	<p>EXPRESSION OF INTEREST -ENERGY STORAGE SYSTEM</p>	EOI:439:0416
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1.0 PREAMBLE

With the huge spurt in decentralized and distributed electricity generation in India, there is an immense necessity to look for cost-effective, long-life, reliable energy storage solutions which will in-turn outrace diesel based energy backup solutions.

In 2015, the Ministry of New and Renewable Energy (MNRE) in India has called for Expression of Interest (EOI) for energy storage demonstration projects to support renewable energy generation. The Indian storage and micro grid market is predicted to be worth 15 – 20 GW by 2020. Sub-optimal performance of conventional storage systems has also been an issue with most decentralized applications in the country being affected by low life, low depth of discharge, high failure rates and on larger scale, economical unfeasibility.


BHEL-EDN desires to empanel reputed vendors who have demonstrated capability to Design, manufacture, install and commission and offer post-commissioning services/maintenance of the energy storage system.

In addition, interested Vendors may also indicate their willingness, if any, to participate in joint bidding together with BHEL on a case to case basis.

2.0 QUALIFICATION CRITERION


2.1 TECHNICAL CRITERION

1. The energy storage system offered would be able to address –
 - a. Solar/Wind energy Time Shift
 - b. Firming up/ Stabilization of Solar/Wind energy capacity
 - c. Spinning Reserve capacity/ Transmission support
 - d. Power Quality
 - e. Demand side management
2. The technology offered would take into consideration the following parameter -
 - a. Low self-discharge
 - b. Long lifetime with large charge and discharge cycles
 - c. Low auxiliary power consumption
 - d. Ease of maintenance
 - e. Low impact on environment
 - f. Compact foot-print
 - g. High Humidity & Temperature tolerance
 - h. Seamless integration of Battery Management System with the Plant level SCADA

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2.2 COMMERCIAL CRITERION

1. The Vendor desiring for empanelment should have experience in the Energy Storage System (ESS) of cumulative capacity minimum of 1MWhr for the last 3 years as on the date of this EOI opening date. The vendor must furnish details about their company particulars regarding the operation, facilities, manpower, number of projects executed since inception and other experiences with necessary credentials in support of their claim by furnishing completion certificates from the customer certifying the Scope of works and the time lines for various activities including the work order released by the customer for the systems installed.
2. The vendor shall submit the financial information particulars for the previous 3 years or from the date of commencement operation whichever is later in BHEL format enclosed. Vendor should have achieved annual average financial turnover of Rs 1 crores per annum during the above period as evidenced by the audited financial results.
3. Vendors who are in the field of design and manufacturing but having strategic partners with sub-contractors for carrying out activities at site are also eligible to participate. Details of the strategic partnership, number of projects executed, value and end customer certifications are to be submitted. All the above requirements are also to be complied with. Documentary evidence of such partnership to be furnished for BHEL scrutiny. All the above requirements are also to be complied by the consortium.
4. (a) Vendors willing to supply in completely knocked down (CKD) condition to be assembled and tested in the electronics division of BHEL Bangalore will be given preference.
(b) Vendors willing to procure electrolyte tank and containers from local Indian suppliers and the Power Conditioning Unit (PCU) and Battery Management System (BMS) from BHEL with total assembly and testing of the ESS in BHEL will be given preference.
5. BHEL will be executing the projects based on customer specifications, tender terms and conditions. The same will be applicable to the vendor.
6. The vendors may indicate their preparedness to participate in the tendering process thru e-procurement mode.
7. Vendor to furnish all details in BHEL furnished format covering the following details.
 - a) Company profile & organizational information
 - b) Ownership information
 - c) Registration particulars
 - d) Manpower
 - e) Other particulars.
 - f) Bank details of the Company
 - g) Quality Systems

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- h) Financial Information for the previous 3 years.
- i) Resources owned by the company-Formats A),B) and C)
- j) Work Experience in the Energy Storage System (ESS) in last 3 years as on the date of opening of EOI.

All columns are to be filled up in the space provided for. Separate sheets may be attached if the space provided is insufficient or if additional information to be given. The formats shall be downloaded from www.bhel.com. The link furnished may be used. http://www.bhel.com/vender_registration/pdf/Guidelines to Contractors SEARP2010Amdt_04for web.pdf. The response to this EOI to be addressed to Vipindas C P, Sr. Engineer, SC&PV, NEB 5th floor, BHEL-Electronics Division, Mysore Road, Bangalore-560026. The last date for receipt of applications in sealed cover is 09/06/2016 ,15:30Hrs.

3.0 EVALUATION

1. BHEL-EDN will be evaluating the Vendor on all the parameters above and shortlist based on a ranking methodology. BHEL shall intimate the shortlisted vendors for further discussions, presentations before empaneling. BHEL decision on this will be final. BHEL at their discretion shall inspect the vendor works/premises/installation sites for evaluation.
2. Further procurement and tendering process shall be as per BHEL policy and guidelines .
3. The empanelment will be for a period of 3 years. During this period the vendor performance will be evaluated on a continuous basis on works executed in BHEL project sites. BHEL reserves the rights to disqualify a vendor based on their adverse performance levels if any during this period.
4. This expression of Interest is not an agreement and is not an offer or invitation to enter into an agreement of any kind with any party by BHEL.