

BHARAT HEAVY ELECTRICALS LTD.
CENTRAL FOUNDRY FORGE PLANT
RANIPUR, HARIDWAR
MAINTENANCE & SERVICES DEPARTMENT
CRANE MAINTENANCE

FF:15:MCR:RC:EE:01

Dated: 20.11.2015

TENDER NOTICE – OPEN TENDER

Two part tenders in sealed envelopes are invited from technically and financially capable parties, having work experience similar to and interested in the under mentioned works. The tender documents are available at website www.bhel.com/www.bhelhwr.co.in in tender notification section and can be downloaded from there. The tender should be submitted to the tender box placed in the office of the undersigned on or before 16/12/2015 at 1430 hours. The tender box will be opened on the same day in the office of the undersigned at 1500 hours in presence of the bidders who wish to be present.

Bidders are advised to inspect the site before quoting their rates and also go through the special instructions and scope attached to this notice.

BHEL reserves the right to reject any or all of the tenders without assigning any reason thereto.

Tender No.	Details of Work	Estimated Cost	EMD	Tender cost
FF:15:MCR:RC:EE:01 dated 20.11.2015	Reconditioning of Cranes – 30 T, 40 T & 130 T	Rs. 150.37 Lakhs	Rs. 2,00,000/- (Rupees Two lakhs only)	NIL

Arpit Gupta
Sr. Engineer/M&S
CFFP – BHEL, Haridwar
Phone No.: 01334-284093
E-mail: arpitg@bhelhwr.co.in

CC: DGM (Works) for deputing finance representative for tender opening

Signature of Issuing Officer

Signature of Bidder/Tenderer

SPECIAL INSTRUCTIONS

1. Kindly read this set of special instructions carefully before filling up the tender form.
2. Pre-qualification requirements placed at Annexure C must be fulfilled by the vendor to participate in the tender and submitted along with the Techno-Commercial bid.
3. The bidders are to submit the tender form along with all annexures as well as this set of special instructions, all pages duly signed.
4. The tender is to be submitted in two parts; viz.:
 - a) Techno-commercial bid, and
 - b) Price Bid
5. Documents related to pre-qualification requirements must be submitted along with the Techno-Commercial bid.
6. Both the techno-commercial bid and the price bid are to be placed separately in duly sealed envelopes, super scribed – “Techno-commercial bid for tender no. FF:15:MCR:RC:EE:01” and “Price Bid for tender no. FF:15:MCR:RC:EE:01”, respectively. The two envelopes are to be placed in a common envelop super scribed “Tender for tender no. FF:15:MCR:RC:EE:01”. The techno-commercial bid must also contain an un-priced copy of the price bid.
7. Only the techno-commercial bid will be opened on the day of tender opening. The priced bid will be opened only if techno-commercial bid(s) are found technically suitable & acceptable. The date of opening of the price bid(s) will be intimated to all bidders found technically suitable and acceptable bidders at a suitable time.
8. Once the price bids are opened and accepted by BHEL, the same cannot be withdrawn by the bidder for whatsoever reasons. In case a bidder withdraws (or attempts to) his/her/their tender, suitable action may be taken by BHEL as deemed fit. This may include black listing of the bidder or initiation of legal action against the bidder.
9. If there is a difference found in the figures & words of the offered price, the price given in the words will be considered.

(Issuing Officer)

BHARAT HEAVY ELECTRICALS LTD.
CENTRAL FOUNDRY FORGE PLANT
RANIPUR, HARIDWAR
MAINTENANCE & SERVICES DEPARTMENT
CRANE MAINTENANCE

TENDER FORM for Reconditioning of Cranes – 30 T & 130 T (SMS) and 40 T (SMS)

PRICE BID

PRICED/UNPRICED

(PRICED PRICE BID TO BE SEALED IN SEPARATE ENVELOPE)

Name & Address of the Bidder	:	
Tender Notice No.	:	FF:15:MCR:RC:EE:01
Last date and time for receipt of tender	:	1430 hours on 07.12.15
Date and time for opening of tender	:	1500 hours on 07.12.15
Venue for opening of tender	:	Office of DGM (M&S)
Nature of Work	:	Reconditioning of Cranes – 30 T & 130 T (SMS) and 40 T (SMS)

Scope of work (including supply of material, installation, commissioning and handing over):

S. No.	Description of Work	Qty	Estimated Price (Rs.)	Quoted Price (Rs.)
1	Reconditioning of 30/10 T EOT Crane	1	3730417.00	
2	Reconditioning of 40/10 T EOT Crane	1	4479533.00	
3	Reconditioning of 130/20 T EOT Crane	1	6827333.00	
Total final quoted cost in numbers (Rs.)			15037283.00	
Total final quoted cost in words				

Enclosures:

- a) Annexure – A: Detailed scope of supply/material required for reconditioning of cranes
- b) Annexure – B: PQC of reconditioning work, including
 - Sub – Annexures:
 - I – Scope of work
 - II – Special Terms & Conditions of the work
 - III – Terms & Conditions of Reverse Auction (With Sub – Annexures a, b, c & d)

Signature of Issuing Officer

Signature of Bidder/Tenderer

SCOPE OF SUPPLY / WORK FOR RECONDITIONING OF 30T EOT CRANE (SMS)

Annexure A (WMI 30T)

	Item	BHEL Requirement	Qty.	Acceptable Makes	Supplier's Comments
1	<u>Panels</u>	Made of min 2 mm Thick sheet steel painted first with corrosion resistant paint followed by suitable no. of coats (min 2) of industrial off-white paint. Cabinet to be provided with protection against reptile/rodent entry and is to be made Dust & Vermin Proof. Suitable Cooling Arrangement to be provided for each individual section of the Cabinet. Panel base plate shall be min 2 mm thick and is to be provided with suitable removable gland plates mounted with sufficient number of cable glands of suitable sizes.		Switch Gear: Siemens/L&T	
1.1	Incomer Panel	Comprising MCCB & Contactor rated at Minimum 125% of peak load of panel, with Short Circuit Current rating as 50kA, having Thermal and Magnetic over current protection (adjustable overload and fixed short circuit), Earth fault protection. MCCB is to be provided with Extended rotary drive as per need. Incoming supply will be 415V, 50 Hz, 3-φ, 3-wire AC Supply through DSL without Neutral	01 Set		
1.2	Protective Panel	Comprising MCCBs/MCBs & Contactors of suitable ratings (Min 125% of peak load of individual circuit as rated current and 50kA Short Circuit Current with Thermal and Magnetic over current trip (adjustable overload and fixed short circuit), for Main Hoist, Auxillary Hoist, Cross Travel, Long Travel, Lights, RRC, Cabin AC/Heater/Fan etc. as per loads detailed in trailing parts of this document.	01 Set		
1.3	Main Hoist Control Panel	Comprising of MCCB, MCB, Contactors, Timers of Overload Realys of suitable ratings for Main Hoist movement, including Main Motors, Thruster Brakes, Interlocking with Limit Switches & Safety Switches. Panel Should have individual sections for each of the MH Motors (refer List of Motors at #2). Panel is to be designed to operate through Master controller & RRC.	01 Set		
1.4	Auxiliary Hoist Control Panel	Comprising of MCCB, MCB, Contactors, Timers of Overload Realys of suitable ratings for Auxiliary Hoist movement, including Main Motors, Thruster Brakes, Interlocking with Limit Switches & Safety Switches. Panel Should have individual sections for each of the AH Motors (refer List of Motors at #2). Panel is to be designed to operate through Master controller & RRC.	01 Set		

SCOPE OF SUPPLY / WORK FOR RECONDITIONING OF 30T EOT CRANE (SMS)

Annexure A (WMI 30T)

	Item	BHEL Requirement	Qty.	Acceptable Makes	Supplier's Comments
1.5	Cross Travel Control Panel	Comprising of MCCB, MCB, Contactors, Timers of Overload Relays of suitable ratings for Cross Travel movement, including Main Motors, Thruster Brakes, Interlocking with Limit Switches & Safety Switches. Panel Should have individual sections for each of the CT Motors (refer List of Motors at #2). Panel is to be designed to operate through Master controller & RRC.	01 Set		
1.6	Long Travel Control Panel	Comprising of MCCB, MCB, Contactors, Timers of Overload Relays of suitable ratings for Long Travel movement, including Main Motors, Thruster Brakes, Interlocking with Limit Switches & Safety Switches. Panel Should have individual sections for each of the LT Motors (refer List of Motors at #2). Panel is to be designed to operate through Master controller & RRC.	01 Set		
1.7	Junction Box	Junction box as per existing scheme to be provided. Bus bar of suitable rating to be used for cable connections	02 Set		
1.8	Meters				
1.8.1	Energy Meter	Microprocessor based Energy Meter	01 No.	Reputed	
1.8.2	Ammeters for Incomer	Analog Ammeters of suitable rating; one for each phase	03 Nos.	AE/MECO	
1.8.3	CTs	Current Transformers of suitable rating as per need	03	AE/KAPPA	
1.8.4	Voltmeters for Incomer	Analog Voltmeters of suitable rating; one for each phase	03 Nos.	AE/MECO	
1.9	Indicators	High Luminosity LED Based indicators for Phase live, Motor Run-Off-Trip and Various Faults/Warning Indications of Cranes	01 Set	Reputed	
1.10	Panel Illumination	CFL/LED based, Door switch operated, Panel Illumination of rating suitable for sufficient illumination of the panel during maintenance work, in each section	04 Set	CFL/LED: Philips/Syska/	

SCOPE OF SUPPLY / WORK FOR RECONDITIONING OF 30T EOT CRANE (SMS)

Annexure A (WMI 30T)

	Item	BHEL Requirement	Qty.	Acceptable Makes	Supplier's Comments
1.11	Terminals & Wiring	All wiring including wires/cables within panel and from panel to the field devices. Within panel, all wires to be laid in suitable covered wiring troughs/channels/trays. Between panel and field devices, all wires/cables are to be laid through suitable covered cable trays/flexible reinforced conduits etc. Between Panel and Field devices, atleast 10% extra wires must be laid. Distributed I/Os & Profibus communication are to be used to minimize no. of control wires. At least 10% extra terminals to be provided at each terminal Block. All the wires & cables to be supplied by vendor.			
1.11.1	Cables/Wires	The crane is working in Steel Melting Shop for the purpose of Liquid Metal Handling. All the Cables are to be suitably selected for protection against conductive and radiation heat and are to be rated at 120deg-C continuous thermal duty and capable of sustaining exposure to radiation from heat source at minimum 1650deg-C at a distance of 2000mm for minimum 2minutes.	01	Set	
1.11.2	Terminals	All power and Control Terminals in each panel should be grouped separately and each group should have minimum 10% extra Terminals.			
1.12	Cable Lugs	All wiring termination to be through appropriately sized Copper Crimping Lugs.	01 Set	Reputed	
1.13	Cable Marking Ferrules	All wires (Power & Control) to be suitably marked with marking ferrules of appropriate size at each end.	01 Set	Reputed	
1.14	Cable Glands	All cabling to be done through Cable Glands, suitable for each individual cable. All cable entry to be through removable gland plate provided at the bottom of the panel.	01 Set	Reputed	

SCOPE OF SUPPLY / WORK FOR RECONDITIONING OF 30T EOT CRANE (SMS)

Annexure A (WMI 30T)

	Item	BHEL Requirement	Qty.	Acceptable Makes	Supplier's Comments
1.15	Control Supply	All Control and Auxilary Supplies to be derived from incomer 3-Ø, 3-Wire, 415VAC supply using suitable transformers / Rectifiers / Converters / Regulators / Power Supply Units etc. All solenoids / electromagnets in existing cranes and not being replaced, are to be driven by voltages as per existing scheme.			
1.16	Control Transformers	Control/Auxiliary Transformers of rating equal to min 150% of total control/auxiliary load connected to the transformer. Transformer should have input tapping for 415V, +/-2.5% and +/-5%.	02 Nos	Reputed	
2	Motors	Following motors are installed on the crane:			
2.1	Main Hoist Motor	54 HP/ 40.28 KW, Stator Volt 415V, Stator Current 88A, Rotor Volt 285V, Rotor Current 90A, RPM 740, Type KS 280S	2 Nos.		For Reference only
2.2	Auxillary Hoist Motor	46HP/ 34.4 KW, Stator Volt 415V, Stator Current 70A, Rotor Volt 365V Rotor Current 59A, RPM 725, Type KS 250M	1 No.		For Reference only
2.3	Long Travel Motor	16HP/ 11.94KW, Stator Volt 415V, Stator Current 26.5A, Rotor Volt 300V, Rotor Current 25.5A, RPM 965	4 Nos.		For Reference only
2.4	Cross Travel Motor	5HP/ 3.73KW, Stator Volt 415V, Stator Current 8A, Rotor Volt 158V, Rotor Current 16.5A, RPM 933	2 Nos.		For Reference only
3	Thruster Brake Unit	Following complete thruster brakes with brake drum will be supplied by vendor		Stromag/Speedage/Kakku/S	
3.1	Thruster Brake for Main Hoist	AC Thruster opearted complete brake assembly including Brake Drum Dia 300 mm, 34 Kg Capacity,415V,3-PH.,50HZ	4 Set		
3.2	Thruster Brake for Auxillary Hoist	AC Thruster opearted complete brake assembly including Brake Drum Dia 300mm, 34 Kg Capacity,415V,3-PH.,50HZ	1 Set		

SCOPE OF SUPPLY / WORK FOR RECONDITIONING OF 30T EOT CRANE (SMS)

Annexure A (WMI 30T)

	Item	BHEL Requirement	Qty.	Acceptable Makes	Supplier's Comments
3.3	Thruster Brake for Cross Travel	AC Thruster operated complete brake assembly including Brake Drum Dia 150mm, 18 Kg Capacity, 415V, 3-PH., 50HZ	2 Set		
3.4	Thruster Brake for Long Travel	AC Thruster operated complete brake assembly including Brake Drum Dia 300mm, 18 Kg Capacity, 415V, 3-PH., 50HZ	4 Set.		
3.5	Oil Seals	Oil Seals for above thruster brake units are to be supplied	4 Nos. of each type		
4	Resistance Box	Punch Grid Type Resistance boxes are to be supplied in accordance to the existing motors			
4.1	Main Hoist Resistance Box	Five Step, Suitable for Rotor Volt 285V, Rotor Current 90A	2 Nos.		
4.2	Auxillary Hoist Resistance Box	Four Step, Suitable for Rotor Volt 365V, Rotor Current 59A	1 No.		
4.3	Long Travel Resistance Box	Four Step, Suitable for Rotor Volt 300V, Rotor Current 25.5A	4 Nos.		
4.4	Cross Travel Resistance Box	Four Step, Suitable for Rotor Volt 158V, Rotor Current 16.5A	2 Nos.		
5	<u>Crane Weighing System</u>	Vendor shall supply & install loadcells (Min. 02 Nos., 200% safe overload limit, 300% ultimate overload capacity) in Main Hoist, Data Processing Unit (5 Digit, Resolution 50 Kg., Accuracy $\pm 0.5\%$ or better, Repeatability $\pm 0.1\%$ or better) & One Jumbo Display (5 digit, Size 300 mm) for 30T Crane weighing system. If system gets overloaded, it should produce visual & audio alarms which must be visible & audible from the ground floor.	01 Set	IPA/ Schenck	
6	<u>Limit Switches</u>	All the existing limit switches (Rotary, Counter Weight/Gravity, Lever) are to be replaced with equivalent new limit switches with required necessary modification work.	8 Nos.	BCH/Stromag /Speedage/kaku/Speed-o-	

SCOPE OF SUPPLY / WORK FOR RECONDITIONING OF 30T EOT CRANE (SMS)

Annexure A (WMI 30T)

	Item	BHEL Requirement	Qty.	Acceptable Makes	Supplier's Comments
7	<u>Master Controllers</u>	Vendor will supply Gear Type Master Controllers for operation and control of the complete crane:		Stromag/Speedage/Kakku/Speed-o-	
7.1	MH Master Controller	5 Step Master Controller to be provided for Main Hoist. There should be provision for hoisting with any one motor also.	01 No.		
7.2	AH Master Controller	4 Step Master Controller to be provided for Auxillary Hoist.	01 No.		
7.3	LT Master Controller	4 Step Master Controller to be provided for Cross Travel.	01 No.		
7.4	CT Master Controller	4 Step Master Controller to be provided for Long Travel. There should be provision for LT movement with two motors also.	01 No.		
7.5	MH & LT Master Controller	1 Step Master Controller to be provided for selection of hoisting with any one motor and LT movement with two motors	2 Nos.		
8	<u>Radio Remote Control</u>	A suitable RRC system to be provided on crane. Crane can be operated from cabin as well as through remote . A separate panel should be provided on the crane for RRC receiver, decoder circuit & Relay Board. Safety interlocks and wiring to be done by vendor. All licenses required for RRC will be arranged by vendor in favor of CFFP, BHEL.	01 Set	SNT/Electro Power/Telecrane	
9	<u>Crane Light</u>	The crane is to be provided with enough light using narrow beam LED Luminare of suitable rating (minimum 120 W, Lumen :12000 & above) for sufficient illumination on Ground floor. Light fittings are to be provided with protection IP65	04 Set	Crompton Greaves/Philips/ Bajaj/GE	
10	<u>Cabin Light & Fan</u>	The crane cabin is to be provided with LED Lamp of suitable rating (minimum 15 W) for sufficient illumination of cabin & One Cabin Fan (Sweep 9")	01 Set	Crompton Greaves/Philips/ Bajaj/GE	

SCOPE OF SUPPLY / WORK FOR RECONDITIONING OF 30T EOT CRANE (SMS)

Annexure A (WMI 30T)

	Item	BHEL Requirement	Qty.	Acceptable Makes	Supplier's Comments
11	<u>Cabin Air Conditioner</u>	One no. 0.5 Ton, minimum 3 Star rated as per BEA standard Cabin AC to be installed in the cabin.	01 No.	Rittal/ Schneider	
12	<u>DC Injection Braking</u>	DC Injection braking circuit to be provided in Main Hoist for braking and slow hoisting	01 Set	Reputed	
13	<u>Cable Trolley & Chain</u>	Cable trolley suitable for ISMB 150mm X 75 mm in two steps are to be provided on crane for smooth movement of cables. Plate thickness should be min. 8 mm to be used. Chain of min. dia 6 mm to be provided for cable support.	20 Nos	Reputed	
14	<u>Siren</u>	One siren audible to 1000 mtr. along with foot switch to be supplied & installed by vendor	01 No.	Reputed	
15	<u>DSL Current Collector</u>	DSL Current Collector of min(along with jumpers). 200A rating to be provide by vendor	6 Set	Reputed	
16	<u>Testing & Measuring Instruments</u>	Testing and Measuring instruments for maintenance a) One AC/Dc true RMS clamp meter equivalent to FLUKE model 325 b) One True RMS Multimeter equivalent to FLUKE model 179	01 Set	Meter: Fluke/ Agilent (Keysight)/ Yokogawa Tools:Taparia	
17	<u>Training</u>	Vendor shall provide adequate training to BHEL staff and Crane AMC persons for the Operation & Maintenance of the retrofitted/recondioned crane.			
18	<u>Overhauling of Gear Boxes</u>	Vendor will inspect the total crane, Overhaul the gearboxes with proper oiling & greasing. If any part is required to be replaced, the same shall be jointly decided by BHEL and vendor. Material for such replacement will be supplied by BHEL free of cost however, no additional payment shall be made by BHEL towards service charges against any such replacemnts.			
19	<u>Painting</u>	Crane will be handed over to BHEL after painting with golden yellow/Orange colour.			
20	<u>Safety Arrangements:</u>	Following safety features in addition to other standard safety features should be provided on the crane:			

SCOPE OF SUPPLY / WORK FOR RECONDITIONING OF 30T EOT CRANE (SMS)

Annexure A (WMI 30T)

	Item	BHEL Requirement	Qty.	Acceptable Makes	Supplier's Comments
20.1		crane should have adequate and reliable safety interlocks / devices to avoid damage to the crane, workpiece and the operator due to the malfunctioning or mistakes. crane functions should be continuously monitored and alarm / warning indications through lights/ alarm should be available. A suitable anti collision device capable of stopping the crane and producing an audible siren before collision occurs.			
20.2		All the cables on the crane should be well supported and protected. These should not create any hinderance to crane operator's movement for effective use of crane.			
20.3		All the rotating parts used on crane should be statically & dynamically balanced to avoid undue vibrations.			
20.4		Emergency Switches at suitable locations as per International Norms should be provided.			
21	<u>Tools & Tackles</u>	All the tools and tackles for installing the system including any special tools shall be arranged by the supplier. All the special tools and tackles will be retained by BHEL for the maintenance purposes. BHEL will provide if the need be and subject to availability, only EOT crane facillities, power and water for use during installation of the system			
22	<u>General Comments</u>				
22.1		The supplier shall provide a list of spares required for trouble free operation of the crane after completion of the work.			
22.2		All the switchgear components including MCCBs, Contactors, Overload relays, Push Buttons etc. shall be of Siemens/L&T make only unless otherwise specified.			
22.3		All other components shall be of reputed make if not specified above. Vendor to mention exact make(s) for all the items for which specific make is not specified. CFFP reserves the right to select one or more make out of the offered ones. Any deviation from specified makes will render the offer rejected.			

SCOPE OF SUPPLY / WORK FOR RECONDITIONING OF 30T EOT CRANE (SMS)

Annexure A (WMI 30T)

	Item	BHEL Requirement	Qty.	Acceptable Makes	Supplier's Comments
22.4		All the drawings including structural and tentative circuit diagrams, shall be approved by BHEL, prior to commencement of manufacturing of the Panel/Desks/Stations etc. Drawings will be approved within 15 days of their submission to BHEL. However, increase in total time for drawing approval on account of incorrect drawings will not form a basis for increase in delivery time. Please also refer special terms and conditions.			
22.5		After dismantling work of the old components from the crane, cleaning & painting of crane will be arranged by the contractor. New wiring & installation work of other components will be done then after only.			
22.6		IT IS STRONGLY RECOMMENDED TO ALL POTENTIAL BIDDERS TO VISIT THE PLANT AND THE crane BEFORE BIDDING. ANY PRESUMPTION BY THE BIDDER REGARDING THE CONDITION OF THE crane, ITS COMPONENTS ETC. SHALL NOT BE ENTERTAINED BY BHEL ONCE THE PRICES ARE FIRMED UP.			
22.7		Vender has to supply all the material stated above in clause 1 to 13 even if it is not required in vender's scheme for retrofitting. Any other material required for retrofitting of the crane and not covered here has to be supplied by vender without any cost to BHEL.			
23	Documents:	Soft copy in a 16GB Pen Drive and Three sets of hard Copy of final circuit diagram to be submitted after commissioning of the crane.			
24	<u>Ambient Conditions</u>				
24.1	Max temperature	50°C			
24.2	Min temperature	0°C			
24.3	Relative humidity	97% max			
24.4	Altitude	300m above MSL			

SCOPE OF SUPPLY / WORK FOR RECONDITIONING OF 30T EOT CRANE (SMS)

Annexure A (WMI 30T)

	Item	BHEL Requirement	Qty.	Acceptable Makes	Supplier's Comments
24.5	General Ambient Conditions	Atmosphere contains significant amount of dust including electrically conducting and magnetic dust particles, smoke and fumes.			
24.6	Specific Working Condition	The crane is used for handling liquid metal (steel of different grades) using open liquid metal ladles radiating heat at 1650°C to which crane is exposed. Protection to panels and cables is thus to be provided by the vendor against this heat.			

SCOPE OF SUPPLY /WORK FOR RECONDITIONING OF 40T EOT CRANE (SMS)

Annexure A (WMI 40T)

	Item	BHEL Requirement	Qty.	Acceptable Makes	Supplier's Comments
1	<u>Panels</u>	Made of min 2 mm Thick sheet steel painted first with corrosion resistant paint followed by suitable no. of coats (min 2) of industrial off-white paint. Cabinet to be provided with protection against reptile/rodent entry and is to be made Dust & Vermin Proof. Suitable Cooling Arrangement to be provided for each individual section of the Cabinet. Panel base plate shall be min 2 mm thick and is to be provided with suitable removable gland plates mounted with sufficient number of cable glands of suitable sizes.		Switch Gear: Siemens/L&T	
1.1	Incomer Panel	Comprising MCCB & Contactor rated at Minimum 125% of peak load of panel, with Short Circuit Current rating as 50kA, having Thermal and Magnetic over current protection (adjustable overload and fixed short circuit), Earth fault protection. MCCB is to be provided with Extended rotary drive as per need. Incoming supply will be 415V, 50 Hz, 3-φ, 3-wire AC Supply through DSL without Neutral.	01 Set		
1.2	Protective Panel	Comprising MCCBs/MCBs & Contactors of suitable ratings (Min 125% of peak load of individual circuit as rated current and 50kA Short Circuit Current with Thermal and Magnetic over current trip (adjustable overload and fixed short circuit), for Main Hoist, Auxillary Hoist, Cross Travel, Long Travel, Lights, RRC, Cabin AC/Heater/Fan etc. as per loads detailed in trailing parts of this document.	01 Set		
1.3	Main Hoist Control Panel	Comprising of MCCB, MCB, Contactors, Timers of Overload Reals of suitable ratings for Main Hoist movement, including Main Motors, Thruster Brakes, Interlocking with Limit Switches & Safety Switches. Panel Should have individual sections for each of the MH Motors (refer List of Motors at #2). Panel is to be designed to operate through Master controller & RRC.	01 Set		
1.4	Auxiliary Hoist Control Panel	Comprising of MCCB, MCB, Contactors, Timers of Overload Reals of suitable ratings for Auxiliary Hoist movement, including Main Motors, Thruster Brakes, Interlocking with Limit Switches & Safety Switches. Panel Should have individual sections for each of the AH Motors (refer List of Motors at #2). Panel is to be designed to operate through Master controller & RRC.	01 Set		

SCOPE OF SUPPLY /WORK FOR RECONDITIONING OF 40T EOT CRANE (SMS)

Annexure A (WMI 40T)

	Item	BHEL Requirement	Qty.	Acceptable Makes	Supplier's Comments
1.5	Cross Travel Control Panel	Comprising of MCCB, MCB, Contactors, Timers of Overload Relays of suitable ratings for Cross Travel movement, including Main Motors, Thruster Brakes, Interlocking with Limit Switches & Safety Switches. Panel Should have individual sections for each of the CT Motors (refer List of Motors at #2). Panel is to be designed to operate through Master controller & RRC.	01 Set		
1.6	Long Travel Control Panel	Comprising of MCCB, MCB, Contactors, Timers of Overload Relays of suitable ratings for Long Travel movement, including Main Motors, Thruster Brakes, Interlocking with Limit Switches & Safety Switches. Panel Should have individual sections for each of the LT Motors (refer List of Motors at #2). Panel is to be designed to operate through Master controller & RRC.	01 Set		
1.7	Junction Box	Junction box as per existing scheme to be provided. Bus bar of suitable rating to be used for cable connections	02 Set		
1.8	Meters				
1.8.1	Energy Meter	Microprocessor based Energy Meter	01 No.	Reputed	
1.8.2	Ammeters for Incomer	Analog Ammeters of suitable rating; one for each phase	03 Nos.	AE/MECO	
1.8.3	CTs	Current Transformers of suitable rating as per need	03 Sets	AE/KAPPA	
1.8.4	Voltmeters for Incomer	Analog Voltmeters of suitable rating; one for each phase	03 Nos.	AE/MECO	
1.9	Indicators	High Luminosity LED Based indicators for Phase live, Motor Run-Off-Trip and Various Faults/Warning Indications of Cranes	01 Set	Reputed	
1.10	Panel Illumination	CFL/LED based, Door switch operated, Panel Illumination of rating suitable for sufficient illumination of the panel during maintenance work, in each section	04 Set	CFL/LED: Philips/Syska/	

SCOPE OF SUPPLY /WORK FOR RECONDITIONING OF 40T EOT CRANE (SMS)

Annexure A (WMI 40T)

	Item	BHEL Requirement	Qty.	Acceptable Makes	Supplier's Comments
1.11	Terminals & Wiring	All wiring including wires/cables within panel and from panel to the field devices. Within panel, all wires to be laid in suitable covered wiring troughs/channels/trays. Between panel and field devices, all wires/cables are to be laid through suitable covered cable trays/flexible reinforced conduits etc. Between Panel and Field devices, atleast 10% extra wires must be laid. Distributed I/Os & Profibus communication are to be used to minimize no. of control wires. At least 10% extra terminals to be provided at each terminal Block. All the wires & cables suitably selected to be supplied by vendor.			
1.11.1	Terminals	All power and Control Terminals in each panel should be grouped separately and each group should have minimum 10% extra Terminals.			
1.12	Cable Lugs	All wiring termination to be through appropriately sized Copper Crimping Lugs.	01 Set	Reputed	
1.13	Cable Marking Ferrules	All wires (Power & Control) to be suitably marked with marking ferrules of appropriate size at each end.	01 Set	Reputed	
1.14	Cable Glands	All cabling to be done through Cable Glands, suitable for each individual cable. All cable entry to be through removable gland plate provided at the bottom of the panel.	01 Set	Reputed	
1.15	Control Supply	All Control and Auxilary Supplies to be derived from incomer 3-Ø, 3-Wire, 415VAC supply using suitable transformers / Rectifiers / Converters / Regulators / Power Supply Units etc. All solenoids / electromagnets in existing cranes and not being replaced, are to be driven by voltages as per existing scheme.			
1.16	Control Transformers	Control/Auxiliary Transformers of rating equal to min 150% of total control/auxiliary load connected to the transformer. Transformer should have input tapping for 415V, +/-2.5% and +/-5%.	02 Nos	Reputed	

SCOPE OF SUPPLY /WORK FOR RECONDITIONING OF 40T EOT CRANE (SMS)

Annexure A (WMI 40T)

	Item	BHEL Requirement	Qty.	Acceptable Makes	Supplier's Comments
2	<u>Motors</u>	Following motors are installed on the crane:			
2.1	Main Hoist Motor	54 HP/ 40.28 KW, Stator Volt 415V, Stator Current 88A, Rotor Volt 285V, Rotor Current 90A, RPM 740, Type KS 280S	2 Nos.		For Reference only
2.2	Auxillary Hoist Motor	46HP/ 34.4 KW, Stator Volt 415V, Stator Current 70A, Rotor Volt 365V Rotor Current 59A, RPM 725, Type KS 250M	1 No.		For Reference only
2.3	Long Travel Motor	16HP/ 11.94KW, Stator Volt 415V, Stator Current 26.5A, Rotor Volt 300V, Rotor Current 25.5A, RPM 965	4 Nos.		For Reference only
2.4	Cross Travel Motor	5HP/ 3.73KW, Stator Volt 415V, Stator Current 8A, Rotor Volt 158V, Rotor Current 16.5A, RPM 933	2 Nos.		For Reference only
3	<u>Thruster Brake Unit</u>	Following complete thruster brakes with brake drum will be supplied by vendor		Stromag/Speedage/Kakku/S	
3.1	Thruster Brake for Main Hoist	AC Thruster operated complete brake assembly including Brake Drum Dia 300 mm, 34 Kg Capacity,415V,3-PH.,50HZ	4 Set		
3.2	Thruster Brake for Auxillary Hoist	AC Thruster operated complete brake assembly including Brake Drum Dia 300mm, 34 Kg Capacity,415V,3-PH.,50HZ	1 Set		
3.3	Thruster Brake for Cross Travel	AC Thruster operated complete brake assembly including Brake Drum Dia 150mm, 18 Kg Capacity,415V,3-PH.,50HZ	2 Set		
3.4	Thruster Brake for Long Travel	AC Thruster operated complete brake assembly including Brake Drum Dia 300mm, 18 Kg Capacity,415V,3-PH.,50HZ	4 Set.		
3.5	Oil Seals	Oil Seals for above thruster brake units are to be supplied	4 Nos. of each type		

SCOPE OF SUPPLY /WORK FOR RECONDITIONING OF 40T EOT CRANE (SMS)

Annexure A (WMI 40T)

	Item	BHEL Requirement	Qty.	Acceptable Makes	Supplier's Comments
4	Resistance Box	Punch Grid Type Resistance boxes are to be supplied in accordance to the existing motors			
4.1	Main Hoist Resistance Box	Five Step, Suitable for Rotor Volt 285V, Rotor Current 90A	2 Nos.		
4.2	Auxillary Hoist Resistance Box	Four Step, Suitable for Rotor Volt 365V, Rotor Current 59A	1 No.		
4.3	Long Travel Resistance Box	Four Step, Suitable for Rotor Volt 300V, Rotor Current 25.5A	4 Nos.		
4.4	Cross Travel Resistance Box	Four Step, Suitable for Rotor Volt 158V, Rotor Current 16.5A	2 Nos.		
5	<u>Crane Weighing System</u>	Vendor shall supply & install loadcells (Min. 02 Nos., 200% safe overload limit, 300% ultimate overload capacity) in Main Hoist, Data Processing Unit (5 Digit, Resolution 50 Kg., Accuracy $\pm 0.5\%$ or better, Repeatability $\pm 0.1\%$ or better) & One Jumbo Display (5 digit, Size 300 mm) for 30T Crane weighing system. If system gets overloaded, it should produce visual & audio alarms which must be visible & audible from the ground floor.	01 Set	IPA/ Schenck	
6	<u>Limit Switches</u>	All the existing limit switches (Rotary, Counter Weight/Gravity, Lever) are to be replaced with equivalent new limit switches with required necessary modification work.	8 Nos.	BCH/Stromag /Speedage/kakku/Speed-o-	
7	<u>Master Controllers</u>	Vendor will supply Gear Type Master Controllers for operation and control of the complete crane:		Stromag/Speedage/Kakku/Speed-o-	
7.1	MH Master Controller	5 Step Master Controller to be provided for Main Hoist. There should be provision for hoisting with any one motor also.	01 No.		

SCOPE OF SUPPLY /WORK FOR RECONDITIONING OF 40T EOT CRANE (SMS)

Annexure A (WMI 40T)

	Item	BHEL Requirement	Qty.	Acceptable Makes	Supplier's Comments
7.2	AH Master Controller	4 Step Master Controller to be provided for Auxillary Hoist.	01 No.		
7.3	LT Master Controller	4 Step Master Controller to be provided for Cross Travel.	01 No.		
7.4	CT Master Controller	4 Step Master Controller to be provided for Long Travel. There should be provision for LT movement with two motors also.	01 No.		
7.5	MH & LT Master Controller	1 Step Master Controller to be provided for selection of hoisting with any one motor and LT movement with two motors	2 Nos.		
8	<u>Radio Remote Control</u>	A suitable RRC system to be provided on crane. Crane can be operated from cabin as well as through remote . A separate panel should be provided on the crane for RRC receiver, decoder circuit & Relay Board. Safety interlocks and wiring to be done by vendor. All licenses required for RRC will be arranged by vendor in favor of CFFP, BHEL.	01 Set	SNT/Electro Power/Telecrane	
9	<u>Crane Light</u>	The crane is to be provided with enough light using narrow beam LED Luminare of suitable rating (minimum 120 W, Lumen :12000 & above) for sufficient illumination on Ground floor. Light fittings are to be provided with protection IP65	04 Set	Crompton Greaves/Philips/ Bajaj/GE	
10	<u>Cabin Light & Fan</u>	The crane cabin is to be provided with LED Lamp of suitable rating (minimum 15 W) for sufficient illumination of cabin & One Cabin Fan (Sweep 9")	01 Set	Crompton Greaves/Philips/ Bajaj/GE	
11	<u>Cabin Air Conditioner</u>	One no. 0.5 Ton, minimum 3 Star rated as per BEA stanadard Cabin AC to be installed in the cabin.	01 No.	Rittal/Schneider	
12	<u>DC Injection Braking</u>	DC Injection braking circuit to be provided in Main Hoist for braking and slow hoisting	01 Set	Reputed	
13	<u>Cable Trolley & Chain</u>	Cable trolley suitable for ISMB 150mm X 75 mm in two steps are to be provided on crane for smooth movement of cables. Plate thickness should be min. 8 mm to be used. Chain of min. dia 6 mm to be provided for cable support.	20 Nos	Reputed	

SCOPE OF SUPPLY /WORK FOR RECONDITIONING OF 40T EOT CRANE (SMS)

Annexure A (WMI 40T)

	Item	BHEL Requirement	Qty.	Acceptable Makes	Supplier's Comments
14	<u>Siren</u>	One siren audible to 1000 mtr. along with foot switch to be supplied & installed by vendor	01 No.	Reputed	
15	<u>DSL Current Collector</u>	DSL Current Collector (along with jumpers) of min. 200A rating to be provided by vendor	6 Set	Reputed	
16	<u>Testing & Measuring Instruments</u>	Testing and Measuring instruments for maintenance a) One AC/Dc true RMS clamp meter equivalent to FLUKE model 325 b) One True RMS Multimeter equivalent to FLUKE model 179	01 Set	Meter: Fluke/ Agilent (Keysight)/ Yokogawa Tools: Taparia	
17	<u>Training</u>	Vendor shall provide adequate training to BHEL staff and Crane AMC persons for the Operation & Maintenance of the retrofitted/reconditioned crane.			
18	<u>Overhauling of Gear Boxes</u>	Vendor will inspect the total crane, Overhaul the gearboxes with proper oiling & greasing. If any part is required to be replaced, the same shall be jointly decided by BHEL and vendor. Material for such replacement will be supplied by BHEL free of cost however, no additional payment shall be made by BHEL towards service charges against any such replacements.			
19	<u>Painting</u>	Crane will be handed over to BHEL after painting with golden yellow/Orange colour.			
20	<u>Safety Arrangements:</u>	Following safety features in addition to other standard safety features should be provided on the crane:			

SCOPE OF SUPPLY /WORK FOR RECONDITIONING OF 40T EOT CRANE (SMS)

Annexure A (WMI 40T)

	Item	BHEL Requirement	Qty.	Acceptable Makes	Supplier's Comments
20.1		crane should have adequate and reliable safety interlocks / devices to avoid damage to the crane, workpiece and the operator due to the malfunctioning or mistakes. crane functions should be continuously monitored and alarm / warning indications through lights/ alarm should be available. A suitable anti collision device capable of stopping the crane and producing an audible siren before collision occurs.			
20.2		All the cables on the crane should be well supported and protected. These should not create any hinderance to crane operator's movement for effective use of crane.			
20.3		All the rotating parts used on crane should be statically & dynamically balanced to avoid undue vibrations.			
20.4		Emergency Switches at suitable locations as per International Norms should be provided.			
21	<u>Tools & Tackles</u>	All the tools and tackles for installing the system including any special tools shall be arranged by the supplier. All the special tools and tackles will be retained by BHEL for the maintenance purposes. BHEL will provide if the need be and subject to availability, only EOT crane facillities, power and water for use during installation of the system			
22	<u>General Comments</u>				
22.1		The supplier shall provide a list of spares required for trouble free operation of the crane after completion of the work.			
22.2		All the switchgear components including MCCBs, Contactors, Overload relays, Push Buttons etc. shall be of Siemens/L&T make only unless otherwise specified.			

SCOPE OF SUPPLY /WORK FOR RECONDITIONING OF 40T EOT CRANE (SMS)

Annexure A (WMI 40T)

	Item	BHEL Requirement	Qty.	Acceptable Makes	Supplier's Comments
22.3		All other components shall be of reputed make if not specified above. Vendor to mention exact make(s) for all the items for which specific make is not specified. CFFP reserves the right to select one or more make out of the offered ones. Any deviation from specified makes will render the offer rejected.			
22.4		All the drawings including structural and tentative circuit diagrams, shall be approved by BHEL, prior to commencement of manufacturing of the Panel/Desks/Stations etc. Drawings will be approved within 15 days of their submission to BHEL. However, increase in total time for drawing approval on account of incorrect drawings will not form a basis for increase in delivery time. Please also refer special terms and conditions.			
22.5		After dismantling work of the old components from the crane, cleaning & painting of crane will be arranged by the contractor. New wiring & installation work of other components will be done then after only.			
22.6		IT IS STRONGLY RECOMMENDED TO ALL POTENTIAL BIDDERS TO VISIT THE PLANT AND THE crane BEFORE BIDDING. ANY PRESUMPTION BY THE BIDDER REGARDING THE CONDITION OF THE crane, ITS COMPONENTS ETC. SHALL NOT BE ENTERTAINED BY BHEL ONCE THE PRICES ARE FIRMED UP.			
22.7		Vender has to supply all the material stated above in clause 1 to 13 even if it is not required in vender's scheme for retrofitting. Any other material required for retrofitting of the crane and not covered here has to be supplied by vender without any cost to BHEL.			
23	Documents:	Soft copy in a 16GB Pen Drive and Three sets of hard Copy of final circuit diagram to be submitted after commissioning of the crane.			

SCOPE OF SUPPLY /WORK FOR RECONDITIONING OF 40T EOT CRANE (SMS)

Annexure A (WMI 40T)

	Item	BHEL Requirement	Qty.	Acceptable Makes	Supplier's Comments
24	<u>Ambient Conditions</u>				
24.1	Max temperature	50°C			
24.2	Min temperature	0°C			
24.3	Relative humidity	97% max			
24.4	Altitude	300m above MSL			
24.5	General Ambient Conditions	Atmosphere contains significant amount of dust including electrically conducting and magnetic dust particles, smoke and fumes.			

SCOPE OF SUPPLY / WORK FOR RECONDITIONING OF 130 T CRANE (SMS)

Annexure A (JESSOP 130T)

	Item	BHEL Requirement	Qty.	Unit	Acceptable Makes	Supplier's Comments
1	Panels	Made of min 2 mm Thick sheet steel painted first with corrosion resistant paint followed by suitable no. of coats (min 2) of industrial off-white paint. Cabinet to be provided with protection against reptile/rodent entry and is to be made Dust & Vermin Proof. Suitable Cooling Arrangement to be provided for each individual section of the Cabinet. Panel base plate shall be min 2 mm thick and is to be provided with suitable removable gland plates mounted with sufficient number of cable glands of suitable sizes.			Cabinet: Rittal/ Schneider Switch Gear: Siemens/L &T	
1.1	Incomer Panel	Comprising MCCB & Contactor rated at Minimum 125% of peak load of panel, with Short Circuit Current rating as 50kA, having Thermal and Magnetic over current protection (adjustable overload and fixed short circuit), Earth fault protection. MCCB is to be provided with Extended rotary drive as per need. Incoming supply will be 415V, 50 Hz, 3-φ, 3-wire AC Supply through DSL without Neutral.	01	Set		
1.2	Protective Panel	Comprising MCCBs/MCBs & Contactors of suitable ratings (Min 125% of peak load of individual circuit as rated current and 50kA Short Circuit Current with Thermal and Magnetic over current trip (adjustable overload and fixed short circuit), for Main Hoist, Auxillary Hoist, Cross Travel, Long Travel, Lights, RRC, Cabin AC/Heater/Fan etc. as per loads detailed in trailing parts of this document.	01	Set		
1.3	Main Hoist Control Panel	Comprising of MCCB, MCB, Contactors, Timers of Overload Relays of suitable ratings for Main Hoist movement, including Main Motors, Thruster Brakes, Interlocking with Limit Switches & Safety Switches. Panel Should have individual sections for each of the MH Motors (refer List of Motors at #2). Panel is to be designed to operate through Master controller & RRC.	02	Set		
1.4	Auxiliary Hoist Control Panel	Comprising of MCCB, MCB, Contactors, Timers of Overload Relays of suitable ratings for Auxiliary Hoist movement, including Main Motors, Thruster Brakes, Interlocking with Limit Switches & Safety Switches. Panel Should have individual sections for each of the AH Motors (refer List of Motors at #2). Panel is to be designed to operate through Master controller & RRC.	01	Set		

SCOPE OF SUPPLY / WORK FOR RECONDITIONING OF 130 T CRANE (SMS)

Annexure A (JESSOP 130T)

	Item	BHEL Requirement	Qty.	Unit	Acceptable Makes	Supplier's Comments
1.5	Cross Travel Control Panel	Comprising of MCCB, MCB, Contactors, Timers of Overload Relays of suitable ratings for Cross Travel movement, including Main Motors, Thruster Brakes, Interlocking with Limit Switches & Safety Switches. Panel Should have individual sections for each of the CT Motors (refer List of Motors at #2). Panel is to be designed to operate through Master controller & RRC.	01 Set	Set		
1.6	Long Travel Control Panel	Comprising of MCCB, MCB, Contactors, Timers of Overload Relays of suitable ratings for Long Travel movement, including Main Motors, Thruster Brakes, Interlocking with Limit Switches & Safety Switches. Panel Should have individual sections for each of the LT Motors (refer List of Motors at #2). Panel is to be designed to operate through Master controller & RRC.	01 Set	Set		
1.7	Junction Box	Junction box as per existing scheme to be provided. Bus bar of suitable rating to be used for cable connections	02 Set	Set		
1.8	Meters					
1.8.1	Energy Meter	Microprocessor based Energy Meter (Voltage Input : Direct, Current Input : Through CT)	01	No.	Reputed	
1.8.2	Ammeters for Incomer	Analog Ammeters of suitable rating; one for each phase	03 Nos.	Nos.	AE/MECO	
1.8.3	CTs	Current Transformers of suitable rating as per need	03 Sets	Set	AE/KAPPA	
1.8.4	Voltmeters for Incomer	Analog Voltmeters of suitable rating; one for each phase	03 Nos.	Nos.	AE/MECO	
1.9	Indicators	High Luminosity LED Based indicators for Phase live, Motor Run-Off-Trip and Various Faults/Warning Indications of Cranes	01 Set	Set	Reputed	
1.10	Panel Illumination	LED based, Door switch operated, Panel Illumination of rating suitable for sufficient illumination of the panel during maintenance work, in each section	07 Set	Set	LED: Philips/Syska/ CG	

SCOPE OF SUPPLY / WORK FOR RECONDITIONING OF 130 T CRANE (SMS)

Annexure A (JESSOP 130T)

	Item	BHEL Requirement	Qty.	Unit	Acceptable Makes	Supplier's Comments
1.11	Terminals & Wiring	All wiring including wires/cables within panel and from panel to the field devices. Within panel, all wires to be laid in suitable covered wiring troughs/channels/trays. Between panel and field devices, all wires/cables are to be laid through suitable covered cable trays/flexible reinforced conduits etc. Between Panel and Field devices, atleast 10% extra wires must be laid. Distributed I/Os & Profibus communication are to be used to minimize no. of control wires. At least 10% extra terminals to be provided at each terminal Block. All the wires & cables to be supplied by vendor.				
1.11.1	Cables/Wires	The crane is working in Steel Melting Shop for the purpose of Liquid Metal Handling. All the Cables are to be suitably selected for protection against conductive and radiation heat and are to be rated at 120deg-C continuous thermal duty and capable of sustaining exposure to radiation from heat source at minimum 1650deg-C at a distance of 2000mm for minimum 2minutes.	01	Set		
1.11.2	Terminals	All power and Control Terminals in each panel should be grouped separately and each group should have minimum 10% extra Terminals.				
1.12	Cable Lugs	All wiring termination to be through appropriately sized Copper Crimping Lugs.	01 Set	Set	Reputed	
1.13	Cable Marking Ferrules	All wires (Power & Control) to be suitably marked with marking ferrules of appropriate size at each end.	01 Set	Set	Reputed	
1.14	Cable Glands	All cabling to be done through Cable Glands, suitable for each individual cable. All cable entry to be through removable gland plate provided at the bottom of the panel.	01 Set	Set	Reputed	

SCOPE OF SUPPLY / WORK FOR RECONDITIONING OF 130 T CRANE (SMS)

Annexure A (JESSOP 130T)

	Item	BHEL Requirement	Qty.	Unit	Acceptable Makes	Supplier's Comments
1.15	Control Supply	All Control and Auxillary Supplies to be derived from incomer 3-Ø, 3-Wire, 415VAC supply using suitable transformers / Rectifiers / Converters / Regulators / Power Supply Units etc. All solenoids / electromagnets in existing cranes and not being replaced, are to be driven by voltages as per existing scheme.				
1.16	Control Transformers	Control/Auxiliary Transformers of rating equal to min 150% of total control/auxiliary load connected to the transformer. Transformer should have input tapping for 415V, +/-2.5% and +/-5%.	02 Nos	Nos	Reputed	
2	Motors	Following motors are installed on the crane:				
2.1	Main Hoist Motor	72HP/ 53 KW, Stator Volt 415V, Stator Current 115A, Rotor Volt 265V, Rotor Current 125A, RPM 590, Type AMK 315 M10 R	2 Nos.	Nos		For Reference only
2.2	Auxillary Hoist Motor	82HP/ 61.5 KW, Stator Volt 415V, Stator Current 125A, Rotor Volt 305V Rotor Current 129A, RPM 725, Type KS315S	1 No.	No.		For Reference only
2.3	Long Travel Motor	38 HP/ 28.3 KW, Stator Volt 415V, Stator Current 57A, Rotor Volt 350V, Rotor Current 50A, RPM 730	4 Nos.	Nos		For Reference only
2.4	Cross Travel Motor	20HP/ 14.9KW, Stator Volt 415V, Stator Current 39A, Rotor Volt 225 V, Rotor Current 40A, RPM 735 TYPE 225MK	1 No.	No.		For Reference only
3	Thruster Brake Unit	Following complete thruster brakes with brake drum will be supplied by vendor			Stromag/Speedage/Kakku/Speed-o-control	
3.1	Thruster Brake for Main Hoist	AC Thruster operated complete brake assembly including Brake Drum Dia 500 mm, 72 Kg Capacity, 415V, 3-PH., 50HZ	4 Set	Set		
3.2	Thruster Brake for Auxillary Hoist	AC Thruster operated complete brake assembly including Brake Drum Dia 500 mm, 72 Kg Capacity, 415V, 3-PH., 50HZ	2 Set	Set		

SCOPE OF SUPPLY / WORK FOR RECONDITIONING OF 130 T CRANE (SMS)

Annexure A (JESSOP 130T)

	Item	BHEL Requirement	Qty.	Unit	Acceptable Makes	Supplier's Comments
3.3	Thruster Brake for Cross Travel	AC Thruster operated complete brake assembly including Brake Drum Dia 250 mm, 18 Kg Capacity, 415V, 3-PH., 50HZ	1 Set	Set		
3.4	Thruster Brake for Long Travel	AC Thruster operated complete brake assembly including Brake Drum Dia 300mm, 18 Kg Capacity, 415V, 3-PH., 50HZ	4 Set.	Set		
3.5	Oil Seals	Oil Seals for above thruster brake units are to be supplied	4 Nos. of each type	Nos. of each type		
4	Resistance Box	Cast Iron Plate Type Resistance boxes are to be supplied in accordance to the existing motors				
4.1	Main Hoist Resistance Box	Eight Step, Suitable for Rotor Volt 265V, Rotor Current 123A	2 Nos.	Nos.		
4.2	Auxillary Hoist Resistance Box	Eight Step, Suitable for Rotor Volt 215V, Rotor Current 147A	1 No.	No.		
4.3	Long Travel Resistance Box	Four Step, Suitable for Rotor Volt 350V, Rotor Current 33A	4 Nos.	Nos.		
4.4	Cross Travel Resistance Box	Four Step, Suitable for Rotor Volt 225V, Rotor Current 23.5A	1 No.	No.		
6	Limit Switches	All the existing limit switches (Rotary, Counter Weight/Gravity, Lever) are to be replaced with equivalent new limit switches with required necessary modification work.	8 Nos.	Nos.	BCH/Stromag/Speedage/kakku/Speed-o-control	
7	Master Controllers	Vendor will supply Gear Type Master Controllers for operation and control of the complete crane:			Stromag/Speedage/Kakku/Speed-o-control	

SCOPE OF SUPPLY / WORK FOR RECONDITIONING OF 130 T CRANE (SMS)

Annexure A (JESSOP 130T)

	Item	BHEL Requirement	Qty.	Unit	Acceptable Makes	Supplier's Comments
7.1	MH Master Controller	8 Step Master Controller to be provided for Main Hoist. There should be provision for hoisting with any one motor also.	01 No.	No.		
7.2	AH Master Controller	8 Step Master Controller to be provided for Auxillary Hoist.	01 No.	No.		
7.3	LT Master Controller	4 Step Master Controller to be provided for Cross Travel.	01 No.	No.		
7.4	CT Master Controller	4 Step Master Controller to be provided for Long Travel. There should be provision for LT movement with two motors also.	01 No.	No.		
7.5	MH & LT Master Controller	1 Step Master Controller to be provided for selection of hoisting with any one motor and LT movement with two motors	2 Nos.	Nos.		
8	<u>Radio Remote Control</u>	A suitable RRC system to be provided on crane. Crane can be operated from cabin as well as through remote . A separate panel should be provided on the crane for RRC receiver, decoder circuit & Relay Board. Safety interlocks and wiring to be done by vendor. All licenses required for RRC will be arranged by vendor in favor of CFFP, BHEL.	01 Set	Set	SNT/Electro Power/Tel ecrane	
9	<u>Crane Light</u>	The crane is to be provided with enough light using narrow beam LED Luminare of suitable rating (minimum 120 W, Lumen :12000 & above) for sufficient illumination on Ground floor. Light fittings are to be provided with protection IP65	04 Set	Set	Crompton Greaves/Philips/Bajaj/GE	
10	<u>Cabin Light & Fan</u>	The crane cabin is to be provided with LED Lamp of suitable rating (minimum 15W) for sufficient illumination of cabin & One Cabin Fan (Sweep 9")	01 Set	Set	Crompton Greaves/Philips/Bajaj/GE	
11	<u>Cabin Air Conditioner</u>	One no. 0.5 Ton, minimum 3 Star rated as per BEA standard Cabin AC to be installed in the cabin.	01 No.	No.	Reputed	

SCOPE OF SUPPLY / WORK FOR RECONDITIONING OF 130 T CRANE (SMS)

Annexure A (JESSOP 130T)

	Item	BHEL Requirement	Qty.	Unit	Acceptable Makes	Supplier's Comments
12	<u>Rotor Voltage Monitoring System</u>	Rotor Voltage Monitoring System to be provided for Main Hoist & Auxillary Motors. Any deviation should stop the crane control.	03 Nos.	Nos.	Siemens/ABB	
13	<u>Cable Trolley & Chain</u>	Cable trolley suitable for ISMB 150mm X 75 mm in two steps are to be provided on crane for smooth movement of cables. Plate thickness should be min. 8 mm to be used. Chain of min. dia 6 mm to be provided for cable support.	20 Nos	Nos.	Reputed	
14	<u>Siren</u>	One siren audible to 1000 mtr. along with foot switch to be supplied & installed by vendor	01 No.	No.	Reputed	
15	<u>DSL Current Collector</u>	DSL Current Collector (along with jumpers of required size) of min. 400A rating to be provide by vendor	6 Set	Set	Reputed	
16	<u>Testing & Measuring Instruments</u>	Testing and Measuring instruments for maintenance a) One AC/DC true RMS clamp meter equivalent to FLUKE model 325 b) One True RMS Multimeter equivalent to FLUKE model 179	01 Set	Set	Meter: Fluke/ Agilent (Keysight) / Yokogawa Tools: Tap aria	
17	<u>Training</u>	Vendor shall provide adequate training to BHEL staff and Crane AMC persons for the Operation & Maintenance of the retrofitted/reconditioned crane.				
18	<u>Overhauling of Gear Boxes</u>	Vendor will inspect the total crane, Overhaul the gearboxes with proper oiling & greasing. If any part is required to be replaced, the same shall be jointly decided by BHEL and vendor. Material for such replacement will be supplied by BHEL free of cost however, no additional payment shall be made by BHEL towards service charges against any such replacemnts.				

SCOPE OF SUPPLY / WORK FOR RECONDITIONING OF 130 T CRANE (SMS)

Annexure A (JESSOP 130T)

	Item	BHEL Requirement	Qty.	Unit	Acceptable Makes	Supplier's Comments
19	<u>Painting</u>	Crane will be handed over to BHEL after painting with golden yellow/Orange colour.				
20	<u>Safety Arrangements</u>	Following safety features in addition to other standard safety features should be provided on the crane:				
20.1		crane should have adequate and reliable safety interlocks / devices to avoid damage to the crane, workpiece and the operator due to the malfunctioning or mistakes. crane functions should be continuously monitored and alarm / warning indications through lights/ alarm should be available. Asuitable anti collision device capable of stopping the crane and producing an audible siren before collision.				
20.2		All the cables on the crane should be well supported and protected. These should not create any hinderance to crane operator's movement for effective use of crane.				
20.3		All the rotating parts used on crane should be statically & dynamically balanced to avoid undue vibrations.				
20.4		Emergency Switches at suitable locations as per International Norms should be provided.				
21	<u>Tools & Tackles</u>	All the tools and tackles for installing the system including any special tools shall be arranged by the supplier. All the special tools and tackles will be retained by BHEL for the maintenance purposes. BHEL will provide if the need be and subject to availability, only EOT crane facilities, power and water for use during installation of the system				
22	<u>General Comments</u>					
22.1		The supplier shall provide a list of spares required for two years trouble free operation of the crane after completion of the work.				

SCOPE OF SUPPLY / WORK FOR RECONDITIONING OF 130 T CRANE (SMS)

Annexure A (JESSOP 130T)

	Item	BHEL Requirement	Qty.	Unit	Acceptable Makes	Supplier's Comments
22.2		All the switchgear components including MPCBs, Contactors, Overload relays, Push Buttons etc. shall be of Siemens/L&T make only unless otherwise specified.				
22.3		All other components shall be of reputed make if not specified above. Vendor to mention exact make(s) for all the items for which specific make is not specified. CFFP reserves the right to select one or more make out of the offered ones. Any deviation from specified makes will render the offer rejected.				
22.4		All the drawings including structural and tentative circuit diagrams, shall be approved by BHEL, prior to commencement of manufacturing of the Panel/Desks/Stations etc. Drawings will be approved within 15 days of their submission to BHEL. However, increase in total time for drawing approval on account of incorrect drawings will not form a basis for increase in delivery time. Please also refer special terms and conditions.				
22.5		After dismantling work of the old components from the crane, cleaning & painting of crane will be arranged by the contractor. New wiring & installation work of other components will be done then after only.				
22.6		IT IS STRONGLY RECOMMENDED TO ALL POTENTIAL BIDDERS TO VISIT THE PLANT AND THE CRANE BEFORE BIDDING. ANY PRESUMPTION BY THE BIDDER REGARDING THE CONDITION OF THE CRANE, ITS COMPONENTS ETC. SHALL NOT BE ENTERTAINED BY BHEL ONCE THE PRICES ARE FIRMED UP.				
22.7		Vender has to supply all the material stated above in clause 1 to 16 even if it is not required in vender's scheme for retrofitting. Any other material required for retrofitting of the crane and not covered here has to be supplied by vender without any cost to BHEL.				
23	Documents:	Soft copy in a 16GB Pen Drive and Three sets of hard Copy of final circuit diagrams and other drawings/diagrams/manuals/other documents to be submitted after commissioning of the crane.				

SCOPE OF SUPPLY / WORK FOR RECONDITIONING OF 130 T CRANE (SMS)

Annexure A (JESSOP 130T)

	Item	BHEL Requirement	Qty.	Unit	Acceptable Makes	Supplier's Comments
24	Ambient Conditions					
24.1	Max temperature	50°C				
24.2	Min temperature	0°C				
24.3	Relative humidity	97% max				
24.4	Altitude	300m above MSL				
24.5	General Ambient Conditions	Atmosphere contains significant amount of dust including electrically conducting and magnetic dust particles, smoke and fumes.				
24.6	Specific Working Condition	The crane is used for handling liquid metal (steel of different grades) using open liquid metal laddles radiating heat at 1650°C to which crane is exposed. Protection to panels and cables is thus to be provided by the vendor against this heat.				

PRE-QUALIFICATION CRITERIA FOR RECONDITIONING OF 30T/40T/130T CRANES

Parameter	Clause No	Description	Instruction	Vendor's Response Agree/Disagree	Page Nos. of Document enclosed. Write "NA" if not Applicable	Remark, If any Deviation not acceptable
<p>IMPORTANT NOTE: All aspects mentioned below are mandatory and omission, disagreement and /or incomplete information /document may lead to rejection of offer without further communication.</p>						
Commercial	1.1	<p>The bidder must have successfully designed, manufactured, erected and commissioned similar cranes, out of which one crane should be of minimum 100Ton capacity in past five years and commissioned equipments are running successfully for past two years as on the Scheduled date of Tender Opening.</p> <p align="center">OR</p> <p>Have successfully completed the reconditioning of similar cranes in all respect for at least one crane of minimum 100 T capacity in past five years and commissioned equipments are running successfully for past two years as on the Scheduled date of Tender Opening.</p> <p align="center">OR</p> <p>Have successfully maintained similar cranes of capacity not less than 20 T and at least one crane of capacity 130 T or more for past 3 years as on the scheduled date of tender opening.</p> <p><u>The latest performance certificate with Purchase Order (PO) copy from the customer should accompany the offer. Without the performance certificate & PO Copy the offer will be ignored.</u></p>	Enclose Performance Certificate & PO Copy			
	1.2	Name and postal address of at least 3 (Three) customers where similar type of cranes are installed/reconditioned.	Enclose Details of 3 customers			
	1.3	Name and designation of the contact person of the customers mentioned for above clause.	Enclose Details of 3 customer's Contact Persons			
	1.4	Phone, FAX no and email address of the contact person of the customers mentioned for above clause.	Enclose Details of 3 customer's Electronic Contact details			
	1.5	Month and Year of commissioning/reconditioning of the cranes referred in the above clauses.	Enclose Details of 3 customer's Electronic Contact details			
	1.6	Supplier should have Turn Over (Annual Sales) of 1 Crore or more in any one of the last three financial years and at least 70 lakhs or more in all three (3) of the last financial years (12-13 to 14-15)	Highlighting Sales (TO) figure in Balance Sheet			
	1.6(a)	Audited Balance Sheet of last three financial years (12-13 to 14-15) are to enclosed	Enclose last 3 Audited Balance Sheets Copies			
	1.6(b)	IT returns of firm of last three financial years (12-13 to 14-15)are to enclosed	Enclose last 3 IT return filed Copies			
	1.6©	The bidder must not be a "SICK/POTENTIALLY SICK" company.	Submit self declaration and highlight last 3 years Profit Figures in Balance Sheet.			

Signature and stamp of tenderer

Signature of Issuing Authority

PRE-QUALIFICATION CRITERIA FOR RECONDITIONING OF 30T/40T/130T CRANES						
Parameter	Clause No	Description	Instruction	Vendor's Response Agree/Disagree	Page Nos. of Document enclosed. Write "NA" if not Applicable	Remark, If any Deviation not acceptable
IMPORTANT NOTE: All aspects mentioned below are mandatory and omission ,disagreement and /or incomplete information /document may lead to rejection of offer without further communication.						
Technical	2.1	Annexure - A (of supply scope of reconditioning work of cranes) should be filled and appropriate information against each and every points should be provided as directed.	For Annexure A, in case of disagreement and or lacuane which shall be considered as "NOT MEETING REQUIREMENT" then offer shall be ignored/rejected .			
	2.2	Annexure - I, II & III to be studied and complied. In case of disagreement with any point, the same must be stated in a tabular form indicating the annexure & point no. and deviation sought, thereof.				
General	3.1	In case the vendor is of Foreign Origin then details on SERVICE-AFTER-SALES Set-Up in India including the Address of Service Centres in North India along with PAN, TAN, and Registration certificate & Deed of agreement with Indian agent.	Name & Complete details of Indian Agent			
	3.2	All new vendor (Not already registered with CFFP BHEL Haridwar :Vendor Code not allotted) are required to submit filled Supplier Registration Form " SRF " along with all documents necissitated.The SRF can be downloaded from below link . <u>http://www.bhel.com/vender_registration/pdf/Guidelines_to_Indian_Suppliers_SEARP2010Amdt_04for_web_edit.pdf</u> Path :www.bhel.com →Supplier Registration→New Suppliers→Registration Form→" Choose as applicable "	Filled SRF with all required documents to be attached			
	3.3	Price Bid may be opened through Reverse Auction (RA) . RA shall be free of cost to vendor . Offer of only those vendors will be accepted who agree to opening of price bid through RA.				

Signature and stamp of tenderer

SCOPE OF WORK

For the Reconditioning of Cranes – 30 T, 130 T (SMS) & 40 T (SF)

The scope of work will consist of Design, Selection of Components, Procurement, Assembly, Supply and Installation of required material as per Specifications placed at Annexure A. The installation will consist of:

1. Dispatch of all the required material to CFFP.
2. Civil/mechanical work required, if any, should be communicated at least 4 weeks in advance & before supply of material. All necessary construction drawings will also have to be supplied by the contractor along with this communication.
3. Dismantling, removal & shifting to a place, designated by the executive in-charge, Crane Maintenance, of all the existing Panels, Motors, MG-Sets, controllers etc. at BHEL Hardwar and handing over the same to the executive in-charge, Crane Maintenance.
4. Transportation of supplied material to the cranes for installation and lifting of the materials to the cranes.
5. Mounting of all supplied Motors, Panels, brakes and boxes etc. at appropriate locations.
6. Laying of New Cables, including Power, Control & Signal Cables at appropriate locations and through proper Cable Routing Accessories like Drag Chains/Cable Hoses/Cable Laying Trays etc.
7. Inter connection of Panels, Cables and Field Devices including motors, drives, feedback devices etc.
8. Modifications of any nature including modifications in mounting devices of motors, panels etc. as and wherever required, in a manner suitable for the best performance of crane in its present mechanical condition.
9. Painting of crane as specified.
10. Cleaning of the work area after total installation work is completed.
11. Testing and proving out. This will include no load trial run, idle running for one week as per BHEL requirement at the time of commissioning etc.
12. Drawing and Supply of 4 Sets (3 Hard Copies and One Soft Copy in a suitable Media, preferably USB Flash Storage Device) of All the relevant drawings including but not limited to:
 - a. Complete List of Components used along with their designation in the circuit diagrams,
 - b. Complete Circuit Diagram,
 - c. Complete Wiring Diagram, including Termination Details, Cable Identification Details, Cable/Wire Lengths & Locations and Cable/Wire Route etc.,
 - d. List of Parameters for each drive, individually,
 - e. All other essential technical details not covered, herewith.

Note: Any work not covered in the scope of work but later found necessary for the completion of the project shall be executed by vendor without any additional charges.

Signature of Issuing Officer

Signature of Bidder/Tenderer

SPECIAL TERMS & CONDITIONS

This section details Special Terms & Conditions under which the contract is to be executed. These Terms & Conditions are in addition to the General, Safety and Other Terms & Conditions of BHEL, applicable to the Works Contracts, as per BHEL Works Policy. In case of conflict/contradiction between general and special terms & conditions, the latter shall prevail. The Special Terms and Conditions applicable are as below:

A. For acceptance of the tender submitted by BHEL:

- a. All the bidders are recommended to visit the plant (CFFP) for a first hand appraisal of the cranes. Any presumption regarding the condition of the cranes, by the bidder, shall not be entertained at a later stage.
- b. It is necessary for all the bidders to submit their bids in two parts viz. i. Techno-Commercial bid and, ii. Price Bid.
- c. For all material part, all the components are to be of same make as specified under Annexure A. **Complete and detailed Bill of Material is to be submitted by the bidder** along with reference of Annexure A. Any deviation from the specified makes may result into rejection of the tender without any further communication.
- d. All the bidders have to specify the delivery schedule of material part of the contract in the technical bid. Normally accepted delivery period will be 12 Weeks from the date of issue of work order. Any deviation will attract loading as specified in Part I of this annexure. Also, this will form the basis for finalizing the date of handing over the cranes to contractor, by BHEL, for the purpose of start of work.
- e. Bidders have to specify the time period required for dismantling of old and installation of new system, from the date of handing over the cranes to them for the purpose of installation work, separately. The upper limit to this period will be 8 weeks. Any deviation will attract loading as specified in Part I of this annexure.
- f. BHEL may choose to award the contract of supply & installation for all three cranes separately. The time period mentioned for supply and installation shall remain same for part as well as complete order. BHEL's decision in this regard shall be deemed final.

B. Pre-dispatch inspection (PDI):

- a. Pre-dispatch inspection of all the items covered under Scope of Supply Annexure-A may be carried out by BHEL at party's works.
- b. Supplier shall invite BHEL for carrying out pre- dispatch inspection.

Signature of Issuing Officer

Signature of Bidder/Tenderer

SPECIAL TERMS & CONDITIONS

- c. Before inviting BHEL for pre-dispatch inspection vendor will submit Bill of material for material under SOS (& copy of electrical drawing/ schematic of crane to BHEL) with at least 7 days prior notice.
 - d. Deputed BHEL persons shall do pre acceptance at vendor works and give dispatch clearance.
 - e. Expenses of Boarding and lodging of BHEL personnel during PDI shall be borne by BHEL.
- C. Earnest money deposit (EMD):
- a. Vendors have to submit EMD as mentioned in tender notice. EMD may be deposited in cash (as permissible under Income tax Act), through pay order or demand draft in favor of Account officer, CFFP, BHEL, Hardwar payable at Haridwar or may be credited through e-transfer in to SBI BANK A/C NO – 10667995469, IFSC: SBIN0000586, A/C Name CFFP/BHEL, RANIPUR, HARIDWAR with proper remarks containing purpose & name of depositor.
 - b. EMD shall be converted to security deposit if the work is awarded.
 - c. EMD of unsuccessful vendors shall be refunded back normally within fifteen days of acceptance of award of work by the successful vendor.
 - d. EMD shall not carry any interest.
 - e. **EMD by vendor will be forfeited as per tender document, if**
 - i. After opening the tender, the tenderer revokes his tender within the validity period or increases his earlier quoted rates.
 - ii. The tenderer does not commence the work within the period as per LOI/contract.
 - f. **Offers without EMD will be rejected and will not be considered for evaluation. However valid NSIC certificate may be considered subject to receipt of notarized copy / copy attested by gazetted officer & verification.**
 - g. The payment of EMD may be exempted as applicable under the Works Policy – 2008 subject to submission of documents regarding the same.
- D. At the award of contract:
- a. The successful bidder will have to submit a security deposit as per BHEL Works Policy, within 15 days of award of work. The rates are as here under:
 - i. Up to Rs. 10Lakhs : 10%
 - ii. Above Rs. 10Lakhs up to Rs. 50Lakhs : Rs. 1Lakh+7.5% of amount above Rs. 10Lakh.
 - iii. Above Rs. 50Lakhs : Rs. 4Lakhs+5% of amount exceeding Rs. 50Lakhs.

Signature of Issuing Officer

Signature of Bidder/Tenderer

SPECIAL TERMS & CONDITIONS

- b. Alternatively the 50% of Security Deposit must have to be submitted before start of the work. Balance 50% will be deducted from the first payment.
 - c. Security Deposit is to be made in the form of Demand Draft/pay order drawn in favour of CFFP, BHEL, Haridwar, payable at Haridwar. This can also be submitted through Electronic Transfer (ECS)/ Bank Guarantee/ Fixed Deposit Receipt (FDR). The Bank Guarantee format should have the approval of BHEL. The FDR should be in the name of the contractor, A/C BHEL, duly discharged on the back.
 - d. EMD of the successful tenderer can be converted and adjusted against the security deposit.
 - e. If vendor fails to submit the Security Deposit with in specified time frame the Work Order may be treated as cancelled.
 - f. The security deposit shall not carry any interest.
 - g. The cranes will be handed over to the contractor for a period not exceeding 2 days (including intervening Sundays/Holidays) for the purpose of getting measurements. This activity will necessary have to be carried out by the contractor within 4 weeks of award of the Work Order or before dispatch of material from their end, whichever is earlier.
 - h. The exact time of handing over the cranes to the successful bidder (contractor) by BHEL for the purpose of work, will be intimated to the contractor along with the work order or at a later stage after confirmation from the contractor regarding readiness of all items as required and the contractor will have to start the work within a week's time from the stipulated date of start of work. The work can be started only after deposit of the Security Deposit as mentioned at D.a above. The time of handing over the cranes for retrofitting/reconditioning work by BHEL will however not bear any implication on the supply of material part.
- E. For the purpose of execution of work at BHEL:
- a. All the bidders have to ensure that all their workmen, proposed to be engaged for the work within BHEL Premises are covered under PF & ESI for the duration for which work is to be carried out or the Vendor must have to submit a notarized affidavit to the effect that by virtue of no of employees being less (less than 20 for PF & less than 10 for ESI) exemption from PF and/or ESI is applicable. In such a case, the vendor will not be allowed to deploy employees, in number, more than the numbers as applicable at any point of time during the execution of the work in BHEL Premises and Vendor will also ascertain the same in the same affidavit. **While execution of the work all the labor laws will be followed by the vendor.**

Signature of Issuing Officer

Signature of Bidder/Tenderer

SPECIAL TERMS & CONDITIONS

- b. All the material required for the execution of work will have to be supplied by the contractor to CFFP, BHEL before handing over of the machine to the contractor. All such material is liable to be inspected by BHEL either at the works of the contractor (before dispatch) or at CFFP after receipt of material. In case the material is inspected at CFFP, the same will be done within a week's time from the date of receipt of complete set of material.
 - c. BHEL, for the works being carried out within BHEL factory premises, will provide only following facilities to the contractor, free of cost:
 - i. EOT Crane along with crane operator, as per requirement and availability,
 - ii. Electricity & Water
 - iii. Welding Machine, Maximum one no., subject to availability,Welders and all consumables will have to be arranged by the contractor at their own cost.
 - d. All the dismantling work of machine will be carried out by the contractor in presence of the executive in charge of Crane Maintenance or other BHEL representative, deputed by Head of Department, Maintenance & Services Department.
 - e. BHEL, at its discretion, may inspect some or all the components before their dispatch from the contractor's works.
 - f. While working within BHEL factory area, the contractor will use their own tools, tackles and safety equipments except EOT Crane and Welding Machine. Any Tool or Tackle which may be required for maintenance of the reconditioned/retrofitted machine in future will be retained by BHEL after acceptance of machine by BHEL.
 - g. Contractor shall provide proper PPEs to all its workers for the purpose of working on cranes. BHEL shall not be liable for any provision of the same.
 - h. Contractor shall ensure deployment of workers working for reconditioning of cranes in proper health. BHEL may ask for medical certificates of the deployed workers duly signed by a registered medical practitioner.
 - i. BHEL shall also not be liable for payment of any damage in case of any accident to contractor workers thereof, during work.
- F. Payment Terms:
- a. 80% of material cost along with 100% taxes & duties (Excise duty, CST/VAT as applicable) after receipt of material at CFFP, BHEL, and its **joint inspection and acceptance** at CFFP. Balance 20% of

Signature of Issuing Officer

Signature of Bidder/Tenderer

SPECIAL TERMS & CONDITIONS

material cost along with Security Deposit & Cost of installation & proving out will be paid after completion of commissioning work & acceptance of machine by BHEL (Also refer Clause G below) after submission of Performance Bank (PBG) Guarantee of 10% of contract value. If vendor fails to provide the PBG for the required value, the payment will be made deducting the PBG amount.

- b. All the payments shall be made through e-payment after submission of following documents along with first bill.
 - i. E-payment form duly filled (Form will be provided by BHEL)
 - ii. Income tax exemption letter(if applicable)
 - iii. Excise duty & CST/VAT will be paid on material cost and service tax will be paid on commissioning charges at actual. Related original documents to be submitted for availing MODVAT credit by BHEL.
 - iv. Timely submission of CENVATABLE invoices along with necessary documents to enable availment of CENVAT (Excise duty, Service Tax & VAT) credit by BHEL.

Note: Wherever CENVAT credit cannot be availed within given time limit due to delay in submission of invoices or for any other reasons attributed to vendor, loss of such CENVAT credit will be recovered from such vendor.

- c. Invoices will be raised separately for material & commissioning.
- d. Form "C" will be issued against CST after acceptance of Material at BHEL.
- e. No advance payment will be made by BHEL.
- f. Proof for Service Tax deposit is must to submit for the payment of commissioning charges.

G. Penalty Clause:

- a. A delay in supplying the material for reconditioning of the cranes to BHEL, by the contractor, beyond scheduled date as specified in the Work Order or otherwise shall attract a penalty of 0.5% per week or part of that, subject to a maximum of 10% of contract value (including both supply and works).
- b. A delay in handing over of the cranes to BHEL, by the contractor, beyond scheduled date as specified in the Work Order or otherwise shall attract a penalty of 0.5% per week or part of that, subject to a maximum of 10% of contract value (including both supply and works).
- c. In case of application of both penalties, the maximum value of penalty (including that on supply and that on works) shall be 15% of the contract value (including both supply and works). The total period

Signature of Issuing Officer

Signature of Bidder/Tenderer

SPECIAL TERMS & CONDITIONS

of execution will be calculated from issue of work order to handing over the cranes to BHEL less any time taken by BHEL for handing over the machine to contractor for installation work.

H. Guarantee/Warranty:

- a. The contractor will provide a guarantee/warranty of minimum 24 months for all the material supplied under this contract and also the retrofitted system as whole. Any deviation from the specified period will attract loading as detailed in part I of this annexure. In any case, guarantee/warranty less than 12 months will not be acceptable. The guarantee/warranty will be supported by submission of a Performance Bank Guarantee of 10% of contract value. The guarantee/warranty period will start immediately after the acceptance of machine by BHEL.
- b. If breakdown of the machine is not responded within 48 hrs during the guarantee/warranty period, the guarantee/warranty period will stand extended for double the corresponding period.
- c. Breakdowns not attended during the guarantee/warranty period will lead forfeiting of PBG.

I. Reverse Auction (RA):

- a. BHEL reserves the right to go for Reverse Auction (RA) instead of opening the sealed envelope price bid, submitted by the bidder. This will be decided after techno-commercial evaluation. All bidders to give their acceptance for participation in RA. Non-acceptance to participate in RA may result in non-consideration of their bids, in case BHEL decides to go for RA.
- b. In case BHEL decides to go for Reverse Auction, only those bidders who have given their acceptance to participate in RA will be allowed to participate in the Reverse Auction. Those bidders who have given their acceptance to participate in Reverse Auction will have to necessarily submit 'online sealed bid' in the Reverse Auction. Non-submission of 'online sealed bid' by the bidder will be considered as tampering of the tender process & will invite action by BHEL as per extant guidelines in vogue.
- c. For reference Terms & Conditions of Reverse Auction are given separately.

J. Acceptance of cranes as commissioned:

- a. The cranes will be verified through joint inspection by BHEL & Contractor for the acceptance of the cranes. The contractor shall ensure supply of material to BHEL as per the work order. Any deviation from the same shall be brought to the notice of BHEL and approval must be taken thereof. BHEL may

Signature of Issuing Officer

Signature of Bidder/Tenderer

SPECIAL TERMS & CONDITIONS

provide a list of pending points – including those, both of supply and works to be corrected by the vendor for the handing over of the cranes. BHEL's decision in this regard shall be considered as final.

- b. The cranes, after commissioning will be put to operation activities for a period of one week during which the cranes must be able to operate uninterruptedly. During this period, the contractor will ensure that any snag in the cranes is rectified immediately.
- c. The contractor will have to submit a bank guarantee of 10% of total contract value for a period equal to guarantee/warranty period from the date of final acceptance of the cranes as performance guarantee for the reconditioned/retrofitted cranes.

K. Risk Purchase:

- a. In case of delays in supplies / defective supplies or non-fulfillment of any other terms & conditions given in the work order the purchaser may cancel the work order in full or part thereof and may also make the purchase of the material / service from elsewhere / alternative source at the risk and cost of supplier.

If vendor does not agree to above clause, their offer is liable to be rejected. In case any vendor accepts risk purchase clause initially and subsequently declines to honor the term in the eventuality of RISK PURCHASE, they may be banned for business with BHEL.

L. Deviations and Loading:

- a. Loading will be calculated on the total price offered by the bidder and the total loaded price will be used for identifying the L-1 bidder.
- b. In case, after loading, two bidders are found to be at exactly same price, the actual offered price will be considered for comparison.
- c. The loaded price will be used only for comparison purposes. Loading will not affect the work order price which will be the quoted price or the negotiated price whichever is less.
- d. Deviations other than those mentioned at I.e and I.f below will not be accepted by BHEL.
- e. Loading against various deviations will be as detailed below, the total loading will be sum of all the three loading factors (apart from payment terms):

SPECIAL TERMS & CONDITIONS

S. No.	Clause No.	Deviation allowed with Loading	Rate of Loading	Remarks
1.	A.e	Bidder may offer a delivery longer than 12 weeks for material supply part but in no case more than 18 weeks	@1.25% per week (or part thereof) above 12 weeks subject to a maximum of 5%	Delivery period more than 18 weeks will not be acceptable in any case.
2.	A.f	Bidder may offer Execution period of more than 4 weeks for work part but in no case more than 8 weeks	@1.50% per week (or part thereof) above 4 weeks subject to a maximum of 5%	Execution period more than 8 weeks will not be acceptable in any case.
3.	F.a	Bidder may offer a guarantee/warranty period of less than 24 months but in no case less than 12 months from the date of acceptance of machine by BHEL.	@0.5% per month (or part thereof) below 24 months subject to a maximum of 5%	Guarantee/Warranty of less than 12 months from the date of acceptance of machine by BHEL will not be acceptable in any case.

- f. In case, any vendor seeks deviation from the payment terms, loading shall be done on the same on the basis of Prime Lending Rate of SBI on the date of opening of part I of the tender + 6%, as applicable.

Signature of Issuing Officer

Signature of Bidder/Tenderer

Terms & Conditions of Reverse Auction

Against this enquiry for the subject item/ system with detailed scope of supply as per enquiry specifications, BHEL is going for REVERSE AUCTION PROCEDURE i.e., ON LINE BIDDING (THROUGH A SERVICE PROVIDER). The philosophy followed for reverse auction shall be English Reverse (No ties).

1. For the proposed reverse auction, technically and commercially acceptable bidders only shall be eligible to participate.

2. Those bidders who have given their acceptance for Reverse Auction (quoted against this tender enquiry) will have to necessarily submit 'online sealed bid' in the Reverse Auction. Non-submission of 'online sealed bid' by the bidder for any of the eligible items for which techno-commercially qualified, will be considered as tampering of the tender process and will invite action by BHEL as per extant guidelines in vogue.

3. BHEL will engage the services of a service provider who will provide all necessary training and assistance before commencement of on line bidding on internet.

4. Business rules like event date, time, bid decrement, extension etc. also will be communicated through service provider for compliance.

5. Bidders have to email / fax the Compliance form (annexure III.b) before start of Reverse auction. Without this, the bidder will not be eligible to participate in the event.

6. In line with the NIT terms, BHEL will provide the calculation sheet (e.g., EXCEL sheet) which will help to arrive at "Total Cost to BHEL" like Packing & forwarding charges, Taxes and Duties, Freight charges, Insurance, Service Tax for Services and loading factors (for non-compliance to BHEL standard Commercial terms & conditions) for each of the bidder to enable them to fill-in the price and keep it ready for keying in during the Auction.

7. Reverse auction will be conducted on scheduled date & time.

8. At the end of Reverse Auction event, the lowest bidder value will be known on auction portal.

9. The lowest bidder has to fax/e-mail the duly signed and filled-in prescribed format for price breakup including that of line items, if required, (Annexure III.c) as provided on case-to-case basis to Service provider within two working days of Auction without fail.

Signature of Issuing Officer

Signature of Bidder/Tenderer

10. In case BHEL decides not to go for Reverse Auction procedure for this tender enquiry, the Price bids and price impacts, if any, already submitted and available with BHEL shall be opened as per BHEL's standard practice.

11. Bidders shall be required to read the "Terms and Conditions" section of the auctions site of Service provider, using the Login IDs and passwords given to them by the service provider before reverse auction event. Bidders should acquaint themselves of the 'Business Rules of Reverse Auction', which will be communicated before the Reverse Auction.

12. If the Bidder or any of his representatives are found to be involved in Price manipulation / cartel formation of any kind, directly or indirectly by communicating with other bidders, action *as per extant BHEL guidelines*, shall be initiated by BHEL and the results of the RA scrapped / aborted.

13. The Bidder shall not divulge either his Bids or any other exclusive details of BHEL to any other party.

14. BHEL reserves the right not to allow the H1 bidder(s) (whose quote is highest in online sealed bid) to participate in further RA process.

Signature of Issuing Officer

Signature of Bidder/Tenderer

Business Rules, Terms & Conditions of Online Reverse Auction for : Reconditioning of cranes 30T, 130 T (SMS) & 40 T (SF)

BUYER'S NAME	CENTRAL FOUNDRY FORGE PLANT (CFFP) BHARAT HEAVY ELECTRICALS LIMITED MM : CFFP/BHEL HARIDWAR
AUCTION TO BE CONDUCTED BY	
DATE & TIME OF AUCTION	Auction Date : Online Sealed Bid Time : Online Reverse Auction Time :
DOCUMENTS ATTACHED	1) Business rules for reverse auction 2) Terms & conditions of reverse auction 3) Process Compliance Form (Annexure III.a) 4) Details of items to be Reverse Auctioned (Annexure III.b) 5) Price confirmation & breakup by Bidder (Annexure III.c) 6) Contact Information (Annexure III.d)

Signature of Issuing Officer

Signature of Bidder/Tenderer

Business Rules for Reverse Auction

BHEL shall finalise the Rates for (Scope of work) through Reverse Auction mode. BHEL has made arrangement with (service provider) who shall be BHEL's authorized service provider for the same. Bidders should please go through the guidelines given below and submit acceptance of the same.

The technical & commercial terms are as per:

- (a) BHEL (NIT No. & date)
- (b) Bidder's technical & commercial bid (in case of two part bid) and
- (c) subsequent correspondence between BHEL and the bidders, if any.

1. Schedule for reverse auction: The Reverse Auction is tentatively scheduled on

Online Sealed Bid:-

Start Time:

Close Time:

Online Reverse Auction:-

Start Time:

Close Time:

2. Auction extension time: If a bidder places a bid in the last 10 minutes of closing of the Reverse Auction and if that bid gets accepted, then the auction duration shall get extended automatically for another 10 minutes, for the entire auction (i.e. for all the items in the auction), from the time that bid comes in. Please note that the auto-extension will take place only if a bid comes in those last 10 minutes and if that bid gets accepted as the lowest bid. If the bid does not get accepted as the lowest bid, the auto-extension will not take place even if that bid might have come in the last 10 minutes. In case, there is no bid in the last 10 minutes of closing of Reverse Auction, the auction shall get closed automatically without any extension. However, bidders are advised not to wait till the last minute or last few seconds to enter their bid during the auto-extension period to avoid complications related with internet connectivity, network problems, system crash down, power failure, etc.

The above process will continue till completion of Reverse Auction.

Complaints/ Grievances, if any, regarding denial of service or any related issue should be given in writing thru e-mail/ fax to (service provider).with a copy to BHEL within 15 minutes from the initial closing time of Online Reverse Auction.

Signature of Issuing Officer

Signature of Bidder/Tenderer

3. Bid price: The Bidder has to quote the F.O.R. destination Price inclusive of Packing & Forwarding charges, all the routine & type tests as per tender scope, ED+ Cess, CST against C-form, Freight (bidder to provide original Freight paid receipt), insurance charges, etc. including loading (if indicated by BHEL due to deviations in commercial terms) for the Items specified. Details are as shown in Excel Sheet for calculation of Landed cost.

Note: For the consideration of L1 bidder, the bid value shall be reduced by loading amount, if applicable.

4. Bidding currency and unit of measurement: Bidding will be conducted in {*Indian Rupees per Unit*} of the material as per the specifications.

In case of foreign currency bids, exchange rate (TT selling rate of State Bank of India) as on scheduled date of tender opening (Part-I bid in case of two part bid) shall be considered for conversion in Indian Rupees.

5. Validity of bids: Price shall be valid up to (date). These shall not be subjected to any change whatsoever.

6. Lowest bid of a bidder: In case the bidder submits more than one bid, the lowest bid at the end of Online Reverse Auction will be considered as the bidder's final offer to execute the work.

7. Post auction procedure: BHEL will proceed with the Lowest Bid in the Reverse Auction for further processing.

8. Procedure of Reverse Auctioning

- i. **Online Sealed Bid:** The duration of online sealed bid will be 30 minutes. All bidders are to submit their online sealed bids during this period.
- ii. **Online Reverse Auction:** The 'opening price' i.e. start price for RA and 'bid decrement' will be decided by BHEL.
- iii. If BHEL decides the lowest online sealed bid as the starting price, then the lowest bidder in online sealed bid shall be shown as current L1 automatically by the system and no acceptance of that price is required. System shall have the provision to indicate this bid as current L1.
- iv. Bidders by offering a minimum bid decrement or the multiples thereof can displace a standing lowest bid and become 'L1' and this continues as an iterative process.
- v. After the completion of the online reverse auction, the Closing Price (CP) shall be available for further processing.

9. If no bid is received in the auction system/ website within the specified time duration of the online RA, then BHEL will scrap the online reverse auction process and proceed with the conventional mode of tendering (opening of the envelope sealed bids earlier submitted by the bidders).

Signature of Issuing Officer

Signature of Bidder/Tenderer

In cases where no bidder accepts the start price, the RA may be treated as failed and sealed envelope price bids of all the techno-commercially qualified bidders shall be opened and the tender processed accordingly. Wherever the techno-commercially acceptable bidder(s) had agreed to participate in the RA and had failed to submit the online sealed bid, the envelope sealed bids of such bidder(s) shall not be entertained.

Wherever, the evaluation is done for individual items of the package, and no bid is received for some of the item(s), RA will be considered as failed for these item(s), re-reverse auction/ retendering will be conducted for these items.

10. Only those bidders who have submitted the 'online sealed bid' within the scheduled time shall be eligible to participate further in RA process. However, the H1 bidder(s) (whose quote is highest in online sealed bid) may not be allowed to participate in further RA process.

11. Any commercial/ technical loading shall be intimated to bidders prior to RA. The excel sheet provided in this regard shall cover all these aspects. Commercial/ technical loading if any, shall be added by the respective bidder in its price during online sealed bid & Online Reverse Auction. Modalities of loading & de-loading shall be separately intimated to the bidders.

12. Computerized reverse auction shall be conducted by BHEL (through service provider), on pre-specified date, while the bidders shall be quoting from their own offices/ place of their choice. Internet connectivity shall have to be ensured by bidders themselves.

During the RA if a bidder is not able to bid and requests for extension of time by fax/ e-mail/ phone then time extension of additional 15 minutes will be given by the service provider provided such requests come before 5 minutes of auction closing time. However, only one such request per bidder can be entertained.

Despite this extension if bidder fails to upload his prices due to extreme case of failure of Internet connectivity, (due to any reason whatsoever may be) it is the bidder's responsibility/ decision to send fax communication immediately to service provider furnishing the price the bidder wants to bid online with a request to the service provider to upload the faxed price online so that the service provider will up load that price online on behalf of the Bidder. It shall be noted clearly that the concerned bidder communicating this price to service provider has to solely ensure that the fax message is received by the service provider in a readable/ legible form and also the Bidder should simultaneously check up with service provider about the clear receipt of the price faxed. It shall also be clearly understood that the bidder shall be at liberty to send such fax communications of prices to be uploaded by the service provider only within the closure of Bid time and under no circumstance it shall be allowed beyond the closure of Bid time /reverse auction. It shall also be noted that the service provider should be given a reasonable required time by the bidders, to upload such prices online and if such required time is not available at the disposal of the Service provider at the time of receipt of the fax message from the bidders, the service provider will not be uploading the prices and either BHEL or the service provider are not responsible for this unforeseen circumstances. In order to ward-off such contingent situation bidders are requested to make all the necessary arrangements/ alternatives whatever required

Signature of Issuing Officer

Signature of Bidder/Tenderer

so that they are able to circumvent such situation and still be able to participate in the reverse auction successfully. Failure of power or loss of connectivity at the premises of bidders during the Reverse auction cannot be the cause for not participating in the reverse auction. On account of this, the time for the auction cannot be extended and neither BHEL nor service provider is responsible for such eventualities.

13. Proxy bids: Proxy bidding feature is a pro-bidder feature to safe guard the bidder's interest of any internet failure or to avoid last minute rush. The proxy feature allows bidders to place an automated bid in the system directly in an auction and bid without having to enter a new amount each time a competing bidder submits a new offer. The bid amount that a bidder enters is the minimum that the bidder is willing to offer. Here the software bids on behalf of the bidder. This obviates the need for the bidder participating in the bidding process until the proxy bid amount is decrementally reached by other bidders. When proxy bid amount is reached, the bidder (who has submitted the proxy bid) has an option to start participating in the bidding process.

The proxy amount is the minimum amount that the bidder is willing to offer. During the course of bidding, the bidder cannot delete or change the amount of a proxy bid.

Bids are submitted in decrements (decreasing bid amounts). The application automates proxy bidding by processing proxy bids automatically, according to the decrement that the auction originator originally established when creating the auction, submitting offers to the next bid decrement each time a competing bidder bids, regardless of the fact whether the competing bids are submitted as proxy or standard bids. However, it may please be noted that if a manual bid and proxy bid are submitted at the same instant manual bid will be recognized as the L1 at that instant.

In case of more than one proxy bid, the system shall bid till it crosses the threshold value of 'each lowest proxy bid' and thereafter allow the competition to decide the final L1 price.

Proxy bids are fed into the system directly by the respective bidders. As such this information is privy only to the respective bidder(s).

14. Bidders are advised to get fully trained and clear all their doubts such as refreshing of Screen, quantity being auctioned, tender value being auctioned etc.

15. Service provider shall arrange to demonstrate/ train the bidder or bidder (s) nominated person(s), without any cost to bidders. service provider shall also explain the bidders, all the rules related to the Reverse Auction/ Business Rules Document to be adopted along with bid manual. Bidders are required to give their compliance on it before start of bid process.

16. Successful bidder shall be required to submit the final prices, quoted during the Online Reverse Auction in *Annexure - III* after the completion of auction to M/s service provider besides BHEL, duly signed and stamped as token of acceptance without any new condition other than those already agreed to before start of auction.

Signature of Issuing Officer

Signature of Bidder/Tenderer

17. Any variation between the final bid value and that in the confirmatory signed price breakup document will be considered as tampering the tender process and will invite action by BHEL as per extant guidelines in vogue.

18. Bidders' bid will be taken as an offer to execute the work/ supplies the item as per (NIT No.) Bids once made by the bidder, cannot be cancelled/ withdrawn and bidder shall be bound to execute the work as mentioned above at bidder's final bid price. Should bidder back out and not execute the contract as per the rates quoted, BHEL shall take action as per extant guidelines in vogue.

19. Bidders shall be assigned a **Unique User Name & Password** by BHEL or service provider. *Bidders* are advised to change the Password and edit the information in the Registration Page after the receipt of initial Password from BHEL/ service provider to ensure confidentiality. All bids made from the Login ID given to the bidders will be deemed to have been made by the bidders/ bidders' company.

20. Bidders shall be able to view the following on their screen along with the necessary fields during Online Reverse Auction:

- a. Leading (Running Lowest) Bid in the Auction (only total price of package)
- b. Bid Placed by the bidder
- c. Start Price
- d. Decrement value

21. After receipt of the system report from the Service Provider after completion of the Online Reverse Auction, BHEL will decide upon the winner. BHEL (s) decision on award of contract shall be final and binding on all the Bidders.

22. BHEL reserves the right to cancel the Reverse Auction process/ tender at any time, before ordering, without assigning any reason.

23. BHEL shall not have any liability to bidders for any interruption or delay in access to the site irrespective of the cause. In such cases, the decision of BHEL shall be binding on the bidders.

24. Other terms and conditions shall be as per bidder(s) techno-commercial offers and other correspondences, if any, till date.

25. Bidders are required to submit their acceptance to the terms/ conditions/ modalities before participating in the Reverse Auction in the process compliance Form as per *Annexure-II*.

26. BHEL can decide to extend, reschedule or cancel any Auction with prior intimation to all bidders.

27. If there is any clash between this business document and the FAQ available, if any, in the web site of service provider the terms& conditions given in this business document will supercede the information contained in the FAQs. Any changes made by BHEL/ service provider (due to

Signature of Issuing Officer

Signature of Bidder/Tenderer

unforeseen contingencies) after the first posting shall be deemed to have been accepted if the bidder continues to access the portal after that time.

28. BHEL also reserve the right for ordering and may or may not order for all the lots / total quantity for which reverse auction is being held.

Signature of Issuing Officer

Signature of Bidder/Tenderer

ANNEXURE- III.a

The List of Items to be procured along with the Quantities and the Auction Start Time & Close Time is as follows:

Reference NIT NO:

S No	Item Description	Quantity	Opening Price	Bid Decrement	Opening Time	Closing Time
1.	Reconditioning of cranes – 30 T, 130 T (SMS) & 40 T (SF)	1 No.	Would be displayed before five minutes of the Auction		As mentioned in Business Rule document	

- I. Rate in ₹ (landed cost net of CENVAT at CFFP) to be quoted in the auction. Calculation sheet already provided.
- II. Scope of Supply & Work will as detailed

Note: The Total price to be quoted by the vendor for reverse auction is considering the Scope of supply & work as per the enquiry & subsequent correspondence / MOM and the quantity as mentioned above. The quoted price shall be FIRM, Landed Price in INR Currency only which is inclusive of packing & forwarding charges, freight charges (as per calculation format), all taxes, duties, levies, service tax and any other taxes / charges as applicable. The order if placed shall be as per agreed terms back calculated through the given.

Signature of Issuing Officer

Signature of Bidder/Tenderer

Annexure- III.b
Process Compliance Form

(The bidders are required to print this on their company's letter head, sign & stamp before emailing / faxing a scanned copy)

To

Sub: Agreement to the Process related Terms and Conditions
Dear Sir

This has reference to the Terms & Conditions for the Reverse Auction mentioned in the RFQ/Tender document for the (Scope of work against NIT No. dated)

This letter is to confirm that:

- 1) The undersigned is authorized official / representative of the company to participate in RA & to sign the related document.
- 2) We have studied the Reverse Auction Terms & Conditions and the Business rules governing the Reverse Auction as mentioned in your letter and confirm our agreement to them. We have also studied the calculation sheet carefully & accept same.
- 3) We also confirm that we have taken the training on the auction tool and have understood the functionality of the same thoroughly.
- 4) We also confirm that, in case we become L1 bidder, we will email/ fax the price confirmation & break up of our quoted price (including that of line items) as per Annexure - III within two working days (of BHEL) after completion of RA event, besides sending the same by registered post/ courier both to M/s. BHEL and M/s. (Service provider).

We hereby confirm that we will honor the Bids placed by us during the auction process.

With regards,

Signature with company seal

Name –

Company / Organization –

Designation within Company / Organization –

Address of Company / Organization –

-- Sign this document and email / Fax a copy to (Service Provider) prior to start of the Event.

Signature of Issuing Officer

Signature of Bidder/Tenderer

Annexure- III.c
RA Price Confirmation and Breakup

To
(Service Provider)

Cc: To CFFP/BHEL, Haridwar

Sub: Final price quoted during reverse auction and price break up.

Ref:

Dear Sir,

We confirm that we have quoted following final landed rate during the Reverse Auction conducted on

Sl. No.	Material / Item	Landed Rate (net of Cenvat at CFFP)

Total landed price of the items covered under above enquiry (as shown above) is inclusive of Packing & forwarding charges, all taxes & Duties, freight and insurance charges upto CFFP/BHEL, Haridwar and any other charges upto CFFP/BHEL, Haridwar. The above price is our final landed prices as quoted during the Reverse Auction conducted on ... which will be valid upto ...

Price break-up / calculation break-up is as per attached calculation sheet (Please provide break-up in calculation sheet already provided before RA).

Thanking you and looking forward to the valuable order from BHEL.

Yours sincerely,

For _____

Name:

Company:

Date:

Signature of Issuing Officer

Signature of Bidder/Tenderer

Seal:

Annexure- III.d
CONTACT INFORMATION

(Service Provider)	Bharat Heavy Electricals Limited, Central Foundry Forge Plant Hardwar.
	<p>Arpit Gupta Sr. Engineer (M&S) E-mail: arpitg@bhelhwr.co.in Phone: 01334-284903 Mobile No.: 7408408831 Fax No:01334-225892</p> <p>Narendra Kumar DGM (M&S) E-mail nkumar@bhelhwr.co.in Phone: 01334-281064 Mobile No.: 9410395613 Fax No:01334-225892</p> <p>Surendra Kumar Sr. DGM (M&S) E-mail: suren@bhelhwr.co.in Phone: 01334-281295 Mobile No.: 9410395614 Fax No:01334-225892</p>

Signature of Issuing Officer

Signature of Bidder/Tenderer