



## **SOUTHERN CALIFORNIA PUBLIC POWER AUTHORITY**

### **Request for Information on Energy Storage technologies**

**Issuance Date: February 23, 2017**

**Response Deadline: March 30, 2017**

#### **I. Introduction**

The Southern California Public Power Authority (SCPPA), on behalf of its Member Utilities, is hereby requesting information regarding energy storage technologies, as well as the capabilities and qualifications of Respondents to this Request for Information (RFI) to develop or coordinate the development of those respective technologies referenced and offered in responses to this RFI. More specific details on the information being requested are provided below in Section III – Areas of Interest.

SCPPA is interested in evaluating this information and discovering all Respondent's capabilities related to the specified Areas of Interest to make an informed decision and potentially proceed to more specific discussions or formal solicitations with one or more qualified Respondents to this Request for Information (RFI).

Responses to this RFI are due on or before 4:00pm PST, on March 30, 2017, as described below in Sections III and V.

#### **II. Background**

SCPPA is a joint powers authority and a public entity organized under the California Joint Exercise of Power Act found in Chapter 5 of Division 7 of Title 1 of the Government Code of the State of California, and through the SCPPA Joint Powers Agreement, for the purposes of planning, financing, developing, acquiring, constructing, operating and maintaining projects for the generation or transmission of electric energy. SCPPA also facilitates joint service contracts, at the request of its members, to aggregate like project efforts amongst its Members for the purposes of developing energy efficiency, demand response and resource procurement Programs or Projects to improve operating efficiencies and reduce costs.

Membership of SCPPA consists of eleven cities and one irrigation district, which supply electric energy within Southern California, including the municipal utilities of the cities of Anaheim, Azusa, Banning, Burbank, Cerritos, Colton, Glendale, Los Angeles, Pasadena, Riverside, and Vernon, and the Imperial Irrigation District. The management of SCPPA is under the direction of an Executive Director who is appointed by the Board.

## III. Areas of Interest

SCPPA members have expressed interest in gathering technical assessments and related cost information, to the extent possible, for many different energy storage technologies to meet the needs of their respective electric utilities and the communities that they serve. Recognizing that the energy storage market is broad and multiple media can be used to store energy, SCPPA is requesting and accepting information offered by Respondents on any and all technologies that can be used by electric utilities or their customers to improve their respective operating efficiencies and/or reduce operating costs of their facilities or homes.

The specific, detailed information that SCPPA is requesting on any such energy storage technology includes, but is not limited to:

### 1. **Storage Type**

- Biological
- Chemical
- Electrochemical
- Electrical
- Mechanical
- Thermal
- Other

### 2. **Electric System Applicability**

- Transmission Services
- Distribution Services
- Generation Services
- Customer / Behind-the-Meter Services

### 3. **Storage Technology Use / Function**

- Bulk Services
  - Peak Load Shift
  - Supply Capacity
- Ancillary Services
  - Frequency Regulation
  - Spin & Non-spin capacity
  - Voltage Support
  - Black Start
  - Variable Resource Load Following
- Transmission & Distribution Services
  - Infrastructure Deferral
  - Congestion Relief
  - Transmission Capacity
- Commercial Industrial Services
  - Power Quality
  - Power Reliability
  - Energy Time Shift
  - Demand Charge Management
- Residential Services
  - Power Quality
  - Power Reliability
  - Energy Time Shift

### 4. **Storage Technology Maturity**

### 5. **Storage Technology Physical Make-up / Construct**

- Storage medium
- Technology overview
- Cycle/"Round trip" efficiency
- Rate of charge and discharge and efficiency declines with varying rates
- Size/dimensions and footprint
- Safety Considerations (e.g. environmental and/or physical hazards) and potential mitigation

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### 6. Exemplary Prices

- Installed cost (\$/kW)
- Life cycle cost (\$/kW-year)
- Energy Cost (\$/MWH)

SCPPA recognizes and acknowledges that some of these factors, particularly prices, will depend on the capacity of (and possibly the duration of time required from) the energy storage facility being built as well as location. While this RFI is not intended to specify a certain storage project of any particular size, duration, cycling capability or other such design parameter, it is expected that SCPPA and/or one or more of our Members will use the information obtained in this RFI to develop and issue subsequent Requests for Proposals for well-defined storage projects. One example of such an opportunity is a potentially impending RFI from the Los Angeles Department of Water and Power for the development of a large-scale storage project to support the integration of intermittent renewable energy into their transmission system.

To that end, SCPPA is requesting that in addition to the necessary supporting documentation of the system(s) being offered, all responses to the RFI must include the full price of at least one (1) size-specific example of the storage system – with a clear delineation of the capacity and duration (in MW and MWH) being offered – without consideration or inclusion of land acquisition costs. However, SCPPA is also requesting that Respondents clearly delineate their ability to develop energy storage system(s) with point-of-delivery/point-of-receipt in one or more of the balancing authorities (BA) that one or more SCPPA Members operate within. These BAs include the CA ISO, LADWP BA, and IID's BA.

All of the parameters referenced above shall be identified and included in Appendix A that must be included for any and all energy storage system offerings provided by Respondents to this RFI.

### Timeline / Schedule\*

SCPPA RFI on Energy Storage Technologies Selection Process	
Schedule of Requirements	Target Date(s)
Issue RFI	February 23, 2017
Questions for clarification Due	March 7, 2017
Responses Due	March 30, 2017
Review of Responses	April 2017
Interviews (if necessary)	April – May 2017, if needed
Selection of Respondent(s)	April – May 2017

\*Timeline/Schedule is subject to change.

The deadline to submit questions on this RFI will be 4:00PM (PDT) on **March 7, 2017**. All questions should be submitted electronically via e-mail to: [bcope@scppa.org](mailto:bcope@scppa.org), referencing **Energy Storage RFI Questions** in the subject line. Answers to all questions will be provided to inquisitor via e-mail within 4 business days from the date received. Answers to questions that SCPPA, at its sole determination and discretion, deems

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to be substantive or that would place the inquisitor at a distinct and unfair advantage to other potential Respondents will be posted on SCPPA's website at:

<http://www.scppa.org/pages/misc/RFIs.html> within 1 business days from the date delivered to inquisitor, but no later than **March 12, 2017**. It is the responsibility of potential Respondents to review this website for any and all postings.

### **IV. Information Submission Required Elements**

#### **1. Transmittal Letter Content:**

- a) A brief statement of the Respondent's understanding of the services and products being requested and considered, as well as any physical or legal limitations or constraints that may exist in allowing the Respondent to provide such service and/or products.
- b) Legal name of Individual or Firm (Respondent) with physical street address, telephone and FAX numbers with the name(s), respective position(s)/title(s) and e-mail address(es) of all individuals authorized to represent the Respondent.

#### **2. Information Statement to describe your firm's:**

- a) experience in performing or providing the services and products within Areas of Interest as referenced above and as may be applicable to this RFI;
- b) organizational structure, management Information, and other service or product related Information, including number of years firm or individual has been in the related business;
- c) list or table of key employees including a description of their Information, experience and duties related to the services and/or products referenced within this RFI;
- d) a list of office locations where work will be performed, if different than the physical address referenced above;
- e) reliance on or use of subcontractors to perform services or develop projects referenced within this RFI; and
- f) describe whether the Respondent has, within the last five years, rendered any service to SCPPA or to any of SCPPA's Members, either as a contractor or subcontractor, either under the name presented in the Transmittal letter or any other name or organization. If so, please provide details (status as prime or subcontractor, brief description of the contract, contract start and end dates, the contract administrator name, and total actual contract expenditures).
- g) If the Respondent has not rendered any service within the last five years to SCPPA or to any of SCPPA's Members, then please provide as many as five (5) references of similar or related work performed within the past 3 years with the requested details described above including the counterparty for which services were provided.
- h) Respondent shall indicate any and all pending litigation that could affect the viability of Respondent's submittal, continuance of existing contracts, operation or financial stability.

### **V. Information Submission Delivery Requirements**

One (1) electronic copy of your submittal should be delivered no later than 4:00 pm PST on March 30, 2017 e-mailed to: [bcope@scppa.org](mailto:bcope@scppa.org) with Subject/Title as: **[Respondent Name] Energy Storage RFI Submittal**.

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One (1) hard copy of your submittal can or may also be delivered to the address below no later than the time and date referenced above, but hard-copy submittal is not required.

Southern California Public Power Authority  
**Energy Storage RFI**  
Attention: Bryan Cope  
1160 Nicole Court  
Glendora, California 91740

No contact should be made with the Board of Directors, any committee or working group representatives, or SCPPA Participating Members concerning this RFI.

All information received by SCPPA in response to this RFI is subject to the California Public Records Act and may be subject to the California Brown Act and all submissions may be subject to review in the event of an audit.

### **VI. Submittal Terms and Conditions**

1. SCPPA reserves the right to cancel this RFI at any time, reject any and all submittals and to waive irregularities.
2. SCPPA shall determine at its sole discretion the value of any and/or all submittals.
3. Submittals may be sub-divided or combined with other submittals, at SCPPA's sole discretion.
4. SCPPA shall perform an initial screening and evaluation to identify and eliminate any submittals that are not responsive to the request for Information, do not meet the minimum requirements set forth in the request for Information or are otherwise deemed, at SCPPA's sole discretion, unable to provide dependable and reliable services.
5. SCPPA reserves the right to submit supplementary follow-up questions or inquiries to request clarification of information submitted and to request additional information from any one or more of the Respondents.
6. SCPPA reserves the right, without qualification and in its sole discretion, to accept or reject any or all submittals for any reason without explanation to the Respondent, or to subsequently make an award to one or more Respondent(s), who, in the opinion of SCPPA, will provide valued service and/or products to SCPPA and its Members.
7. SCPPA may decline to enter into any potential engagement agreement or contract with any Respondent, terminate negotiations with any Respondent, or to abandon the RFI process in its entirety.
8. Those Respondents who provide Qualification submittals agree to do so without legal recourse against SCPPA, its Members, their directors, officers, employees and agents for rejection of their submittal(s) or for failure to execute or act on their submittal for any reason.

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9. SCPPA shall not be liable to any Respondent or party in law or equity for any reason whatsoever for any acts or omissions arising out of or in connection with this request for submittals.
10. SCPPA shall not be liable for any costs incurred by any Respondents in preparing any information for submission in connection with this RFI process or any and all costs resulting from responding to this RFI. Any and all such costs whatsoever shall remain the sole responsibility of the Respondent.
11. SCPPA may require certain performance assurances from Respondents prior to entering into negotiations for a proposed project. Such assurances may potentially include a requirement that Respondents provide some form of performance security.
12. Either SCPPA collectively or Members individually may respond to, or enter into negotiations for services related to a submittal. SCPPA is not responsible or liable for individual Members interactions with the Respondent which are not entirely conducted through SCPPA or at SCPPA's option or election to engage the Respondent as defined within the Terms and Conditions herein.
13. Submission of a submittal constitutes acknowledgement that the Respondent has read and agrees to be bound by the terms and specifications of this RFI and any addenda subsequently issued prior to the due date for a submittal.
14. Information in this RFI is accurate to the best of SCPPA's knowledge but is not guaranteed to be correct. Respondents are expected to complete all of their due diligence activities prior to entering into any final contract negotiations with SCPPA.
15. SCPPA reserves the right to reject any submittal for any reason without cause. SCPPA reserves the right to enter into relationships with more than one Respondent, can choose not to proceed with any Respondent with respect to one or more categories of services, and can choose to suspend this RFI or to issue a new RFI that would supersede and replace this RFI.

### **Additional Considerations for Submittal**

1. **Response Preparations:** Submittals should be prepared simply and economically, without the inclusion of unnecessary promotional materials. Information should be submitted on recycled paper that has a minimum of thirty percent (30%) post-consumer recycled content and duplex copied (double-sided pages) where possible and applicable.
2. **Insurance, Licensing, or other Certification:** If selected subsequently to provide service(s) and/or product(s) related to the Areas of Interest in this RFI, the Respondent and each of its known subcontractors will be required to maintain sufficient insurance, licenses, or other required certifications for the type of work being performed. SCPPA or its Members may require specific insurance coverage to be established and maintained during the course of work and as a condition of award or continuation of contract.
3. **Non-Discrimination/Equal Employment Practices/Affirmative Action Plan:** If selected subsequently to provide service(s) and/or product(s) related to the Areas of Interest in this RFI, the Respondent and each of its known subcontractors may be required to complete and file an acceptable

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Affirmative Action Plan. The Affirmative Action Plan may be set forth in the form required as a business practice by the Department of Water and Power of the City of Los Angeles, SCPPA's largest Member.

4. **Living Wage Ordinance:** If selected subsequently to provide service(s) and/or product(s) related to the Areas of Interest in this RFI, the Respondent may be required to comply with the applicable provisions of the City of Los Angeles Living Wage Ordinance and the City of Los Angeles Service Contract Workers Retention Ordinance. The Living Wage Ordinance provisions are found in Section 10.36 of the Los Angeles City Administrative Code; and the Service Contract Workers Retention Ordinance are found in Section 10.37 of the Los Angeles Administrative Code.
5. **Prevailing Wage Rates:** If selected, the Respondent will be required to conform to prevailing wage rates applicable to the location(s) where any work is being performed. Workers shall be paid not less than prevailing wages pursuant to determinations of the Director of Industrial Relations as applicable in accordance with the California Labor Code. To access the most current information on effective determination rates, Respondent shall contact:

Department of Industrial Relations  
Division of Labor Statistics and Research  
PO Box 420603, San Francisco, CA 94142-0603  
Division Office Telephone: (415) 703-4780  
Prevailing Wage Unit Telephone: (415) 703-4774  
Web: <http://www.dir.ca.gov/dlsr/DPreWageDetermination.htm>

6. **Child Support Policy:** If selected subsequently to provide service(s) and/or product(s) related to the Areas of Interest in this RFI, the Respondent may be required to comply with the City of Los Angeles Ordinance No. 172401, which requires all contractors and subcontractors performing work to comply with all reporting requirements and wage earning assignments and wage earning assignments relative to court ordered child support.
7. **Supplier Diversity:** Respondents shall take reasonable steps to ensure that all available business enterprises, including Small Business Enterprises (SBEs), Disadvantaged Business Enterprises (DBEs), Women-Owned Business Enterprises (WBEs), Minority-Owned Business Enterprises (MBEs), Disabled Veteran Business Enterprises (DVBES), and other Business Enterprises (OBEs), have an equal opportunity to compete for and participate in the work being requested by this RFI. Efforts to obtain participation of these business enterprises may reasonably be expected to produce a twenty-five percent (25%) participation goal for SBEs. For the purpose of this RFI, SCPPA's Supplier Diversity program is modeled after that of the Los Angeles Department of Water and Power. Further information concerning the Supplier Diversity Program may be obtained from the Supply Chain Services Division of the Los Angeles Department of Water and Power.