SOLAR - REQUEST FOR PROPOSAL GUIDE

**Fall River Electric does not endorse any specific companies and it is imperative that members do their own research in investigating vendors and contactors they choose to work with. Fall River Electric suggests getting bids from a few contractors and doing your own due diligence in selecting a vendor/contractor to do work for you.**

RFP Guide

A request for proposal (RFP) is often created to outline the bidding process and contract terms, and also to provide guidance on how the bid should be formatted and presented. A successful solar RFP needs to be both specific and flexible so that you can receive the most competitive range of bids.

The purpose of this document is to provide an RFP template of a roof-mounted and ground-mounted utility-interactive photovoltaic system for Fall River Electric members in their energy development efforts. This template contains information on project description, requirements, and submissions. Users may use, modify the template to suit their projects.

Instructions

1. Delete all bracketed text [ ] and replace with work instruction and site-specific details.
2. Search and replace “OWNER” with the specific OWNERS name as needed or entity’s name.
3. Delete sections that are not applied to the project. For example: delete roof related requirements if the RFP is for ground-mounted system.

Considerations when installing solar:

* Fall River Electric maximum capacity per meter is 25kW for residential services.
* Read through the Net Meter Policy & Tariff found on Fall River Electrics website <https://www.fallriverelectric.com/net-metering>
* Understand the Net Metering Application and Verification Forms/Process found and follow the steps <https://www.fallriverelectric.com/net-metering>

**Issued by:** [Insert: Name and address]

**Contact:** [Insert: Name, phone number and email]

**Project Location:** [Insert: project address]

**Responses due by:** [Insert: Day, Month and Time]

Email: [Insert: owner’s email]

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# Project Introduction

This Request for Proposals (RFP) is to solicit bids from photovoltaic (PV) system installers (*CONTRACTOR*) to design, supply and install a [Select: Rooftop, ground mount] photovoltaic system on the [Insert: address and a detailed location of photovoltaic system]. This interactive photovoltaic system shall produce a minimum of [Insert: min production] kWh AC per year at the point of interconnection, approximately [Insert: capacity] kW DC capacity. Larger capacity systems that produce more than the minimum are an alternative and will be evaluated but the proposed system shall not produce more than [Insert: max production] kWh per year.

# Project General Requirements

The *CONTRACTOR* will be responsible for producing the complete PV system design, procuring all required materials and installing all materials in compliance with applicable national and local codes. The *CONTRACTOR* will be responsible for securing all electrical permits, building permits, and completing or contracting for any engineering required to complete the scope of work outlined in this RFP.

The *CONTRACTOR* shall generate estimates of annual energy production for the PV array from the date of commissioning for the following 25 years. These system performance estimates will be required as part of the RFP response and shall be based on existing installed systems in an equivalent location (elevation, snowfall).

# Project Walkthrough

The project walkthrough for *CONTRACTORs* interested in bidding on this project will be held at [Insert : project location] location at [Insert: date and time]. *CONTRACTOR* must coordinate any site visits outside the scheduled site-walk with [Insert: contact information]. *CONTRACTOR* will meet at the project location.

# RFP Response Due Date

Proposals shall be accepted by email by [Insert: deadline time] local time on [Insert: date].

Email: [Insert: email address]

# RFP Response Evaluation

Proposals will be evaluated and awarded on best value that will be based on primary bid criteria that will include price, schedule, system performance, experience with the proposed system type, commercial solar applications, levelized cost of energy, and overall prior experience. Additional consideration will be given to design completeness, including details that illustrate the *CONTRACTOR*’s understanding of the requested scope-of-work (such as a detailed Single Line Diagram).

# Proposed Installation Schedule

|  |  |  |
| --- | --- | --- |
|  | **TASK:** | **DATE:** |
| 1 | Issue RFP | [Insert: Date] |
| 2 | Optional Site visit | [Insert: Date] |
| 3 | Proposal Due | [Insert: Date] |
| 4 | Proposal approved | [Insert: Date] |
| 5 | Sign Contract | [Insert: Date] |
| 6 | Apply for permits and order Equipment | [Insert: Date] |
| 8 | System Installation | [Insert: Date] |
| 9 | Project Inspected by AHJ | [Insert: Date] |
| 10 | Project Commissioned | [Insert: Date] |

# RFP Exhibits:

1. Exhibit A – (Project Documentation Checklist)

[Insert: Project name] **RFP:**

1. ***CONTRACTOR* Requirements**
   1. Licensed *CONTRACTOR* in the State of Idaho
   2. NABCEP or other certifications preferred
   3. Bonded and insured – [Insert: dollar amount] per occurrence, [Insert: dollar amount] aggregate
2. **RFP Response shall include:**
   1. Title: [Insert: project name]
   2. Background information on your company
      1. *CONTRACTOR* License number
      2. Proof of Insurance
      3. Number of years in business
      4. Installation Manager’s contact information
      5. Resumes or qualifications, education, and relevant experiences of key team members
      6. Number of commercial roof and ground mounted PV projects completed and descriptions of similar installations
      7. References
   3. Proposed project budget with “not-to-exceed” cost estimate and details on materials pricing
   4. Company labor and material mark-up rates for potential change orders
   5. Specification sheets of major system components
   6. Detailed Single-Line diagram (SLD) identifying:
      1. Make and model of all photovoltaic system components
      2. Wire, conduit size and type
   7. [Rooftop mount: Specify rooftop mounting structure that will minimize roof penetrations – if custom racking is required submit design sketches. Provide a detail showing how rooftop penetrations will be waterproofed]
   8. [Rooftop mount: The *CONTRACTOR* shall include in the RFP a structural statement that evaluates the structural impact of the Solar Panel installation on the building roof]
   9. [Ground mount: Mounting system shall be either directly anchored into the ground (driven piers, concrete footers, 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. Panels’ tilt shall be based on site latitude and wind conditions. Panels’ orientation or azimuth shall be within 20-30 degrees of due south.]
   10. Detailed Site Diagram showing:
       1. Plan view of array location or 3-D rendering (array size and amount must be to scale)
   11. Implementation plan with timeline
   12. Estimated annual kWh production (based on existing installed systems in an equivalent location)
3. **System Description**
   1. Location: [Insert: specific location and address]
   2. Size
      1. Minimum System size of [Insert: minimum capacity] kW. System is to be sized to provide the most cost-effective solution at the lowest price per watt according to [Insert: location].
   3. Interconnection
      1. Existing [Insert: capacity] panel, [Insert: voltage and # of phases]
      2. PV Energy Production meter base – *provided by CONTRACTOR*
      3. [Communications: determine if you want PV Monitoring and determine communication type either by WiFi or hard-wired communications cable - *provided by* [Select: *CONTRACTOR* or *OWNER*]
4. **System Components**
   1. Mounting system – *provided by CONTRACTOR*
      1. [Rooftop Mounted System: Describe wants and needs for a rooftop mounted system Example: (watertight) with Minimal penetrations]
      2. [Ground Mount System: Describe wants and needs for a ground mounted system]
      3. UL listed
      4. PV Modules – *provided by CONTRACTOR*

[Do your research and provide information on which PV modules you want]

[Suggestions: PV modules shall have a 25-year limited warranty that modules will generate no less than 80% of rated output under Standard Test Conditions]

* 1. Inverter – *provided by CONTRACTOR*
     1. [Do you research and provide information on which Inverter you want. Determine if indoor or outdoor location is best for your project]
     2. 10-years warranty minimum on inverter
     3. UL 1741 Listed
     4. Shall meet requirements of IEEE 1547
     5. Peak efficiency of 96% or higher
  2. [Optional: PV Monitoring - *provided by* [Select *CONTRACTOR* or *OWNER*]
     1. Displayed graphically in a user-friendly manner the following parameters:
* AC energy
* Show status of equipment
  + 1. Data shall be available both in real time and in archived in 15-minute averages. All monitoring hardware, cat5 cable and monitoring equipment shall be provided by the *CONTRACTOR*.
    2. System shall also include metering for remote data collection. System performance shall allow display during different monitoring periods from one hour to one year.]
  1. Balance of Systems - *provided by CONTRACTOR*
     1. Lockable Visible-Break AC Disconnect Switch within 10’ from meter
     2. AC wiring, conduit and fittings from the CT cabinet or meter base to the service disconnect and AC panelboard, per Fall River Rural Electric latest “Electric Service Requirements”
     3. UV resistant PV wiring to junction box(es) or inverters(s)
     4. Array grounding hardware, as required by NEC 690.47
     5. All array mounting hardware/fasteners to make the PV system code compliant, operational and secure
     6. DC wiring, conduit and fittings from DC J-box(es) or combiner(s) to DC disconnect
     7. AC wiring, conduit and fittings from inverters to electrical sub-panel
     8. All electrical components, fittings, hardware and fasteners required for system to be operational and compliant with NEC and local authority having jurisdiction (AHJ).
     9. All necessary labeling according to NEC, AHJ, and the utility.

1. **Services Requested from CONTRACTOR**
   1. System Design Submittal - *CONTRACTOR* must submit (or confirm if already submitted as part of RFP package and unchanged) the following design documents [Insert: # of weeks] prior to system installation for review and approval by [Insert: owner information]. Notice to proceed will be given on successful approval.
      1. Detailed Site Diagram showing:
2. Elevation and plan view of PV array location and/or 3-D rendering
3. Elevation of electrical equipment (inverter & disconnects) layout
   * 1. Electrical Single-line diagram - must include information about major system components specifications and ratings, conductor size and type, conduit size, ratings of combiner boxes and series OCPD’s, and type and ratings of facility electrical panel interconnection point.
     2. Electrical Calculations - voltage drop and string sizing calculations
     3. [Rooftop or ground mounted: Mechanical /structural calculations – must include all racking load calculations for dead load, snow load, wind loading, (etc.) and specify racking attachment method. The *CONTRACTOR* shall include in the RFP a structural statement that evaluates the structural impact of the Solar Panel installation on the metal building roof]
   1. Procure materials
      1. *CONTRACTOR* shall be responsible for procuring all system materials, as outlined in the system description, unless otherwise indicated above that it will be supplied by *OWNER* or others.
   2. PV System installation
      1. *CONTRACTOR* shall be responsible for installing a grid-tied photovoltaic installation at the host facility in compliance with the NEC and/or any local authority having jurisdiction
      2. *CONTRACTOR* shall be responsible for complying with all OSHA safety regulations
4. Implementing a compliant safety program to create a safe work environment
5. Monitoring safe work practices by its agents, vendors, and tier sub-contractors
   * 1. The installation shall be executed according to the approved system design documentation
6. The *OWNER* must approve any design changes made in the field in writing following a duly submitted Request for Information or Change Order.

4. Any required interconnection upgrades, or other work not directly related to the PV array installation, will be the responsibility of *OWNER*.

* 1. Rebates and Interconnection
     1. It will be the responsibility of the *CONTRACTOR* to ensure any interconnection agreement documents are submitted prior to system installation. *CONTRACTOR* shall complete technical portions of these documents and send to *OWNER* for signature and be available to answer questions from the host
     2. *CONTRACTOR* shall coordinate with the utility to confirm acceptable location for AC disconnect
     3. It will be the responsibility of the *CONTRACTOR* to make sure that all rebate applications are submitted – up front cash rebate or tax incentives (that can be monetized) will go to *OWNER*
     4. It will be the responsibility of the CONTRACTOR to ensure that any and all other documentation necessary to meet utility requirements is submitted.
     5. [It shall be the responsibility of the *CONTRACTOR* to ensure that the production peter has been installed and the system has passed any required utility and state inspections.]
  2. Electrical permit
     1. It will be the responsibility of the *CONTRACTOR* to obtain electrical permit, schedule inspections and pay associated fees
  3. Building permit
     1. It will be the responsibility of the *CONTRACTOR* to obtain building permit, schedule inspections and pay associated fees
     2. It will be the responsibility of the *CONTRACTOR* to hire, conduct, or otherwise provide for any mechanical/structural calculations needed to obtain a building permit, including, but not limited to: dead load, snow load, wind loading, and geotechnical engineering
     3. If required, planning review or conditional use permits will be acquired by *OWNER*
  4. [Optional: Data Monitoring Installation
     1. Describe your needs and wants with the data monitoring system with all required connections and materials to meet the National Electrical Code.
     2. It will be the responsibility of the *CONTRACTOR* to set up the display and dashboard for the data monitoring system.]
  5. System Documentation - *CONTRACTOR* must deliver all documentation to the *OWNER* as outlined in ***Project Documentation Checklist.***
  6. System Commissioning – *CONTRACTOR* shall commission the system according to Installer’s PV Commissioning Checklist.
  7. Final Walk through – *CONTRACTOR* shall schedule a tour of the completed system with the *OWNER*.
  8. Liquidated Damages - *CONTRACTOR* understands that if the Substantial Completion is not achieved by [Insert: due date] as outlined, *CONTRACTOR* will suffer damages which are difficult to determine and accurately specify. *CONTRACTOR* agrees that if the date or duration set forth above in this paragraph is not attained, *CONTRACTOR* shall pay *OWNER* [Insert: $ amount] as liquidated damages and not as a penalty for each day that Substantial Completion extends beyond such date or duration.  The liquidated damages provided herein shall be in lieu of all liability for extra costs, losses, expenses, claims, penalties, and other damages incurred by *OWNER* which are occasioned by delay *CONTRACTOR*’s performance or in achieving Substantial Completion within the prescribed timeframe.
  9. System warranty – 10-year workmanship warranty

# Exhibit A: Project Documentation Checklist

The *CONTRACTOR* will provide the following as built documentation to *OWNER*, as outlined below, before final payment will be issued. Please return this checklist to *OWNER* with the final documentation. Please check the boxes to indicate which documents have been included. If a document is not required for the project or does not apply in the installation location, please initial in the space provided.

**Documentation to *OWNER*:**

Item Initials:

Photovoltaic System Commissioning Checklist \_\_\_\_\_

Lien Release Affidavit \_\_\_\_\_

Signed Warranty Letter from General Contractor and all subs \_\_\_\_\_

Photos of completed system \_\_\_\_\_

Site Diagrams \_\_\_\_\_

Electrical Single Line Diagram \_\_\_\_\_

Electrical Calculations \_\_\_\_\_

Solar Module Warranty and Operators Manual \_\_\_\_\_

Solar Module(s) Serial Numbers \_\_\_\_\_

Inverter Manual \_\_\_\_\_

Inverter Warranty and Registration Card \_\_\_\_\_

Inverter Serial Number(s) \_\_\_\_\_

Electrical Work Permit \_\_\_\_\_

Approved and signed electrical inspection \_\_\_\_\_

Building Permit (if necessary) \_\_\_\_\_

Sealed approval from licensed PE of all mounting

or structural designs (if necessary) \_\_\_\_\_

Any and all other documentation necessary to meet

state/local or utility requirements \_\_\_\_\_