the responsibility of Cal Poly Humboldt and its Owner's Representative. The successful Proposer must provide Cal Poly Humboldt with the required supporting documentation when requested to ensure an accurate and timely application. The Successful Proposer will comply with any and all operational standards and requirements imposed by the Utility, and comply with the electrical interconnection requirements as stated in the applicable and controlling Utility tariff.

4.7 UTILITY GRID INTERCONNECTION

Proposer shall supply, install, and deliver all solar PV equipment required to interconnect to the Trustees' distribution system and the local utility's grid. The Proposer shall support Cal Poly Humboldt and its Owner's Representative in fulfilling all requirements to complete the interconnection process and coordination with Cal Poly Humboldt and its Owner Representative. Interconnection standards will comply with all codes and regulations listed in Section 4.4, 4.5, 4.6, 4.7 and 4.8.

4.8 METERS AND MONITORING

Successful Proposer will provide two meters per system. Meters shall be a revenue grade Interval Data Recording (IDR) meters for each system complete with any telemetry required by the local electric utility under Rule 21 Interconnection Agreement and the Trustees. The interval data meters must be installed to measure the AC output of the inverters. The meters for the Trustees systems are specified in the RFP Coversheet.

A turnkey data acquisition, data export using representational state transfer (REST) application program interface (API) is strongly preferred. The display system shall be included in the proposal to monitor and track the solar energy output of each solar PV system and to diagnose underperformance. The monitoring system shall be accessible by the Trustees and the public and will track electrical production at maximum 15- minute intervals and with energy totaled by local electric utility time or use periods as specified in SLPPA (Attachment 2).

4.9 WIRE, CABLE, CONDUIT AND CONNECTORS

Contractor shall provide information about proposed wire, cable, and connectors, including all underground facilities. All electrical wiring shall be copper. Cable shall be designed and installed for a service life of 30 years. Cable for DC feeders and PV panel interconnect shall be 2-kilovolt 90°C (wet or dry) power cable type USE-2 or RHH/RHW-2 with XLPE jacket and UL 1581, VW-1 rating or approved equal for intended use capable of meeting DC collection system design current requirements. Externally installed cables shall be sunlight and ultraviolet resistant, suitable for direct burial, and conform to NEC 300.5 Underground Installation, Table 300.5 Minimum Cover Requirements, rated to the maximum DC voltage of the System(s). PV panel interconnect connectors shall be: (i) latching, polarized, and non-interchangeable with receptacles in other systems, and (ii) tap branch connectors with multi-contact termination connectors. Grounding member shall be first to make and last to break contact with mating connector and shall be rated for interrupting current without hazard to operator. Cables shall be listed and identified as PV wire as stated in NEC Article 690. If a cable tray is utilized, there shall be no self-tapping screws, only a clamping mechanism to secure the top. All underground cable shall be identified in the as-built drawings. Galvanized, rigid metal conduit where underground cable is exposed above ground or stubbed up to junctions or poles shall be used except where protected by concrete caissons. Rigid metal conduit shall be included in the corrosion mitigation plan and shall be designed for a 30-year life in the Site(s) soils and conditions. All 90-degree bends shall follow NEC minimal bend requirements. There shall be no direct burial of cables. No underground cable splicing shall be acceptable under any circumstance. All cable splices shall be brought above ground and housed in a suitable enclosure or, if below grade, shall be watertight and placed in a suitable vault that is clearly marked.

4.10 STRUCTURAL REQUIREMENTS

1. All structures, including array structures, shall be designed to resist dead load, live load, plus wind and seismic loads representative of the geographic area.
2. PV systems must be able to withstand winds of maximum regional speeds.

3. Thermal loads caused by fluctuations of component and ambient temperatures must be combined with all the above load combinations
4. All structural components, including array structures, shall be designed in a manner commensurate with attaining a minimum 30 year design life. Particular attention shall be given to the prevention of corrosion at the connections between dissimilar metals.
5. Carport structural members shall be hot-dipped galvanized Fascia shall be either powder-coated or baked enamel with a Trustee-selected color.
6. The Trustees will oversee construction for conformance to CSU requirements and standards of care in the field through the Trustees' Project Manager and the State Fire Marshal.
7. It is also expected the Proposers installer will adhere to the Solar Photovoltaic Installation Guidelines outlined by the Fire Protection Office of the State Fire Marshal.

4.11 OPERATIONS AND MAINTENANCE

The solar PV system is privately-owned by the Successful Proposer; therefore, the Proposer is responsible for all costs associated with operations and maintenance. All PV system warranties and workmanship guarantees will be in effect during the entire term of the SLPPA (Attachment 2). Services shall include the following:

1. The Successful Proposer will be responsible for all necessary maintenance to ensure optimal performance of the solar PV systems at the Proposers sole cost and will assure that there will be no disruption to the Trustees' operations.
2. The Proposer shall provide notification to the Trustees as early as practical, but in no event less than five days, prior to any planned repairs or maintenance.
3. The Proposer will provide a minimum of ten (10) days notification to the Trustees of any planned repairs or maintenance that will result in interruption to electrical service at any Trustees-owned owned facility.

The Trustees will not provide any maintenance. All system warranties and workmanship guarantees will be in effect during the SLPPA period.

4.12 EMERGENCY SHUT DOWN

As part of the acceptance of the solar PV system by the Trustees, Proposer shall instruct and provide operations manuals on how to shut down the solar PV system in the event of an emergency at the Trustees facilities. The Proposer shall insure that emergency first responders can easily identify what to do in the event of an emergency and perform these tasks quickly and safely. Proposer shall also document approval by the local fire chief for the emergency shut down design.

4.13 COMMISSIONING AND ACCEPTANCE TEST

Prior to the commissioning of the system, the Proposer shall:

1. Conduct a walk-through with the Trustees and address comments as necessary with to generate a completion punch list and subsequently to confirm all items are complete.
2. Administer and coordinate the project contract closeout process and resolve any warranty provision issues.
3. Hire and oversee an independent third party to conduct NETA acceptance testing, as appropriate.
4. Report progress of project contract closeout to the Trustees.
5. Be available to support the commissioning of the final microgrid system once in place.

The completeness of the construction will be formally verified by the Trustees against design documents. The Trustees shall observe and verify the PV system's performance. The acceptable productive solar power output will be measured in kW (AC) at the building electrical interconnection point, and must be consistent with the specifications for the system. Approvals as required by the State Fire Marshal and local electric utility will be a pre-requisite for acceptance and for authorization to energize the system(s). A Certification of Acceptance will be issued by the Trustees to the Proposer upon the approval of the Commissioning and Acceptance Test.

4.14 WARRANTIES AND GUARANTEES

The Successful Proposer shall provide evidence of the following warranties:

1. Complete solar PV system warranty: minimum 10-year to provide for no-cost repair and replacement of the system for expenses not otherwise covered by manufacturer's warranties
2. Solar PV panel warranty: 25-year 90% power output full parts and labor replacement warranty
3. Inverters: 10-year minimum full parts and labor replacement warranty
4. Roof penetration and building penetration warranty:
5. Structural warranty: 10-year minimum full parts and labor replacement warranty for the installed structure and racking system with an option for at least a 20-year extended warrant

4.15 TRAINING AND MAINTENANCE MANUALS

The Successful Proposer shall provide training manuals and training sessions for University building operators on emergency operations sequences. Proposer shall provide to the Trustees two (2) sets of site-specific operation, maintenance, and parts manuals for each installed solar PV system. These O&M Manuals shall cover all components, options and accessories supplied. The Manuals shall include maintenance, trouble- shooting, and safety precautions specific to the supplied equipment at the site.

4.16 LIGHTING

All parking canopy solar PV systems shall include LED lighting in compliance with Title 24 standards as part of the design and must include occupancy controls.

4.17 RECORD DOCUMENTS

The Proposer shall also provide one (1) set of As-built Documents in AutoCAD 2020 or higher (for drawings) and Microsoft Word (for specifications). These requirements shall be delivered prior to acceptance of the site-specific solar PV system.

4.18 PAINT

All exposed structural elements (steel, etc.) shall be factory primed and painted per Trustees standards and protocol including quality and color.

4.19 PERMITS AND ENVIRONMENTAL CLEARANCES

The Trustees are the primary Authority Having Jurisdiction (AHJ) for compliance with California Code of Regulations (CCR) Title 24 and issuing building permits. The Office of the State Fire Marshall (OSFM) and/or the CSU Office of Fire Safety (OFS) are responsible for the enforcement of CCR, Title 24 and AHJ as it relates to fire and panic safety; also, approval and certification of accessibility compliance is required from the Division of State Architect-Accessibility (DSA-AC) for all CSU major capital construction projects. All building permits

shall be issued by the Campus Deputy Building Official on behalf of the Trustees and the CSU Chief Building Official with concurrence of the OSFM and/or OFS - not local jurisdictions. All plan review and building permitting processing shall be in full compliance with the CCR, Title 24 and CSU policies listed in PolicyStat/SUAM 9200 thru 9203 and as outlined on the CSU Capital Planning, Design and Construction website: https://www.calstate.edu/csu-system/doing-business-with-the-csu/capital-planning-design-construction/operations-center/Pages/permitting-and-review.aspx

The "permit" to install and construct a solar PV system at the Trustees host facility will come in the form of a "Notice to Proceed," after the solar PV system plans and drawings have been reviewed and approved for both compliance with the applicable California Building Codes and Standards and achieving constructability requirements as dictated by the Trustees.

Constructability requirements typically mean the solar PV system plans and drawings indicate that the solar PV system can be installed as engineered and designed, and that the construction schedule, tasks and activities have been reviewed to ensure coordination with host facility operations and requirements. All outside permitting and inspection costs shall be covered by the Proposer.

4.20 STRUCTURAL REQUIREMENTS AND CEQA

Any and all structures and structural elements necessary for the installation and operation of the solar PV system shall be designed in accordance with all applicable California Building Codes and Standards that pertain to the erection of such structures.

An analysis of the potential impacts associated with Proposers proposed Systems is required under CEQA. The Successful Proposer shall not commence construction of the Systems until the Trustees have complied with CEQA, per the SLPPA.

Projects will either be exempt under CEQA, will be addressed by the Trustees, or will be the responsibility of the Proposer, as indicated in the RFP Coversheet.

The Successful Proposer shall provide structural calculations, stamped and signed by a licensed professional structural engineer in good standing with the State of California, as part of the plan check and review requirement.

All structural components, including array structures, shall be designed in a manner commensurate with attaining a minimum 30-year design life (even if the solar system is warranted for 20 years) and consistent with any host facility specific design guidelines and standards. Particular attention shall be given to the prevention of corrosion at the connections between dissimilar metals such as aluminum and steel, or corrosive soils. Successful Proposer must warrant and maintain the full structural integrity of the solar PV system for the full term of the SLPPA.

The Successful Proposer will be responsible for ascertaining relevant site conditions and making their own finding of appropriate solar PV system installation conditions prior to contract signing. The Trustees facilities are in an "as is" state of condition, and Proposers should not anticipate that the Trustees host facilities will make any accommodations or efforts to assist in installation of the solar PV system.

4.21 CONSTRUCTION COMPLETION AND LIQUIDATED DAMAGES

All construction work shall be completed no later than the Construction Completion Date indicated on the RFP Coversheet.

The Successful Proposer shall ensure all affected license areas are fully restored and available for public parking as scheduled.

Liquidated damages will be assessed at a per day cost listed on the RFP Coversheet. All such liquidated damages shall be assessed for each day beyond the Construction Completion Date.

4.22 PERFORMANCE GUARANTEE REQUIREMENTS

Proposer must guarantee that during the period of the Power Purchase Agreement, the system will produce 80% of the guaranteed kilowatt-hours (kWh), as documented in Rider C. The true-up period shall be once per year, at which point actual system output is compared to the guaranteed amount, without any adjustments for weather. If the cumulative system output is less than the guaranteed amount the bidder will be responsible for compensating the Trustees for the under-production in an amount equal to the difference between the PPA rate during the true-up period and the cost of utility-purchased electricity during the same period multiplied against the amount of the under-production as measured in kWh.

4.23 RESTORATION OF SITE

Proposer is responsible for repairing any damage to the existing facilities or grounds that occur as a result of the construction including but not limited to asphalt marking, stains, track marks, cracks, holes, or damage to any vegetation. Proposer shall document all existing conditions prior to the start of construction and executing repair and methods, which are to be reviewed and approved by the Trustees prior to implementation. Asphalt repair shall include two slurry coats and striping.

Contractor is responsible for maintaining the existing functionality of equipment and services impacted by the resulting work; including, but not limited to, existing irrigation functionality and control and lighting. Contractor will be responsible for maintaining current functionality of adjacent lighting that will not be replaced as part of the project.

4.24 TREES, LIGHT POLES AND BOLLARDS

Proposer's responsibilities for tree trimming and removal shall be as indicated in the RFP Coversheet. All trees requiring trimming or removal shall be identified in the 60% construction document set and shall be approved by the Trustees. Should the in-lieu fee option be selected in the RFP Coversheet, fees shall be calculated based on the number of trees identified in the 60% construction document set and the current in-lieu fee in effect at the time. Light poles and concrete bollards under PV canopies are also the responsibility of the Proposer to remove as approved. Proposer will also be responsible to flush cut poles and bollards/bases to grade. Exposed finish should be patched smooth and flush with adjacent grade.

4.25 GUIDELINES

The following guidelines can be found at the following links:

1. CSU Access Compliance Design Guidelines
2. CSU Mechanical and Electrical Basis of Design Guidelines
3. Seismic Requirements

End of Section

SECTION 5 TECHNICAL PROPOSAL REQUIREMENTS AND EVALUATION

Proposals will be evaluated by the CSU's Evaluation Team using a points system. The evaluators will examine each proposal to determine, through the application of uniform criteria, that the Proposer has met the proposal submission requirements. Proposals that have not followed the format, do not meet minimum content and quality standards, or take unacceptable exceptions to the terms and conditions shall be eliminated from further consideration. Proposers should focus on conveying project specific information, excluding generic process information; and editing for brevity. The Proposal shall be organized with tabs corresponding to Section 7.3 Proposal Format and will be scored based on the Evaluation Criteria and Possible Points Table below.

The CSU will provide the technical score in whole numbers. The CSU will calculate the fee score to two decimal places and will add it to the technical score. The winner will be the Proposer with the highest combined technical and fee scores. In the event of a tie for first place in the total score, the winner will be the tied Proposer with the lowest rate. If the proposed fees are equal the winner will be selected by a coin toss in the presence of both parties and managed by the CSU. The CSU require that the tied Proposers agree to the coin toss procedure in writing before the toss. The proposal offering the highest point score will be recommended for award. The CSU are under no obligation to award this project to the Proposer whose proposal represents the lowest cost.

Technical proposal Evaluation Criteria and Possible Points Table:

The average of all quality points per category awarded by individual evaluators will be added together to compile a quality points total.

A maximum total of 600 points is available for each proposal as detailed below:

Criteria	**Quality Points**
Project Description and Understanding	70
System Locations and Layouts	40
Technical Description	65
Metering and Monitoring Description with Data Access	55
Project Schedule and Attestation	45
Project Team Organization	35
Qualifications of Key Personnel	50
Past Project Experience	55
References	50
Operations and Maintenance Plan	30
Billing Plan	20
Lighting	10
Capital Finance Structure	30
Sustainability Capabilities	45
Simulated Solar Production Data	Pass/Fail
Total	**600**
Cost Proposal Points	**400**
Total Possible Points	**1,000**

5.1 PROJECT DESCRIPTION AND UNDERSTANDING 70 POINTS

Proposer shall explain their understanding of the Cal Poly Humboldt Microgrid project and how their response to this RFP for distributed solar photovoltaic systems supports that effort. This explanation should touch on the suitability of the technology proposed, the capabilities and commitment of the Proposer's team to help meet the desired microgrid deployment schedule at the lowest possible cost as well as any other information that demonstrates the Proposer's intent to be a supportive collaborator and partner for the term of the agreement.

Include an overview of proposed project including locations and site area to be utilized, including total size (kWh (AC)). Also provide the minimum guaranteed system output (kWh (AC)/year) i.e. the expected and guaranteed electricity production as specified in Form 4.

Expected and guaranteed minimum annual output kWh (AC) production for each proposed site and in aggregate, including methodology and assumptions used to develop the estimates; Estimated capacity factor (%); Expected annual photovoltaic module degradation rate over the maximum potential twenty (20) or twenty-five (25) year term.

5.2 SYSTEM LOCATIONS AND LAYOUTS 40 POINTS

Provide drawings depicting the general arrangement of PV arrays and balance of system installed locations. System locations shall reflect RFP requirements and indicate the type of system (roof, carport, ground mount), proposed height, panel tilt, array orientation, and the capacity of each proposed solar array. See Rider A1 Map in Attachment 2: Draft Contract Documents for the available array locations on campus.

5.3 TECHNICAL DESCRIPTION 65 POINTS

Attach design documents and narrative that communicate the following information for each solar photovoltaic site.

1. System description
2. Equipment details and description including proposed inverter make and model
3. Conceptual Plan/System Layout
4. Rendering, altered photo, etc. showing a clear visual of the system
5. List of proposed materials, including solar photovoltaic modules, inverters, racking and support systems, structural materials and balance of systems equipment
6. Plan for integration of solar photovoltaic systems with Trustees' existing electrical systems
7. Controls, instrumentation, monitoring, and data management capabilities
8. Proposed locations for the solar photovoltaic inverter equipment and related components
9. Proposer shall provide the following technical description of the technologies proposed for installation at the specific sites:
    - Configuration, including tilt and azimuth angles
    - Structural requirements of the panel support systems and equipment pads
    - Typical useful life of significant components including photovoltaic modules and inverters/micro-inverters
    - Any product or warranty enhancements being offered
    - Description of the manufacturer of the solar panels and relevant information regarding the manufacturer's environmental plan, such as ISO 14001
    - Other relevant information

Note: Prior to authorizing construction work for this project, the Trustees will review and approve all system design and construction documents, particularly for its visual impact on surrounding buildings and public spaces, visibility to passersby, glare and reflectivity, and the appearance of exposed edge of panels. Inclusion of photographs and architectural elevations are required. Please include the height(s) of the proposed system(s).

5.4 METERING & MONITORING DESCRIPTION WITH DATA ACCESS 55 POINTS

Proposer shall provide a description of the monitoring system that will be installed at the specific sites, including:

1. Equipment/instrumentation – proposed system to monitor and track system electrical energy output and metrological data and diagnose system underperformance
2. Monitoring data points – power quality, revenue grade energy production, and metrological values being monitored will be stored by the system. Real time data in one (1) second intervals will be made available to a remote terminal unit for the prior two-week period. After this two-week period has elapsed, those data will be reduced to (1) minute intervals and archived in a historian system that is accessible to the Trustees
3. Format and storage of raw and reduced data – Provide the protocol and format of stored data.
4. Access to raw, reduced and stored data – Provide protocol for accessing real-time and archived data
5. Instrumentation maintenance and operation requirements including calibration frequency
6. Application Programming Interface for data visualization- Comprehensive data collection, effective data presentation, ease of data access, ease of integration
7. Demonstration and display features for educational, training and research purposes;
8. Proposer should assume that data storage, management and display shall be included within the proposal.
9. Systems shall be accessible by the Trustees with real time data that includes 15 minute demand intervals and energy totaled by the time of use periods in local utility company applicable tariff(s) rate noted on the RFP Coversheet.

Proposer shall provide a plan for metering, monitoring, diagnosing, and tracking the solar energy output of the photovoltaic systems consistent with the above requirements.

5.5 PROJECT SCHEDULE 45 POINTS

Proposer shall provide a detailed project schedule for each proposed installation as well as an overall completion schedule, showing all major events, planned start and finish dates, dependencies between tasks, proposed deliverable dates, and significant milestones. Proposer must also include proposed options for the continuation or removal of the system at the end of the contract term as specified in the SLPPA (Attachment 2).

As indicated on the RFP Coversheet, the Successful Proposer shall be required to address failure to meet all installation deadlines in one of the two following ways: (1) make the site safe and return the site to its original use (e.g., parking spaces, and parking lot driveways are available for public parking); or (2) pay a per liquidated damages for each day a site is unavailable.

5.6 PROJECT TEAM ORGANIZATION 35 POINTS

The Trustees require that a Team Organizational Chart be developed and provided as part of the Proposal. Proposers shall identify all key personnel for each team component and describe how the team will be managed. Be advised that once accepted, any changes to the selected Proposer's proposed Project Team or Key Personnel

must be approved by the Trustees. The Trustees reserve the right to interview each new team member to confirm its acceptance of the new team member and any new Key Personnel. If the Trustees do not accept a proposed new team member, Proposer will provide alternative team members of equal or better qualifications until such time that the Trustees accepts the proposed new team member. The Trustees expects the Successful Proposers Key Personnel to be committed to the Design and Installation portion of the Project for the duration of their role, and the Successful Proposer will not roll personnel on and off the Project without approval of the Trustees. The Trustees also reserve the right to ask Proposer to remove a person from the Project team at the Trustees discretion.

In addition to the Team Organizational Chart, Proposer shall identify any subcontractors Proposer intends to employ in execution of the program. Discuss their role and provide information on subcontractors' experience performing similar work. Provide information as to how Proposer plans to manage subcontractors to ensure that the needs of the Trustees will be met and all subcontractors meet any and all applicable laws and campus procedures.

5.7 QUALIFICATIONS OF KEY PERSONNEL 50 POINTS

Proposer shall include resumes of key personnel who will be assigned to this project. Key personnel are defined as, but not limited to the following: Project Manager, Project Engineer, Project Planner, Structural Engineer, Electrical Engineer, Civil Engineer, Project Architect, Construction Project Manager, and Construction Field Superintendent.

5.8 PAST-PROJECT EXPERIENCE 55 POINTS

Proposer shall provide a brief description of three (3) completed parking canopy solar photovoltaic projects/programs, and three (3) completed institutional rooftop solar photovoltaic projects/programs, that are similar in nature and size as those expected to result from this RFP. Completed projects that were incorporated into microgrids are preferred. The description for each project/program should include:

1. Project name
2. Location
3. Project size (total cost and project AC capacity in kW PTC)
4. Project type – turnkey or third party energy sales
5. Project performance – expected vs. actual output
6. Year completed
7. Name of project manager
8. Name of client and contact information
9. Brief physical description of the project (equipment manufacturer, model, etc.)
10. Photographs, if available
11. A brief discussion of any specific challenges and how they were overcome
12. Review of project schedule – award date, installation completion date and date of commercial operation

Additionally Proposer shall indicate whether or not the projects were part of a microgrid.

5.9 REFERENCES 50 POINTS

For each of the projects in Section 5.8 above, Proposer shall provide client reference information - including name of client contact, company name, title, address, phone number, email address. At a minimum, at least three of the projects must have been completed within past five years and been for power sales on solar

photovoltaic projects/programs. The references shall be for projects of comparable size to the proposed installation and for projects that were installed, owned, operated and maintained by Proposer.

These references will be contacted and asked about their satisfaction with the project and the Proposer's performance. The scoring for this category will be based on the outcomes

5.10 OPERATION AND MAINTENANCE PLAN 30 POINTS

Proposers shall describe the proposed O&M procedures for the System(s) and shall describe its experience providing such services for similar solar installations and shall provide information on the personnel performing the O&M service.

The successful Proposer shall provide Operations and Maintenance (O&M) services for the full project term as set forth in the SLPPA (Attachment 2).

5.11 BILLING PLAN 20 POINTS

Proposer shall submit a Billing Plan that includes the following:

1. The billing system to the Trustees shall be consistent with the Cost Proposal Form
2. A method to document the solar photovoltaic and/or energy system output;
3. An annual/monthly adjustment or true-up process to ensure accounting that is compliant to production guarantees
4. A preferred method for the sharing of billing data and information such as online, email, or third party access
5. The monthly billing period should coincide with the local utility provider billing cycle and shall include the following:
    - Maximum solar generation output in kW (AC) during time of use periods per array
    - Total kWh (AC) generated by time of use period per array
    - Total kWh (AC) sold to the Trustees by time of use period per array
    - Price in $/kWh for the month
    - Amount due for solar photovoltaic energy sold to the Trustees within the billing period per array
    - Past due amounts
    - Total Bill

5.12 LIGHTING 10 POINTS

Respondents shall provide a lighting plan for carport solar arrays including:

1. Preliminary site plan showing location of lighting
2. Light fixture cut sheet
3. Sensor cut sheet
4. Details of dimming capabilities
5. Wireless controls (if applicable)

5.13 CAPITAL FINANCE STRUCTURE 30 POINTS

Proposer shall provide information regarding the capital finance structure of the privately-owned solar photovoltaic energy system, which should include:

1. Description of relevant financing structure for proposed project
2. Identification of funding sources including applicable incentives
3. Examples of previously funded or financed third-party owned projects
4. Commitment letter from anticipated funding source and the credit rating of each funding source
5. For financing team members, provide Moody's, Fitch, or Standard & Poor credit rating and three years annual report or audited financial statements

5.14 SUSTAINABILITY CAPABILITIES 45 POINTS

Proposer shall complete Form 3, Questionnaire.

5.15 SIMULATED SOLAR PRODUCTION DATA PASS/FAIL

Proposer shall provide simulated hourly production data (i.e., 8760) for each array (defined as each set of arrays with discrete azimuth orientation and tilt) in Microsoft Excel format. This information will not be scored separately and should not be provided in printed form. This data should be provided electronically with the electronic submission of the main proposal.

End of section

SECTION 6 COST PROPOSAL

All proposals shall be submitted with the understanding that the prices quoted shall remain in effect for the entire term of the Solar License and Power Purchase Agreement (SLPPA), which is contained in Attachment 2 to this RFP

6.1 PRICE RATE

The pricing for the solar power will be an all-inclusive fixed price rate rounded to the nearest 10th of a cent per kWh (AC) with the option for an escalator. The price shall include the Renewable Energy Credits (REC's) over the SLPPA term. If the Proposers are also responding the concurrently issued BESS RFP and the price of providing PV is different in the event that the Proposer is awarded both the PV and BESS proposal, Proposers may submit two separate pricing proposals; one for a PV only award (assuming no BESS award) and one for a PV award assuming a successful BESS award. If a Proposer submits two separate costs, both will scored independently to determine the lowest cost. If the PV plus BESS cost scores highest overall in this proposal **and** the Proposer's BESS RFP cost proposal score highest overall, the Proposer will be the winner of both proposals. If a Proposer's PV plus BESS cost score highest, but they do not score highest on the BESS proposal, that price proposal will be eliminated and the PV only cost will be used in the scoring. Awards for both RFP will be the combined lowest price for the PV plus BESS overall.

6.2 BASIS FOR AWARD

The award shall be based on the highest combined point total for the Technical Proposal and the Cost Proposal, adjusted for the preferences and incentives described in Sections 3.4, 3.5, and Forms 1 and 2 of this RFP.

As mentioned previously, the Trustees prefer to award this RFP and the parallel Cal Poly Humboldt Battery Energy Storage System RFP to the same System Provider. This could reduce administrative burden, simplify the development process, and may reduce mobilization and construction management costs. To accommodate this possibility, this Cost Proposal form includes two sets of pricing inputs, one for the case where the Proposing System Provider is awarded one of the RFPs only (Case A) and the other for the case where they are awarded both (Case B).

For System Providers that submit proposals under both RFPs, both sets of pricing inputs will be evaluated and if their Case B bids achieve the highest Final Score on both RFPs, they will be awarded both projects. If their Case B bids achieve the highest Final Score on one RFP but not the other, then their Case A bids will be used to determine their applicable Final Scores, for determining whether or not they are to be awarded either RFP.

If a System Provider is only proposing under one of the RFPs, or if they are responding to both RFPs but their bids are the same whether or not they were to be awarded one or both RFPs, they shall indicate that they are not submitting a Case B bid as instructed under Item 2 on the Bid Form below

6.3 ESTABLISHMENT OF SUCCESSFUL PROPOSAL

At the Cost Proposal opening the following steps will be followed to score each proposal:

1. Pass/Fail test: Aggregated Solar PV Inverter Nameplate Rating is at least 3,000 kW

2. The Levelized Cost of Energy (LCOE) will be calculated using the proposed PPA rate and any escalator of the proposed rate, as reflected in the bid sheets.
    a. The annual solar energy cost for each of the 20-year of the term will be calculated by multiplying the proposed PPA rate by the annual Guaranteed Production values provided in Form 4, accounting for the escalation rate.
    b. These annual solar energy cost numbers will be summed, and this 20-year total cost will be divided by the sum of the annual Guaranteed Production numbers to determine the LCOE.
3. The lowest LCOE received from all proposals received will be determined by comparing the results of Step 1.
4. Each LCOE value for the remaining proposals will be compared to the lowest LCOE and the variation from the lowest LCOE will be determined by difference.
5. The variation from the lowest LCOE will be converted to decimal percent by dividing the variation from the lowest LCOE by the lowest LCOE.
6. The number of points to deduct from each proposal that did not have the lowest LCOE will be calculated by multiplying the decimal percent variation calculated in Step 5 by 400 (total possible points for cost proposals).

For example:

Proposal	Proposed LCOE	Variation from Lowest LCOE = Proposed LCOE - Lowest LCOE	% Variation = Variation from lowest LCOE / Average LCOE	Points to deduct From 400 points	Fee Score
1- Case A	$0.141/kWh	0.001	0.71%	2.86	397.14
1- Case B	$0.140/kWh	0	0%	0	400.00
2	$0.146/kWh	0.006	4.59%	18.36	381.64
3	$0.161/kWh	0.015	10.57%	42.27	357.73

In this example, Proposing System Provider 1 is bidding on both RFPs and their lowest bid price is contingent on them being awarded both RFPs.

Having calculated each proposals Fee Score, the following steps will be taken to determine each proposal's Final Score:

7. The Fee Score will be added to the Technical Proposal Score to calculate the Pre-Incentive Total Score for each Proposal
8. The total bonus percentages will be summed for the preferences and incentives described in Sections 3.4, 3.5, and Forms 1 and 2.
9. To calculate the Final Score, the Pre-Incentive Total Score for each proposal will be multiplied by the quantity (1+X) where X = the decimal percent value calculated in Step 8.

6.4 AWARD

The Final Score for each proposal will be compared and the proposal with the highest Final Score will be selected. In the event the highest Final Score is achieved using Case B pricing for the Cost Proposal, then further evaluation will occur as described below.

For example:

Proposer	Fee Score	Technical Proposal Score	Small Business Preference Credit (Per Section 3.4 and Form 1, 5% or 0%)	DVBE Credit (Per Section 3.5 and Form 2, 1, 2, or 3% bonus)	Final Score
1-A	397.14	540	5%	1%	993.37
1-B	400.00	540	5%	1%	996.40
2	381.64	450	-	2%	848.27
3	357.73	580	-	3%	965.86

In the example above, Proposing System Provider 1 would be awarded the contract if their Case B bid for the Cal Poly Humboldt Battery Energy Storage System RFP achieved the highest Final Score amongst the proposals received under that parallel RFP process.

In the event that Proposing System Provider 1's Case B bid under the Battery Energy Storage System RFP did not achieve the highest score, then their Case A bid would be used to score this RFP instead. In that case, using the hypothetical example above, Proposing System Provider 1 would still receive the award under this Cal Poly Humboldt Solar Photovoltaic RFP because their Case A Final Score was higher than Proposers 2 and 3. Projects will be awarded by Campus as indicated in the RFP Coversheet.

The Trustees will provide the Technical Score in whole numbers. The Trustees will calculate the Fee Score to two decimal places and will add it to the technical score. In the event of a tie for first place in the Final Score, the winner will be the tied Proposer with the lowest All-Inclusive Monthly BESS Lease Fee. If the proposed fees are equal the winner will be selected by a coin toss in the presence of both parties and managed by the Trustees. The Trustees require that the tied Proposers agree to the coin toss procedure in writing before the toss. The proposal offering the highest point score will be recommended for award. The CSU are under no obligation to award this project to the Proposer whose proposal represents the lowest cost. **THE DECISION OF THE TRUSTEES IS FINAL.**

6.5 NOTICE OF INTENT TO AWARD

A "Notice of Intent to Award" will be emailed to all Proposers effective for a time period of three (3) working days prior to award.

BID FORM- PAGE 1

To: Campus Contact _____ Date: _____

California State Polytechnic University, Humboldt

1. Are you also submitting a proposal under the Cal Poly Humboldt Battery Energy Storage System RFP.

   (Check one box below)

   Yes ☐

No ☐

If you answered YES, then proceed to Item No. 2.

If you answered NO then skip Item Nos. 2 and 4 and enter your bid price into Item No 3.

All bidders shall complete Item No. 5, attest to Item Nos. 6, 7, and 8, and complete Item 9.

2. Are you submitting two bid prices under this RFP, one that is contingent on you winning both this RFP and the Cal Poly Humboldt Battery Energy Storage System RFP, and one that is applicable if you are only awarded this RFP?

(Check one box below)

Yes ☐
No ☐

If you answered YES, then enter your Case A bid price in Item No. 3 and your Case B bid price in Item No. 4.

If you answered NO, then enter your bid price into Item No. 3 and skip Item No. 4.

All bidders shall complete Item No. 5, attest to Item Nos. 6, 7, and 8, and complete Item 9.

3. In compliance with your Request for Proposal, our bid is as follows

Case A: All-inclusive fixed price rate	$_____per kWh (AC)
Case A: Annual Escalation Rate	_____per year (%)

4. In compliance with your Request for Proposal, our bid is as follows:

Case B: All-inclusive fixed price rate	$_____per kWh (AC)
Case B: Annual Escalation Rate	_____per year (%)

Only Proposers who answered YES to Items 1 and 2 above should add CASE B pricing here.

BID FORM – PAGE 2

5. In compliance with your Request for Proposal, our cash price bid is as follows:

Cash Price option for Cal Poly Humboldt $_____

Cash price excludes transaction fee, excludes M&O.

6. Proposer's legal department has reviewed Attachment 2: Draft Contract Documents and finds these terms generally agreeable so as to facilitate good faith negotiations and timely contract execution.
7. Proposer attests to their ability and good faith intent to complete construction by the Construction Completion Date shown in the RFP Coversheet
8. Proposer's submission is in compliance with Section 2.8: Non-Collusion Affidavit
9. I hereby certify our intention and ability to negotiate final SLPPA and/or ESSLSA terms within 3 months of signing this form, and to perform said work for the aforementioned price, in accordance with the terms and conditions set forth in the above-referenced Request for Proposal, pending timely final execution of SLPPA and/or ESSA.

Name/Title	Signature
Name of Company as Licensed	Contractor License Number (If Applicable)
Address	City, State Zip
Telephone Number	Federal I.D.

End of Section

SECTION 7 PREPARATION AND FORMAT

All proposals shall be submitted in the format identified in this section. All requirements and requested information shall be addressed. The Trustees reserve the right to request information deemed missing from a Proposer's submittal or request clarifying information as necessary to ensure that each Proposal is complete according to the requirements of this RFP.

7.1 NUMBER OF COPIES

Proposer shall provide one set of proposals digitally signed.

7.2 PROPOSAL FORMAT

Proposals shall adhere to the format identified in this Section. Proposals must be divided into the individual sections listed below, indexed and tabbed.

Request for Proposal Requirements

Cover Letter

Proposer is required to submit a signed cover letter with the proposal response. The signature on the cover letter shall be from a duly-authorized officer representing the Proposer's firm having legal authority in such transactions. **Unsigned proposals shall be rejected.**

The cover letter shall include the following:

1. Company name, address, telephone, email address, fax number and Federal ID number
2. Acknowledgement of receipt of any RFP addenda
3. Name, title, address, phone and email address of contact person
4. A statement, in accordance with Section 5.5 of this RFP, attesting to the Proposers ability and intent to meet the project schedule provided contracting is completed in a timely manner.
5. A statement that you have read and complied with Section 2.8, Non-Collusion Affidavit

Tab 1 Table of Contents

Proposer shall provide a table of contents in a format consistent with the proposal requirements and format set forth herein.

Tab 2 Exceptions to RFP Terms and Conditions

Proposer shall list any and all exceptions to the RFP on an item-by-item basis and cross-referenced with the RFP document.* If there are no exceptions, Proposer must expressly state that no exceptions are taken.

Tab 3 Exceptions to SLPPA Terms and Conditions

Proposer shall list any their exceptions to the Solar License and Power Purchase Agreement (SLPPA) on an item-by item basis and cross-referenced with SLPPA document.* If no exceptions are taken, Proposer must expressly state there are no exceptions taken.

*NOTE: Proposers are reminded that unacceptable exceptions taken to RFP or SLPPA provisions may render Proposer's submittal non-responsive and subject to disqualification.

Technical Proposal

Tab 4 Small Business, DVBE, and Incentives (Forms 1 and 2)
Reference Section 3 Paragraph 3.4 and Paragraph 3.5

Tab 5 Project Description and Understanding
Reference Section 5, Paragraph 5.1

Tab 6 System Location and Layouts
Reference Section 5, Paragraph 5.2

Tab 7 Technical Description
Reference Section 5, Paragraph 5.3

Tab 8 Metering and Monitoring Description with Data Access
Reference Section 5, Paragraph 5.4

Tab 9 Project Schedule
Reference Section 5, Paragraph 5.5

Tab 10 Project Team Organization
Reference Section 5, Paragraph 5.6

Tab 11 Qualifications of Key Personnel
Reference Section 5, Paragraph 5.7

Tab 12 Past-Project Experience
Reference Section 5, Paragraph 5.8

Tab 13 References
Reference Section 5, Paragraph 5.9

Tab 14 Operation and Maintenance Plan
Reference Section 5, Paragraph 5.10 (Sections 1 and 2)

Tab 15 Billing Plan
Reference Section 5, Paragraph 5.11

Tab 16 Lighting
Reference Section 5, Paragraph 5.12

Tab 17 Capital Finance Structure
Reference Section 5, Paragraph 5.13

Tab 18 Sustainability Capabilities (Form 3)
Reference Section 5, Paragraph 5.14

Tab 19 Simulated Solar Production Data
Reference Section 5, Paragraph 5.15

Tab 20 Cost Proposal, Bid Form, and Form 4
Reference Section 6 and Attachment- Form 4

End of Section