

**Sierra Southwest Cooperative Services,  
Inc.**

**2021 Request for Proposal**

**Battery Energy Storage Systems**

RFP Administrator:



Sierra Southwest Cooperative Services, Inc.  
Request for Proposals for Battery Energy Storage Systems

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**Appendices:**

Appendix A – Solar Generation Profile for Retrofit Alternative

Appendix B – Apache Station Soils

Appendix C – Power Purchase Agreement Form

Appendix D – Bidder Registration Form

Appendix E – Confidentiality Agreement

## **1. General Information**

### **1.1. Introduction**

Sierra Southwest Cooperative Services, Inc. (Sierra) is a member-owned, not-for-profit, taxable Arizona cooperative corporation. Arizona Electric Power Cooperative, Inc. (AEPCO) was Sierra's sole member for the year ended December 31, 2020. Sierra develops renewable energy projects for AEPCO's members by using its tax structure to capture renewable tax credits.

Responses to this Battery Energy Storage Systems (BESS) RFP will be reviewed by Sierra based on best fit and the prices and terms proposed.

Sierra DUNS: 12-720-8333

### **1.2. RFP Administrator**

The duties of the RFP Administrator for the BESS RFP, as further described in Section 3, will be performed by Alliance for Cooperative Energy Services Power Marketing LLC (ACES).

As RFP Administrator, ACES' business model provides an established infrastructure of independent energy management practices that supports the verification of, and compliance with, applicable processes, policies, and procedures. ACES manages a significant amount of confidential data through a combination of specific internal guidelines, the company's independent control group, the company's corporate compliance manager, and periodic reporting to the Board of Directors Risk Oversight and Audit Committee. ACES takes its obligations regarding the maintenance of Confidential Information very seriously and will handle all Confidential Information with the highest professional regard.

## **2. Project Description**

### **2.1. Overview of the RFP**

Sierra is soliciting proposals for BESS solutions that would be stand-alone and/or as a retrofit to an existing 20 MW solar array. The retrofit solution would be interconnected on the AC side of the solar array and may or may not utilize the existing transformer (See subsection 2.3 for more information regarding interconnection). Metering should be included in proposals to enable the solar retrofit BESS to qualify for the Investment Tax Credit (ITC) by charging at least 75 percent from the existing solar array.

Sierra desires to have the solution in place by June 2022, however proposals with Commercial Operation Dates (COD) through May 2023 will also be accepted.

The term of agreement is expected to be 15 years, however Sierra will consider 20-year terms. Bidders should indicate if any augmentation costs are included in the proposed price. Sierra will consider an acquisition structure after the first ten years of the PPA.

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**2.2. Products**

The first product design Sierra is considering, Stand-Alone, is intended to capture the potential for the BESS to maximize value stacking and reflects the need for a flexible charging source. This BESS would be managed economically within a portfolio of generating resources to meet energy, capacity, and ancillary service needs. While the primary function would be shifting energy from morning/midday to afternoon/evening, Sierra would use all or a portion of the system’s energy and capacity for frequency regulation or contingency reserve periodically as system needs arise.

The second product design, Solar Retrofit, is being considered for its ability to reduce the cost of the BESS by qualifying for the ITC. Several years of historical hourly generation of the existing array is included as Appendix A to this RFP. This design alternative reflects the more narrow use case given the more restrictive charging source.

Details for each Design Alternative can be found in Table 1.

**Table 1: BESS Product Alternatives**

	<b>Design Alternative 1</b>	<b>Design Alternative 2</b>
Configuration:	Stand-Alone AC-Coupled	Solar Retrofit AC-Coupled
COD	June 2022 or up to May 2023	June 2022 or up to May 2023
Term	15 or 20 years	15 or 20 years
Power Capacity Options:	25 MW 50 MW 75 MW	10 MW 20 MW
Duration:	2 or 4 hour	4 hour
Charging Source:	100% from AC Grid	At least 75% from Solar AC Up to 25% from AC Grid
Use Case Description(s):	<ul style="list-style-type: none"> <li>• Black Start (Sustain a 5 MWh Charge)               <ul style="list-style-type: none"> <li>○ Rare Operational Discharge</li> </ul> </li> <li>• Up and Down Frequency Regulation up to 25 MW               <ul style="list-style-type: none"> <li>○ Occasional Use*</li> <li>○ Continuous Low Depth Cycling</li> </ul> </li> <li>• Peak Shaving, Energy Arbitrage, Contingency Reserves*               <ul style="list-style-type: none"> <li>○ Expect daily use (365 cycles) of remaining partial energy capability</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Peak Shaving, Energy Arbitrage</li> <li>• 365 full depth cycles per year or less</li> <li>• Morning or Midday Charge</li> <li>• Afternoon/Evening Discharge</li> <li>• Average State of Charge &lt; 50%</li> </ul>

\*Note the BESS will be among a fleet of other resources capable of regulating and carrying contingency reserve. These resources will be the primary source for providing these ancillary services when available and economic dispatch allows to reduce wear and tear on the BESS.

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If reducing the number of cycles has a material impact on the cost of a bidder’s proposal, they can choose to propose fewer cycles at a lower price for this alternative (e.g. 180 or 240 per year). Alternatively, bidders could provide reduced degradation rates if there is not a material change to the price.

**2.3. Site Description and Interconnection**

Sierra will provide land for the BESS via a lease or license to the project developer for the term of the contract. The site will be at Apache Generating Station in Cochise County, AZ:

Street Address	City	State	Zip	County	Latitude	Longitude
3525 N US Hwy 191	Cochise	AZ	85606	Cochise	32.060300	-109.893100

This location will be adjacent to an existing coal and gas-fired facility. The active coal pile is mostly upwind and the BESS will be exposed to coal dust in addition to the normal desert environment. Plant elevation is approximately 4,200 feet and experiences both hot and cold weather extremes throughout the year.

The PPA provider shall perform its own geotechnical study prior to designing its foundations. For the purpose of providing a proposal, a similar soils study is provided as Appendix B to this RFP—Drawing number D-611100-06-0100-X001-A.

Sierra will also complete the interconnection for the project from 34.5 kV to the grid interconnection voltage, including the LGIA and study with AEPCO, and requests proposals include transformation up to the 34.5 kV. Bidders do not need to include the step-up transformer to grid voltage or any portion of the AC interconnection in their pricing.

**2.4. Multiple Proposals**

Sierra will accept and encourages multiple proposals from a bidder. In the event the same bidder provides multiple proposals, the bidder must indicate whether the proposals are mutually exclusive.

**3. Instructions to Bidders**

**3.1. RFP Proposal Process**

Sierra has posted the BESS RFP document and all related appendices on the RFP website:

[www.acespower.com/Sierra2021RFP](http://www.acespower.com/Sierra2021RFP)

To participate in the BESS RFP, bidders must submit a Bidder Registration Form, Appendix D. Upon receipt of the Bidder Registration Forms, the RFP Administrator will acknowledge their receipt via email.

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Bidders should note that, Sierra will only accept electronically submitted notices and proposals. Bidders are required to submit all completed forms by the specified deadlines to the BESS RFP submission e-mail address:

Sierra2021RFP@acespower.com

All proposals must be signed by an officer or agent of the bidder who is duly authorized by the bidder's authorizing governance body to sign and submit such proposals.

All proposals must be registered and submitted electronically via email to:

Sierra2021RFP@acespower.com

Proposal pricing will be considered binding, until otherwise notified by the RFP Administrator, for a period not to exceed 180 days from May 24, 2021.

### **3.2. Proposal Contents and Format**

In addition to completing the required Appendices C and D, bidders should structure their main proposal to including the following in order:

1. Executive Summary
  - a. Short description of proposed BESS project(s)
  - b. Pricing summary table
2. Relevant Experience
  - a. Key team members
  - b. History of providing similarly sized projects over past 3 years
  - c. Three client BESS project references including contact name and phone numbers.
  - d. Possible conflicts of interest and any legal claims
3. Project Description
  - a. Project schedule
  - b. Site specific design considerations (e.g. high/low temperatures, dust)
4. Technical Specifications
  - a. Description and OEM data sheets for major components
  - b. System architecture and augmentation strategy for that system
  - c. Expected and guaranteed energy capacity curves for the term of the agreement
  - d. Control system specification including interface data requirements, network parameters, and required communication protocols
5. Preliminary (to scale or with dimensions) general arrangement drawings and electrical schematics
6. Sample Energy Storage Service Agreement
7. Financial Information for Credit Analysis (see subsection 3.9 for more detail)

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**3.3. RFP Schedule**

The schedule for the BESS RFP is shown below. As circumstances warrant, Sierra, in its sole judgment and discretion may change this schedule, and in that event, the RFP Administrator will inform all potential bidders as far in advance as reasonably possible by posting any change on the RFP website:

[www.acespower.com/Sierra2021RFP](http://www.acespower.com/Sierra2021RFP)

<b>RFP Schedule (Updates will be posted on the BESS RFP Website)</b>	
Issue Final Version of BESS RFP	4/21/2021
Q&A on Substantive RFP Issues (email)	4/21/2021-5/24/2021
Open Period for Submission of Bidder Registration Forms	4/21/2021-4/30/2021
Deadline for Submission of Bidder Registration Forms ( <b>Appendix D</b> ) at 5:00 p.m. MST	4/30/2021
Open Period for Submission of Proposals	5/1/2021-5/24/2021
Proposals ( <b>Appendices</b> ) Deadline at 5:00 p.m. MST	5/24/2021
Bid Screening and Analysis Period	5/24/2021-6/30/2021
Notification of BESS RFP Shortlist	7/1/2021
Open Period for Submission of Best and Final Offers	7/2/2021-7/16/2021
Final Bid Analysis Period	7/18/2021-7/30/2021
Notification to Bidders of Recommendation of Award(s)	8/2/2021
Finalize mutually agreeable Term Sheet (subject to Sierra and participating members' Board of Directors approval)	11/5/2021

**3.4. Modification or Cancellation of the Battery Energy Storage Systems RFP**

Sierra reserves the right, in its sole judgment and discretion, to modify or cancel the BESS RFP. In such event, Sierra, via the RFP Administrator, will post a notice on the RFP website, and make a reasonable attempt to notify directly all participants who have filed a timely Bidder Registration Form of any such modifications or cancellation. Sierra, or the RFP Administrator, shall have no liability or responsibility for failing to make such direct notification to participants.

### **3.5. Question Process**

Sierra encourages questions and comments from potential bidders about the BESS RFP. Questions or requests for clarifying information must be directed through the designated RFP email address:

Sierra2021RFP@acespower.com

The RFP Administrator will post questions submitted by bidders, as well as Sierra's responses to such questions, on the RFP website:

[www.acespower.com/Sierra2021RFP](http://www.acespower.com/Sierra2021RFP)

Sierra's objective in posting these questions and responses is to ensure that all bidders have equal access to non-confidential information that may be potentially relevant to their proposals.

### **3.6. Bidder Registration**

Sierra and the RFP Administrator will accept bidder registrations during the open submittal period beginning April 21, 2021 and concluding 5:00 PM MST on April 30, 2021. Potential bidders are required to submit a properly completed Bidder Registration Form, Appendix D, to the RFP email address:

Sierra2021RFP@acespower.com

Upon receipt of the electronic Bidder Registration Forms, the RFP Administrator will acknowledge receipt of these registrations via email.

### **3.7. Submission of Proposals**

Through the RFP Administrator, Sierra will accept proposals during the open submittal period of May 1, 2021 through 5:00 PM MST on May 24, 2021. Only electronically submitted proposals will be accepted.

Bidders are required to submit all completed forms by the specified deadlines to the RFP email address:

Sierra2021RFP@acespower.com

All proposals must be submitted in accordance with the instructions and on the form provided in Appendix C.

Proposals must be signed by an officer or agent of the bidder duly authorized to make such proposals by the bidder's Board of Directors or comparable governing body for an unincorporated bidder.

All proposals will be treated as confidential and will be subject to all governing regulatory requirements.

Any proposal(s) identified as non-conforming will be segregated for discussions with the bidder and the bidder will be allowed the opportunity to correct any nonconforming aspect of its proposal.

### **3.8. Proposal Evaluation**

Proposals will be evaluated on multiple criteria, including but not limited to:

1. Cost
2. Developer Experience
3. Commercial Operation Date
4. Creditworthiness

### **3.9. Credit and Contract Analysis**

The RFP Administrator will evaluate the creditworthiness of bidder(s) (or their parent organizations) through a credit assessment, which, at a minimum and in line with industry standards, may include the following factors:

- Tangible net worth evaluation
- Historical and projected measures of cash flow and liquidity
- Historical and projected leverage
- Calculation of credit ratios

Other credit risk issues may also be evaluated, including, but not limited to: earnings volatility, risk management practices, the status of ongoing legal, regulatory, or other governmental processes or proceedings or significant contract negotiations, or other pertinent factors that impact ongoing operations.

As part of this process, the RFP Administrator may request further financial information from bidders (or their parent organizations) and may consider additional confidentiality agreements with such bidders (or their parent organizations) to protect such information, as appropriate.

The credit evaluation process may also include, but is not limited to, reviewing the unsecured or issuer credit ratings issued by Standard & Poor's, Moody's, and/or Fitch, if applicable, and ratings issued by Dun & Bradstreet. Sierra and the RFP Administrator may require any successful bidder (or its parent organization) to post a form of credit support to ensure the bidder's performance under the proposed transaction. The amount of credit support will be determined by the RFP Administrator's credit evaluation of the bidder's (or its parent organization's) credit condition and determination of financial obligations of the bidders and the potential costs to replace the proposed transaction.

Credit support must be in a form acceptable to Sierra and the RFP Administrator and may include a parental guarantee from a creditworthy entity, a letter of credit from an investment grade financial institution, cash on deposit in escrow, or equivalent credit support. In addition

to the considerations above, Sierra and the RFP Administrator will consider the credit support customarily and ordinarily required in similar transactions compared to the proposed transaction.

The RFP Administrator will evaluate the power purchase agreements provided by Bidders to determine the appropriateness of the terms and conditions in addressing the needs of Sierra. The RFP Administrator will consist of a multi-disciplinary team and will support Sierra in order to make the final assessment of the reasonableness and appropriateness of the proposed terms and conditions.

### **3.10. Confidential Information and Confidentiality Agreements**

Sierra, the RFP Administrator, and Sierra's Board of Directors will treat all proposals submitted by bidders as confidential.

In the event that Sierra and the RFP Administrator, in their judgment and discretion, determines that information contained in any question, response, or other communication between it and a bidder, which is not contained in the bidder's proposal, requires confidential treatment, an appropriate Confidentiality Agreement, Appendix E, will be submitted to the bidder. Otherwise, Sierra will ensure that all bidders have access to the same information from Sierra, and that no bidder will have selective or otherwise preferential access to non-public market sensitive information from Sierra through the BESS RFP.

## **4. Approvals**

A bidder whose proposal is selected by Sierra and approved by Sierra's Board of Directors will be solely responsible, financially, legally, and otherwise, as applicable, for acquiring and maintaining all necessary creditor and other third party authorizations and consents necessary or appropriate to effectuate the selected proposal, including all authorizations, permits, licenses, consents, and approvals associated with a selected proposal, as well as compliance with any and all governmental rules and regulations for the construction and operation of the assets or project identified in the proposal. A bidder whose proposal is selected will be solely responsible for obtaining and maintaining financing for its project.

## **5. Reservation of Rights**

Sierra reserves the right, in its sole discretion, to reject any and all Proposals submitted as part of this BESS RFP process for any reason. Sierra may request additional information to complete its evaluations. Respondents who submit proposals do so without recourse against Sierra for rejection or failure to execute an agreement for any reason. Sierra will not reimburse any cost incurred in the preparation or submission of a proposal or any subsequent negotiations regarding a proposal. Sierra reserves the right to terminate this BESS RFP process at any time, without notice and with no obligation to purchase or continue negotiations.