**On-site Solar and Storage for Community Resilience Hubs
Request for Proposal (RFP) Template**

**Overview:** The goal of this on-site solar and storage RFP template is to provide local governments with an easily modifiable on-site solar and storage RFP. For cities and counties required to use their local government’s RFP template, the material in this on-site solar and storage template should be easily transferable to your city or county­­­­ RFP template.

**­­**

**Instructions:** You may use or modify this template in whatever way is most helpful (e.g., copy certain lines or sections into your City/County’s mandatory RFP template, or treat the entire document like your draft RFP). We do not expect credit or citation for any of this material. **­­­­**

If you would like to customize some or all of the text in this document, please follow the directions below:

1. Read each section using the comments on the right as helpful guidelines.
2. Utilize Microsoft Word’s replace all function (Ctrl/Command + H) to find “City/County” and replace with either just “City” or just “County.”
3. Replace all [yellow bracketed text] with the appropriate language for your project and local context.
4. Integrate all local government-specific language if utilizing this template as your draft RFP.
5. Delete this cover page and all comments once your draft is complete.
6. In the Table of Contents, click on the down arrow button on the top left and choose “Update Table…” > “Update entire table.”
7. Carefully review the entire RFP with your local government’s attorney, procurement officer, and other relevant staff.

Thank you to the following organizations that contributed to the development and review of this template: American Microgrid Solutions, Urban Sustainability Directors Network, and the City of Orlando.

**Disclaimer:** This template was created using the best practices our team identified in The Clean Energy Group’s [Energy Storage Procurement Guidance Document for Municipalities](https://www.cesa.org/wp-content/uploads/Energy-Storage-Procurement-Guidance-Document.pdf), external on-site solar and storage industry experts, and our internal expertise.

Given that this material was developed using external sources, the RMI team makes no warranties or guaranties about the completeness or accuracy of this information. Any material in this template should be used at your own risk and at your sole discretion and by its use you are acknowledging that the RMI team shall not be liable for any damages in connection with the use of this template.

**Additional Information**

A solar + storage power system is one of the five foundational areas of resilience, as outlined in the USDN [Guide to Developing Resilience Hubs](http://resilience-hub.org/wp-content/uploads/2019/10/USDN_ResilienceHubsGuidance-1.pdf). The other components are structure, programming and services, communications, and operations. To understand how the power system supports the other four foundational areas of resilience, please consult the USDN guide.

[City/County Name]

Contact Name

Street

City, State, Zip Code

Phone Number

Email

**REQUEST FOR PROPOSAL**

On-site Solar and Storage System for Community Resilience [Hub(s)]

**Date released**

**Due Date and Time**

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# Glossary

BESS: Battery energy storage system

Blue-sky day: A day on which no disaster occurs at the facility

CRH: Community Resilience Hub

DER: Distributed Energy Resource

LMI: Low to moderate income

NFPA: National Fire Protection Association

PV: Photovoltaic

USDN: Urban Directors Sustainability Network

# 1. Project Overview

## 1.1. Introduction

City/County name (hereby referred to as “the City/County”) is soliciting proposals from qualified engineering firms [with local knowledge and experience] to design, engineer, build, [operate, and maintain] a turn-key installation of [XX] kW DC [rooftop/carport/ground-mount] solar photovoltaic (PV) panels with associated [XX] kW/ [XX] kWh battery energy storage systems (BESS) [and a feature to connect a generator] at the site address(es) below as part of the process for developing a community resilience hub (CRH). According to the Urban Sustainability Directors Network (USDN), CRHs are community-serving facilities augmented to 1) support residents during both hazardous events and blue-sky days, and 2) coordinate resources distribution and services before, during, and after a natural hazard event.

[To provide the best value for the City, various financing options are sought in the proposals so that the City can select from appropriate choices including, but not limited to, direct purchase, PPA, lease, and other cost-effective options recommended by the Proposer.]

Respondents shall have demonstrated experience designing, planning, scheduling, permitting, and constructing complete solar PV and battery storage systems, have knowledge of local utilities, provide project financial analysis and rebate support, and provide system monitoring and maintenance. In relation to this RFP, the term “Proposer” shall refer to all organizational members of the responding team that will, through combined efforts and abilities, perform all aspects of site development. The Proposer shall be required to submit examples of similar projects completed within the last [5] years.

## 1.2. Purpose of RFP

The City/County’s interest in pursuing solar PV and battery storage for community resilience hub [project(s)]reflects the following goals, listed in order of priority:

1. [Develop [a OR multiple] cost-effective community resilience hub(s) as part of City/County’s Climate Action and Resilience plans. The hub(s) will be required to support the City/County during disruptive weather events, grid outages or disruptions, and natural disasters.]
2. [Demonstrate the City/County’s commitment to equity principles by serving LMI communities and/or energy-burdened communities during disruptive events, and providing services during normal operations.]
3. [Provide space for community-building efforts and training to increase resilience during hazards.]
4. [Visibly show the City/County’s commitment to renewable energy and climate resilience through visible local projects and/or public education on the projects’ benefits.]
5. [Support local green-collar businesses, jobs, and workforce development.]
6. [Provide a safe location with consistent power access for use following disruptive hazards that is open to the public and capable of supporting local needs.]
7. [Provide support to critical loads during a power outage [with/without] the use of a backup solar generator.]

## 1.3. City/County Background

The City/County proudly serves [XX] residents and is governed by [enter City/County governance structure]. The City/County is developing community resilience hubs(s) (CRH(s)) in order to provide climate resilience, support to emergency management, and support to local residents during and following hazardous events. [This is in accordance with [ordinance/resolution/goal] to establish [X] CRH(s).] At this time, the City/County plans to develop [X] hub(s) in underserved areas of City/County, which [are/is] estimated to serve [X] number of families and [X] individuals during hazardous events. [The project was driven by the City/County’s experience with Winter Storm Uri, which is estimated to have caused $X damage to City/County and caused power outages to X homes and residences.]

## 1.4. Project Details

The primary objective of the City/County is to utilize distributed energy resources and a battery energy storage system (BESS) to provide enhanced resilience to [a facility OR facilities] designated by the city as [a] community resilience hub(s) (CRH). A CRH is intended to provide a range of services to our community, such as [distributing food, offering child care, providing jobs training, acting as a cooling center during heatwaves]. The CRH(s) will incorporate a solar PV and BESS system [and solar generator or feature for attaching a generator] capable of supporting the needs of the hub during and after a hazard. The resilient power system shall be specifically designed to support all critical needs in the hub(s) during these events (Section 2.6(6)), [such as refrigerating food, providing heating or cooling, or offering a safe overnight shelter.]

The system shall be designed to operate as a microgrid when needed and be able to island and operate off-grid. The energy system will operate as a microgrid [to provide electricity optimization services during daily operations and] to provide power during a power outage. In the event of a power outage, the energy system should be able to support the building to operational effectiveness. This entails system functionality for [x] hours, meeting [y kWh] critical load. The Selected Installer will demonstrate the system functionality and ability to meet this requirement.

Through this RFP, the City/County seeks to equip the CRH with resilient, renewable power systems capable of meeting the needs of the CRH facilities as described in this RFP.



* **Desired Solar PV and BESS System Description:** The City/County is seeking the above [rooftop, carport, ground-mount] PV with BESS to be sized to maximize [time use off-grid OR system economics OR the load of the building that can be met]. The system shall be constructed of materials which tolerate extreme conditions [such as extreme winds up to [X] mph, extreme heat, or extreme winter storms.] [The system should be designed with added flexibility to allow for an increase in the BESS/PV system over time, or any energy efficiency equipment upgrades as needed]. [The power system shall incorporate a feature allowing for the attachment of a generator as needed]. Further detail is provided in [Attachment A].
* **[Integration:** The City/County is seeking that the above solar PV system and BESS are integrated with a building automation system to allow for load shedding and additional monitoring.]
* **Project Financing:** The City/County is seeking to finance the solar PV and battery storage systems through a [Power Purchase Agreement OR Lease OR city/county bond/debt OR private financing] and requests the Proposer to submit a financial analysis [for the base bid and optional alternative bids, if desired]. [There should be separate price proposals for each site, as well as an overall price proposal.] [The City/County also requests a separate financial analysis option for the City/County to purchase each system at years X and Y and at the end of the project’s life].
* **PV System Ownership:** The City/County requests that the solar PV system be owned by the [City/Proposer]. [The City/County also requests the option to purchase the system in year X or Y or at the end of the project’s life].
* **BESS Ownership:** The City/County requests that the battery energy storage system be owned by the [City/Proposer]. [The City/County also requests the option to purchase the system in year X or Y or at the end of the project’s life].
* **Operation and Maintenance (O&M):** The [selected Proposer] will provide O&M services for the contract life. [Please include O&M costs as a separate line item for a cash-purchased system.] [The selected Proposer will also provide training on the specific use of the system and system maintenance through an appropriate training exercise.]
* **[Third-Party Aggregation:** A third-party aggregator will be able to utilize the BESS as an aggregated resource for demand management, so long as the BESS is not in use as a resilience hub during extreme weather.]
* **Monitoring**: The City/County requests a turnkey monitoring system for system performance [and public education via real-time visuals provided by the Proposer through our website AND/OR an on-site educational kiosk].

# 2. Scope of Work

The City/County is soliciting proposals from qualified engineering firms to design, engineer, build, [operate, maintain] [and decommission] a turn-key installation of [XX] kW DC [rooftop/carport/ground-mount] solar photovoltaic (PV) project with associated [XX] kW / [XX] kWh battery energy storage systems (BESS) [and a feature to attach a solar generator] at the site address(es) below as part of the process for developing community resilience hubs (CRH). The goal of this RFP is to identify a developer or contractor with the necessary experience to ensure a fully-managed and well-executed process and meet the goals of the RFP.

The successful respondent will have demonstrated experience designing, planning, scheduling, permitting, constructing, interconnecting, and maintaining [and owning/financing] a solar PV and BESS system [with a feature to attach a generator as needed] which tolerate extreme conditions [such as extreme winds up to [x] mph or extreme winter storms.] Proposer is responsible for all permitting and licenses and should include the cost of all permitting in their proposal. Respondents should be familiar with [utility] regulations, provide project financial analysis, and have established on-site safety standards. The City/County reserves the right to modify the scope of the project at any time.

## 2.1. Design Guidelines

The Proposer shall include design documents for all elements of the project, including, but not limited to, structural, civil, architectural, mechanical, and electrical. Proposer should consider the following guidelines when designing the solar PV and BESS system. [The City/County will also consider designs that can meet the load of the [facility OR facilities] that utilize a combination of the listed PV system technology types, generators, or BESS.]

[The operating philosophy for the solar PV and BESS when connected to the grid is that during the day, the solar PV system will prioritize supply of energy to the hub(s)’s loads, with excess energy being utilized to charge the batteries.]

### **(1) Combined Solar PV and BESS Microgrid**

The Proposer shall develop a combined solar PV and BESS system that maximizes [critical load uptime (the time for the power system to meet the critical load when disconnecting from the grid) OR system economics OR the load of the building that can be met annually]. The Proposer will assess each site for the appropriate solar PV system, as outlined in 1a-1c. It is the responsibility of the proposer to assess the site, structure, and technical attributes to estimate costs related to Project installation.

* [The power system shall incorporate a feature to allow the customer to attach a generator in an event of an outage. Adapter must be provided, if needed.]
* The type of coupling for the integration of the solar PV and BESS system shall be clearly indicated. One-line schematic drawings and a sequence of operations shall be noted in a drawing or in a separate document.
* [The power system shall be designed to incorporate additional batteries to be added in the future.]
* [The power system shall be designed to allow for flexibility in the loads of the building over time as more efficient equipment is installed.]
* [The microgrid shall be configured to support the energy needs of the hub during the day and supplement the energy supplied by the grid, while charging the BESS for use during the full island mode. Excess solar energy should be used within the hub.] [If applicable, the Proposer may be asked to coordinate with the system owner and the utility provider to ensure compatibility and/or integration with a DER system.]

### **(1a) Rooftop Solar**

 [Not all locations identified need to be utilized]. It is the responsibility of the Proposer to assess the building’s structural integrity, roof condition, and shading limitations.

* [The roofs at X sites will need to be replaced prior to the solar PV system installation. The sites are located at the following locations:
	+ ADDRESS
	+ ADDRESS]
* Mounting systems 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 loading factors]. Solar system installation must not void the roof warranty.
* Systems shall be fixed tilt with an orientation that maximizes [system size OR annual cost savings (relative $/kWh OR overall $)].
* All roof access points shall be securely locked at the end of each day during construction or O&M activities.
* System layout shall meet local fire department, code and ordinance requirements for roof access. [A permanent ladder or roof access system must be fabricated and installed.]

### **(1b) Ground-Mounted Solar**

[Not all locations identified need to be utilized]. It is the responsibility of the Proposer to assess site topography and geotechnical attributes to estimate costs related to project installation. Proposer is responsible for the costs of conducting environmental studies and securing the environmental permits necessary to install a ground-mounted system.

* 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 loading factors.
* The system shall be constructed of materials which tolerate extreme conditions [such as extreme hurricane-force winds, extreme cold, or extreme heat.]
* Mounting system can either be fixed-tilt or single-axis tracker.
* Panels’ tilt angle shall be based on site latitude and wind loading factors.
* Ground cover and vegetation management shall be included in the proposal, [with preference for bids integrating additional land use benefits such as native pollinator-friendly prairies or grazing].
* Stormwater management and erosion control management plan construction and post-construction phases shall be included in the proposal.

### **(1c) Carport Solar**

 [Not all locations need to be utilized]. It is the responsibility of the Proposer to assess site topography and geotechnical attributes to estimate costs related to Project installation.

* The carport’s roof components shall be at least [9 feet] above the ground (or grade).
* The carport’s rooftop system shall be constructed of materials which tolerate extreme conditions [such as extreme hurricane-force winds, extreme cold, or extreme heat.]
* Lighting shall be provided under each carport. This lighting shall be highly efficient (e.g., LED), controllable (e.g., automated photocell controls to turn the lights on at dusk and off in the morning), and meet exterior lighting codes (e.g., at least 0.2 footcandles on pavement)).
* The carport solar shall be designed for [snow and ice management].
* Trees [can/cannot] be removed from parking lot to accommodate solar installation. Parking lot [can/cannot] be restriped to better orient the parking spaces for PV installation. [Reorientation of the parking spaces [can/cannot] reduce the number of spaces in the parking lot.] All of these costs shall be borne by the Proposer.

### **(1d) Battery Energy Storage System**

The Proposer shall develop a battery energy storage system that maximizes [critical load uptime OR system economics OR the load of the building that can be met]. It is the responsibility of the proposer to assess the site, structure, and technical attributes to estimate costs related to Project installation.

* The battery storage system shall be located in a[n indoor OR outdoor] secure space that is protective of extreme conditions. [All components shall be secured to the floor or walls.]
* [Outdoor batteries must be placed within a weatherproof enclosure.]
* The system must be [capable of supporting the peak instantaneous demand of critical load OR must be capable of building black-start and associated start up loads.]
* The system shall be designed and constructed in a manner to minimize DC-DC and DC-AC conversion losses
* The system shall be designed to operate in ambient temperature range [insert appropriate temperature range, may not be necessary to include if batteries are installed inside]. It is the responsibility of the Selected Proposer to design all components to operate at safe rated sustainable operating temperatures over the required ambient temperature range.
* The grounding system shall provide personnel protection for step and touch potential in accordance with IEEE 80. The Selected Proposer shall determine, design and install the required interconnections between the BESS and the grounding systems.
* The battery energy storage system shall be in compliance with NFPA 855 standard and NFPA 1 fire code.

### **(2) Modes of Operation**

Microgrid for Emergency Conditions

During a grid outage, the solar PV system and BESS must disconnect from the grid and operate in stand-alone mode to supply the load of the hub(s). [The microgrid shall serve the entire building and be integrated with the building automation system and lighting control system to reduce or shed non-critical loads in island mode. When the battery is below [80]%, the lights shall be dimmed by [10]% and the A/C temperature reset by [2] degrees. When the battery is below [60]%, the lights shall dim by [20]% and the A/C temperature reset by [4] degrees.]

In the event of an extended grid outage due to a disaster, the power system shall be used to power the standby panel of the critical load circuit. The power system shall be designed to provide backup power to critical loads. The power system contractor shall include the creation of a critical power circuit, including the rewiring of the critical loads and installation of critical power switchgear.

In the event of a power outage, the energy system should be able to support the building to operational effectiveness. This entails system functionality for [x] hours, meeting [y kWh] critical load [with OR without the need of a backup generator]. [The incorporated use of the generator should enable the support of critical loads through the outage.] Critical loads and locations in the buildings are as follows:

|  |  |  |  |
| --- | --- | --- | --- |
| **Hub Address** | **End use** | **kW rating** | **kWh usage during the last [12 months]** |
| [123 Community Dr] | [First floor lighting] | [200] | [10,000] |
| [123 Community Dr] | [Refrigerator] |  |  |
| [456 Resilience Ln] | [Sump pump] |  |  |
| [789 Hub Ave] | [Air source heat pump] |  |  |
|  |  |  |  |

[The system shall be able to island [5 minutes] after an outage.] The system must be [capable of supporting the peak instantaneous demand OR must be capable of building black-start and associated start up loads.]

[Under the microgrid for emergency conditions system, the power system shall also be able to integrate a back-up generator rated at [X] kW that can be connected into the main power system.]

[Peak Load Reduction

The power system shall have an operational mode to allow for energy storage discharge during peak load hours. The power system shall have a method for forecasting the peak load and automatically dispatching the battery or to allow for scheduling the charge and discharge in advance.]

[Integration into a DER Portfolio

The power system shall be able to be integrated into a Distributed Energy Resource (DER) portfolio for improved grid resilience by being interconnected with the electric grid in order to support critical infrastructure as needed. The power system shall be able to provide support and power to the grid as needed.]

## 2.2. Code Specifications

The installation and power generation and transmission equipment shall comply with applicable building, mechanical, fire, seismic, structural, and electrical codes. Only products that are listed, tested, identified, or labeled by Underwriters Laboratories (UL) or another nationally recognized testing laboratory shall be used as components in the project. Construction must comply with current adopted [State, County, or City/County] Building Code, which includes: International Building Code, National Electric Code (NEC), and [State Fire Marshall (if applicable)].

* **Modules:** System modules shall be certified to International Electrotechnical Commission (IEC) 61215 or 61646 performance standards, Underwriter Laboratories (UL) 1703 fire code listed, and California Energy Commission (CEC) listed.
* **Inverters:** Shall be performance certified to IEC 62109, UL1741 listed, and CEC-listed with an efficiency of 95% or higher
* **BESS:** System must meet the harmonic specifications of IEEE 519. Battery cells shall comply with fire safety standards, including, but not limited to, NFPA 855, UL 1642 Standard for Lithium Batteries (Cells), and UL 9540 Standard for Energy Storage Systems and Equipment.

## 2.3. Warranties

The Proposer must provide their standard system warranty coverage along with specific equipment warranty coverage for modules, inverter, racking, and workmanship.

* **Modules:** 25-Year Power Output & 10 Workmanship Limited Warranty
* **Inverter:** 10-Year Limited Warranty. [Provide a price and/or plan for inverter replacement in year 11 and beyond.]
* **BESS:** 10-Year limited warranty for all BESS components at a minimum, and a separate cost breakdown for additional years. The life expectancy values given discharge profiles provided by this RFP shall be given.
* **Mounting systems:** Minimum 15-year warranty, covering at least structural integrity and corrosion.
* **Balance of system components:** The remainder of system components shall carry manufacturer warranties conforming to industry standards.
* **Workmanship:** [1 OR 2] Year Limited Warranty.

## 2.4. Inspection and Commissioning

To ensure compliance with all electrical codes, an inspection by a licensed electrical inspector is mandatory after construction is complete. Commissioning tests shall be included in the final inspection and QCP. The Proposer’s independent commissioning agent shall ensure that:

* All equipment specifications match the proposed equipment specifications
* The physical layout aligns with the as-built diagrams with variations to proposed system noted
* The electrical system as laid out and connected aligns with the as built one-line diagrams including fuses, relays, and switches with variations to proposed system noted
* Each array passes the open circuit voltage and current test
* The manual disconnect switch operates correctly
* BESS system performs as designed
* All operational modes as described in the specifications are tested
* The BESS is grounded as designed
* All control functions, including automatic, local, and remote control, are verified to perform as designed

[The System Owner shall hire a commissioning agent. The Selected Installer shall work with the independent commissioning agent.]

## 2.5. System Monitoring

Monitoring of system performance (separate from utility meter monitoring requirements) [and providing public education] [is an/are] [two] important element[s] of this RFP. The City/County will favor a proposal that includes a turnkey monitoring system that can be integrated into the City/County’s [building energy management system] to monitor system performance, as well as the City/County’s website for public viewing. Data storage, management, and display will be the responsibility of the Proposer [In addition, the selected vendor must design and install an on-site kiosk (viewing station area) designed specifically for educational purposes at specified sites].

Additionally, the regularly collected data should reflect, but not be limited to, the following:

* Average and accumulated output (kWh/day, kWh/year, and cumulative kWh) versus building load
* Capacity factor
* Real-time BESS charge level
* Whether the system is grid-following or grid-forming
* Monitoring requirements for the power system shall include Voltage, Current, Power, PF. Data Acquisition System shall have [30/60/90] days on-site data storage and support remote access and remote data downloads.

## 2.6. Operation and Maintenance of System

The successful respondent will provide O&M of the entire solar electric system over the contract life. The successful respondent will provide on-site training classes for personnel on use and maintenance of the power system. Operations and maintenance services include, but are not limited to:

* Operations and Maintenance manual that details corrective action and maintenance procedures for the power system at the observed condition
* Online monitoring
* Performance monitoring, notification, and troubleshooting
* Corrective maintenance to mitigate any risk to the system or minimize down time
* [Annual OR Quarterly] 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
* Preventative maintenance for the BESS to keep it at specified performance levels
* [Weed abatement for ground-mounted systems]

[If the City/County decides to own the system, prior to system start-up, the successful respondent shall supply the City/County two copies of all Component Product Data and Component Operation and Maintenance manuals. The information shall be sufficient for the City/County to evaluate and ensure they can appropriately complete O&M over the life of the system. Project as-builts that detail location of all above and underground utilities and components shall be submitted within 30 days of system start-up.]

## 2.7. [Contract Length and Post-Contract Options

The City/County is open to [X] year contract lengths and requests the associated financial proposals for those lengths as stated in section 4.2.

[Option 1: Post-Contract Renewal]

At the end of the contract term, the City/County requests the option to renew the contract for a specified number of years determined at that time.

[Option 2: System Removal]

At the end of the contract term, the City/County requests the owner to remove and decommission the system [OR provide a decommissioning bond of $10-20/kW-DC for the solar PV system]. The system owner bears the cost of removing the system and restoring the site to its prior condition. At the conclusion of the removal, neither party has any further liability or obligation to the other.

[Option 3: City/County Ownership Option]

At the end of the contract term, the City/County requests the option to purchase the system from the system owner at [its fair market value (FMV) OR the Proposer specified price]. The FMV will be determined by [the parties themselves OR by an independent/third-party appraisal].

[Option 4: Early Buyout Option]

The City/County also requests the option to terminate the contract through an early buyout option at year[(s) X and Y] to purchase the system from the system owner at [its fair market value (FMV) or the Proposer specified price].]

##

## 2.8. Final Design Package

The winning Proposer and the City/County will negotiate to develop the contents of the final design package. The City/County’s requested sections are included below. **These are NOT required in the proposal bid**. The “Proposal Requirements” section specifies detailed bid submission requirements.

* **Energy System Description**: A summary of the solar PV and BESS [and optional plug-in for generator] types, sizes, annual production, and site locations.
* **Schedule**: The equipment procurement and solar PV and battery storage installation schedule for each site.
* **Design and Engineering Documents**: The design documents for all elements of the project, including, but not limited to, structural, architectural, mechanical, and electrical. Drawings shall be stamped by an Engineer registered in the State of [City/County’s State].
* **Load Profiles:** Graphs showing PV energy production during the day compared to building loads. The Proposer shall supply load profiles for a variety of days, months, and weather conditions.
* **Site Drawings**: Layout drawing of installation site providing location of all equipment.
* **Equipment Details and Specifications:** A high-level summary listing all solar PV and BESS system equipment and their associated specification sheets.
* **Incentives**: The Proposer shall complete and submit in a timely manner all documentation required to qualify each system for available rebates and incentives. All RECs are to be assigned to the [City OR Proposer].
* **Electrical Interconnection**: The Proposer shall supply and install all equipment required to interconnect the solar PV and BESS systems to the utility’s distribution system. They shall provide an interconnection agreement with [utility name] to ensure all utility requirements will be met. All costs associated with utility interconnection shall be borne by the Proposer.
* **Manuals**: This includes equipment, installation, and O&M manuals for proper system monitoring over the life of the contract. [This should dovetail with training of building operating staff for operation and maintenance.]
* **Monitoring**: A description of controls, monitors, and instrumentation to be used for the solar PV and BESS system. This includes web-based monitoring for performance verification [and public education].
* **Safety Plan**: The Proposer’s plan to ensure safety for all personnel. The Proposer shall report accidents, claims, and other ongoing safety-related issues to the City/County in a manner consistent with City/County-wide reporting systems.
* **Quality Control Plan (QCP)**: At a minimum, the QCP should conform to “IEC 62446 Grid-Connected PV Systems – Minimum Requirements for System Documentation, Commissioning Tests, and Inspections.”
* **Construction Plan**: This includes the appropriate documentation, plan, and timeline. All submittals, drawings, disruption plans, and contract documents shall be reviewed and approved in writing by the City/County Project Manager prior to submittal for design review/permits. The site, except for the solar PV and BESS system footprint, shall be returned to pre-construction condition as needed.
* **Close Out Report**: The Proposer shall report progress of project contract closeout to the City/County in a manner consistent with the City/County’s reporting requirements. At a minimum, this should include the following information: system nameplate size, overall installed system cost, and estimated and guaranteed annual kWh production (if applicable).

# 3. Procurement Schedule

The schedule for this RFP is as indicated below. It may be modified at the discretion of the City/County. An addendum will be issued in the event of any scheduling changes.

|  |  |  |
| --- | --- | --- |
| **Responsible Party** | **Project Milestone** | **Date/Time** |
| City/County | RFP Issued | [Release date] |
| City/County & Proposer | Site Walk | [1-2 weeks after release OR RFP deadline] |
| Proposer | RFP Questions Deadline | [3-4 business days after site walk] |
| City/County | Answers to RFP Questions Distributed | [5 business days after questions submitted] |
| Proposer | Notice of Intent to Submit Proposal Deadline | [2 business days after questions answered] |
| Proposer | RFP Deadline | [5-6 weeks after RFP release] |
| Proposer | Presentations from Short-Listed Proposers | [2 weeks after RFP due] |
| City/County | Award (or Not Award)  | [2 weeks after short-listed presentations] |
| City/County & Proposer | Contract Executed | [4 weeks after award date] |
| City/County & Proposer  | System Commissioning & Operation Deadline | [3-12 months after contract executed] |

## 3.1. Site Walk

The [pre-bid OR shortlisted bidder] meeting and site walk are scheduled for [date and time] at [location and address]. It is estimated to take [X-Y] hours. [All interested firms OR short-listed bidders must attend this site visit]. Technical questions [will/will not] be answered at this meeting. Please submit site walk attendee information via email by [date]. Additional site visits can be arranged by contacting [City/County contact’s name] directly.

## 3.2 Questions Pertaining to the RFP

Please submit questions via email to [City/County contact’s name and email] by [date]. Responses to questions will be shared with all Proposers.

## 3.3 Notice of Intent to Submit Proposal

Respondents must submit via email to [name at email by date and time] their Notice of Intent to Submit a proposal 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 to Proposers who have confirmed intent to submit.

## 3.4 RFP Submission Guidelines

One electronic proposal shall be submitted via email to [City/County contact’s name and email] signed by a company official authorized to make a legal and binding offer submitted to the address listed. 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. Bid proposals shall remain valid for [60/90/120 days] after the RFP due date.

## 3.5 Selection Process

Shortlisted vendors will be asked to meet with the City/County to present their proposal to the City/County’s evaluation team and answer any outstanding questions. Depending on the number and quality of the proposals received, the City/County reserves the right to either not select or select a vendor. The successful respondent will align on a formal agreement with the City/County based on the draft terms and conditions included as [Attachment F] and respondent’s terms and conditions.

# 4. Proposal Requirements

## 4.1. General Format

One electronic proposal shall be provided via email to [City/County contact’s name and email] signed by a company official authorized to make a legal and binding offer submitted to the address listed. [Please print double-sided on recycled paper.] [Hard copies must be delivered to the below address no later than date and time.] Proposals received after this time will be returned to the respondent unopened. Proposals will not be considered for award unless submitted in the format described below. Fax proposals will not be accepted.

Name

City

Address

Phone

## 4.2. Proposal Components

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

* **Cover Letter:** Cover letter must be addressed to [City/County contact] and signed by a legally authorized representative of the respondent. It must summarize key provisions of the proposal and must include the respondent contact’s name, address, phone and email. Specify if the Proposal includes any Proposer’s trade secrets that must be shielded in case the City/County is subject to the Freedom of Information Act (FOIA).
* **Executive Summary**: Include key provisions of the proposal, including understanding of the City/County’s goals, pricing, respondent’s role in project, brief description of proposed system, financing, relevant experience with local governments, and key timeline dates.
* **Price Proposal:** Provide the following price proposals for a [upfront purchase OR PPA OR lease]. [In addition, submit an electronic version of Attachment G].
	+ [Upfront cost ($/W, $/kWh, and overall $) OR PPA price OR monthly solar lease price]
	+ [O&M plan]
	+ [For X sites, include pricing for a roof replacement as an alternative bid]
	+ Net present value year 1 and [year X] financial savings using the following assumptions:
		- [2%] City/County’s utility electricity price escalation rate
		- [4%] City/County’s discount rate
		- [15, 20, 25, AND/OR 30] year evaluation period
* **Financing Plan:** Provide a detailed description of how the Proposer will finance the project, including but not limited to
	+ All financial partners involved in the project;
	+ Financing commitments from proposed equity participants, if any; and
	+ Applicable tax credits, incentives, and subsidies that will be used to finance the projects, and how these will be used.
* **Technical Solution:**Describe your technical approach to the design and construction of the solar PV and BESS project including:
	+ Technical Approach, Design, Equipment, Installation
		- Guaranteed power capacity (kWh-DC and kWh-AC)
		- Estimated annual electricity production (kWh-AC)
		- Panel, inverter, racking specifications
		- Equipment and workmanship warranties
		- Battery type, efficiency, power output
	+ Attachments showing the physical layout of the proposed PV and BESS, inverter, and conduit
	+ PVSYST report indicating production of the proposed system
	+ Proposed monitoring system including, but not limited to, equipment requirements, data output, and maintenance requirements
	+ [Operations & maintenance plan offered for the project].
* **Production Guarantee:** Describe your weather-adjusted production guarantee. At a minimum, this should be at least a [2-year rolling, weather-adjusted, 90% guarantee of the P50] based on available solar resources measured [by the on-site weather monitoring device OR NREL’s PVWatts data]. [Performance guarantee damages should be paid on an annual basis and determined during contract negotiation. ]
* **Community Co-benefits** – Describe community benefits resulting from the project, including, but not limited to:
	+ [Supporting local solar and energy storage businesses]
	+ [Creating employment opportunities for disadvantaged and/or diverse business enterprises]
	+ [Creating educational opportunities offered to the community]
	+ [Making relevant solar PV and battery storage data available to community members]
	+ [Integrating unique environmental or economic considerations]
	+ [Other relevant details the respondent would like to provide].
* **Proposer Profile**:Years in business, description of background working with local governments, applicable state licensing, OSHA background and safety protocol, insurance, and quality control documentation.
* **Project Experience:** Include a minimum of [2] and maximum of [10] projects completed in the last 3 years similar in scope and complexity to the proposed project. At least 1 relevant experience project completed within the last 3 years must include a [rooftop/carport/ground-mount OR resilience hub or islandable site] solar PV and battery storage off-grid project of [250 kW] or larger. Include project name, system size (kW), location, and a brief 2-3 sentence project description. Highlight company’s permitting and interconnection experience with local utility. Experience with community resilience hubs is preferred.
	+ **References:** Provide [3] project references, including the contact person’s name, email address, telephone number, and organization, as well as the nature of work performed, its location, and total project size (kW).
	+ **Litigation:** Indicate whether the Proposer, any team member, or any corporate officers have been party to any lawsuit involving the performance of any equipment it has installed and provide a summary of the issues and lawsuit status.
* **Project Team:** Organization chart and bios (length of time with firm, key projects, work history) of key team members and subcontractors, and their capability to perform work. Please only profile individuals that will directly be working on this project. Clearly identify the project manager.
* **Safety** *–* 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 for each site and include any necessary review periods for the City/County.
* **(Optional) Additional Information** – If the Proposer believes that additional information must be included in their bid that is not covered in the above sections, it can be included in this section.

# 5. Proposal Evaluation

The City/County will evaluate proposals according to the evaluation criteria below. Points will be awarded based on the relative merit of the information provided in the response to the solicitation. Selection will be based on the total number of points awarded by the evaluation committee and result in a proposal for negotiation of a contract. The City/County reserves the right to make multiple awards, one award, or no rewards as a result of this solicitation.

* [Proposal Cost] [10] points
* [Technical Approach/Implementation Schedule] [10] points
* [Proposal’s Alignment to Proposed Format] [10] points
* [Proposer’s Local Presence/Local Job Support] [10] points
* [Proposer Qualifications/Project Experience] [10] points
* [Proposer’s Financial Strength] [10] points
* [Proposer’s Project team members experience] [10] points

The City/County may elect to conduct interviews with selected respondents to ask questions or for more detail on the proposed project. The City/County 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 [X] days from the Notice of Award. Should the selected firm fail or refuse to execute the project documents, the City/County reserves the right to accept the next best proposal or none at all.

# 6. RFP Attachments

## Attachment A: Site and roof specifications

## [Attachment B: Structural plans for roof mount system]

## Attachment C: Building electrical single line

## Attachment D: One year of utility bills

## Attachment E: Hourly electricity consumption data for all meters on property

## Attachment F: Contract Terms and Conditions.

## Attachment G: Cost Proposal Form