

EXPRESSION OF INTEREST (EOI)

EOI NO. BHEL/NR/SCT/EOI/1201

FOR

INVITING EXPRESSION OF INTEREST (EOI) FOR
IDENTIFYING AGENCIES FOR SITE DATA
DIGITALISATION OF POWER PROJECT CONSTRUCTION
SITES.



BHARAT HEAVY ELECTRICALS LIMITED
(A Govt. of India Undertaking)
Power Sector-Northern Region, NOIDA

NOTICE INVITING EXPRESSION OF INTEREST

EOI NO. BHEL/NR/SCT/EOI/1201

Bharat Heavy Electricals Limited



NOTICE INVITING EXPRESSION OF INTEREST

Ref: BHEL/NR/SCT/EOI/1201

Date: 23/06/2020

EXPRESSION OF INTEREST (EOI)

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To,

Dear Sir / Madam,

Invitation Expression of Interest (EOI) to identify suitable agency capable of Study, Design, Development and hosting of an online web based low cost and innovative system/solution at BHEL Data Centre for capturing, processing and linkage of data generated during execution of works at Power Project Construction Sites, across formats, functions, activities etc. to facilitate outputs for quality, execution, vendor billing, customer billing, measurement sheets, progress reporting, material reconciliation, archival, etc.

This Expression of Interest (EOI) seeks response from qualified Applicants, who are willing to associate with BHEL for site data digitalisation of power project construction sites.

Sealed offers are invited from reputed & experienced Applicants (meeting 'Eligibility to quote/submit offer' mentioned in ANNEXURE – A1) for the subject job by the undersigned on the behalf of BHARAT HEAVY ELECTRICALS LIMITED as per the specification. Following relevant points may please be noted and complied with.

1.0 Salient Features of Notice inviting EOI:

| Sl. No | ISSUE | DESCRIPTION |
|--------|---------------------------|--|
| i) | EOI Number | BHEL/NR/SCT/EOI/1201 |
| ii) | Broad Scope of job | Expression of Interest (EOI) from suitable agency capable of Study, Design, Development and hosting of an online web based low cost and innovative system/solution at BHEL Data Centre for capturing, processing and linkage of data generated during execution of works at Power Project Construction Sites, across formats, functions, activities etc. to facilitate outputs for quality, execution, vendor billing, customer billing, measurement sheets, progress reporting, material reconciliation, archival, etc. |

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| iii) | Issue of Documents | Start date : 23/06/2020 Applicant may download the Documents from BHEL website (www.bhel.com → Tender Notification) EOI documents can be downloaded from website till due date of submission | Applicable |
| iv) | Due Date & Time of Offer Submission | Date : 08/07/2020, Time :15.00 Hrs Place : <u>BHEL – PSNR, Noida</u> Offers can be submitted through Post/ Courier / representative / in person at following address Sr. ENGINEER/ Sub - Contracting Deptt., BHEL- PSNR, Plot No. 25, Sector – 16A, Noida – 201301 Ph. No. 0120 – 2416261/ 7704808258 (BHEL will not be responsible for any delay or loss of document sent by post) | Applicable |
| v) | Opening of EOI | Date: 08/07/2020, Time :15.30 Hrs Notes: (1) In case the due date of opening of EOI offers becomes a non-working day, the same shall be opened on next working day at the same time. (2) Applicant may depute representative to witness the opening of offers | Applicable |
| vi) | EOI Document Cost | NIL | Not Applicable |

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| | | | |
|-------|-------------------------------------|---|------------|
| vii) | Last Date For Seeking Clarification | <p>At least 5 days before the due date of offer submission, along with soft version also, addressing to undersigned & to others as per contact address given below;</p> <p>1) Name: G.V. RAJA SEKHAR <i>Designation: Sr. MANAGER</i> <i>Deptt: SCT</i> <i>Address: BHEL-PSNR, PLOT NO. 25, SECTOR – 16A, NOIDA - 201301</i> <i>Phone: (Landline) 0120-2416232</i> <i>Email : gvr@bhel.in</i></p> <p>2) Name: DESHRAJ YADAV <i>Designation: Sr. ENGINEER</i> <i>Deptt: SCT</i> <i>Address: BHEL-PSNR, PLOT NO. 25, SECTOR – 16A, NOIDA - 201301</i> <i>Phone: (Landline) 0120 - 2416261</i> <i>Email : deshraj@bhel.in</i></p> | Applicable |
| viii) | Latest updates | <p>Latest updates on the important dates, Amendments, Correspondences, Corrigenda, Clarifications, Changes, Errata, Modifications, Revisions, etc to EOI Specifications will be hosted in BHEL webpage only (www.bhel.com → Tender Notification). Applicants to keep themselves updated with all such information. This also form part of EOI hence the same shall be enclosed with their offer.</p> | |

2.0 The offer shall be submitted as per the instructions of EOI document and as detailed in this Notice. Applicants to note specifically that all pages of EOI document, including these Notice pages of this particular EOI documents together with subsequent correspondences shall be submitted by them, **duly signed & stamped on each page, as part of offer.**

3.0 Procedure for Submission of EOI: Interested parties must submit their offer to the Officer inviting EOI, as detailed below:

**Sr. ENGINEER/ Sub - Contracting Deptt.,
BHEL- PSNR, Plot No. 25,
Sector – 16A, Noida – 201301
Ph. No. 0120 – 2416261/ 7704808258**

- Envelope consisting of 'EOI offer' in sealed and superscribed envelopes.
- One set of each document shall be retained by the Applicant for their reference.

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- 4.0** The contents for ENVELOPES and the superscription for sealed cover / Envelope are as given below. **(All pages to be signed and stamped)**

| Sl no | Description |
|-------|---|
| | <p><u>ENVELOPE – superscribed as :</u></p> <p>EOI No. NAME OF WORK: OFFER REF. NO.: DUE DATE OF SUBMISSION:</p> <p>CONTAINING THE FOLLOWING:-</p> |
| i. | Covering letter / Offer forwarding letter of the party. |
| ii. | <p>Duly filled-in 'No Deviation Certificate' as per prescribed format to be placed after document under sl no (i) above.</p> <p><u>Note:</u></p> <p>a. In case of any deviation, the same should be submitted separately indicating respective clauses of EOI against which deviation is taken by bidder. The list of such deviation shall be placed after document under sl no (i) above. It shall be specifically noted that deviation recorded elsewhere shall not be entertained.</p> <p>b. BHEL reserves the right to accept / reject the deviations without assigning any reasons, and BHEL decision is final and binding.</p> |
| iii. | <p>Supporting documents / annexure / schedules / drawing etc as required in line with Pre-Qualification Requirements.</p> <p>It shall be specifically noted that all documents as per above shall be indexed properly and credential certificates issued by clients shall distinctly bear the name of organization, contact phone no, FAX no, etc.</p> |
| iv. | All Amendments / Correspondences / Corrigenda / Clarifications / Changes / Errata etc. pertinent to this Notice Inviting EOI. |
| v. | Duly filled-in annexures, formats etc. as required under this EOI Specification / Notice |
| vi. | Notice Inviting EOI |
| vii. | EOI documents |
| viii. | Any other details preferred by Applicant with proper indexing. |

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SPECIAL NOTE:

- i. All documents / annexures submitted with the offer shall be properly attached / entered / uploaded in the respective sections. BHEL shall not be responsible for any missing documents.
 - ii. Your offer & documents submitted along with offer shall be signed & stamped in each page by your authorized representative. No overwriting/ correction in EOI documents by Applicants shall be allowed. However, if correction is unavoidable, the same may be signed by authorized signatory.
- 5.0** BHEL reserves the right to accept or reject any or all Offers without assigning any reasons thereof. BHEL also reserves the right to cancel the EOI wholly or partly without assigning any reason thereof. Also BHEL shall not entertain any correspondence from Applicants in this matter.
- 6.0** For any clarification on the EOI document, the Applicant may seek the same in writing or through e-mail, as per specified format, within the scheduled date for seeking clarification, from the office of the undersigned. BHEL shall not be responsible for receipt of queries after due date of seeking clarification due to postal delay or any other delays. Any clarification / query received after last date for seeking clarification may not be normally entertained by BHEL and no time extension will be given.
- 7.0** In the event of any conflict between requirement of any clause of this specification / documents etc. or requirements of different codes / standards specified, the same to be brought to the knowledge of BHEL in writing for clarification before due date of seeking clarification (whichever is applicable), otherwise, interpretation by BHEL shall prevail. Any typing error / missing pages / other clerical errors in the EOI documents, noticed must be pointed out before pre-bid meeting / submission of offer, else BHEL's interpretation shall prevail.
- 8.0** 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 this obligations or liabilities hereunder nor will it affect any rights of BHEL.
- 9.0** The EOI Process shall be governed by, and construed in accordance with, the laws of India and Courts at New Delhi shall have exclusive jurisdiction over all disputes arising under, pursuant to and/or in connection with the EOI process.
- 10.0** All cost incurred for participation in the EOI shall be borne by the Applicant(s).
- 11.0** The Applicant has to satisfy the 'Eligibility to quote/submit offer' stipulated for this EOI. BHEL reserves the right NOT to consider offers of parties under HOLD.
- 12.0** On submission of offer, further consideration will be subject to compliance to EOI & 'Eligibility to quote/submit offer', as applicable.

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- 13.0** The interested parties shall not enter into any undisclosed M.O.U. or any understanding amongst themselves with respect to the EOI.
- 14.0** The parties shall submit documents in support of possession of 'Eligibility to quote/submit offer' duly self-certified and stamped by the authorized signatory, indexed and properly linked in the format for Eligibility meet. In case BHEL requires any other documents / proofs, these shall be submitted immediately.
- 15.0** The interested party may have to produce original document for verification if so decided by BHEL.
- 16.0** It may be noted that guidelines / rules in respect of 'Suspension of Business dealings' available on BHEL web site "<http://www.bhel.com> → Supplier Registration", 'Vendor evaluation format', Quality, Safety & HSE guidelines', etc. may undergo change from time to time and the latest one shall be followed.
- 17.0** The party along with its associate / collaborators / sub-contractors / sub-vendors / consultants / service providers shall strictly adhere to BHEL Fraud Prevention Policy displayed on BHEL website <http://www.bhel.com> and shall immediately bring to the notice of BHEL Management about any fraud or suspected fraud as soon as it comes to their notice.
- 18.0** The offers of the Applicants who are on the banned/ hold list as also the offer of the Applicants, who engage the services of the banned/ hold firms, shall be rejected. The list of **banned/ hold firms** is available on BHEL web site www.bhel.com
- 19.0 Order of Precedence:**
- In the event of any ambiguity or conflict between the EOI Documents, the order of precedence shall be in the order below:**
- Amendments / Clarifications / Corrigenda / Errata etc. issued in respect of the EOI documents by BHEL
 - Notice Inviting EOI
 - Technical Conditions of EOI

For and on behalf of
BHARAT HEAVY ELECTRICALS LTD.
POWER SECTOR NORTHERN REGION

Enclosures:-

- Annexure-A1: Eligibility to quote/submit offer.
- Annexure-A2: Check List.
- Annexure-A3: Offer Forwarding Letter
- Annexure-A4: Declaration by authorised signatory of Applicant
- Annexure-A5: Declaration by authorised signatory of Applicant, regarding authenticity of submitted documents
- Annexure-A6: No deviation certificate
- Annexure-A7: Power of Attorney for submission of EOI
- Technical Conditions of EOI

NOTICE INVITING EXPRESSION OF INTEREST

ANNEXURE – A1

Eligibility to quote/submit offer

| | |
|----------------|--|
| JOB | INVITING EXPRESSION OF INTEREST (EOI) FOR IDENTIFYING AGENCIES FOR SITE DATA DIGITALISATION OF POWER PROJECT CONSTRUCTION SITES. |
| EOI No. | BHEL/NR/SCT/EOI/1201 |

| Sl. No. | Eligibility to quote/submit offer | Applicable/ Not Applicable | Applicants claim in respect fulfilling the Eligibility Criteria (Page no of supporting document. Applicant must fill up this column as per applicability) |
|----------------|---|-----------------------------------|---|
| 1 | Agencies who have developed, deployed and made go live projects involving data capturing online / on the go / as the process happens through mobile app or otherwise / offline, processing and reporting of information for at least two contracts preferably construction contracts having Civil/ Mechanical / Electrical works, in the last seven years preferably in power plants / Infrastructure/Industrial projects in full or part thereof from the date of the submission of the EOI. | Applicable | |

Note to parties submitting offer:

APPLICANT SHALL SUBMIT ABOVE ELIGIBILITY CRITERIA FORMAT, DULY FILLED-IN, SPECIFYING RESPECTIVE ANNEXURE NUMBER AGAINST EACH CRITERIA AND FURNISH RELEVANT DOCUMENT INCLUSIVE OF WORK ORDER AND WORK COMPLETION CERTIFICATE ETC. IN THE RESPECTIVE ANNEXURES IN THEIR OFFER.

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ANNEXURE – A2

CHECK LIST

NOTE: -Parties submitting offer are required to either fill in or submit separately the following details. No column should be left blank.

| | | | |
|----|---|--|------------------------------|
| 1 | Name and Address of the Parties/ Applicant | | |
| 2 | Details about type of the Firm/ Company | | |
| 3a | Details of Contact person for this offer: Name : Mr. / Ms. Designation: Telephone No: Mobile No: Fax No: E-mail ID: | | |
| 3b | Details of alternate Contact person for this offer: Name: Mr. / Ms. Designation: Telephone No: Mobile No: Fax No: E-mail ID: | | |
| 4 | Validity of offer | To be valid for Six Months from due date | |
| | | Applicability (By BHEL) | Enclosed by Applicant |
| 5 | Whether all pages of the EOI documents including annexures, appendices etc. are read and understood. | Applicable | Yes / No |
| 6 | Whether the format for compliance with Eligibility to quote/submit offer (ANNEXURE-A1) is understood and filled with proper supporting documents referenced in the specified format | Applicable | Yes / No |
| 7 | Submission of Copy of Balance sheet and Audited profit and Loss Account for the last three years | Applicable | Yes / No |
| 8 | Submission of Copy of PAN Card | Applicable | Yes / No |
| 9 | Copy of GST registration | Applicable | Yes / No |

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|----|---|------------|----------|
| 10 | Whether all pages of the offer documents are signed by the person authorized to sign this offer | Applicable | Yes / No |
| 11 | Offer forwarding letter / EOI submission letter (ANNEXURE-A3) | Applicable | Yes / No |
| 12 | Submission of Declaration by Authorized Signatory (ANNEXURE-A4) | Applicable | Yes / No |
| 13 | Declaration by Authorised Signatory regarding Authenticity of submitted documents (ANNEXURE-A5) | Applicable | Yes / No |
| 14 | Submission of No Deviation Certificate (ANNEXURE-A6) | Applicable | Yes / No |
| 15 | Submission of Power of Attorney for Submission of offer (ANNEXURE-A7) | Applicable | Yes / No |
| 16 | Copy of Organization Chart of the Applicant's organization, including the names, addresses and contact information of the Directors/Partners shall be furnished along with the offer. | Applicable | Yes / No |
| 17 | Copy of Registration / Incorporation certificate, Partnership Deed (Certified by Notary Public) as applicable for firm | Applicable | Yes / No |
| 18 | Information to be submitted along with EOI as per Annexures at sl. No. 14 of Technical Conditions of EOI. | Applicable | Yes / No |

NOTE:

1. STRIKE OFF 'YES' OR 'NO', AS APPLICABLE.
2. OFFERS NOT ACCOMPANIED BY THE ABOVE PRESCRIBED APPLICABLE DOCUMENTS, ARE LIABLE TO BE SUMMARILY REJECTED.
3. For above, the formats are available in "ANNEXURES-A1 to ANNEXURE-A7 of this Notice.

DATE:

AUTHORISED SIGNATORY
(With Name, Designation and Company seal)

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ANNEXURE – A3

OFFER FORWARDING LETTER / EOI SUBMISSION LETTER

(To be typed and submitted in the Letter Head of the Company/Firm of Applicant)

Offer Reference No:.....

Date:.....

To,

(Write Name & Address of Officer of BHEL inviting the EOI)

Dear Sir,

Sub: Submission of Offer against EOI No.

I/We hereby offer for EOI Specification issued by Bharat Heavy Electricals Limited, Power Sector-Northern Region, in accordance with the terms and conditions thereof.

I/We have carefully perused the following listed documents connected with the above EOI and agree to abide by the same.

- 1 Amendments / Clarifications / Corrigenda / Errata etc. issued in respect of the EOI documents by BHEL
- 2 Notice Inviting EOI
- 3 Technical Conditions of EOI
- 4 Forms and Procedures

Authorised Representative of Applicant

Signature :

Name :

Address :

Place:

Date:

NOTICE INVITING EXPRESSION OF INTEREST

ANNEXURE-A4

DECLARATION BY AUTHORISED SIGNATORY OF APPLICANT

(To be typed and submitted in the Letter Head of the Company / Firm of Applicant)

To,

(Write Name & Address of Officer of BHEL inviting the EOI)

Dear Sir,

Sub : **Declaration by Authorised Signatory**

Ref : 1) EOI No:,
2) All other pertinent issues till date

I/We, hereby certify that all the information and data furnished by me with regard to the above EOI Specification are true and complete to the best of my knowledge. I have gone through the specifications, conditions, stipulations and all other pertinent issues till date, and agree to comply with the requirements and Intent of the specification.

I further certify that I am authorised to represent on behalf of my Company/Firm for the above mentioned EOI and a valid Power of Attorney to this effect is also enclosed.

Yours faithfully,

(Signature, Date & Seal of Authorized
Signatory of the Applicant)

Date:

Enclosed : Power of Attorney (in line with Annexure – A7)

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ANNEXURE-A5

DECLARATION BY AUTHORISED SIGNATORY OF APPLICANT

(To be typed and submitted in the Letter Head of the Company/Firm of Applicant)

To,

(Write Name & Address of Officer of BHEL inviting the EOI)

Dear Sir,

Sub : Declaration by Authorised Signatory regarding Authenticity of submitted documents.

Ref : 1) EOI No:,

2) All other pertinent issues till date

I/We, hereby certify that all the documents submitted by us in support of possession of "Pre-Qualifying Requirements" are true copies of the original and are fully compliant required for qualifying / applying in the EOI and shall produce the original of same as and when required by Bharat Heavy Electricals Limited.

I / We hereby further confirm that no tampering is done with documents submitted in support of our qualification as Applicant. I / We understand that at any stage (during EOI process) if it is found that fake / false / forged bid qualifying / supporting documents / certificates were submitted, it would lead to summarily rejection of our EOI. BHEL shall be at liberty to initiate other appropriate actions as per the terms of the EOI and other extant policies of Bharat Heavy Electricals Limited.

Yours faithfully,

(Signature, Date & Seal of Authorized
Signatory of the Applicant)

Date:

NOTICE INVITING EXPRESSION OF INTEREST

ANNEXURE-A6

NO DEVIATION CERTIFICATE

(To be typed and submitted in the Letter Head of the Company / Firm of Applicant)

To,

(Write Name & Address of Officer of BHEL inviting the EOI)

Dear Sir,

Sub : **No Deviation Certificate**

Ref : 1) EOI Specification No:
2) All other pertinent issues till date

We hereby confirm that we have not changed/ modified/ materially altered any of the EOI documents as downloaded from the website/ issued by BHEL and in case of such observance at any stage, it shall be treated as null and void.

We also hereby confirm that we have neither set any Terms and Conditions and nor have we taken any deviation from the EOI conditions together with other references applicable for the above referred EOI Specification.

We further confirm our unqualified acceptance to all Terms and Conditions, unqualified compliance to EOI Conditions, Integrity Pact (if applicable) and acceptance to Reverse Auctioning process.

We confirm to have submitted offer in accordance with EOI instructions and as per aforesaid references.

Thanking you,

Yours faithfully,

(Signature, date & seal of authorized
representative of the Applicant)

NOTICE INVITING EXPRESSION OF INTEREST

ANNEXURE-A7

POWER OF ATTORNEY for SUBMISSION OF EOI (To be typed on non-judicial stamp paper of minimum Rs. 100/- and Notarized)

KNOW ALL MEN BY THESE PRESENTS, that I/We do hereby make, nominate, constitute and appoint Mr , whose signature given below herewith to be true and lawful Attorney of M/s..... hereinafter called 'Company', for submitting offer for EOI and inter alia, sign, execute all papers and to do necessary lawful acts on behalf of Company with M/s Bharat Heavy Electricals Ltd, Power Sector _____ Region, _____, in connection with

.....
.....

..... vide EOI No : _____, dated _____ . And the Company do hereby agree to ratify and confirm all acts, deeds, things or proceedings as may be lawfully done by the said attorney and by or on behalf of the company and in the name of the company, by virtue of the powers conferred herein and the same shall be binding on the company and shall have full force and effect. IN WITNESS WHEREOF the common seal of the company has been hereunto affixed in the manner hereinafter appearing on the document.

Dated at _____, this _____ day of _____

Director/CMD/Partner/Proprietor

Signature of Mr.....(Attorney)

Attested by: Director/CMD/Partner/Proprietor

Witness

Notary Public



TECHNICAL CONDITIONS OF EOI (TCE)

BHARAT HEAVY ELECTRICALS LIMITED



TECHNICAL CONDITIONS OF EOI

DISCLAIMER

All information contained in this Expression of Interest (EOI) is in good interest and faith. The information contained in this EOI document and the information/clarification subsequently to be provided to Applicant(s), whether verbally or in documentary or in any other form, by or on behalf of BHEL would not be construed to alter the terms and conditions set out in this EOI in anyway.

The purpose of this EOI is to identify suitable Agencies for Study, Design, Development and hosting of an online web based low cost and innovative system/solution at BHEL Data Centre for capturing, processing and reporting of Data generated during execution of works at Power Project Construction Sites.

This EOI is not an offer by BHEL to the prospective Applicant(s) or any other person. This EOI is neither intended nor shall it be construed as creating or requiring any ongoing or continuing relationship or commitment with any party or person. This is not an offer or invitation to enter into an agreement of any kind with any party. Though adequate care has been exercised in the preparation of this EOI document, the interested firms shall satisfy itself regarding completeness of this document in all respects. The information is not intended to be exhaustive. Interested Agencies are required to make their own enquiries and assumptions wherever required. Intimation of discrepancy, if any, should be given to the specified office immediately. If required, pre-bid discussion can be arranged. If no intimation is received by this office by the date mentioned in the document, it shall be deemed that the EOI document is complete in all respects and firms submitting their interest are satisfied with the EOI Document in all respects.

The issue of this EOI does not imply that BHEL is bound to select and shortlist Applicant(s) or to enter into any agreement(s) with any Applicant(s). BHEL reserves all right to reject any application submitted in response to this EOI document at any stage without assigning any reasons thereof. BHEL also reserves the right to withhold or withdraw the process at any stage. Neither BHEL, nor its employees and associates will have any liability on any loss, expense or damage which may arise from or be incurred or suffered in connection with this EOI. BHEL accepts no liability of any nature whether resulting from negligence or otherwise howsoever caused arising from reliance/use of any statements/information contained in this EOI by the Applicant. BHEL is not making any representation or warranty, express or implied, as to the accuracy or completeness of any information/statements made in this EOI.

The Applicant shall bear all its costs associated with or relating to the preparation and submission of its Application including but not limited to preparation, copying, postage, delivery, fees, expenses associated with any demonstrations or presentations which may be required by BHEL or any other costs incurred in connection with or relating to its Application. All such costs and expenses will remain with the Applicant and BHEL shall not be liable in any manner whatsoever for the same or for any other costs or other expenses incurred by an Applicant in preparation or submission of the Application, regardless of the conduct or outcome of the EOI.

Expression of Interest

1. Intent of EOI:

The intent is to identify suitable agency capable of Study, Design, Development and hosting of an online web based low cost and innovative system/solution at BHEL Data Centre for capturing, processing and linkage of data generated during execution of works at Power Project Construction Sites, across formats, functions, activities etc. to facilitate outputs for quality, execution, vendor billing, customer billing, measurement sheets, progress reporting, material reconciliation, archival, etc.

2. About BHEL:

Established in 1964, Bharat Heavy Electricals Limited (BHEL) is the largest engineering and manufacturing enterprise in India in the energy and infrastructure sector with the capability to manufacture the entire range of power plant equipment. BHEL caters to core sectors like Power Generation, Transmission, Industry, Transportation, Renewable Energy, Oil & Gas, Water, Defence & Aerospace, and e-Mobility & Energy Storage Solutions, and has references in 83 countries across the globe. BHEL's mammoth size of operations is evident from its widespread network of 16 Manufacturing Units, 2 Repair Units, 4 Regional Offices, 8 Service Centres, 1 subsidiary, 3 Overseas Offices, 3 active Joint Ventures, 15 Regional Marketing Centres and more than 150 project sites across India and abroad. More details about the entire range of BHEL's products and operations can be obtained by visiting our web site www.bhel.com.

3. Background:

Currently, BHEL has around 100 plus ongoing projects. BHEL Typical Contracts include the following :

Hydro

- EPC - Engineering, Procurement & Construction is done by BHEL.
- Electro Mechanical — Storage, Material handling, Erection, Testing & Commissioning of Turbine and Generator is done by BHEL.

Thermal

- EPC — Engineering, Procurement & Construction is done by BHEL.
- BTG — Storage, Material handling, Erection, Testing & Commissioning of Boiler, Turbine and Generator is done by BHEL.

4. Information Technology in BHEL:

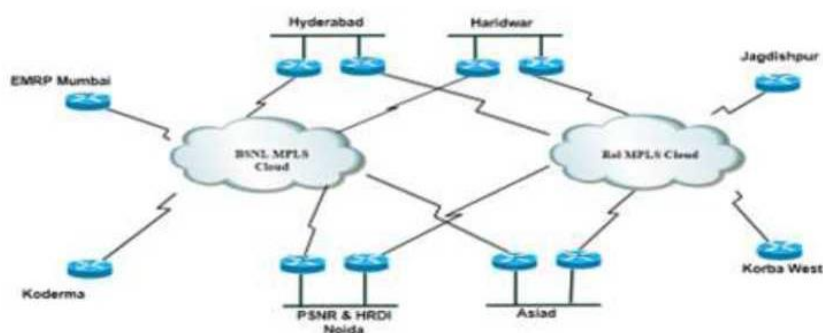
In BHEL, Information Technology has deeply penetrated all the functional areas and it is suitably deployed in various facets of company's operations. The company has substantially introduced IT in its Engineering, Manufacturing, and Materials Management & Production functions. IT initiatives have been taken up so as to meet the emerging demands of the business challenges of the New Economy.

4.1. Infrastructure

All Units and Divisions have their own computing resources as per their perceived needs. Local connectivity of different departments and groups have been achieved through state of the art LAN technologies (Giga Bit Ethernet/ Fiber optics). BHEL has established its Corporate Level Wide Area Network on MPLS based technology linking Manufacturing Units, Service Divisions, Project Sites and offices. This has enabled exchange of information across the Units / Divisions in a secured way. This network MPLS interconnects all locations of BHEL across the country on OFC/RF Links.

TECHNICAL CONDITIONS OF EOI

BHEL WAN Illustrative Schematic



4.2. Business Applications & Other software used

Integrated end to end Business Applications, largely rendered in web, have been developed and used at various manufacturing units within various processes from receipt of work order to dispatch of equipment.

A number of Web based applications are being developed and implemented in various functions across various Units/Regions/Business Sectors for their local operations. Some Corporate wide web applications have also been developed over a period of time, mostly RDBMS & J2EE is the technology for application development.

All engineering centres are well equipped with engineering workstations using advance Engineering Software for Designing, Modelling, Analysis and Drafting etc. Electronic Depositories, with appropriate work flow & change control, have been implemented particularly for Engineering Documents at major units.

4.3. Information Systems and ERP in BHEL

Currently, major Manufacturing Units of BHEL have implemented Information Systems (either based on SAP ERP or developed in-house) to meet their Unit specific business requirements while Business Sectors and other Manufacturing Units/ Divisions and Regions have moderate level of computerization in place.

BHEL has implemented SAP for its unit level operations at Trichy, Hyderabad, EDN Bangalore, EPD Bangalore and HPVP Vizag. Also SAP-HCM module has been implemented in BHEL at Corporate Level.

4.4. Existing Network Infrastructure:

BHEL is using MPLS connectivity from multiple service providers to connect their locations. The BHEL locations are connected through multiple connectivity options with redundancy as required.

5. **Existing status of information capturing at Project sites:**

Major operations at our project sites are managed through standalone systems. Execution of projects with large scope leads to humongous data generation at site which are used for purpose of quality, progress reporting, billing, etc. At present, all these data are being captured and stored physically or in individual work sheets by different people at project sites in various formats, accessed and processed by the respective process owners at site to carry out planning, progress review, inspection, quality and billing related works.

6. Site Data Digitalisation:

Digitalisation of the large bulk of site data pertaining to day to day site activities related to inspection, measurement, civil/mechanical/electrical/C&I etc. works, erection & commissioning, quality checks, protocols, log sheets, activity/milestone data, vendor billing, measurement sheets, chronology of events, various types of formats, etc. from a wide variety of channels is required to aggregate the information for analysis, planning, timely responses, etc. for effective managerial decision making.

The proposed system may require data exchange with other BHEL systems including IPMS(Integrated Project Management System), which is under development and includes broad based planning and progress updation of construction of projects.

The data is to be captured preferably as and when it is generated into an online system where ever possible/practical with flexibility to upload offline too, through an easy to use interface. The data so captured should be integrated across formats, usages and available for various outputs. Latest technology is to be proposed for the data capture system with flexibility to capture and integrate photos and real-time GPS coordinates if required.

The data captured at various instances/locations should enable outputs for the function of inspection and quality approvals, log sheets and protocols, vendor and customer billing, site execution planning, site resource management, etc.

The IT system should be designed keeping in view the following broad requirements:

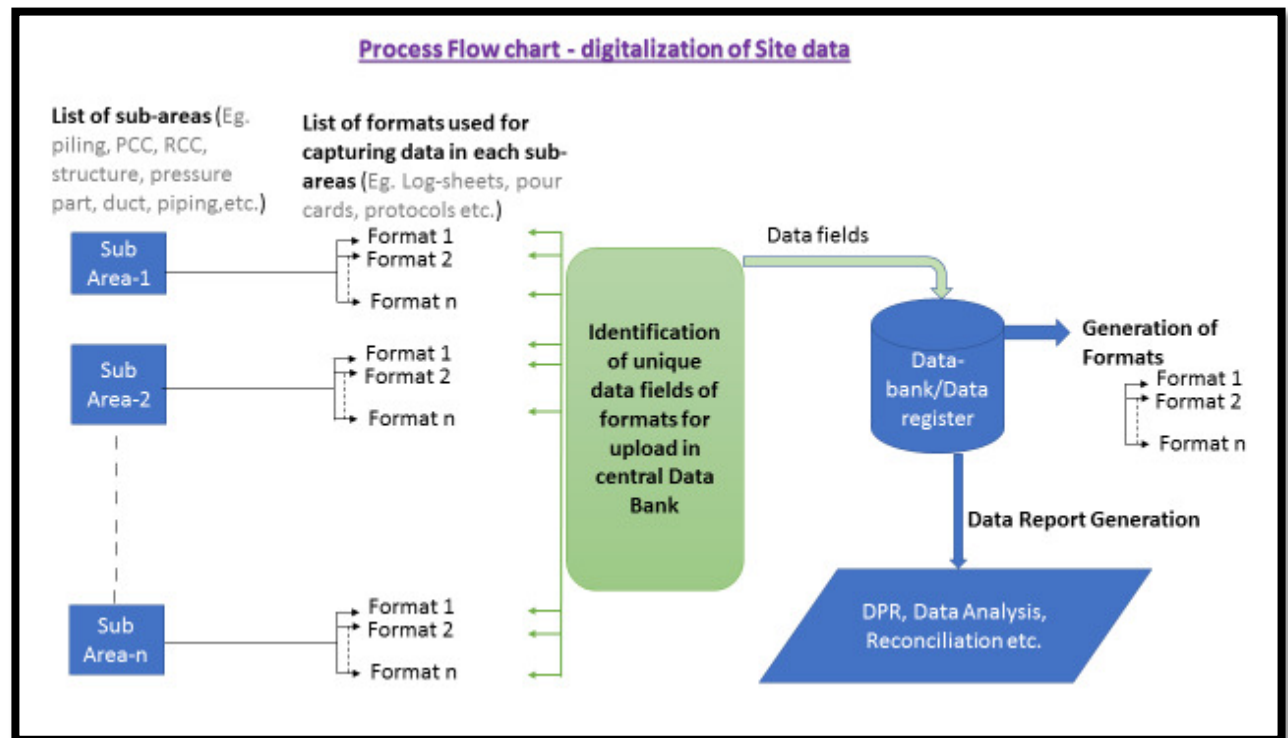
- i). Online data recording and documentation processes at site.
- ii). Vendor billing (bill generation, verification and processing)
- iii). Customer billing (bill generation)
- iv). Generation of protocols, site registers and other documents. However, Region wise/ Customer wise formats may differ from site to site. These formats should be downloadable in editable form also like (word/excel) as required. Provision of uploading of final format shall be provided for upload of final document by site for future reference.
- v). Archiving and processing of all the records and documents generated at site.

7. Brief Scope of work:

Through this EOI, BHEL intends to identify suitable agencies from India for Study, Design, Development and hosting of an online web based low cost and innovative system/solution at BHEL Data Centre for capturing, processing and reporting of Data generated during execution of works at Power Project Construction Sites.

8. Process flowchart:

8.1. Typical flowchart for digitalization of site data



- 8.2. Data digitalization is to cover a large gamut of Site activities comprising of number of packages of different variety. Tentative list of package is given at Annexure-1.
- 8.3. Sample formats for the purpose of digitalization are attached for ready reference at Annexure-2.
- 8.4. The IT system should provide simple user friendly interface to enable data capturing. System to comply with information security policies of BHEL.
- 8.5. Users of the systems may be classified in the following categories:
 - i). Vendor engineers
 - ii). Task Performer / Package managers at Project sites
 - iii). Package in-charges at Project sites
 - iv). Planning group & Construction Manager at Project sites
 - v). Project users at Region HQ / PSHQ
 - vi). Dash Board for Top Management

Matrix of user permissions required.

- 8.6. User training will also be part of the contract.

9. Modes of data capture in addition to existing common system interface-

9.1. Excel :

Apart from web based interface for entering data into system, additional provision of capturing data from excel file should be provided for offline mode of input.

System will generate input form for entering data at site as done for all other web based system and also provide a provision for downloading this input form in excel. This excel may contain fields from one single master file or multiple master files as per requirement.

TECHNICAL CONDITIONS OF EOI

User will enter value against required fields and upload this data. System will cross check it w.r.t. Master values available in the system and save if data is in order. For any variation, exception warning shall be given by the system.

- 9.2. App based entry by mobile (generic), electronic tablets for entry in Log sheets, measurement sheets, protocols directly from the field/work area for verification and approval.

10. Other terms and conditions:

- 10.1. There should be facility to add new projects and those projects where work has already progressed to some extent with existing data capturing methods.
- 10.2. The solution provided will be property of BHEL. All source codes & license to be provided to BHEL. User manuals for system loading, configuration and administration along with end user manuals to be provided to BHEL.
- 10.3. The vendor has to provide assistance in administration, backup / restoration, change management of the solution and support for 8 quarters. The system to be developed by vendor's team at their premises and host the solution with the help of their system engineer at BHEL Data Centre.
- 10.4. Initially site data digitalization process is planned to be implemented at 4 projects (tentatively at Khurja, Panki, Bhusawal and Sagardighi) for which the user support is to be provided by vendor's support engineer posted at project site (for 8 quarters) at each location. Service of support engineer shall be provided whenever new projects are taken up for implementation for the time period as decided by BHEL. To understand the process of work, vendor may need to visit other working sites.
- 10.5. 99.5% uptime on 24x7 basis to be maintained for the solution provided. A service level agreement will have to be signed with BHEL.
- 10.6. 24x7 support is required at BHEL data centre. It can be provided remotely or by visiting the data centre as per need.
- 10.7. Support engineer at project site will assist users in operating of solution, help users in downloading and configuring Mobile applications on different platforms to be available on all working days of the project site. Security measure to be provided for use of only authorized mobile phones/ users to use the APP/system. Any problems faced at site need to be resolved within 2 hours of reporting to the support engineer. Record of such problems resolved to be kept by support engineer and to be got verified from BHEL site engineer and to be submitted with the bills.
- 10.8. The solution should work over BHEL MPLS network or internet both on HTTPS.
- 10.9. Any license issues, up-gradation, change in platform, Data base / software /application etc. is to be managed by vendor at no extra cost to BHEL during the tenure of contract. Initially BHEL will rollout solution on four sites. System should have the facility to add new project sites which will replicate all relevant formats and necessary systems at no extra cost.
- 10.10. At the end of contract, selection of AMC may be awarded through tendering. If the old vendor is not selected, then the old vendor will assist in switch over of the AMC vendor and provide uninterrupted support for 30 days

11. Contract Period

The time schedule for implementation is as follows:

TECHNICAL CONDITIONS OF EOI

| Sl.No | Event | No. of days from award of WO |
|--|---|------------------------------|
| Phase-1 | | |
| i. | Study, design, develop, host solution and start of data capture for : | |
| a. | Civil & Structure works | 30 |
| b. | Boiler/ESP, TG | 45 |
| c. | Reports generation start | 60 |
| d. | Vendor Bill generation linked with protocols | 75 |
| ii. | Logical completion of activities from “a” to “d” under phase-1 | 135 |
| Phase-2 | | |
| Study, design, develop, host solution, data capture, report generation, vendor bill generation linked with protocols for: Pipelines, Electricals, C&I, Balance of Plants, etc. | | 175 |

AMC support shall be provided for two years

12. Eligibility to quote/submit offer:

Agencies who have developed, deployed and made go live projects involving data capturing online / on the go / as the process happens through mobile app or otherwise / offline, processing and reporting of information for at least two contracts preferably construction contracts having Civil/ Mechanical / Electrical works, in the last seven years preferably in power plants / Infrastructure/Industrial projects in full or part thereof from the date of the submission of the EOI.

13. Inputs by BHEL:

13.1. Following servers are available at the data centre:

- i). BHEL shall provide Server for the hosting of application related to site Digitalization system.
 - ✓ Cisco UCS C240 M4S Server (Processor: Intel Xeon E5-2640 v4 @ 2.40GHz;RAM: 2 x 32 GB DDR4 ;HDD: 6 x 600 GB in RAID 5)
 - ✓ HP PROLIANT DL 380 G7 SERVER - Intel Xeon RAM 16 GB - 24 GB 64 Bit / 32 Bit - Raid-5 - 500 GB (After Raid RAID)

No intermediate stage server available.

- ii). RAM can be upgraded as per requirements.
- iii). For Storage - SAN or NAS can be assigned depending on the data size.

Note: Any other hardware / software or accessories required for successful running of the system to be provided by the vendor.

13.2. Team of package/ subject experts will interact with the vendor for the following-

- i). Process mapping of data - from capture to vendor billing & customer billing;
- ii). Identify the functions which are required to be included in the system for addressing above;
- iii). Prepare a function-wise process flowchart;

TECHNICAL CONDITIONS OF EOI

- iv). Mapping of data to be captured, document/report to be generated, in function-wise process flowchart and associated approvals;
- v). Identification of data points or documents required from outside agency (such as PEM, ISG, Region HQs, Units, etc.) to ensure minimum data entry at site (for example: reference data like dimensions, quantities, activity description, etc. from engineering drawings, shipping list, FQP, etc. for pre-filling of all such detail);

13.3. Pre-bid discussion can be arranged, if required.

14. General Information

- i) Responses to EOI are to be submitted in English only. Supporting documents, as required, should also be in English language. In case of some documents being available in languages other than English, the Applicant shall necessarily provide duly authenticated translated version of the same in English.
- ii) Complete document in all respects shall be duly signed & stamped on each and every page by the authorized signatory of the Agency as a token of acceptance of all the terms and conditions of EOI.
- iii) Notwithstanding anything contained in this EOI, BHEL reserves the right to accept or reject any Application and to annul the EOI Process in whole or part, at any time without any liability or any obligation for such acceptance, rejection or annulment without assigning any reasons thereof.
- iv) BHEL reserves the right to verify all statements, information and documents submitted by the Agency in response to the EOI. Any such verification or lack of such verification by BHEL shall not relieve the Agency of his obligations or liabilities hereunder nor will it affect any rights of BHEL.
- v) The EOI process shall be governed by, and construed in accordance with, the laws of India and the Courts at New Delhi shall have exclusive jurisdiction over all disputes arising under, pursuant to and/ or in connection with the EOI process.
- vi) Response from the countries, organizations, groups, individuals, etc. with
- vii) whom import/ export are banned/ prohibited as per the Indian Foreign Trade Policy shall not be considered.
- viii) The offers of the Agencies who are on the banned/ hold list as also the offer of the Agencies, who engage the services of the banned/ hold firms, shall be rejected. The list of banned/ hold firms is available on BHEL web site www.bhel.com.
- ix) All costs incurred for participation in the EOI shall be borne by the Agency(s). No advance is payable by BHEL.

15. Information to be submitted along with EOI

Interested Agencies are requested to submit the details of their proposed solutions, technical and financial credentials along with other relevant information in the form of documents listed below

- i) Write-up of the proposed solution, including technology / platform used, deployment of support engineer at project site, etc.
- ii) Budgetary offer including payment terms
- iii) Profile of company indicating type of business and experience in developing innovative solutions in construction industry having Civil / Mechanical and electrical

TECHNICAL CONDITIONS OF EOI

- areas in capturing data as and when generated, processing and reporting in desired manner (must have complete at least two contracts).
- iv) Duly filled in EOI form as per Annexure-3 format
 - v) Experience details as per Annexure 4 format
 - vi) Details of Manpower as per Annexure 5 format
 - vii) Financial details as per Annexure 6 format

The details submitted by the Agency (s) shall be complete in all respects and BHEL may seek clarifications / additional information as considered necessary.

EOI Form
[Annexure-1]

Typical List of Packages

- 1 Topographical Survey & Geotechnical Investigation
- 2 Land Development works including Grading
- 3 Civil & Structural works including Piling.
- 4 Mechanical Works like Boiler, ESP, Piping, Turbine, insulation works etc.
- 5 Chimney and Cooling Towers etc.
- 6 Electrical and C&I systems
- 7 Balance of Plant systems

Note: The above are indicative packages / areas of work. Scope of digitalization may include other areas not indicated herein.

ANNEXURE 2

- i). Piling Data sheet, Pour cards for Pile cap and RCC works (*Annexure_Ph1*)
- ii). Cube test reports for RCC works (*Annexure_Ph1*)
- iii). Protocols for RCC Chimney to record Verticality/ Dia/ Thickness at given intervals (*Annexure_Ph1*)
- iv). Checklist for TG Slab concreting (*Annexure_Ph1*)
- v). Protocols for structural work (Fabrication, Erection, Alignment) (*Annexure C3_Formats - Structural Log sheet*)
- vi). FQP OF Electrical Scope (*Annexure E1_FQP OF Electrical Scope*)
- vii). Boiler welding/RT/UT details (*Annexure B2_Formats used related to Boiler & piping work Part 1, part 2*)
- viii). Log sheets for Boiler & Bunker Structure (*Annexure B1_ Boiler Bunker Structure*)
- ix). Log sheets for condenser (*Annexure TG1_Condenser*)
- x). Reconciliation Statement for steel (*Annexure_O1_Reconciliation Statement*)

**[Annexure-3]**

Firm's ref. No:

Date :

Subject: Response to EOI for identifying Agencies for Site Data Digitalisation of Power Project construction sites

In response to your EOI, we are pleased to submit the details of our firm as below:

| | | |
|----|---|--|
| 1. | Name of the firm and Website | |
| 2 | Name of the Proprietor/MD/CEO | |
| 3 | Address of firm | |
| 4 | Contact Person with Designation and Mobile No & Email | |
| 5 | Any Other information | |

(Sign & Company Seal)
Authorized Signature

**[Annexure-4]
Experience Details**

Firm's ref. No:

Date :

Details of successfully completed projects involving data capturing online / on the go / as the process happens through mobile app or otherwise, processing and reporting of information for at least two construction contracts preferably having Civil, Mechanical and Electrical works, in the last five years preferably in power plants / Infrastructure/Industrial projects in full or part thereof from the date of the submission of the EOI

| Sl. No. | Name of Client and Name of work | Brief Scope and Specialty of work | Date of award | Date of Completion as per award | % Completion of work as on date | Value of work completed | Attachments* (As applicable) |
|---------|---------------------------------|-----------------------------------|---------------|---------------------------------|---------------------------------|-------------------------|------------------------------|
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

(*supporting documents like Work Order, Scope of Work, Work Completion Certificate, Performance Certificate etc.)

(Sign & Company Seal)
Authorized Signature



**[Annexure-5]
Details of Manpower**

Firm's ref. No:

Date :

Manpower Statistics

| Description | No. of Staffs on Company Roll | |
|-------------------------|-------------------------------|-----------------|
| | Engineering Staff | Execution Staff |
| IT Staff expertise wise | | |

(Sign & Company Seal)
Authorized Signature



**[Annexure-6]
Financial Details**

Firm's ref. No:

Date :

| Description/ Details | FY 2018-19 | FY 2017-18 | FY 2016-17 |
|----------------------|------------|------------|------------|
| Turn Over | | | |
| Net Worth | | | |

Note- Agency to furnish the audited financial accounts (including auditor's report, balance sheet, profit & loss account and notes) of the last three years

(Sign & Company Seal)
Authorized Signature