BHARAT HEAVY ELECTRICALS LIMITED
CENTRAL FOUNDRY FORGE PLANT
RANIPUR, HARIDWAR - 249403

NOTICE INVITING EXPRESSION OF INTEREST

Date: 13-12-2024

Sealed Expression(s) of Interest (EOI) are invited through registered post/speed post/courier/by hand/ through Email on or before **06.01.2025** from **capable and interested parties** for the under-mentioned work.

Last date of **SUBMISSION** of EOI	:	**06.01.2025**
Place of **SUBMISSION** of EOI	:	**Sr. Dy. General Manager** **M&S and Subcontracting** **Central Foundry Forge Plant** **Bharat Heavy Electricals Limited** **Ranipur, Haridwar – 249403,** **Uttarakhand, India** **Email : anuragkk@bhel.in; kjs@bhel.in** **Phone No.: +91-9412070548/ +91-7814855522**

SUBJECT: Residual Life assessment of Cranes installed in CFFP, BHEL, Haridwar

1. **Introduction:**

This Expression of Interest (EoI) seeks response from organizations/companies/industries that are willing to and are capable of designing, engineering, manufacturing, assembling, reconditioning/retrofitting, erection, commissioning, testing, servicing and providing spare parts EOT Cranes, BHEL Haridwar.

1.1 About Bharat Heavy Electricals Limited (BHEL):

BHEL is a leading state owned company wherein Government of India is holding 63.06% of equity. BHEL is an integrated power plant equipment manufacturer and one of the largest engineering and manufacturing company of its kind in India engaged in core sectors of the economy, viz. Power, Transmission, Industry, Transportation (Railways), Renewable Energy, Oil & Gas, Water and Defence with over 180 products offerings to meet the needs of these sectors. A widespread network of 17 Manufacturing Divisions, 2 Repair Units, 4 Regional Offices, 8 Service Centres, 6 Overseas Offices, 6 Joint Ventures, 15 Regional Marketing Centres and current project execution at more than 150 project sites across India and abroad corroborates the humungous scale and size of its operations. BHEL also has a widespread overseas footprint in 80 countries with cumulative overseas installed capacity of BHEL manufactured power plants nearing 10,000 MW including Belarus, Bhutan, Egypt, Indonesia, Iraq, Kazakhstan, Malaysia, New Zealand, Oman, Rwanda, Sudan, Tajikistan and UAE. 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 including General Electric Company, Alstom SA, Siemens AG and Mitsubishi Heavy Industries Ltd., together with technologies developed in its own R&D centres.

1.2 About Central Foundry Forge Plant (CFFP):

Incepted in 1976, CFFP is a strategic business unit of BHEL. CFFP is catering to the needs of steel castings and forgings mainly for the power plant equipment along with other industries such as steel, cement plants, defence, ship building etc. CFFP has received various accolades and certificates such as ISO-9001 from BVC, ISO 14000 and ISO 18000 from TUV-SUD and ISO 50001 from BSI.

CFFP has Steel Melting Shop (SMS) with capacity to pour 130 T liquid steel to cater to the needs of foundry and forge divisions. It has ability to melt and process wide variety of steel grades right from plain carbon grades to creep resistant, super critical and high chromium stainless steels. Steel Foundry (SF) of CFFP makes steel castings from 500 kg to 63 MT single piece weight and cast fabricated castings up to 120 MT weight. It caters to various needs of power plant manufacturing, steel industry, ship building, defence, infrastructure etc. Heavy Forge Shop (HFS) and Medium Forge Shop (MFS) have facilities to manufacture heat treated and machined forgings up to 34 MT piece weight with product range including shafts, discs, rings and sleeves.

Total 65 Nos. EOT cranes (mainly Class IV) installed in CFFP.

2. Scope of Cooperation:

BHEL is seeking Expression of Interest (EOI) from experienced vendors for Manufacturing/ reconditioning/ revamping/ Residual Life Assessment of Cranes to meet its operational requirements. Interested vendors of repute with proven credentials of having executed similar work are invited to respond to this EOI, as per indicative scope of work provided in **Annexure – 1**.

Before submitting the offer interested parties/ vendors are requested to visit the site for first hand appraisal of work

Upon receipt of responses against EOI from such vendors, BHEL will review the responses to ascertain suitability of the offer made by the prospective contractor/ vendor and shortlist the contractor/ vendor for further discussions. Detailed discussions on commercial and other terms and conditions to float the tender enquiry and subsequently, finalise the Work Order shall be held with shortlisted vendors. The detailed terms and conditions for such a contract shall be mutually agreed upon.

3. Brief Description of EoI Process:

The interested prospective vendors shall ensure that their response along with annexures indicating technical features of System as per **Annexure-2** and experience in the field of Crane Manufacturing/ Reconditioning/ RLA as per **Annexure-3** are received by BHEL on or before **6th January 2025**. The response shall necessarily be accompanied with details on company background, product profile, system proposed along with its technical details, reference list of

customers, performance certificate from customers, product data sheet (if any) and annual audited financial reports for last 3 (three) years including auditor's report.

In case any further information is needed, vendors can contact CFFP.

The applicant shall submit their offer with all annexures duly signed and stamped. Your response is to be sent to the following address/s:

Sr. Dy. General Manager
M&S and Sub-contracting
Central Foundry Forge Plant
Bharat Heavy Electricals Limited
Ranipur, Haridwar – 249403,
Uttarakhand, India
Phone: +91 1334 281299
Email: anuragkk@bhel.in; kjs@bhel.in
Phone No.: +91-9412070548/ +91-7814855522

Annexure – 1

Indicative Scope of Work: Residual Life Assessment of Cranes

1. Inspection and assessment of present condition of crane and its components.
2. Study of prevailing operational aspects and usage pattern of the crane.
3. Detailed design calculations, analysis, and assessment of details to arrive at the design working period.
4. Thorough inspection of critical components of crane

The components to be checked but not limited to the list below:

A). Electrical components & Electronic components:

1. Control Panel & Junction boxes
2. Motors & Drives
3. Switchgears
4. Safety devices
5. DSL (Busbar) & Current collectors.
6. Functional check of electrical interlocks
7. Load limiter

B). Mechanical components:

1. Critical dimensions (crane geometry) of crane
2. Tackles attached to the crane hook
3. Gear boxes
4. Lubrication system
5. End carriage assemblies
6. Wire rope & Wire rope drum
7. Couplings and bearings
8. Pulleys inspection
9. Brakes
10. Wheels and rails

C). Structure:

1. Tightness of structural joints and splice joints (if applicable).
2. Visual check of weld joints on structure.
3. Metallography on Girders and structural members.
4. Non-destructive testing (DP/MPI/UT) of critical weld joints.

Post-Inspection Deliverables by Vendor/Contractor: **After inspection of the crane the vendor/ contractor will provide**

1. Recommendations for replacement/ recondition of items immediate basis along with the specifications to maintain the health of the Cranes
2. Recommendations' for safe Working load of the crane based on current condition of crane.

3. Comprehensive recommendation on operational, maintenance and safety aspects to enhance reliability, minimize the downtime.
4. Provide the detailed specification for renovation and reconditioning of the crane.

Note:

1. Vendor will also quote approximate budget/price for the entire work
2. Drawings of the existing system will be provided by BHEL.

Annexure – 2

Brief Details of Cranes to be undertaken for RLA

S No.	Crane Capacity	Class	Location	SPAN	Year of Installation	Make
1	50T/ 20T	Class IV	Machine Shop	26.5 m	2011	CRANEX
2	75T/ 20T	Class IV	Machine Shop	26.5 m	1976	TSPL
3	140T/25T	Class IV	Forge Shop	26.0 m	1976	MAN
4	140T/25T	Class IV	Forge Shop	26.0 m	1976	MAN
5	50T/ 10T	Class IV	Forge Shop	18.5 m	1977	Jessop
6	50T/ 20T	Class IV	Steel Melting Shop	18.5 m	1976	Jessop
7	130T/20T	Class IV	Steel Melting Shop	22.5 m	1976	Jessop
8	30T/ 10T	Class IV	Steel Melting Shop	22.5 m	1977	WMI
9	80T/20T	Class IV	Steel Foundry	18.5 m	1977	Jessop
10	30T/ 5T	NA	Light Foundry	22.5 m	1977 (Make 1970)	HMBP
11	50T/ 10T	Class IV	Light Foundry	22.5 m	2012	CRANEX

Annexure – 3

Prospective Vendor's Experience in the Field of Manufacturing/ Reconditioning / Conducting Residual Life Assessment of Cranes.

S. No.	Requirement	Response (YES/NO) and Remarks, if any
1	Whether the applicant has experience in designing, engineering, supplying, and erection, commissioning, reconditioning/ modernization EOT Cranes of Minimum 50T Capacity in India or outside India which are in successful operation for a period of not less than 2 years.	
2	Whether the applicant has experience in conducting the Residual Life Assessment of Cranes and, is the applicant approved by any Government Agency or International Inspection Agency.	
3	Whether the applicant has provided a company background and its product profile along with technical details.	
4	Whether applicant's customers' reference list is enclosed	
5	Whether applicant's audited annual financial reports including auditor's report for last 3 years are enclosed	