

# TENDER

TENDER NOTIFICATION NO. - **FCX/20211023**

FOR

Consultancy work for Enhancement of Cranable capacity at  
Bay-8, Block-3 inside factory premises.

## PRICE BID



**FACTORY CIVIL CONSTRUCTION & MAINTENANCE DIVISION**

**BHARAT HEAVY ELECTRICALS LIMITED**

**(A Government of India Undertaking)**

**BHOPAL – 462 022 (M.P)**

## **PREAMBLE OF PRICE BID**

**1.0** This Price Bid consists of Three Schedule:

**1.1 Schedule A**

Schedule A consists of One Annexure:

Total price of the package consisting Annexure I to be quoted by the bidders which shall form the basis for comparison for deciding lowest bid. For further processing and award, total quoted amount by the L1 (lowest) bidder for the package shall be used for deriving individual item rate by BHEL based on % (percentage) weightage specified at Annexure-I of Price Schedule.

**1.2 Schedule B**

It consists of details of free issue materials by BHEL.

**1.3 Schedule C**

It consists of details of tools & tackles provided by BHEL either on higher basis or on free of cost basis which are mentioned in price bid.

**2.0** The work to be carried out under the contract shall, except as otherwise provided in tender conditions, include all labour, materials, tools, plant, equipment, and transport which may be required in preparation of and for full & entire execution and completion of the Works. The descriptions given in the Schedule of Quantities shall, unless otherwise stated, be held to include waste on materials, carriage and cartage, carrying in return of empties, hoisting, setting, fitting and fixing in position and all other labours necessary in and for the full and entire execution and completion as aforesaid in accordance with good practice and recognized principles as laid down in Technical Specification & elsewhere in Tender Specification.

**3.0** The price bid should not contain any condition. Conditional price Bids shall be summarily rejected.

**4.0** The bidder should not leave any column blank in Price Schedules.

**5.0** Price Quoted shall include all taxes, & duties except **GST**.

**6.0** Unless otherwise specified in the items involving cement, reinforcement steel or structural steel, these items shall be issued free of cost by BHEL.

**FACTORY CIVIL CONSTRUCTION & MAINTENANCE DIVISION**

NIT No. :FCX/20211023

Price Schedule

Consultancy work for Enhancement of Cranable capacity at Bay-8, Block-3 inside factory premises.

**SUMMARY**

	Details ANNEXURE	Total Amount (Rs.)
	Total of ANNEXURE- (I)	

Amount in words: Rs. .....

The evaluation currency for this tender shall be INR .Total price of the package consisting of Annexure-I to be quoted by the bidders which shall form the basis of comparison for deciding lowest bid.

For further processing & award total quoted Amount for the package by the L1 (lowest) bidder shall be used for deriving Individual item rate by BHEL based on % (percentage) weightage specified at annexure-I of Price Schedule.

## FACTORY CIVIL CONSTRUCTION &amp; MAINTENANCE DIVISION

## Price Schedule : Anneuxre - I

Name of work : Consultancy work for Enhancement of Cranable capacity at Bay-8, Block-3 inside factory premises.

Sr. No.	Based on Budgetary offer	Item Description	Qty.	Unit	% Weightage of item amount against total amount
1	a)	Providing Consultancy works for Feasibility study of existing structure at Bay-8, Block-3 and submission of report in order to ascertain stability of structural steel structure to sustain the loading of 300 MT through EOT crane in place of existing 250 MT by way of conducting Non-destructive testing as per item 2) as needed such as spectrometer analysis, ultrasonic testing structural steel members, analysis of verticality of columns through total station and rebound hammer test over foundation and study of existing sections of superstructure as per built drawings.	1.00	lot	48.4429
2	a)	Spectrometer Analysis	1.00	no.	1.1534
	b)	Ultra - sonic testing of structural members	70.00	no.	4.0369
	c)	Rebound Hammer Test	4.00	no.	0.2307
	d)	Verticality of Columns	25.00	no.s	2.8835
	a)	As per result of 1(a) , providing detailed specification for strengthening of existing structural steel structure required to increase the loading capacity to 300 MT at Bay-8, Block-3 along with submission of design and drawings and necessary backup calculation in three copies.	1.00	lot	25.9516
	b)	Vetting of the design and drawing documents by any reputed govt. institution such as IIT's/NIT's for suitability of the existing structural steel structure and foundation as per relevant Indian standards.	1.00	lot	17.3010
<b>Total</b>				Rs. 100.0000	

(i) The tenderer may visit the sites located within factory area of BHEL, Bhopal before quoting its rates as  
Note: no change in quoted rates shall be entertained subsequent to submission of offer.

(ii) The existing system supporting EOT crane(s) in various bays of different blocks as indicated above consists largely of gantry plate girders, columns, bracings of structural steel members, RCC foundations etc.

(iii) Subject to their availability, the relevant foundation and structure steel drawings of the existing system along with details of EOT cranes shall be provided by BHEL to the extent possible based on which technical analysis / assessment shall be carried out by the consultant. In case foundation drawings/safe bearing capacities of the strata underneath are not available in drawings or elsewhere, physical examination of one or more typical foundations shall be made depending on its feasibility. The analysis shall be based on visual inspection of foundation considering minimal steel deemed to be provided therein. Civil work such as excavation, dismantling etc. if any shall be arranged by BHEL.

(iv) The tenderer shall quote on lump sum basis for each of the items taking into consideration all the relevant possible activities as earmarked under scope of work.

Seal and Signature of Bidder

Seal and Signature of BHEL Authority

## FACTORY CIVIL CONSTRUCTION & MAINTENANCE DIVISION

### Price Schedule : Annexure - I

Name of work : Consultancy work for Enhancement of Cranable capacity at Bay-8, Block-3 inside factory premises.

Sr. No.	Based on Budgetary offer	Item Description	Qty.	Unit	% Weightage of item amount against total amount

(v) Against performance guarantee, 10% of the contract value shall be retained as Security Deposit by BHEL for a defect liability period of one year reckoned from the dates of installation and operation of the respective proposed cranes as indicated against each item in schedule'A' of Annexure I. The entire 10% of the awarded rates of the item shall be released after successful passage of respective defect liability periods.

(viii) Analysis of the existing structures shall be done by the consultant on suitable civil design platform(s) such as Staad Pro, Midas-Gen etc or conventional calculation method based on the fundamental principles of structural analysis. Design calculations may consist of checks against design parameters such as sectional modulus, bending moment, lateral moment, shear force, creep, fatigue etc. Design documents/calculations and revised propositions in the modified structures (if any) shall be submitted by the consultant in soft copies as well as spirally bound hard copies (3 sets).

(ix) The consultant or his representative(s) shall adhere to the standard safety norms of BHEL while inspecting the site. Safety appliances such as safety helmet, safety belt, etc. shall, however, be provided to them by BHEL. During visual inspection, they may be required to climb upto crane level with all safety measures as mentioned above.

(x) All necessary field tests shall be conducted by the consultant at site with his own testing apparatus/instrument at no extra cost over and above his awarded rates.

(xi) Other necessary and relevant informations regarding Jib cranes installed in the manufacturing block shall be made available by BHEL to facilitate design checks by the consultant. Similarly, necessary informations regarding EOT Cranes installed in relevant adjacent bays of the manufacturing blocks shall also be made available by BHEL to facilitate design checks by the consultant.

#### **Stipulated Time Frame for Work:**

(xii). Item no. 1 & 2 shall be executed within 1 month of date of commencement of work mentioned in work order award of work in order to ascertain the feasibility of structure and reports shall be submitted therof clearly indicating the tentative bill of quantities for strengthning of existing steel structures. Further execution of item no. 3 shall be carried out within stipulated contract period which shall be 7 months

(xiii) **SLAB FOR RELEASE OF PAYMENT:** The slab for release of payment against the item shall be as under:-

**For Item 1&2**, 100% payment as quoted shall be made after completion of requisite no. of tests as mentioned in Note - (xii) over the structure and submission of reports thereof.

(xiv) For item 3 1. 30% payment of the cumulative value of Item 3(a) and 3(b) shall be released for submission of preliminary set of drawing/data for study and analysis purpose. 2. 50% payment shall be released after issue of construction drawings duly vetted by instituions as mentioned at item 3(b) for execution of civil works. 3. 20% payment shall be released after submission of as built drawing of the structure post completion of civil work.

(xiii) After the completion of construction work the consultant shall provide us structural stability certificate of proposed modification in the existing block structure designed by them.

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**Price Schedule : B**

Name of work : Consultancy work for Enhancement of Cranable capacity at Bay-8, Block-3 inside factory premises.

The following material are free issue from BHEL stores.

---- Nil ----

**Price Schedule : C**

Name of work : Consultancy work for Enhancement of Cranable capacity at Bay-8, Block-3 inside factory premises.

---- Nil ----

## FACTORY CIVIL CONSTRUCTION & MAINTENANCE DIVISION

### SCOPE OF WORK

**Name of work : Consultancy work for Enhancement of Cranable capacity at Bay-8, Block-3 inside factory premises.**

The scope of work incase of each of the item mentioned in Annexure I shall broadly, include but not be limited to the following activities :-

- (a) Physical inspection of existing structural steel members and studying all relevant drawings made available by the department.
- (b) Physical measurement of the existing steel structures wherever relevant drawings are not available
- (c) Design checks and confirmation of adequacy or otherwise of existing support structures including foundations due to proposed enhancement in capacity of existing EOT crane(s) and / or installation of additional crane (s) as the case may be inside factory area of BHEL Bhopal with locations as mentioned in item in schedule 'A' of Annexure I, along with submission of design calculations for safe installation and operation of EOT crane (s) of enhanced capacity and / or installation of additional crane(s) as the case may be.
- (d) If the existing support structures are found to be inadequate, proposing modifications / alterations/additions (if practically viable) in the existing stuctures along with submission of design calculations for safe installation and operation of EOT crane (s) of enhanced capacity and / or installation of additional crane (s) as the case may be.
- (e) Vetting of Drawings/Design by reputed institution such as NIT/IIT for suitability of the proposed structure/ existing structure as per item no. 3
- (f) All civil works like Earthwork, dismantling of concrete, Re-concreting, etc shall be in BHEL scope. Agency shall have to communicate timely for such enabling works.

The scope of work shall consist of all allied and enabling activities too for which nothing extra shall be claimed by the consultant over and above the awarded rates.