BHARAT HEAVY ELECTRICALS LIMITED (A Government of India Undertaking) DELHI - 110049

NOTICE FOR INVITING

Expression of Interest (EoI)

for

Setting up GWh Lithium Ion based Cell Manufacturing Facility through JV route

EOI REFERENCE NUMBER:

AA/JV MA/EOI/2018/03, Rev 00



LETTER OF INVITATION

Bharat Heavy Electricals Limited (BHEL) seeks response from companies meeting the requirements of this EoI and are willing to be associated with BHEL through a Joint Venture (JV) route on long term basis in setting up and operating Li-ion based Cell Manufacturing Facility of GWh scale in India.

The proposed JV company should be in a position to design, engineer, manufacture, test and supply Lithium Ion cells. The detailed terms and conditions and other definitive documents including the Joint Venture Agreement, the Memorandum and Articles of Association and the long-term Business Plan for such a Joint Venture shall be mutually agreed upon.

The proposed JV Company shall have a Technology Transfer Agreement with the OEM (prospective Joint Venture partner).

The Li-ion cells to be manufactured by the JV should be tested successfully at reputed and internationally recognized test laboratories.

The prospective Joint Venture partner shall submit confirmation for participation in the Eol process as per Section-5.



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SECTION-1

DISCLAIMER

- 1. The information contained in this Expression of Interest (EoI) document provided to the prospective JV partner, by or on behalf of Bharat Heavy Electricals Limited (BHEL) or any of its employees or advisors, is provided to the prospective JV partner on the terms and conditions set out in this EoI document and all other terms and conditions subject to which such information is provided.
- 2. The purpose of this EoI document is to provide the prospective JV partner with information to assist the formulation of their Proposal. This EoI document does not purport to contain all the information each prospective JV partner may require. This EoI document may not be appropriate for all persons, and it is not possible for BHEL, its employees or advisors to consider the business/investment objectives, financial situation and particular needs of each prospective JV partner who reads or uses this EoI document. Each prospective JV partner should conduct his own investigations and analysis and should check the accuracy, reliability and completeness of the information in this EoI document and where necessary obtain independent advice from appropriate sources.
- 3. BHEL, its employees and advisors make no representation or warranty and shall incur no liability under any law, statute, rules or regulations as to the accuracy, reliability or completeness of the EoI document.
- 4. BHEL may, in its absolute discretion, but without being under any obligation to do so, modify, amend or supplement the information in this EoI document.
- 5. The issue of this EoI does not imply that BHEL is bound to select and shortlist any or all the prospective JV partner. Even after selection of suitable prospective JV partner BHEL is not bound to proceed ahead with the prospective JV partner and in no case be responsible or liable for any commercial and consequential liabilities in any manner whatsoever.
- 6. The prospective JV partner shall bear all costs associated with the preparation, technical discussion/presentation and submission of EoI. BHEL shall in no case be responsible or liable for these costs regardless of the conduct or outcome of the EoI process.
- 7. Canvassing in any form by the prospective JV partner or by any other agency on their behalf shall lead to disqualification of their Eol.



SECTION-2

SCHEDULE OF EoI PROCESS & CONTACT DETAILS

A. SCHEDULE OF EoI PROCESS

The schedule of activities during the EoI Process shall be as follows -

Sl. No.	Description	Date
1	Issue of EoI document	22.08.2018
3	Last date of Submission of EoI response	11.09.2018

B. CONTACT DETAILS:

All the correspondence shall be marked to the following:

General Manager	Manager	
Corporate Technology Management,	Corporate Technology Management,	
Bharat Heavy Electricals Limited (BHEL),	Bharat Heavy Electricals Limited (BHEL),	
BHEL House, Siri Fort, New Delhi 110049	BHEL House, Siri Fort, New Delhi 110049	
Tel:011- 66337210	Tel:011-66337375	
E-Mail: techeoi@bhel.in	E-Mail: techeoi@bhel.in	



SECTION - 3

DETAILS OF EXPRESSION OF INTEREST (EoI)

3.1 ABOUT BHEL

BHEL is a leading state owned company, wherein Government of India is holding 63.06% of its equity. BHEL is an integrated power plant equipment manufacturer and one of the largest engineering and manufacturing organization in India, catering to the core infrastructure sectors of Indian economy viz. energy, transportation, heavy engineering industry, defence, renewable and non-conventional energy. The energy sector covers generation, transmission and distribution equipment for thermal, gas, hydro, nuclear and solar photo voltaic. BHEL has been in this business for more than 50 years and BHEL supplied equipments account for more than 57% (approx. 180 GW) of the total thermal generating capacity in India. BHEL is also listed in Indian stock exchanges. BHEL has 17 manufacturing units, 4 power sector regions, 8 service centers, 3 overseas offices and 15 regional offices besides host of project sites spread all over India and abroad. BHEL has its footprint in all the inhabited continents with references in 82 countries including Malaysia, Oman, Iraq, Syria Sudan, Libya, Cyprus, Malta, Afghanistan, Bangladesh, Bhutan, New Zealand etc. with cumulative overseas installed capacity of BHEL manufactured power plants nearing 10,000 MW. The annual turnover of BHEL for the year 2017-18 was around US\$ 4.1 Billion*. BHEL's highly skilled and committed manpower of approx. 36600; state-of-the-art manufacturing facilities and latest technologies helped BHEL to deliver a consistent track record of performance since long. To position leading state owned companies as Global Industrial giant and as a recognition for their exemplary performance, Government of India categorized BHEL as "Maharatna Company" in 2013.

Our ongoing technology tie-ups with leading technology providers include GE Technology GmbH, Switzerland (for Once through Boilers and Coal Pulverisers); Siemens, Germany (for Steam Turbines, Generators and Condensers); Metso Automation Inc., Finland (for Control & Instrumentation); MHI, Japan (for Pumps); MHPS, Japan (for Flue Gas Desulfurization Systems); Vogt Power International, USA (for HRSG); GENP, Italy (for Compressors); TLT Turbo GmbH, Germany (for Fans), Sheffield Forge Masters International, UK (for Forgings); ISRO, India (for space grade li Ion cells); HLB Power Co. Ltd., Korea (for Gates and Dampers) and Kawasaki Heavy Industries Ltd., Japan (for Stainless Steel Metro Coaches & Bogies).

Currently, BHEL have the following operational Joint Ventures Companies namely:

- BHEL-GE Gas Turbine Services Pvt. Ltd. (BGGTS) repair & servicing of GE designed Gas Turbines;
- NTPC BHEL Power Projects Private Limited (NBPPL) with NTPC Limited for carrying out EPC contracts for Power Plants and other infrastructure Projects in India and abroad:
- Raichur Power Corporation Limited (RPCL) with Karnataka Power Corporation Limited (KPCL) for setting up of supercritical thermal power plants on build, own and operate (BOO) basis;
- * More details about the entire range of BHEL's products and operations can be had by visiting our web site www.bhel.com.



3.2 ABOUT INDUSTRY SECTOR

Industry Sector segment provides comprehensive solutions for Captive Power Generation, Transmission, Transportation, Renewable Energy, Energy Storage, Water Management, Defence & Aerospace, Industrial Products (Oil & Gas) and Electrical machines.

Design, manufacture, supply and services are offered for a broad range of systems and individual products, such as coal and gas-based captive power plants (including cogenerating and combined cycle plants), industrial boilers and auxiliaries, waste heat recovery boilers, gas turbines, heat recovery steam generators, steam turbines and auxiliaries, pumps, HT motors, centrifugal compressors, drive turbines, oil rigs, well heads and X-mas trees, valves, transformers, reactors, switch gear, insulators, photo voltaic modules, Ground mounted and roof top solar PV plants, Solar PV powered pumps for drinking water, energy storage system, space grade solar batteries for satellite application, water treatment plants, cryogenic systems, electric locomotives, electrical propulsion systems, e-mobility, strategic equipment for defence forces.

BHEL offers turnkey Solutions from concept to commissioning for various feed water characteristics ranging from pre-treatment to tertiary treatment in water segment, including Pre Treatment Plants, Desalination Plants, Demineralization (DM) Plants, Membrane Based Treatment Systems, Effluent Treatment Plants (ETP), Tertiary Treatment plants (TTP), Sewage Treatment Plants (STP), Zero Liquid Discharge (ZLD) Systems etc.

BHEL also has dedicated Pollution Control Research Institute (PCRI), which supports in performance evaluation of the different treatment plant, assessment of water/effluent/sewage characteristics and Water Audits etc. BHEL has executed number of water treatment plants in various power stations and industries.

3.3 MANUFACTURING FACILITIES AT BHEL:

BHEL has 17 manufacturing units, 2 Repair Units spanning across India equipped with state-of-the-art manufacturing facilities for manufacturing Power Plant Equipment, various Industrial products and Defence related Products. The high level of quality & reliability of BHEL products is due to adherence to international standards by acquiring and adapting some of the best technologies from leading companies in the world, together with technologies developed in its own R&D centres.

BHEL divisions like Manufacturing units, Engineering centres and Business Sectors like Power Sector, Industry sector, International Operations are accredited to Quality Management Systems (ISO 9001). Major Manufacturing units and Power Sector Regions are also accredited to Environmental Management Systems (ISO 14001) and Occupational Health & Safety Management Systems (OHSAS 18001).

3.4 SCOPE OF ASSOCIATION:

- 3.4.1. BHEL is seeking response from companies willing to invest and form equity joint venture company with BHEL to enter into business of Li-ion Cell manufacturing.
- 3.4.2. Prospective JV partner shall have majority stake in the JV company.



- 3.4.3. The purpose of JV company formed with party selected through this EoI shall be setting up and operating GWh scale Li-ion based Cell Manufacturing facility in India.
- 3.4.4. Duly registered companies (in the country of their existing operations) or consortium of companies can participate in the EoI. In case of consortium, clarity on roles and responsibilities of the consortium members shall be provided.
- 3.4.5. The prospective JV partner must possess necessary knowledge of setting up of GWh scale Li-ion Cell manufacturing facility.
- 3.4.6. The prospective JV partner must possess technology for R&D, Design, Engineering, Manufacturing, Disposal of Li-ion Cells for various prevalent chemistries like LFP, Lithium Polymer, LTO, NMC etc.
- 3.4.7. The technology possessed by prospective JV partner must be non-infringing while delivering the desired performance and it must be clear from third-party IP infringement claims.
- 3.4.8. Prospective JV partner must be technically competent to keep pace with advancement in Li-ion Cell technology to be able to suitably adapt and upgrade to latest Cell technologies.
- 3.4.9. It is envisaged to build the manufacturing facility in phased manner with a target of 1-1.5 GWh in initial phase with a provision of future scaling upto 25-30 GWh as market demand accelerates.
- 3.4.10. It should be feasible to manufacture cells of different Li-ion chemistries as per market/customer/application requirements in the Cell manufacturing line with minor adjustments.
- 3.4.11. The prospective JV partner must have long term access/ tie-up for critical raw material required for manufacturing Li-ion Cells.
- 3.4.12. The prospective JV partner should be willing to source indigenous raw materials at a later stage after stabilization.
- 3.4.13. The facility set up by JV shall cater to various requirements in Indian and Global market of various fields like E-mobility, Grid Energy Storage, Telecom etc.
- 3.4.14. Manufacturing facility and the Li-ion cells that shall be produced should meet all the relevant national/ international quality standards and cells should be cost competitive as per market levels.

Interested companies meeting the Pre-Qualification Requirements (PQR) as given in Section-4 and ready to associate with BHEL as per broad scope/ expectations given above are invited to submit their offer in response to this EoI.

Upon receipt of responses against this EoI, BHEL will review the responses to ascertain suitability of the offer and shortlist prospective JV partner for further discussions. Detailed discussions on commercial and other terms and conditions to finalize the Agreement shall be held with shortlisted prospective JV partner. The detailed terms and conditions for agreement shall be mutually agreed upon.

3.5 INSTRUCTIONS

3.5.1 **Language:** All correspondences and documents related to the EoI response shall be in English language, provided that any printed literature furnished by the prospective JV partner may be written in another language, as long as such literature is accompanied



by a translation of its pertinent passages in English language in which case, for purposes of interpretation of the bid, the English translation shall govern.

- 3.5.2 The prospective JV partner shall abide by the terms & conditions, as applicable, of the EoI.
- 3.5.3 All pages of the EoI shall be duly signed by the authorised signatory.
- 3.5.4 Multiple proposals from the same prospective JV partner should not be submitted.
- 3.5.5 BHEL at their discretion shall inspect the prospective JV partner works/office/reference site premises for the purpose of evaluation, as deemed necessary before selection of partner. BHEL decision in this regard shall be final.
- 3.5.6 Any prospective JV partner which has been debarred/blacklisted by Central/State Governments or by any entity controlled by Central/State Governments from participating in any of their project, as on date of submission of EoI, shall not be eligible to submit the EoI.

3.6 CONFLICT OF INTEREST

Prospective JV partner shall not have a conflict of interest. Any/All prospective JV partner found to have a conflict of interest shall be disqualified. A prospective JV partner may be considered to have a conflict of interest, if:

- (a) Prospective JV partner has been engaged by BHEL to provide consultancy services for the Eol/ tender preparation related to this Project or similar projects;
- (b) Prospective JV partner is an associates/affiliates (inclusive of parent firms) of a firm or an organization mentioned in subparagraph (a) above; or
- (c) Prospective JV partner lends, or temporarily seconds its personnel to or utilizes services of personnel of firms or organizations which are engaged by BHEL in consultancy services for preparation of tender document or implementation of this project or any other similar project

3.7 PROCESS TO BE CONFIDENTIAL:

Information relating to the examination, clarification, evaluation and comparison of EoI and recommendations shall not be disclosed to prospective JV partner. Any effort by prospective JV partner to influence BHEL processing of EoI or selection decisions may result in the rejection of the EoI.

3.8 MISCELLANEOUS:

3.8.1 Right to accept or reject any or all Applications:

- i. Notwithstanding anything contained in this EoI, BHEL reserves the right to accept or reject any application and to annul the EoI process and reject all applications, at any time without any liability or any obligation for such acceptance, rejection or annulment and without assigning any reasons, thereof. In the event that BHEL rejects or annuls all the applications, it may at its discretion, invite all eligible prospective JV partners to submit fresh applications.
- ii. BHEL reserves the right to disqualify any applicant during or after completion of Eol process, if it is found there was a material misrepresentation by any such applicant or the applicant fails to provide within the specified time, supplemental information sought by BHEL.



iii. BHEL reserves the right to verify all statements, information and documents submitted by the applicant in response to the EoI. Any such verification or lack of such verification by BHEL shall not relieve the applicant of his obligations or liabilities hereunder nor will it affect any rights of BHEL.

3.8.2 Governing Laws & Jurisdiction:

The EoI process shall be governed by, and construed in accordance with, the laws of India and the Courts at New Delhi (India) shall have exclusive jurisdiction over all disputes arising under, pursuant to and / or in connection with the EoI process.

3.9 BRIFF DESCRIPTION OF FoI PROCESS:

The interested prospective JV partner shall ensure that their response along with below stated annexures is received by BHEL on or before 11th September 2018:

- i. Annexure-1- General Information.
- ii. Annexure-2- Latest three years Annual Audited Financial Statements including Auditors report to be provided.
- iii. Annexure-3- Broad technical capabilities of prospective JV partner.
- iv. Annexure-4- Reference list and details of Existing Projects/ Manufacturing facilities to be provided along with list of customers to whom Lithium Ion Cells have been supplied and working satisfactorily.

The response shall necessarily be accompanied with details on company background, product profile, technical capabilities, reference list of customers, current Li-Ion Cell manufacturing facilities, relevant certificates and latest three years annual audited financial statements including auditor's report.

<u>In case any amendment/corrigendum issued to this EoI, it shall be notified only at www.bhel.com</u> .



SECTION-4

PRE-QUALIFICATION CRITERIA

The determination of eligibility will take into account the technical and experience capabilities and past performance of the prospective JV partner; it will be based upon an examination of documentary evidence of the prospective JV partner qualifications submitted by the prospective JV partner as well as such other information, as the BHEL deems necessary and appropriate. The prospective JV partner willing to associate with BHEL for JV formation should meet the following Pre-Qualification Criteria:

SI.	Requirement
1.	The prospective JV partner must have manufacturing facility (with a majority stake) for Li-ion based Cell of a minimum 1 GWh capacity which should be operational as on date of submission of EoI.
2.	The prospective JV partner must possess proven technology for R&D, Design, Engineering, Manufacturing for multiple Li-ion chemistries.
3.	The prospective JV partner must have a long term access/ tie-up for critical raw material required for manufacturing Li-ion Cells.
4.	The prospective JV partner should be willing to provide exclusive market access to the JV Company at least for markets in territories of India, other member countries of SAARC, China, Malaysia and Indonesia.
5.	The prospective JV partner should be able to provide non-infringing technology solutions to the JV Company.
6.	Prospective JV partner should be ready to invest as a majority stake holder in the JV company



SECTION-5

Documents to be submitted along with EoI*

5.1.1 Submission of Eol: - List of documents to be submitted as part of Eol:

Prospective JV partner should submit following documents along with their Proposal.

SI.	Document Description	Filled in Formats to be Submitted with Proposal	Remarks	
1.	Covering Letter		As per format	attached
2.	General information	Annexure-1		
3.	Financial Information	Annexure-2		
4.	Broad technical capabilities of prospective JV partner for Li-ion Cell Manufacturing Facilities	Annexure-3		
5.	Reference list and details of Existing Projects/ Manufacturing facilities to be provided along with list of customers to whom Lithium Ion Cells have been supplied and working satisfactorily.	Annexure-4		

^{*}In case of consortium, same to be provided for constituent companies of consortium.



Eol FORMS



Format for Covering Letter

[On the Letterhead of the Prospective JV Partner]

To,

Manager (JV, M&A)

Corporate Technology Management, Bharat Heavy Electricals Limited (BHEL), BHEL House, Siri Fort, New Delhi – 110 049 India

E-Mail: techeoi@bhel.in

Ref: Submission of Expression of Interest (EoI)

Sir,

We would like to associate as JV partner with BHEL for Setting up GWh Lithium Ion based Cell Manufacturing Factory. We understand that you are not bound to accept the EoI.

I am enclosing the Expression of Interest with the details as per the requirements of the EoI document, for your evaluation.

I hereby declare that the details furnished in this EoI proposal are true and correct to the best of my knowledge and belief. In case any of the information is found to be false or untrue or misleading or misrepresenting, I am aware that I will be held liable for it and BHEL is free to take any legal / commercial action not limited to barring / blacklisting.

	Yours faithfully
(Signature & Seal of A	Authorised Signatory
	Name
	Designation
	Date

Address:



Annexure-1

General Information to be submitted by Applicant along with cover letter

- 1. Name of the Company/ Companies (if consortium):
- 2. Legal status of the Company(ies):
- 3. Brief description of the Company(ies) including details of its business groups/subsidiaries/ affiliates:
- 4. Date of Incorporation:
- 5. Date of Commencement of Business:
- 6. Full address including Telephone nos. / Fax nos.:

Registered Office:

Head Office:

Address for communication:

Contact Details:

Office Address in India, if any:

7. Documents to be enclosed:

- a) Technical Credentials Relevant Product/System catalogues, Experience /Reference List, Copies of Customer Certificates, R&D/ Design/Engineering/ Manufacturing strengths, quality accreditations, etc.
- b) Details of access/ Tie-up for critical raw materials required for manufacturing Li-Cells.
- c) Financial Credentials Copies of Annual Audited Financial statements including Auditors Report) for latest 3 years.
- d) Other documents considered relevant.

Signature & Seal:

Authorised Signatory of the Party



Annexure-2

Financial Information

Date: [insert day, month, year]

Legal Name: [insert full name]

1. Financial Data

Financial information in (INR equivalent)		Historic information for previous three years (INR. Millions) [Insert amount in INR equiv.]*		
	FY16	FY17	FY18	
Information				
from Balance				
Sheet				
Total Assets				
(TA)				
Total Liabilities				
(TL)				
Net Worth				
(NW) (TA-TL)				
Current Assets				
(CA)				
Current				
Liabilities (CL)				
Information				
from Income				
Statement				
Total Revenue				
(TR)				
Profits Before				
Taxes (PBT)				

^{*} Exchange rate for conversion to INR shall be as published by Reserve Bank of India as on date of floating EoI.

2. Financial documents#

The prospective JV partner shall provide copies of the financial statements including balance sheets all notes and related income statements for latest 3 *years*

The financial statements shall:

- a) Reflect the financial situation of the prospective JV partner submitting Eol
- Be audited by a certified accountant.
- Be complete, including all notes to the financial statements.
- b) Correspond to accounting periods already completed and audited (no statements for partial periods shall be accepted).

*In case of consortium, same to be provided for constituent companies of the consortium.

(Signature & Seal)

Authorised Signatory of the Party



Annexure-3

Broad technical capabilities of prospective JV partner for Li-ion Cell Manufacturing Facilities

SI. No.	Description	Response (YES/NO) and remarks if any.
1.	Whether prospective JV partner is willing to invest in the JV with BHEL for Li-ion Cell manufacturing.	Y/N
2.	Whether prospective JV partner has R&D, Design, Engineering, Manufacturing capabilities for Li-ion Cells.	Y/N
3.	Whether prospective JV partner has the capability of Li-ion battery packaging along with BMS as per requirements/ specs of customer.	Y/N
4.	Whether prospective JV partner is currently supplying Li-Ion cell/Battery, under operation in Electrical Vehicles and Storage System. (Details considered relevant can be provided as attachments)	Y/N
5.	Please indicate rejection rate of your current Li-ion Cell Manufacturing facilities.	
6.	Please indicate all major Li-Cell Chemistries, prospective JV partner has experience of working with.	
7.	Please mention all the critical raw materials required for manufacturing Li-Cell for which prospective JV partner has long term access/ tie-up.	

Signature & Seal: Authorised Signatory of the Party



Annexure-4

Reference list and details of Existing Projects/ Manufacturing facilities along with list of customers to whom

Lithium Ion cells have been supplied and working satisfactorily