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Solar Request for Proposals & Procurement Guidance

Customizable templates to facilitate
installing solar on your building

MAY 2016

Purpose

A request for proposal (RFP) identifies what services and products the requester needs and invites outside parties to submit a bid. It is intended to outline the bidding process and contract terms and provide guidance on how the bid should be formatted and presented. Effective RFPs typically reflect the strategy and short/long-term project objectives, allowing respondents the opportunity to address client goals.

The purpose of this RFP template is to provide guidance for the procurement of solar PV (solar). This template contains information on project background, scope of work, proposal requirements, evaluation criteria and recommended information to provide to respondents. Users are encouraged to modify the template to suit project needs. For questions regarding the template, please contact **XXX**.

Effective RFP Process Guidelines

1. **State Objectives and Evaluation Criteria:** Clearly state project objectives and evaluation criteria, so solar companies can design a project that meets your company needs.
2. **Issue a Request for Qualification (RFQ):** Consider issuing an RFQ before the RFP and shortlisting 4-5 bidders. Having a short list of top bidders makes evaluation much easier and allows your company to focus on answering the questions of companies most likely to be awarded the project. Make sure to widely distribute this RFQ.
3. **Bid Timeline:** Provide bidders with at least three weeks (preferably four) to respond to the RFP, two weeks to respond to an RFQ.
4. **Project Specifications:** Carefully structure specifications so they are not too restrictive or too unstructured
 - a. If requirements are too restrictive (e.g. equipment specifications, system design specifications, etc.) bidders will not be able to leverage their expertise to provide the most cost effective system.
5. **Eliminate Uncertainty:** Provide bidders with the following:
 - a. Site/roof plan with solar areas identified. Include site property boundaries.
 - b. Structural plans for roof mount system
 - c. Building electrical single line diagrams
 - d. One year of utility bills for all sites and meters
 - e. Hourly electricity consumption data for all meters on property (kWh) (if applicable)
 - f. Contract Terms and Conditions. Either request copy of bidder's contract or provide a contract that the solar company would be required to agree to if awarded the project.
 - g. Cost Proposal Form: Submit electronic cost proposal with RFP response.

Instructions

1. Delete all bracketed text and replace with project specific detail.
2. Search and replace "Company name" with the specific Company's or entity's name.
3. Delete sections that are not applicable to the project. For example; delete ground related requirements if the RFP is for roof-mounted system.
4. Add sections that are applicable to the specific project but are not included in this template.





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**COMPANY
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[COMPANY NAME]

Contact Name

Street

City, State, Zip

Phone

Fax

Email

REQUEST FOR PROPOSAL

Solar PV System Services

Date released

Due Date and Time

Introduction

[COMPANY NAME] is soliciting proposals from qualified solar PV (solar) providers to design, build and finance if requesting a Power Purchase Agreement (PPA) or lease agreement for the installation of [XXX] kW DC [ROOF/CARPORT/GROUND]-mount solar photovoltaic project at the site address. The contractor is responsible for all project permitting and if [COMPANY NAME] decides to move forward with a PPA or lease financed project, the contractor is expected to maintain the system for the term of the agreement. Respondents shall have demonstrated experience designing, planning, scheduling, permitting and constructing complete solar electric systems, have relationships with/knowledge of local utilities, provide project financial analysis and rebate support, providing system monitoring and maintenance, and have established onsite safety standards.

General Conditions

1. Each respondent is responsible for reviewing and understanding all terms of this Request for Proposal. Failure to thoroughly examine or request clarification on RFP terms may result in disqualification.
2. Any bid may be withdrawn at any time prior to the due date with a written request signed by the authorized respondent representative. Revised proposals may be submitted up to the original due date/time.
3. Issuance of this RFP and receipt of proposals does not commit the [COMPANY NAME] to move forward with an award or complete the project described. [COMPANY NAME] reserves the right to postpone the RFP award process, to accept or reject any or all proposals received in response to this RFP, and to modify the scope of the project at any time.
4. An award under this RFP may not be based solely on the lowest price but will be made to the respondent with the overall best value proposal. The successful proposal will meet the project site design guidelines and provide service level acceptable to the [COMPANY NAME].
5. Bid proposals shall remain valid for 60 days after private opening of the proposals. If [COMPANY NAME] decides to move forward with a certain bid, contract will be executed in the 60 day timeframe or contractors will be allowed to revise pricing.
6. Upon award, successful respondent shall secure all appropriate licenses to complete the scope of work included in this RFP.
7. Successful respondent will enter into a formal agreement with the [COMPANY NAME], which will be similar to the Draft Agreement included as [Exhibit F]. [Delete bullet if planning to use bidders T&Cs.]



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RFP Schedule

The schedule for this RFP is as indicated below. It may be modified at the discretion of [COMPANY NAME]. An addendum will be issued in the event of any scheduling changes.

| Project Milestone | Date/Time |
|---|--------------------------------------|
| RFP Advertised/released | |
| Mandatory Site Walk/Pre-Proposal Conference | 1 week after release |
| Requests for Information (RFIs) Due | 3-4 business days after site walk |
| Answers to RFIs distributed | 3 business days after RFIs submitted |
| Notice of Intent to Submit Proposal | 2 business days after RFIs answered |
| Proposal Due | 3- ideally 4 weeks after RFP release |
| Notice of Intent to Award | |
| Fully Executed Contract | |
| Project Notice to Proceed | |
| System Operation Date | |

Mandatory Site Walk

Mandatory pre-bid meeting and site walk are scheduled for [XX date/time]. All interested firms must attend this required site visit. Participants will meet at [XX] location at [XX] address at the time stated above. Technical questions will/will not be answered at this meeting.

Site walk is scheduled for [DATE]. Please submit the names of those attending the site walk by [DATE].

Request for Information

Please submit questions via email to [COMPANY CONTACT'S NAME AND EMAIL] by [DATE]. Responses to questions will be shared with all bidders.

Notice of Intent to Submit Proposal

Respondents must present their notice of intent to submit a proposal to [NAME at EMAIL by DATE/TIME] to ensure receipt of all addendums and other project documents. Addendums to this RFP based on submitted technical questions, along with changes to the proposal schedule, will be issued via [EMAIL].

RFP Submission Guidelines

Electronic or hard copy (specify # of copies) submission. [Consider only requesting electronic copies via email or thumb drive].



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Selection Process

Depending on the number and quality of the proposals received, [COMPANY NAME] reserves the right to either select a vendor or shortlist two to three companies. Shortlisted companies will be asked to meet with [COMPANY NAME] to present their proposal to the decision team and answer any outstanding questions.

Project Background

Objective

[COMPANY NAME'S] interest in pursuing solar photovoltaic projects reflects the following prioritized goals:

1. Offset or reduce grid electricity use/electricity bills
2. Meet company sustainability goals/ minimize company impact on the environment

Company Background

[Provide COMPANY description including the following pertinent information – company size, location, service, goals etc.]

Project Description

The project site is located at: [Address]

- **Description of Site:** [Buildings, parking area, sloped site requiring grading/drainage. Make sure to identify areas available for solar development.] Existing plans for the subject building/facility/property are included as Exhibit A.
- **Desired System Size:** The solar system shall be comprised of an array of photovoltaic panels and electrical equipment components generating a minimum of XXX kWh or X% of electricity bill or sized to maximize savings.
- **Description of Desired Solar System:** [Ground mount (fixed, single or dual axis tracking), canopy/carports, roof mount (penetrating, non-penetrating), combination or selection based on site.]
- **Project Financing:** [Describe the type of financing options being considered in bid and whether bidders need to provide bids for all options: Cash Purchase, Power Purchase Agreement or Lease, two of those options or all three.]
- **System Ownership Information:** [Specify who will own the system. Depends on whether procuring a system through a PPA, lease or cash purchase.]
- **Operation & Maintenance:** The selected Company will provide O&M services for 20 years following installation of the project. [Depending distribution of rainfall throughout year, consider including panel washing 1-2x per year]. Please include O&M costs as a separate line item for a cash purchased system.
- **Monitoring** – [Specify desired monitoring and whether a display kiosk providing project information should be included.]

Scope of Work

[COMPANY NAME] is soliciting proposals from qualified solar providers to design, build [and finance if requesting a Power Purchase Agreement (PPA) or lease] services for the installation of [XXX] kW DC [ROOF/CARPORT/GROUND]-mount solar photovoltaic project at the site address. The goal of this RFP



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is to identify a solar partner with the necessary experience to ensure a fully managed and well executed process. The successful respondent will have demonstrated experience financing, designing, planning, scheduling, permitting and constructing, interconnection and owning a solar PV system. Contractor is responsible for all permitting. Respondents must have worked with [SPECIFY UTILITY] regulations, provide project financial analysis and have established onsite safety standards. The most important things to [COMPANY NAME] include:

- [RESTATE PROJECT GOALS]

Design Guidelines

Contractor should consider the following guidelines when designing the solar system. [Remove system design types that do not apply to project.]

Rooftop Solar

The contractor shall develop a design for a new photovoltaic system. Not all locations identified need to be utilized. It is the responsibility of the contractor to assess the building structural integrity, roof condition and shading limitations.

- Mounting system shall limit roof penetrations or be fully ballasted. Mounting system design needs to meet applicable local building code requirements with respect to snow, wind, and earthquake factors. Solar system installation should not void the roof warranty.
- Conduit penetrations shall be minimized.
- System shall be fixed tilt with an orientation that maximizes annual savings. [SPECIFY WHETHER GOAL IS TO MAXIMIZE kWh PRODUCTION OR DOLLAR SAVINGS]
- All roof access points shall be securely locked at the end of each day.
- System layout shall meet local fire department, code and ordinance requirements for roof access.

Ground-Mounted Solar

The contractor shall develop a design for a new photovoltaic system. Not all locations identified need to be utilized. It is the responsibility of the contractor to assess site topography and geotechnical attributes to estimate costs related to project installation. Contractor is responsible for securing the environmental permits necessary to install a ground-mounted system. [If the cost of environmental permits will be excluded from the project, please specify].

- Mounting system shall be either directly anchored into the ground (driven piers, concrete footers, ground screws, etc.) or ballasted on the surface without ground penetration. Mounting system design needs to meet applicable local building code requirements with respect to snow, wind, and earthquake factors.
- Mounting system can either be fixed tilt or single axis tracker.
- Panels' orientation or azimuth shall be within 20-30 degrees of due south.
- Panels' tilt shall be based on site latitude and wind conditions.
- Ground cover and vegetation management shall be included in the proposal.
- Storm water management and erosion control management plan shall be included in the proposal.
- All lines interconnecting solar arrays to point of interconnection shall be underground.

Carport Solar

The contractor shall develop a design for a new photovoltaic system. Not all locations need to be utilized. It is the responsibility of the contractor to assess site topography and geotechnical attributes to estimate costs related to Project installation.



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- It is recommended that carport solar shall be tilted at a minimum of 5 degrees to allow for drainage and reduce soil build-up.
- The carport solar shall be at least 9 feet [Change height to ensure carports clear any special vehicles the facility uses. Note that higher carports are more costly] clear in all locations.
- Lighting shall be provided under each carport. This lighting shall be efficient (e.g., LED) and allow for adjustable times for illumination with photocell controls to turn the lights on at dusk and off in the morning prior to daylight.
- The carport solar shall be design with snow and ice management [delete if not applicable to region].
- All lines interconnecting solar arrays to point of interconnection shall be underground.
- Trees can be removed from parking lot to accommodate solar installation. Parking lot can be restriped to better orient the parking spaces for PV installation. Reorientation of the parking spaces cannot reduce the number of spaces in the parking lot.

Code Specifications

All power generation and transmission equipment must be UL listed for its designed use. Construction must comply with current adopted State Building Code, which includes: International Building Code, National Electric Code (NEC) and State Fire Marshall (if applicable).

- **Modules:** System modules shall be UL1703 listed, and CEC-listed
- **Inverters:** Shall be UL1741 listed and must be CEC-listed with an efficiency of 95% or higher

Contractor Responsibilities

The final design package and documents shall include the following but are not all required in the proposal stage. Please reference the proposal requirement section for detailed bid submission requirements:

- Description of the solar system
- Construction documents and engineering calculations that are signed and sealed by a licensed architect or engineer
- Layout drawing of installation site providing location of all equipment
- Equipment details and specifications
- Schedule for equipment procurement and installation
- Description of how [LOCAL UTILITY] grid interconnection requirements will be met
- Description of controls, monitors, and instrumentation to be used for the solar system
- Equipment and installation manuals
- Safety plan
- Quality control plan
- Operations and Maintenance manuals for system operations and performance monitoring over the life of the contract
- Web-based monitoring for 20 years
- Close out report including the following information: system nameplate size, the overall installed cost of the system and estimated and guaranteed annual kilowatt hour (kWh) production (if applicable).

Warranties

The solar provider's standard system warranty coverage should cover modules, inverter, racking and workmanship. [Note: Warranties are less important if entering into a PPA and lease as system operation should be included in the PPA/lease price].

- **Modules:** 25-Year Power Output & 10 Workmanship Limited Warranty

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- **Inverter:** 10-Year Limited Warranty, Provide a price and/or plan for inverter replacement in year 11 and beyond
- **Racking:** 10-Year Limited Warranty priority
- **Workmanship:** 1 Year Limited Warranty

System Monitoring

Monitoring of system performance and providing public education and outreach is an important element of this RFP. The [COMPANY NAME] will favor a proposal that includes a turnkey monitoring system that can be integrated into the [COMPANY NAME] computer system for display on the [COMPANY NAME] website. The system should display and analyze historical and live solar electricity generation data. Additionally, the regularly collected data should reflect, but not be limited, to the following:

- Average and accumulated output (kWh/kW and total kWh)
- Capacity factor
- Air quality emissions averted (and real world equivalents conversion)

The selected vendor must design and install a solar monitoring system, complete an on-site kiosk (viewing station area) designed specifically for educational purposes.

Operation and Maintenance of System

The successful respondent will be required to provide operation and maintenance of the entire solar electric system for 20 years for a cash purchase or the term of the PPA or lease. Operations and maintenance services include:

- Online monitoring
- Performance monitoring, notification, and troubleshooting – must have personnel available to notify [COMPANY NAME] of an outage or decrease in system production
- Corrective maintenance to mitigate any risk to the system or minimize down time
- System Performance Reports that compares actual production to predicted production
- Preventative maintenance and inspections to identify and fix problems before they occur, including infrared photography for hot spots, manufacturer recommended maintenance, hardware torque checks, and array cleanings
- Weed abatement for ground mount

If [COMPANY NAME] decides to own the system, prior to system start-up, the successful respondent shall supply [COMPANY NAME] two copies of all Component Product Data and Component Operation and Maintenance manuals. The information shall be sufficient for [COMPANY NAME] to evaluate and ensure appropriate O&M is being completed over the life of the system. Examples of components include solar panels, conduit, inverter, net metering equipment, etc. Project as-builts that detail location of all above and underground utilities and components shall be submitted within 30 days of system start-up.

Proposal Requirements

Please provide 1 original, [X] copies, thumb drive with electronic files and an email response to [COMPANY CONTACT'S NAME]. [CONSIDER ONLY REQUIRING AN ELECTRONIC SUBMISSION].

Please print double sided on recycled paper. Hard copies must be delivered to the [CONTACT/ADDRESS] no later than [DATE/TIME]. Proposals received after this time will be returned to the respondent un-opened. Proposals will not be considered for award unless submitted in the format described below. It is the responsibility of the respondent to ensure that the submittal is received in a timely manner. Fax proposals will not be accepted. Hard copy proposal must be submitted to the following address:

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Name
COMPANY NAME
Address
Phone/Fax/Email

Proposal Format

Please include the following sections in your proposal submittal in the following order.

- **Cover/Transmittal letter:** Cover letter must be addressed to [COMPANY CONTACT] and signed by a legally authorized representative of the respondent. Cover letter must summarize key provisions of the proposal and must include name, address, phone and email of the respondent contact.
- **Executive Summary:** Include key provisions of the proposal, including understanding of [COMPANY NAME] goals, pricing, respondent's role on project, brief description of proposed system, financing, relevant experience of respondent/company, and key timeline dates.
- **Company Profile:** Years in business, description of respondent/company background, applicable state licensing, OSHA background and safety protocol, Insurance, Quality Assurance/Quality Control documentation.
- **Project Experience:** Include projects completed in the last 3 years similar in scope and size to the proposed project. Include project name, system size, location, and brief 2-3 sentence project description. Highlight companies permitting and interconnection experience with local utility.
 - **References:** Provide 3 project references with direct client phone numbers.
- **Project Team:** Organization chart and bios (length of time with firm, key projects) of key team members, capability to perform work/workload capacity. Please only profile individual that will directly be working on this project. Clearly identify the project manager.
- **Technical Solution/Scope of Work:** Describe your technical approach to the design and construction of the solar project including:
 - Technical Approach, Design, Equipment, Installation
 - Panel, inverter, racking specifications
 - Equipment and workmanship warranties
 - Exhibits showing proposed layouts and system single line diagrams
 - PVSYST Report indicating production of the proposed system
 - Proposed monitoring system/solution
 - Operations & Maintenance Plan offered for the project. Please price O&M plan separately from cash purchase option
- **Production Guarantee:** Provide at least a 90% kWh guarantee for year 1, degrading by a maximum of 0.5-0.7%/year [specify one or the other] for 20 years. Performance guarantee should be measured and damages should be paid on an annual basis.
- **Price Proposal:** Provide a cash purchase, PPA and lease price for the system. Submit an electronic version of Exhibit G.
 - Present year 1 and 20 year financial savings
 - Present the NPV using the avoided cost provided by [COMPANY NAME]
 - PPA proposal should include a percent escalator for the PPA rate
- **Safety** – Please include a brief description of the safety practices of your firm, as well as the OSHA Reporting Indicators for the last 3 years.
- **Proposed Schedule** – Identify key project milestones and include any necessary review periods for [COMPANY NAME].

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Evaluation/Selection Criteria:

The [COMPANY NAME] will evaluate proposals according to the evaluation criteria below. Result of this step will be the identification of the selection of a proposal for negotiation of a contract. Points will be awarded based on the relative merit of the information provided in the response to the solicitation. Selection based on the total number of points awarded by the evaluation committee.

| | |
|---|-----------|
| • Proposal Cost Effectiveness | 35 points |
| • Technical Approach/ Implementation Schedule | 30 points |
| • Company Qualifications/Project Experience | 20 points |
| • Project team, team experience and approach | 15 points |

[COMPANY NAME] may elect to conduct interviews with selected respondents to ask questions or for more detail on the proposed project. The [COMPANY NAME] reserves the right to seek supplemental information from any respondent at any time after official proposal opening and before award. This will be limited to clarification or more detail on information included in the original proposal. Upon acceptance of a proposal and intent to award, the successful respondent will be required to execute and return all required project documents and certificates of insurance within [XX] days from the Notice of Award. Should the selected firm fail or refuse to execute the project documents, the [COMPANY NAME] reserves the right to accept the proposal of the firm offering the next best value to the [COMPANY NAME].

RFP Exhibits

Exhibit A: Site/roof plan with solar areas identified

Exhibit B: Structural plans for roof mount system

Exhibit C: Building electrical single line

Exhibit D: One year of utility bills

Exhibit E: Hourly electricity consumption data for all meters on property (kWh)

Exhibit F: Contract Terms and Conditions.

[Either request copy of bidder's contract or provide a contract that the solar company would be required to agree to if awarded the project.]

Exhibit G: Cost Proposal Form

Submit electronic cost proposal with RFP response.