

BHARAT HEAVY ELECTRICALS LIMITED SOLAR BUSINESS DIVISION

EOI Ref: EOIBESS2025-01

BHEL SBD Herewith Publishes

Expression of Interest

(EOI)

and

Invites Prospective vendors to partner with BHEL

for

Entering into TC-MOU (Techno-commercial Memorandum of Understanding) and Pre- bid tie up for SETTING UP BESS -20MW/20MWH PLANT AT 50 MW GROUND MOUNTED SPV PROJECT AT OVERSEAS LOCATION

Ref:EOIBESS2025-01 dtd 24-07-2025

Due Date of Receiving duly filled EOI: 04.07.2025 14:00 Hrs

About BHEL

BHEL is India's largest engineering and manufacturing enterprise, operating in the energy, industry and infrastructure sector. Company was established in the year 1964 and since then it has been "Making in India" offering comprehensive products, systems, and services in various areas including power generation (thermal, hydro, gas, nuclear, and solar PV), transmission, transportation, defence, aerospace, oil and gas, and emerging sectors like battery energy storage systems and electric vehicle chargers. BHEL has been instrumental in developing the country's power generation capacity, contributing to core industrial and strategic sectors since the time of its humble beginning. The company's commitment toward its customer is evident through wide range of product portfolio, development and absorption of new technologies, consistent investment of more than 2.5% of its revenue on R&D and innovation, establishment of world-class manufacturing facilities and offering sustainable business solutions. Apart from serving customers, BHEL has been supporting communities through programs like skill development, promoting health, hygiene, education, cleanliness and environmental protection, thus contributing to the society as a whole.

The purpose of publishing this EOI is to provide opportunities to probable vendors who can partner with BHEL for setting up BESS-20MW/20MWH plant at 50MW ground mounted SPV project at overseas location.

Note: BHEL reserves its right to independently verify the documents submitted and visit the vendor works for assessment. Necessary arrangements shall be made by the prospective vendors



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All corrigenda, addenda, amendments, time extensions, clarifications etc. to the Tender will be hosted on https://bhel.com only. Bidders should regularly visit this website to keep themselves updated.

Queries:

Bidders to note that any queries related with EOI are to be submitted online only at Email ID provided in Table A with CC to **k.manoj@bhel.in.** Queries/clarifications received in any other form are liable to be unanswered. A reply from the concerned will be given on the same Email ID.

Table A

Description	Email Id
For Technical Queries	punam@bhel.in
For General & Commercial Queries	k.manoj@bhel.in
For submission of offers against EOI	technicalbid-epd@bhel.in

Submission of EOI

Offers against EOI to be submitted on Email address to <u>technicalbid-epd@bhel.in</u> with subject as Ref: EOIBESS2025-01 dtd 24-07-2025 "SETTING UP BESS -20MW/20MWH PLANT AT 50 MW GROUND MOUNTED SPV PROJECT AT OVERSEAS LOCATION" (Mail size should not be more than 20 MB. In case the size is larger, offer can be submitted partwise in multiple mails).

Following documents to be attached while submitting EOI:

- 1. Annexure I (Duly filled, signed, stamped on official letterhead)
- 2. Annexure II- Non-Disclosure Agreement (Duly filled, signed, stamped on official letterhead)
- 3. Documents in support of Pre-Qualification Requirements- Technical
- 4. Technical offer, comprising of technical specification/Product Catalogues/Datasheets/Drawings/ QAP/ Test report etc
- 5. Any other documents

Note: Bidders may adopt this mode at their own risk. BHEL does not own any responsibility /liability for delays in receipt / loss of secrecy of such offers.

No physical offers for EOI will be accepted.

Plant Location details:
BHARAT HEAVY ELECTRICALS LTD
SOLAR BUSINESS DIVISION
Prof. CNR Rao Circle,
Opp. Indian Institute of Science,
Malleswaram Bangalore – 560012 India



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EOI Ref: EOIBESS2025-01

ANNEXURE - I

FORMAT FOR SUBMISSION OF EOI

(to be printed on the official letterhead of the APPLICANT)

To,

Mr. Vinay Kumar AGM-Materials Management BHEL SBD Bengaluru-560012 Dear Sir,

Subject: Submission of Expression of Interest Ref: EOIBESS2025-01 Dated 24.07.2024 "SETTING UP BESS -20MW/20MWH PLANT AT 50 MW GROUND MOUNTED SPV PROJECT AT OVERSEAS LOCATION"

With reference to your EOI inviting notice Ref: EOIBESS2025-01 Dated 24.07.2025 and after examining the detailed documents and other details mentioned in the EOI document, I/We hereby offer to submit my /our Expression of Interest.

- 1. All the annexures and documents necessary in this connection are enclosed hereto. All the documents/ photocopies of the documents have been self-attested by me/us and BHEL is free to reject our offer if any of the documents/photocopies of the documents is/are found to be false or forged.
- 2. I/we, hereby also declare(s) that I/we have read all terms and conditions in the EOI and all terms and conditions mentioned in the EOI are acceptable. I herewith submit duly signed and accepted Non Disclosure Agreement as per Annexure II.
- 3. I/we, hereby also declare(s) that my/our organisation/firm is not debarred/ blacklisted by any Central/State Govt. department, agency, PSUs/ Institution/ Agencies/ Autonomous organization.
- 4. The information sought from me as per the EOI notice is enclosed to this letter.

Yours Faithfully,

(Signature 8	& Stamp o	f Authorised	l Signatory

Name		
Designation:		
Date:		
Place:		



Signature

BHARAT HEAVY ELECTRICALS LIMITED SOLAR BUSINESS DIVISION

EOI Ref: EOIBESS2025-01

ANNEXURE II

NON-DISCLOSURE AGREEMENT

l,	, on behalf of the	(Name of Company),			
acknowledge that the information received or generated, directly or indirectly, while working with BHEL on contract is confidential and that the nature of the business of the BHEL is such that the following conditions are reasonable, and therefore:					
I warrant and agree as f	ollows:				
indirectly, any informat	, or any other personnel employed or engaged by our company, agree not to disclose, directly or indirectly, any information related to the BHEL Without restricting the generality of the foregoing, it is agreed that we will not disclose such information consisting but not necessarily limited to:				
techniques, inve	entions, computer programs/ nation: Customer lists, projec	, processes, formulae, compositions, systems, data/configuration and research projects. t schedules, pricing data, estimates, financial or			
On conclusion of contract, I, or any other personnel employed or engaged by our company shall return to BHEL all documents and property of BHEL including: drawings, blueprints, reports, manuals computer programs/data/configuration, and all other materials and all copies thereof relating in any way to BHEL, EPD's business, or in any way obtained by me during the course of contract. I further agree that I, or any others employed or engaged by our company shall not retain copies, notes or abstracts of the foregoing.					
This obligation of confid	lence shall continue after the	conclusion of the contract also.			
I acknowledge that the aforesaid restrictions are necessary and fundamental to the business of the BHEL and are reasonable given the nature of the business carried on by the BHEL. I agree that this agreement shall be governed by and construed in accordance with the laws of country.					
I enter into this agreeme	ent totally voluntarily, with fu	II knowledge of its meaning, and without duress.			
Place:	Date:				
Name					
Company					



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The information on this document is the property of Bharat Heavy Electricals Limited. It must not be used directly or indirectly in anyway detrimental to the interest to the company.

EXPRESSION OF INTEREST (EOI) FOR

SHORTLISTING
OF VENDOR FOR SETTING UP
BESS -20MW/20MWH PLANT
AT 50 MW GROUND MOUNTED SPV
PROJECT IN SRI LANKA

Revision	Prepared by: SB	Checked by: VJ	Approved by: PM	Date:23.07.2025
details:				
00				



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1.0 DISCLAIMER

- 1.1. The information contained in this Expression of Interest (EOI) document provided to the Prospective bidder (s), by or on behalf of Bharat Heavy Electricals Limited (BHEL) or any of its employees or advisors, is provided to the Prospective bidders on the terms and conditions set out in this EOI document and all other terms and conditions subject to which such information is provided.
- **1.2.**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.
- **1.3.** The issue of this EOI does not imply that BHEL is bound to select and shortlist any or all the Prospective bidder(s). Even after selection of suitable Prospective Bidder BHEL is not bound to proceed ahead with the Prospective Bidder and in no case be responsible or liable for any commercial and consequential liabilities in any manner whatsoever.
- **1.4.** The Prospective bidder shall bear all costs associated with the preparation, technical discussion/presentation and submission of response against this EOI. BHEL shall in no case be responsible or liable for these costs regardless of the conduct or outcome of the EOI process.
- **1.5.** Canvassing in any form by the Prospective bidder or by any other agency on their behalf shall lead to disqualification of their EOI.
- 1.6. 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 bidder(s) to submit fresh applications.
- 1.7. BHEL reserves the right to disqualify any applicant during or after completion of EOI 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.



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1.8. 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 affects any rights of BHEL.

2.0 DETAILS OF EXPRESSION OF INTEREST (EOI)

2.1. INTRODUCTION:

Trincomalee Power Company Limited (a JV of CEB, Sri Lanka and NTPC India) is planning to setup a 50 MW SPV project with BESS at Sampur, Sri Lanka. Customer Tender is expected to be floated in month of Aug'25. BHEL seeks Expression of Interest from Prospective bidder(s) for setting up BESS -20MW/20MWH at 50 MW ground mounted SPV project in sri lanka, who are meeting the requirements of this EOI and are willing to be associated with BHEL through a pre-bid tie-up to enable BHEL to quote as EPC contractor for the project.

2.2. ABOUT BHEL:

BHEL is a leading state-owned company and one of the largest engineering and manufacturing enterprise in India, catering to the core infrastructure sectors of Indian economy viz. energy, transportation, and heavy engineering industry, defence, renewable and non-conventional energy. The energy sector covers generation, transmission and distribution of equipments for thermal, gas, hydro, nuclear and solar photo voltaic power plant. BHEL has been in this business for more than 50 years and BHEL supplied equipment account for approx. 180 GW of the total thermal generating capacity in India. BHEL is also listed in Indian stock exchanges. BHEL has 16 manufacturing units, 4 power sector regions, 8 service centres 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 88 countries including Malaysia, Oman, Iraq, Syria Sudan, Libya, Cyprus, Malta, Afghanistan, Bangladesh, Bhutan, New Zealand, Mauritius etc. The cumulative overseas installed capacity of BHEL manufactured power plants nearing 10,000 MW. 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. More details about the entire range of BHEL's products and operations can be viewed by visiting our web site www.bhel.com



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2.3. ABOUT SBD, BANGALORE

Solar Business Division (SBD), one of the manufacturing units of BHEL in Bengaluru (Karnataka). Solar Business Division is a new name to Electric & Photovoltaic Division (EPD) since Oct 2020 with a long-term objective of BHEL to give unified thrust to solar business segment. SBD is operating independently as the primary solar business centre to ensure responsiveness to the changing business environment and long-term sustenance of the product. BHEL-SBD has been continuously developing its solar portfolio and today, is one of the few companies in India which provides end-to-end in-house solutions for all solar power needs - including conceptualisation, design, engineering, manufacturing, erection, testing, commissioning and O&M - with proven expertise of over three decades with more than 1.2 GW portfolio. BHEL has commissioned India's largest floating solar power plant of 100 MW Capacity for NTPC at Ramagundam (Telangana).

2.4. BRIEF SCOPE OF COOPERATION:

2.4.1 BHEL SCOPE: Complete PV project.

2.4.2. PRE-QUALIFICATION REQUIREMENTS (PQRs):

The bidder(s) shall meet the following qualification requirements as on the date of submission of EOI:

The Bidder should have executed at least one (1) or more order(s) for supply of a minimum capacity of 1MWH BESS container anywhere in the world in last 5 years as on closing date of this EOI.

Purchase Order (PO) and documentary evidence of PO executed by Bidder as documentary proof to be submitted.

2.4.3 BESS VENDOR SCOPE:

- 1. BESS Design, Engineering, drawing submission, Approval, Supply till Site, Storage, Erection, Commissioning, PG test, O&M.
- 2. A 20 MW /20 MWh BESS with 1C high-discharge operation to meet solar ramp rate limitations of $\pm 3\%$ per minute.
- 3. Minimum 8000 cycles rated.
- 4. At 33kV coupling Min 80% RTE with Aux , Min 86% without Aux , Min 20 MWH at end of first year 0&M at 33kV Point of coupling.
- 5. 5 years of O&M.



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- 6. 5 years -Extended warranty support from the start till completion of O&M.
- 7. At 33kV point of coupling BESS is to be designed to limit the variation of solar PV plant due to resource side variation like cloud movement. Solar output variation should not be more than 3 % per minute. vendor has to design the BESS with appropriate design and capacity for complete design life of the solar plant
- 8. Integration of BESS system with Solar to continuously monitor the solar output and accordingly enabling charging ad Discharging slots.
- 9. BESS to be Designed for Solar power charging, worst case scenario Grid charging.
- 10. LDC communication requirement is as per Sri Lankan grid code.
- 11. Grid studies (PSSE, PSCAD), Short circuit Analysis, Load flow analysis, relay coordination studies in vendor scope.

Brief scope of supplies & services are listed as below:

Sr. No.	Item Description	Qty.	Unit		
1	BESS Containers	1	Set		
2	BESS Containers to PCS cables	1	Set		
3	PCS system	1	Set		
4	PCS to Transformer cables	1	Set		
5	PCS duty Transformer	1	Set		
6	Transformer to HT panel cables	1	Set		
7	HT switchgear panels	1	Set		
8	Outdoor metering arrangements – main, check, standby	1	Set		
9	BMS, Master BMS, EMS system	1	Set		
10	BESS Auxillary system, FAS, Fire protection system	1	Set		
11	BOS (other than Specified Above)	1	Set		
	Fire Detection and Protection System	1			
	LT panels	1			
	Safety equipment, Tools and Tackels	1			
	Lightning Protection System	1]		
	Earthing System	1			
	Illumination System	1			
12	LT, control/Instrumentation Cables, Cable termination Kits, Lugs, Glads, Jointing Kits	1	Set		
14	UPS and Chargers with Battery	1			
	Auxiliary transformer	1			
	IR & CMCS switchyard equipment - SY fencing & gate, misc h/w	1			
	Signage-Marking plates & name plates, cheq plates, computer, AC, furniture, etc	1			
	Aux power cables	1			
	Cable tie and HDPE pipes	1			
	I&C of BOS components	1	1		
13	Mandatory Spares	1	Set		



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14	Civil Works associated with entire BESS project	1	Set
15	Site establishment (Site office, Accommodation, Vehicle facilities, Temporary power supply, etc)	1	Set
16	O&M of the plant for 5 years	1	Set
17	O&M Spares for 5 years	1	Set
18	EMS /Scada Integration with Solar PV plant	1	set
19	I&C of all the BESS supplied till 33kV	1	set
20	O&M for 5 years	1	set

2.5 INSTRUCTIONS

- Language: All correspondences and documents related to the EOI response shall be in English language, provided that any printed literature furnished by the prospective bidder 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.
- The response shall necessarily be accompanied with following details:
 - 1. Company Background
 - 2. Mandatory documents as per clause 2.6 above.
 - 3. Reference list of Customers
 - 4. Audited Annual Accounts along with Statutory Auditor's report for last 3 (three) years
- The prospective Bidder shall abide by the terms & conditions, as applicable, of the EOI.
- All pages of the response against this EOI shall be duly signed by the authorised signatory.
- BHEL at its discretion shall inspect the prospective bidder's works/office/reference site premises for the purpose of evaluation, as deemed necessary before selection of bidder. BHEL decision in this regard shall be final.
- Any prospective Bidder 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.
- The Bidder response shall necessarily be accompanied with details on company background, product profile, and relevant certificates and documents.



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2.6 VENDOR DOCUMENTS SUBMISSION TO EoI

- 1. Vendor's Experience details with respect to BESS projects as per PQC.
- 2. The vendor shall provide the detailed writeup with annexures in line with EOI requirements. Writeup shall include.
 - > RTE calculation till 5 years with and without aux power.
 - > Total Manpower requirement for Erection and commissioning and O&M.
 - > Timeline Breakup.
- 3. Sample Datasheet with List of IEC, UL, NFPA, IS and other standards will be complied by Vendor's BESS containers, PCS, cables, Transformers, HT switchgears, Scada, EMS.

2.7 CONFLICT OF INTEREST

Bidder shall not have a conflict of interest that affects the final Market tender bidding process. Any/all Bidders found to have a conflict of interest shall be disqualified. A Bidder may be considered to have a conflict of interest, if

- (a) Prospective Bidder is also engaged by other potential competitor.
- (b) Prospective Bidder lends, or temporarily seconds its personnel to other potential competitor organizations.
- (c) Any other conflict of interest criteria specified in the RFP.

2.8 PROCESS TO BE CONFIDENTIAL:

Information relating to the examination, clarification, evaluation and comparison of EOI and recommendations shall not be disclosed. Any effort by Prospective Bidder to influence BHEL in processing of EOI or selection decisions may result in the rejection of the response against EOI.

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

2.10 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.