Request for Information (RFI)

Co-Op Name

Project Name (e.g., Co-Op Name Energy Storage)

Project Number

Date Issued

Co-Op Name

Co-Op Address

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# 1.0 Introduction

## 1.1 Purpose of the RFI:

Co-Op Name intends to develop a comprehensive Request for Proposal within the next 12- to 18-month timeframe for the procurement of an Energy Storage (ES) system.

The purpose of this Request for Information (RFI) is to solicit input from industry to be considered by Co-Op Name in identifying appropriate technologies or solutions in determining a course of action. Co-Op Name seeks industry input regarding technology capabilities, costs, risks, and probable schedule that should be considered while developing this project. Co-Op Name is interested in information that will help it to understand the opportunity and challenges involved in developing the ES system.

All information submitted will be considered proprietary and confidential. It is not mandatory to submit a response to this RFI to participate in a formal Request for Proposals (RFP) process that may take place in the future. However, it should be noted that information gathered through this RFI may significantly influence how Co-Op Name proceeds in such a process. The desired goal of this RFI is to solicit maximum industry participation, which will allow Co-Op Name to formulate a concise acquisition strategy in a timely manner.

This RFI shall not be construed as an RFP or an obligation on the part of Co-Op Name. Co-Op Name does not intend to award a contract on the basis of this request or otherwise pay for the requested information.

## 1.2 Objectives:

Define the specific objectives or outcomes desired from the project.

The overall objective of Co-Op Name’s project is to improve energy reliability and operational efficiency. The main objective of this RFI is peak load reduction.

## 1.3 Background:

This is where you will describe the current system and include information about the Co-op’s objectives and the problem or issues that you are trying to solve. You can be as general or specific as you like. The more detailed the description of the problem, the more specific the responses should be as to solutions or options for addressing the problem.

### 1.3.1 Description of Current System:

Brief description of electric system, including such items as area covered by system, characterization of loads (commercial, residential, etc.), number of substations, any current generation capacity, renewables on system (including residential), energy consumption, number of substations, etc.

Example:

Co-Op Name consists of approximately 6,100,000 square feet of building space within 800 various facilities, which provide electricity for X customers. The average electrical load for the entire activity is 6.8 MW, and the peak load for the entire activity is 13.3 MW. The average annual energy consumption for the utility is approximately 60,000 MW-hours. Currently Co-Op Name has the following distributed energy resources: 930 kW of PV, 3 MW of landfill gas power; the base is considering 2.2 MW of combined heat and power. The desired XXX (storage solution) will power critical loads at the base. These loads consist of two feeders with four loops, with an average load of 3.3 MW, and peak load of 6.1 MW to be supported by the microgrid. The additional distributed energy resources potentially available to the microgrid are 275 kW of PV, 3 MW of landfill gas energy, ES, natural gas generators, and combined heat and power plants. Existing control systems are currently Johnson Controls. Building controls systems compatibility and interface will be considered during development of project requirements. Based on Co-Op Name’s analysis of the current situation, ES could be located at a (e.g., substation, location along a feeder, RE location, etc.). A one-line diagram of the substation and the local grid can be provided for further detail.

### 1.3.2 Description of the Problem:

In this section, the problem should be defined in detail (or as detailed as possible).

Co-Op Name is experiencing challenges in peak load reduction along feeders A and B. Several alternative solutions are being evaluated to determine how to best resolve peak load reduction while deferring or eliminating the need to upgrade the XXX substation to support the load growth. Peak load periods occur at XX time per day, with a duration of approximately 3 hours. During these periods, any proposed solution must support loads of up to XX.

### 1.3.3 Management and Control Systems, Specific Capabilities:

Description of any control and management systems in place on the system, including the following: SCADA, BMS/BAS systems, distribution automation, demand response, etc. This section should also include any specific capabilities that the system must be capable of supporting, such as islanding (IEEE 1547 compliance).

Co-Op Name currently uses an XXX SCADA/ EMS system with YYY RTUs located at the substation. Communication between the SCADA master and the RTUs is through 900-MHZ radios. Co-op Name currently does not operate any distribution automation functions along the feeder.

Several commercial buildings operate their own building automation systems and have agreements with Co-Op Name to reduce loads during peak periods.

# 2.0 Requested Information:

### 2.1 Contact Information:

Firm Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Energy Storage Type and Technology (e.g., Lithium ION):\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Point of Contact: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Address: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Telephone: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Facsimile: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Email: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

### 2.2 Company Overview:

|  |  |
| --- | --- |
| **Item** | **Respondent Response** |
| Main lines of business |  |
| Organization and structure |  |
| Locations – headquarters, implementation, and maintenance facilities |  |
| Number of employees – total, and by major department |  |
| Number of contractors – total, and by major department |  |
| Company mission and vision statements |  |
| Strategic relationships with other suppliers |  |
| Total revenue |  |

## 2.3 Technical Information:

### 2.3.1 Battery / Energy Storage Solution Overview:

1. Provide a general overview of your firm’s ES solution and technologies.
2. Identify key advantages of your system.
3. Provide a description of how your system will be integrated with existing SCADA / DMS systems, including basic data / command exchanges.
4. Provide a summary of how your ES meets the objective(s) of this RFI.

### 2.3.2 Battery / Energy Storage Control System Overview:

1. Provide a general overview of your firm’s products and capabilities.
2. Provide a complete description of the product you are proposing for this application.
3. Identify key advantages of your technology (e.g., unique process innovations).
4. Provide a detailed overview of the ES control system capabilities.
5. Identify extent of redundancy in the ES control system. If multiple redundant control systems are utilized, what is the maximum distance between them? How do they detect when one has failed? If they are at different locations, can they have the same control room destination?
6. Describe the common failure modes for the ES control system.
7. Identify whether the storage control system interface can be operated in both manual and automatic modes. Describe the capabilities of the software used at the control room for the system operators. (What variables can be viewed? Can device set points be changed? etc.).
8. Identify whether your system is ‘modular,’ to facilitate future capacity expansion (additional storage devices).
9. Provide reliability data on the proposed control system.
10. Provide the projected O&M of the proposed solution.
11. Provide the warranty (time and conditions) on the proposed solution and the cost of a warranty extension.
12. Provide the projected round-trip efficiency AC to AC.
13. Provide cycle information on cycle life vs. depth of discharge (10% to 100%) and projected system life under the operating conditions described in the application.
14. Provide MSDSs of all chemicals or compounds used in this ES.
15. Provide all recommended safety procedures, including those related to fire and catastrophic failure, for the proposed solution.
16. In the case of a fire, what are the potential health and safety impacts of the off-gases?

### 2.3.3 Communication and Information Technologies:

1. Describe how the ES control system communicates with the storage system.
2. Identify what communication interfaces and protocols are supported by the ES control system (RS-232, RS-485, Ethernet, DNP3, Modbus, TCP/IP, ICCP). Define what information corresponds to the protocols and interfaces used.
3. Describe the interface between the ES control system and the SCADA system.
4. Is there a limit to the number of devices that can be connected to the ES control system?

### 2.3.4 Device Specifications:

1. Provide specification sheets, including dimensions, weight, the number and types of inputs, and environmental conditions.

## 2.4 References / Past Experience:

Provide three (3) past projects that addressed similar problems and were of similar or larger size and scope. Complete the following table for each of the projects.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Project: |  | | | | | | | | | | | | | | | | |
| Project Name: | | | Project Location: | | | | | Owner / Client: | | | | | | | | | |
|  | | |  | | | | |  | | | | | | | | | |
| **Owner / Client Point of Contact and Phone Number:** | | | | | | |  | | | | | | | | | | |
| **Firm’s Role in this Project:** | |  | | | | Prime Contractor | | |  | Subcontractor | | |  | | | Design Firm | |
| Brief Description of Project (*Include, as applicable, how project is similar in scope and magnitude to the work required in this RFI*) | | | | | | | | | | | | | | | | | |
|  | | | | | | | | | | | | | | | | | |
| Contract Amount: | | | | | Percent of Completion (*if project is currently under construction*) | | | | | | | | | | | | |
|  | | | | |  | | | | | | | | | | | | |
| Original Contract Completion Date: | | | | Final Contract Completion Date: | | | | | | | | Actual Completion Date: | | | | | |
|  | | | |  | | | | | | | |  | | | | | |
| Explanation of Any Late Finish: | | | | | | | | | | | | | | | | | |
|  | | | | | | | | | | | | | | | | | |
| Was the project terminated early or were cure / show cause letters received? | | | | | | | | | | |  | | | Yes | X | | No |
| List and explain any customer concerns or dissatisfaction. Explain how you responded. | | | | | | | | | | | | | | | | | |
|  | | | | | | | | | | | | | | | | | |

# 3.0 Response Instructions:

**Responses are limited to twenty (20) pages total (12-point font, 1-inch margins).** Respondents may submit responses to all or a portion of the RFI questions. The email submittal should have the title of the RFI (for example, “Co-Op Name Energy Storage”) in the subject line of the email to ensure proper review.

Submittals to this RFI or questions posed for clarification should be emailed to the following email addresses:

Name

Title

Email address

To ensure delivery of your questions and / or submittal to the RFI, attached documents should be limited to *Microsoft Office*©-compatible documents, including *Word*© (.doc or docx), *PowerPoint*© (.ppt or .pptx), and *Excel*© (.xls or .xlsx). The maximum file size email plus attachment that can be received is **20 Mb**.

# Due Date:

Responses are required to be submitted no later than **5:00 pm Time Zone, Due Date Here** via email to Person’s name from above.

# 4.0 Disclaimer and Important Notes:

This is an RFI issued solely for information and program planning purposes; this RFI does not constitute a formal solicitation for proposals or abstracts. Your response to this notice will be treated as information only. Co-Op Name will not provide reimbursement for costs incurred in responding to this RFI. Respondents are advised that Co-Op Name is under no obligation to acknowledge receipt of the information received or provide feedback to respondents with respect to any information submitted under this RFI. Responses to this RFI do not bind Co-Op Name to any further actions related to this topic.