#### 2890 C/ 6410/3/4312T2

NO

25-07-2024

Office Copy

DUEDATE

1 14/08/26

14-09-2024

M/s OPEN TENDER

BHEL

HARIDWAR INDIA Vencd 00001

Emailid -

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Item Description Quantity Unit Lot Q

Quantity Unit Lot Quantity Lot Date

1

1 ZWA170101010 VERTICAL CNC 5 AXIS MILLING MA

CHINE AS PER ENCLOSED SPECIFIC

ATION

SIZE: 1 DIM.: 1

\*\* IMPORTANT: This enquiry is 2 part tender. Techno-Commercial bid (Part-1) & Price Bids (Part-2) should be submitted in separate envelopes. These two envelopes should be submitted in a common sealed envelope. Techno-Commercial Bid shall contain detailed Technical Specification, Drawings Technical documents, Catalogues, taxes & duties, payment terms, delivery period, Validity of offer, Replica of Price Bid (Copy of price bid without price part) etc. The confirmation to the special terms & conditions must be submitted alongwith Techno-Commercial bid.

Standard Instructions:

TEST CERTIFICATE REQUIRED.

GUARANTEE CERTIFICATE REQUIRED.

PRE-INSP AT YOUR WORKS PRIOR DESP.

ERECTION/COMM REQ AT SITE.

OPERATION/MAINT MANUAL ALONGWITH EQPT.

#### Special Instructions:

- 1. LD ON ACCOUNT OF DELAY DUE TO VENDOR TO BE APPPLICABLE AS PER THESE TWO MILESTONES IN ADDITION TO DELIVERY.
- a) MILESTONE 1: READINESS OF MACHINE TO COMMENCE MACHINING POST DELIVERY ERECTION, INSTALLATION, PERFORMANCE TESTS, NAS TEST PIECE MACHINING TO BE COMPLETED WITHIN 20 CALENDER WEEKS FROM THE DATE OF 1ST INTIMATION GIVEN BY BHEL
- b) MILESTONE 2: POST AVAILABILITY OF PROVE-OUT COMPONENT,
  PROVE-OUT MACHINING TO BE COMPLETED WITHIN 20 CALENDER WEEKS FROM THE DATE
  OF 1ST INTIMATION GIVEN BY BHEL.
- 2. E&C CHARGES AS 5.0 % OF EQUIPEMENT COST MAY BE CONSIDERED.
- 3. VENDOR MUST REPLY AGAINST EACH POINTS OF TENDER SPECIFICATIONS.
- 4. PRE-DISPATCH INSPECTION IS REQUIRED AND VENDOR WILL INFORM TO BHEL ATLEAST 45 DAYS BEFORE THE DATE OF PDI.
- 5. OPERATION AND MAINTENANCE MANUAL WILL BE REQUIRED.

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- 6. RECOMMENDED SPARES ARE REQUIRED.
- 7. GUARANTEE CERTIFICATE IS REQUIRED AS PER TECHNICAL SPECIFICATION WHICH IS 2 YEARS OF COMPLETE MACHINE AND ACCESSORIES/ATTACHMENT FROM THE DATE ACCEPTANCE OF MACHINE.
- 8. AS PER MAKE IN INDIA CIRCULAR, CLASS-1 LOCAL SUPPLIER, CLASS-2 LOCAL SUPPLIER AND NON-LOCAL SUPPLIER AS DEFINED UNDER THE ORDER SHALL BE ELIGIBLE TO BID IN PROCUREMENT BEING GLOBAL TENDER.
- 9. EMD AMOUNT OF RS. 40 LACS IS APPLICABLE FOR THE TENDER.
- 10. VENDOR WILL SUBMIT THEIR OFFER IN BHEL HEEP HARIDWAR TENDER ROOM IN TWO PARTS I.E. TECHNO-COMMERCIAL BID AND PRICE BID BEFORE DUE DATE.
- 11. INFORMATION ABOUT PROVE OUT COMPONENT TO BE PROVIDED ON NEED TO KNOW BASIS DURING PRE BID MEETING. VENDORS TO NOTE FOLLOWING POINTS ABOUT PRE BID MEETING
  - A. PRE BID MEETING TO BE HELD AT BHEL HARIDWAR IN PRESENCE OF CUSTOMER
- & NO VIDEO CONFERENCE WILL BE HELD.
- B. Vendor will share/submit following preliminary documentary evidence via e-mail, post or in person to establish their eligibility for pre-bid meeting:
- i) Unpriced PO details of a 5 Axis CNC Machine supplied in the past
- ii) Detailed technical specification of the reference machine
- iii) Customer information (Company Name, Contact Person, Phone, Email, Address)
- iv) Commissioning report of the referenced machine
- C. Eligible vendor will be invited to attend the pre-bid meeting post evaluation of shared preliminary information.
- D. Vendors to ensure that their technical experts or authorized representatives will be present in pre-bid meeting for evaluating prove out component.
- E. ATTENDING PRE BID MEETING IS MANDATORY AS OFFERS OF ONLY THOSE VENDORS WOULD BE EVALUATED WHO HAVE ATTENDED PRE-BID MEETING AND SIGNED MOM.
- F. VENDORS ARE REQUIRED TO SIGN NDA FOR PARTICIPATING IN PRE BID MEETING AT BHEL HARIDWAR. A MOM mentioning the information shared with vendor during pre-bid meeting would be recorded and will be part of Purchase Order in case of ordering
- G. Vendor will confirm in MOM that offered machine along with accessories, tooling and fixtures would be suitable to machine prove out components.
- H. Vendors will submit/share the preliminary documents evidence within 2 weeks of tender floating.
- I. Invitation for pre-bid meet will be given to vendors in 3rd week after tender
- J. Likely pre-bid meet will be held at BHEL Haridwar in 6th week after tender floating.
- 12. AS PER TENDER CONDITIONS, ONLY OEMS WHO HAVE SUPPLIED AND COMMISSIONED ATLEAST ONE 5 AXIS CNC VERTICAL MACHINE WITH THE FOLLOWING SPECIFICATIONS IN THE PAST 10 YEARS (FROM THE TENDER OPENING DATE) CAN QUOTE:
- A. DISTANCE BETWEEN COLUMNS: 6M OR MORE
- B. MILLING SPINDLE: 80KW OR MORE
- C. ROTARY TABLE SIZE: 5.5M OR MORE, OR FIXED BED PLATE: 5.5MX6M OR MORE
- D. HYDROSTATIC GUIDEWAYS

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E. SPECIAL ATTACHMENTS WITH CONTINUOUS MACHINING AXIS AND SIMULTANEOUS 5 AXIS MACHINING CAPABILITIES

General Instructions:

Please visit our site www.bhelhwr.co.in for latest version of General Instructions and Standard Terms & Conditions (GISTC) for Tender Enquiries. All the bidders/vendors must ensure compliance of latest GISTC. Terms & Conditions printed overleaf of this Standard Tender enquiry format are null & void.

For this procurement, Public Procurement (Preference to Make in India), Order 2017 dated 15.06.2017 & 28.05.2018 and subsequent Orders issued by the respective Nodal Ministry shall be applicable even if issued after issue of this NIT but before finalization of contract / PO / WP against this NIT.

n the event of any Nodal Ministry prescribing higher or lower percentage of purchase preference and/ or local content in respect of this procurement, same shall be applicable.

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Default purchase preference under Make in India order shall be 20% to suppliers with default minimum local content of 50% for all items / works / services. For further details, please refer latest version of GISTC.

Procurements where the Estimated value to be procured is less than Rs. 5 lakhs shall be exempted from Public Procurement (Preference to Make in India), Order 2017 dated 15.06.2017 & 28.05.2018

Kindly produce GeM seller Id with documentary proof along with your Bids/offers for case Value more than 25 Lacs.

DHARMINDER KISHORE 25-07-1024 समेंन्स किशोर आलंद D.K. Anand SIGN STELLES (SEA FAIR LAND) Reference (Let Let Ching)

Addl. General Manager (NM)

Addl. General Manager (NM)

B.H.E.L., HEEP, HARIDWAR

Page No

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	BHARAT HEAVY ELECTRICAL LIMITED		Enquiry No.		
III S BOATE	HEAVY ELECTRICAL EQUIPMENT PLANT RANIPUR, HARDWAR - 249403, UTTRANCHAL, INDIA		Due Date		
	CONTACT PERSON'S NAME/DESIGN/PHONE NO/E-MAIL (FROM PURCHASE DEPTT.)	SE DEPTT.)	Supplier's Qm. No.		
	DITONE NO		Date		
	PHONE NO.:				
	E-MAIL ID.				
TECHNICA NOTE:-	TECHNICAL SPECIFICATION FOR 5 AXIS CNC VERTICAL MACHINE - (1 Nos.) NOTE:-				
1. Vendor m 2. The vend compliance treated as m 3. The offer	1. Vendor must submit complete information against clause at SL.No. 29. The offer, complying this clause, would only be considered.  2. The vendor should fill the "Offered" Column in compliance to specified requirements and also "Deviations" Column, where there is deviation from the requirement. Duly filled specification cum compliance certificate should be submitted along with the offer. Inadequate, incomplete, ambiguous or unsustainable information against any of the clauses of the specifications/requirements shall be treated as non-compliance.  3. The offer and all documents enclosed with offer should be in English language only.	s clause, would only be considered. "Deviations" Column, where there is ous or unsustainable information aga	s deviation from the requiremeninst any of the clauses of the sp	nt. Duly filled specifica occifications/requireme	tion cum
NAME & A	NAME & ADDRESS OF THE SUPPLIER:				
TELEPHONE NOS.:	NE NOS.:				
FAX NOS.:					
E-MAIL ADDRESS:	DRESS:	7			
SCOPE:	SUPPLY, ERECTION & COMMISSIONING OF 5 AXIS CNC VERTICAL MACHINE (1 Nos.) COMPLYING WITH SPECIFICATIONS AS BELOW	HINE (I Nos.) COMPLYING WITH	SPECIFICATIONS AS BELO	W:	
SI. NO.	DESCRIPTION FOR BHEL REQUIREMENT	REQUIRED	OFFERED	DEVIATIONS	REMARKS
1.0	PURPOSE & WORKPIECE MATERIAL				
	Purpose: Vertical CNC Milling Machine having 5 Axis continuous machining capabilities along with special attachments to machine highly accurate and precise details of Large Components having Complex 3 Dimensional Geometries & Aerodynamic profiles such as Impellers, Turbofans, Stationary Blade Rings, Pelton 1.1 Runner, Francis Runner etc. from monoblock castings.  The machining activities involve 5 Axis synchronous Machining, Facing, Boring, Drilling, Reaming, Threading, Tapping, Reverse Counter Boring, etc. on different work piece materials. Achievable surface quality on finish component should be Ra 0.8 or better in optimized condition.	Vendor to note and accept			-
	Work Piece Material: The machine shall be used to machine components composed of Aluminium Alloys, Bronze Alloys, Forged Steel, Carbon Steel, Alloy Steel, Stainless Steel, Cast Iron-etc.	Vendor to note and accept			

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SI. NO.	DESCRIPTION FOR BHEL REQUIREMENT	REQUIRED	OFFERED	DEVIATIONS	REMARKS
2.00	SPECIFICATION:				
2.1	MACHINE CONFIGURATION				
, J	The Machine shall be 5 Axis Vertical type CNC Machine (3 or more Linear & 2 or more Rotary Axis) with special attachments having continuous machining capabilities (not indexed) and shall operate in such a manner that 5 or more Axis of machine can machine simultaneously in a synchronous & continuous manner.	Vendor to note and accept			
2.2	MAIN MILLING SPINDLE	Vendor to offer			
2.2.1		Vendor to confirm			
2.2	2.2.2 Spindle Motor Power (AC Drive) : 80 KW (Min.)	Vendor to specify			
2.2.3	Speed Range, Step less: Min.: 5 rpm (or less)  & Max.: 3000 rpm (or more)	Vendor to specify			
2.2.4	4 Spindle Nose Taper : BT50	Vendor to specify			
2.2.5	Forque at 100% Duty Cycle	Vendor to specify			
2.2.6	Speed characteristic diagram of the spindle motor to be submitted.	Vendor to submit details			
2.2	2.2.7 Oriented Spindle Stop (Any position)	Vendor to confirm			
2.2	2.2.8 Max. weight of tool that can be accommodated in the spindle	Vendor to submit details			
2.2.9	30 numbers of Pull-Studs for B 150 taper shall be included along with defailed drawing in the standard scope.	Vendor to confirm & offer			
	CDACC DATE AV AVICE	Vandor to offer			
1 2 2	CROSS MALE (WAXES)	Vendor to specify			
2.3.2	2 No of Columns on which Cross Rail is Mounted : 2	Vendor to specify			
2.3.3	Minimum Distance between Cross Rail Columns; 6000 mm or more	Vendor to specify			
2.3.4	No of Positions of Vertical Traverse of Cross Rail: Positioning after every 200 mm or less or Continuous	Vendor to specify			
235		Vendor to specify			
2.3.6	S Vertical Traverse Rate	Vendor to specify			
2.3.7	Movement of Cross Rail:  Movement through NC Programs should be confirmed	Vendor to confirm		*	
2.3.8	8 Switch/proximity switch to be provided for feedback of cross rail positioning	Vendor to confirm			
. 2.4	RAM (Z Axis)	Vendor to Offer			
2.4.1	No of RAM: 1	Vendor to confirm			
2.4.2	2.4.2 Cross Section of RAM	Vendor to specify			
2.4.3	Maximum Distance between Table Top and lowest face of RAM: 3000 mm or more when cross rail is at its highest position & RAM at its Min Extension	Vendor to confirm & submit related sketch			
2.4.4	Vertical traverse of Ram : 1600 mm or more	Vendor to specify			
2.4.5	2.4.5 Rapid Traverse Rate (Z-axis) : 10000 mm/min or more	Vendor to specify			
2,4,6	2.4.6 Feed Rate, Stepless. (Z-axis): 1-5000 mm/min. or more	Vendor to specify			
2.4.	2.4.7 Axis Resolution : 0.001mm	Vendor to specify			
2.5	LINEAR AXIS 1 (X/Y)-(RAM MOVEMENT ALONG CROSS RAIL)	Vendor to Offer			
2.5.1	2.5.1 Linear Traverse along the Cross Rail: Total Working Traverse 6000 mm or more	Vendor to specify			
2.5.2	_	Vendor to specify			
2.5	2.5.3 Feed Rate, Stepless (Linear axis 1) 1-5000 nm/min.or more	Vendor to specify			
2.3					
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distingent the confirmal and of the care and confirmation to the confirmal distingent of the confirmal and of the care and of						
INSERT AND CONTINUES AND CON	2.5.5	Additional Longitudinal Traverse of Linear Axis 1 (X/Y) required to accommodate and use of AAC (if AAC is position at the end of linear axis 1) beyond the specified and use of AAC (if No. 2 & 1) shall be senseted to fisced by the window	Vendor to confirm			
NEME AXIS 2 (NY) PLEATER PROTICELLAR TO CROSS RALIA & Z. AXIS)  Vender to genery  Vender to confirm  Vender to genery  Vender to confirm  Vender to genery  Vender to confirm  Vend	2.5.6		Vendor to specify			
The MAN MAN STAN PROPER PROPERTIES AND ACTION AND STANDS AND STAND		Court of the second court	Van Joe to Office			
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A control to appearing the natural set of the man white or mone or window to appearing the secondary distinct to appearing the separated of interes and set interest set of the art with a secondary of the secondary of	.2.6.	Linear Travel Perpendicular to Cross Rail: 8000 mm or more	Vendor to specify			
State Streegher (Later and 2.) 1:1-5000 numbinin or more Vender to specify Vender to 2001 mm of the Streegher (Later and 2.) 1:1-5000 numbinin or more Vender to specify Vender to 2001 mm of the Streegher (Later and 2.) 1:1-5000 numbinin or more Vender to confirm as it protected and or fineer axis 2. Physical and 2. Physical Streegher (Later axis 2.) 1:1-5000 numbinin or more Vender to specify and offer confirm as it protected and or fineer axis 2. Physical Streegher (Later axis 2.) 1:1-5000 number 2. Physical Streegher (Later ax	2.6.		Vendor to specify			
six Resolution; 1000 Jim and Trocess of Linear Axis   (XVX) required to accommodate of used Axis   (XVX) required to accommodate of used Axis   (XVX) required to accommodate of used Axis   (XVX) required to accommodate of the evold of them axis 2 byeyond the specific of the evold of them axis 2 byeyond the specific of the evold	2.6.		Vendor to specify			
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Neutron to specify  Neutron to confirm  Neutron to specify  Neutron to confirm  Neutron to confirm  Neutron to specify  Neutron to confirm  Neutron to specify  Neutro	2.6.	Additional Longitudinal Traverse of Linear Axis 1 (X/Y) required to accommodate and use of AAC (if AAC is position at the end of linear axis 2)beyond the specified axis traverse (Sl. No. 2.6.1) shall be separately offered by the vendor.	Vendor to confirm		, 10	
ACTINE BED OR ROTARY TABLE  Verifor to specify and offer  OTARY TABLE  Verifor to specify Verifor to specify Verifor to confirm  Verifor to specify & submit  Verifor to confirm  Verifor to specify & submit  Verifor to specify  Verif	2.6.0	The linear axis 2 perpendicular to the cross rail, may be named as X or Y	Vendor to specify			
on Capacity Nation and or more and be Diameter 1500 min or more and Diameter 1500 min or more an	2.7	MACHINE BED OR ROTARY TABLE Vendor to offer configuration either with Fixed Bed Plate or Rotary Table	Vendor to specify and offer			
able Diameter S500 min or more  Vendor to specify able Diameter S500 min or more  Vendor to specify  Vendor to specify  Vendor to confirm  Vendor to specify  Vendor to confirm  Vendor to specify  Vendor to confirm  Vendor to specify  Vendor	2.7.1	ROTARY TABLE				
able Special (Infinitely Variable)  Vendor to specify  Vendor to specify  Vendor to confirm  Vendor to specify  Vendor to speci	2.7.1.		Vendor to specify			
Secretary Component as per San Delivery Component as Delivery	2.7.1.2		Vendor to specify			
Action of table positioning and feed during milling  Vender to confirm  Wender to specify  Wender to confirm  Wender to specify  Wender to specify	2.7.1.	Table Speed (Infinitely Variable)	Vendor to confirm			
Acade to confirm able positioning and feed during milling where of continue the positioning and feed during milling able Rotary Axis to be one of Milling Axis and same shall be used for machining wover of Main Drive Axis to be one of Milling Axis and same shall be used for machining wover of Main Drive Axis to be one of Milling Axis and same shall be used for machining wover of Main Drive Axis to be one of Milling Axis and same shall be used for machining wover of Main Drive Axis to be one of Milling Axis and same shall be used for machining wover of Main Drive Axis to be one of Milling Axis and same shall be used for machining wover of Main Drive Axis to be one of Milling Axis and same shall be used for machining wover of Main Drive Viz Type. Make. Model etc.  Vendor to specify worplete Jaw Box Assembly (With Force Multiplier Mechanism) suitable for worplete Jaw Box Assembly (With Force Multiplier Mechanism) suitable for worplete Jaw Box Assembly (With Force Multiplier Mechanism used in Jaws)  Stort Track, Width: From Outer Periphery of Table to outer periphery of central worplete Jaw Box Assembly (With Force Multiplier Mechanism used in Jaws.  Vendor to specify Vendor to specify wendor to specify with the Chucking Capacity Diagram should  Vendor to specify wendor to specify and the Submit of Submit and Accuracy of Centre Bore on Table Top Surface.  Vendor to specify wendor to specify wendor to specify and Accuracy of Centre Bore on Table Top Surface.  Vendor to specify wendor to specify wendor to specify and Accuracy of Centre Bore on Table Top Surface.  Vendor to specify wendor to specify and Accuracy of Centre Bore on Table Top Surface.  Vendor to specify wendor to specify and Accuracy of Centre Bore on Table Top Surface.  Vendor to specify wendor to specify wendor to confirm  Vendor to specify wendor to specify wendor to specify wendor to confirm  Vendor to specify wendor to confirm  Vendor to specify wendor to confirm  Vendor to specify wendor to specify wendor to confirm  Vendor to specify wendor to conf	2.7.1.4	Speed Ranges	Vendor to specify			
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able Rotary Axis to be one of Milling Axis and same shall be used for machining vendor to confirm over each of Man Drive viz. Type. Make, Model etc.  Vendor to specify vendor to confirm. External Champing Diameter 1.550 mm  Slot Track Width. From Outer Pertphery of Table to outer pertphery of central vendor to confirm. External Champing Diameter 1.550 mm  Vendor to confirm. Vendor to specify vendor to confirm. Submitted.  Vendor to confirm. Vendor to specify vendor to specify vendor to confirm. Vendor to specify vendor to specify vendor to confirm. Vendor to specify submitted. Vendor and accuracy of Center Bare on Table Top Surface. Vendor to specify. Vendor to specify submitted. Vendor to specify when the showing details of the T-slots etc. should be submitted. Vendor to specify. Vendor to specify when the confirm of the showing details of the T-slots etc. should be submitted. Vendor to specify when the confirm. Vendor to c	2.7.1.6	Table rotation (Fully programmable Table-axis): 360000 indexing positions or more	Vendor to confirm			
ower of Main Drive AZ  omplete Jaw Box Assembly (With Force Multiplier Mechanism) suitable for Vendor to specify omplete Jaw Box Assembly (With Force Multiplier Mechanism) suitable for Vendor to specify  omplete Jaw Box Assembly (With Force Multiplier Mechanism) suitable for Vendor to specify  Slot Track Width: From Outer Periphery of Table to outer periphery of central  Slot Track Width: From Outer Periphery of Table to outer periphery of central  Slot Track Width: From Outer Periphery of Table to outer periphery of central  Slot Track Width: From Outer Periphery of Table to outer periphery of central  Nendor to confirm & submit sketch  Vendor to specify  Vendor to confirm  Vendor to confirm  Vendor to specify  Vendor to confirm  Vendor to specify  Vendor to confirm  Vendor to specify  Vendor to confirm  Vendor to spe	2.7.1.7		Vendor to confirm	2		
omplete Java Box Assembly (With Force Multiplier Mechanism) suitable for remains and model etc.  Vendor to specify  Vendor to specify  Vendor to specify  Vendor to specify  Vendor to confirm  Vendor to specify  Vendor to confirm  Vendor to specify	27.18	Power of Main Drive AC	Vendor to specify			
amping Cylindrical components: 8 no errated slots on Rotary Table for Jave Boxes: 8 Slot Track Width: From Outer Periphery of Central funimum External Clamping Diameter: 550 mm funimum External Clamping Diameter: 550 mm funimum External Clamping Diameter: 550 mm Vendor to confirm Vendor to specify Indiamum Internal Clamping Diameter funimum Internal Clamping Diame	2.7.1.5	Details of Main Drive viz. Type. Make. Model etc.	Vendor to specify			
Stor Track Width: From Outer Periphery of Central  Stor Track Width: From Outer Periphery of Table to outer periphery of Central  Stor Track Width: From Outer Periphery of Table to outer periphery of Central  Vendor to confirm  Vendor to specify  Vendor to confirm  Vendor to specify  Vendor to spe	2.7.1.10		Vendor to specify			
Stof Track Width: From Outer Periphery of central  Stof Track Width: From Outer Periphery of Table to outer periphery of central  Vendor to confirm  Vendor to confirm  Vendor to confirm  Vendor to specify  Vendor to confirm  Vendor to specify		champing cymarical components : o no				
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funimum Internal Clamping Diameter  Infinimum Internal Clamping Diameter  Vendor to specify	2.7.1.1.	Minimum External Clamping Diameter: 550 mm	Vendor to confirm			
Itinimum Internal Clamping Diameter  Iamping Force of each Jaw.  Set Indiana Dimensions of the Jaws on Table. Chucking Capacity Diagram should set submitted.  Set Submitted.  Yendor to specify & submit specify	2.7.1.1.	Maximum Internal Clamping Diameter	Vendor to specify			
lamping Force of each Jaw.  set bearing and Dimensions of the Jaws on Table. Chucking Capacity Diagram should  set bearing for the Table: Hydrostatic (should be confirmed by Vendor)  Sype of Bearing for the Table: Hydrostatic (should be confirmed by Vendor)  Sype of Bearing for the Table: Hydrostatic (should be confirmed by Vendor)  Sype of Bearing for the Table: Hydrostatic (should be confirmed by Vendor)  Sype of Bearing for the Table: Hydrostatic (should be confirmed by Vendor)  Sype of Bearing diameter  Nendor to specify & submit  Vendor to specify & submit  Vendor to specify  Vendor to confirm  Vendor to referable to to confirm  Vendor to specify	27.11.		Vendor to specify			
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ype of Force Multiplier Mechanism used in Jaws.  ype of Bearing for the Table: Hydrostatic (should be confirmed by Vendor)  ype of Bearing for the Table: Hydrostatic (should be confirmed by Vendor)  wendor to specify  ye of Bearing diameter  ye of Bearing diameter  ye of Bearing diameter  ye of Specify  wendor to specify  yendor to specify  yendor to specify & submit  yendor to specify	2.7.1.1	Positions and Dimensions of the Jaws on Table. Chucking Capacity Diagram should be submitted.	Vendor to confirm			
ype of Bearing for the Table: Hydrostatic (should be confirmed by Vendor)  able's Hydrostatic Bearing diameter  able's Hydrostatic Bearing diameter  omplete details like bearing diameters, sizes of pockets etc. should be furnished.  ize of T - slots, their position and accuracy. 42 H12  rrawing of Table showing details of the T - slots etc. should be submitted.  vendor to specify & submit.  Vendor to specify.  Vendor to confirm.  Vendor to confirm.  Vendor to confirm.  Vendor to confirm.	2.7.1.18		Vendor to specify & submit			
able's Hydrostatic Bearing diameter omplete details like bearing diameters, sizes of pockets etc. should be furnished.  Vendor to specify  Vendor to specify & submit  Vendor to specify & submit  Vendor to specify & submit  Vendor to specify  Vendor to confirm	2.7.1.19		Vendor to confirm			
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ize of T - slots, their position and accuracy, 42 H12 rawing of Table showing details of the T - slots etc. should be submitted.  Vendor to specify & submit  Vendor to specify  Vendor to confirm  Vendor to confirm  Vendor to confirm  Vendor to confirm	2712	Complete details like bearing diameters, sizes of pockets etc. should be	Vendor to confirm			
ismeter, Depth and Accuracy of Center Bore on Table Top Surface.  eight of machine table top - with ref. to shop floor otary encoder, preferably Heidenhain, for Table-Axis  London to confirm  Vendor to specify  Vendor to confirm  Vendor to confirm	2.7.1.2	Size of T - slots, their position and accuracy. 42 H12 Drawing of Table showing details of the T - slots etc. should be submitt	Vendor to specify & submit ·			
eight of machine table top - with ref. to shop floor otary encoder, preferably Heidenhain, for Table-Axis  Vendor to specify.  Vendor to specify.  Vendor to confirm  Vendor to confirm  Vendor to confirm  Vendor to confirm	27.1.2	Diameter Depth and Accuracy of Center Bore on Table Top Surface.	Vendor to specify			
otary encoder, preferably Heidenhain, for Table-Axis  Vendor to confirm  Vendor to confirm  Sugar August	27.1.2	Height of machine table top - with ref. to shop floor	Vendor to specify.			
But Suppose prof	27.12	Rotary encoder, preferably Heidenhain, for Table-Axis	Vendor to confirm			
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Hydrostatic Guideways for Table Linear Traverse (if applicable), Details to be bubmitted.  Linear Scale with scanning head, preferably Heidenthain, with pressurised compressed air cleaning system for table linear Axis (if applicable)  Bask(lash free re-circulating ball screw with Pre-baded double mut for Table Linear Stand Scale to Submitted with the offer)  Metallic Telescopic Covers (if applicable) of rust resistant material are to be supplied list with vipers for Table Linear axis. Joints of relescopic covers should be so sealed to avoid mixing of coolant and Hydrostatic oil.  MACHINE BED PLATE  Any platforms for accessing the rotary table shall be within the scope of Vendor avoid mixing of coolant and Hydrostatic oil.  Any platforms for accessing the rotary table shall be within the scope of Vendor avoid mixing of coolant and Hydrostatic oil.  Any platforms for accessing the rotary table shall be within the scope of Vendor avoid mixing of Table lead with a scope of the T - slots etc. should be submitted.  MACHINE BED PLATE  Size of T - slots, their position and accuracy, 42 H12.  Drawing of Table showing details of the T - slots etc. should be submitted.  MACHINE GIIDEWAYS  MACHINE GIIDEWAYS  Hydrostatic Guide ways. Details of system to be submitted with offer a branch of macine table top with ref to shop floor.  MACHINE GIIDEWAYS  Hydrostatic Guide ways. Details of system to be submitted with offer by Vendor.  MACHINE GIIDEWAYS  Hydrostatic Guide ways. Details of system to be submitted with offer stance of Guideways  Matallic Telescopic covers with wipers and adequate scaling on joints to prevent scepage of dust & coolant oil inside.  FEED AND DRIVE SYSTEMS  Linear Axis 1 Feed Drives/Motors (AC Servo Motors) Either Siemens or Fanue Digital  Freedback Systems for Linear Axis 1 Linear Axis 2 & Z axes. Heidenhain linear scale with pressurised compressed air cleaning.  Pre-loaded backlash free fr-circulating ball screw with Pre-loaded double mixing force permissible on RAM (Detail to be provided for further co	2.7.1.28		Vendor to confirm and submit.			
Linear Scale with scanning head, preferably Heidenhain, with pressurised compressed backlash free cerimediating ball screw with Pre-loaded double nut for Table Linear Backlash free recirculating ball screw with Pre-loaded double nut for Table Linear Stew, to be submitted with the offer)  Stew, to be submitted with the offer)  Metallic Telescopic Covers (if applicable) of fust resistant material are to be supplied with wipers for Table Linear axis. Joints of telescopic covers should be so sealed to avoid mixing of coolant and Hydrostatic oil.  MACHINE BED PLATE  2.2.1 Table / Bed leigth  2.2.2 Loading, capacity of Table/Bed  2.3 Loading, capacity of Table/Bed  3.5500 mm. or more  2.2.1 Table / Bed width  3.5500 mm. or more  3.2.2 Loading capacity of Table/Bed  3.500 mm. or more  3.2.3 Loading capacity of Table/Bed  3.500 mm. or more  3.2.4 Drawning of Table/Bed  3.500 mm. or more  3.2.4 Drawning of Table/Bed  3.500 mm. or more  3.2.5 Inable / Bed width  3.2.4 Sites, their position and accuracy. 42 H12  3.2 Any platforms for accessing the machine bed plate shall be within the scope of  3.2.4 Any platforms for accessing the machine bed plate shall be within the scope of  3.2.5 Hydrostatic Guide ways. Details of fiber 7 - slose etc., should be submitted.  3.2 Any platforms for accessing the machine bed plate shall be within the scope of  3.2 Hydrostatic Guide ways. Details of System to be submitted with offer  3.2 Hydrostatic Guide ways. Details of System to be submitted with offer  3.2 Hydrostatic Guide ways. Details of System to be submitted with offer  3.2 Hydrostatic Guide ways. Details of System to be submitted with offer  3.3 Freed Drives/Motors (AC Servo Motors) Either Stemens or Fanuc  3.3 Drives Axis 1 Feed Drives/Motors (AC Servo Motors) Either Stemens or Fanuc  3.4 Drives Axis 2 Feed Drives/Motors (AC Servo Motors) Either Stemens or Fanuc  3.5 Drives Axis 2 Feed Drives/Motors (AC Servo Motors) Either Stemens or Fanuc  3.5 Drives Axis 2 Feed Drives/Motors (AC Servo Motors) Either Stemens or Fanuc  3.5 Dri	2.7.1.29	Hydrostatic Guideways for Table Linear Traverse (if applicable), Details to be submitted.	Vendor to confirm and submit (if applicable)		4	
Backlash free re-circulating ball screw with Pre-loaded double nut for Table Linear Screw, to be submitted with the offer)  Metallit Telescopic Covers (if applicable) of Fust resistant material are to be supplied with wipers for Table Linear axis. Joints of telescopic covers should be so sealed to avoid mixing of coloint and Hydrostatic oil.  MACHINE BED PLATE  Table Bed length  Softon mn. or more  Table Bed with metales of the T - slots etc. should be submitted.  Any platforms for accessing the machine bed plate shall be within the scope of  Any platforms for accessing the machine bed plate shall be within the scope of  Any platforms for accessing the machine bed plate shall be within the scope of  Any platforms for accessing the machine bed plate shall be within the scope of  Any platforms for accessing the machine bed plate shall be within the scope of  Any platforms for accessing the machine bed plate shall be within the scope of  Any platforms for accessing the machine bed plate shall be within the scope of  Any platforms for accessing the machine bed plate shall be within the scope of  Any platforms for accessing the machine bed plate shall be within the scope of  Any platforms for scopesing of the Soften to be submitted with offer  Statement axis 1. Linear Axis 2. & Z Axes traverse shall necessarily be with  Hydrostatic Guide ways. Details of system to be submitted with offer  Statement axis 1. Eeed Drives/Motors (AC Servo Motors) Either Siemens or Fanuce  Digital  Linear Axis 1 Eeed Drives/Motors (AC Servo Motors) Either Siemens or Fanuce  Digital  Linear Axis 2 Feed Drives/Motors (AC Servo Motors) Either Siemens or Fanuce Digital  Linear Axis 2 Feed Drives/Motors (AC Servo Motors) Either Siemens or Fanuce Digital  Anyth pressurised compressed air cleaning  Pre-loaded backlash fr	2.7.1.30		Vendor to confirm and submit (if applicable)			
Metallic Telescopic Covers (if applicable) of rust resistant material are to be supplied with wipers for Table Linear axis. Joints of telescopic covers should be so sealed to avoid mixing of coolant and Hydrostatic oil.  MACHINE BED PLATE  1. Table Bed length  1. 5500 mm. or more  1. 1. Table Bed length  1. 5500 mm. or more  1. 1. Landing capacity of Table/Bed  1. 10,000 Kg/sq. meter. (minimum) OR MORE  1. Landing capacity of Table/Bed  1. 10,000 Kg/sq. meter. (minimum) OR MORE  2. Landing capacity of Table showing details of the T - slots etc. should be submitted.  Any platforms for accessing the machine bed plate shall be within the scope of  Nendom Axis I. Linear Axis 2. & Z Axes traverse shall necessarily be with  1. Linear Axis I. Linear Axis 2. & Z Axes traverse shall necessarily be with  1. Linear Axis I. Linear Axis 2. & Z Axes traverse shall necessarily be with  1. Hydrostatic Guide ways.  Metallic Telescopic Covers: The guide ways of all axes should have suitable  1. protective steel telescopic covers with wipers and adequate sealing on joints to prevent scepage of dust & coolant oil inside.  1. Inear Axis 1. Eeed Drives/Motors (AC Servo Motors) Either Siemens or Fanuce  1. Digital  1. Linear Axis 2. Eeed Drives/Motors (AC Servo Motors) Either Siemens or Fanuce  2.9 Linear Axis 1. Eeed Drives/Motors (AC Servo Motors) Either Siemens or Fanuce  2.9 Linear Axis 2. Eeed Drives/Motors (AC Servo Motors) Either Siemens or Fanuce  2.9 Linear Axis 2. Eeed Drives/Motors (AC Servo Motors) Either Siemens or Fanuce  2.9 Linear Axis 2. Eeed Drives/Motors (AC Servo Motors) Either Siemens or Fanuce  2.9 Linear Axis 3. Linear Axis 1. Linear Axis 2. & Z axes: Heidenhain linear scale  3.94 with pressurised compressed air cleaning  1. Feedback Systems for Linear Axis 1. Linear Axis 2. Backlash free re-circulating ball screw with Pre-loaded backlash free pe	2.7.1.31	Backlash free re-circulating ball screw with Pre-loaded double nut for T axis (if applicable). (Complete description of the same including diamet Screw, to be submitted with the offer)	Vendor to submit (if applicable)			
MACHINE BED PLATE  1.23 Any platforms for accessing the rotary table shall be within the scope of Vendor  MACHINE BED PLATE  1.21 Table / Bed length  1.22 Loading capacity of Table/Bed  1.0,000 Kg/sq. meter (minimum) OR MORE  1.24 Jeaching capacity of Table/Bed  1.0,000 Kg/sq. meter (minimum) OR MORE  1.25 Inable / Bed width  1.26 Drawing of Table showing details of the T - slots etc. should be submitted.  2.2 Inable / Bed width  2.3 Inear Axis / Linear Axis 2, & Z Axes traverse shall necessarily be with hydrostatic Guideways.  2.8 Inear Axis I, Linear Axis 2, & Z Axes traverse shall necessarily be with Hydrostatic Guideways.  MACHINE GUIDEWAYS  MACHINE GUIDEWAYS  2.8 Hardness of Guideways.  MACHINE Guideways.  MACHINE Guideways.  MACHINE Goldeways.  MACHINE Guideways  MACHINE Guideways  MACHINE Guideways  MACHINE Guideways  MACHINE Goldeways  MACHINE Goldeways  MACHINE Guideways  MACHINE Goldeways  MACHINE Golde	27132		Vendor to confirm (if applicable)			
MACHINE BED PLATE  122 Table / Bed length  123 Table / Bed length  124 Table / Bed length  125 Table / Bed width  125 Loading capacity of Table/Bed  126 More / Sol of Table / Bed width  127 Loading capacity of Table/Bed  127 Loading capacity of Table/Bed  128 Size of T - slots, their position and accuracy. 42 H12  Drawing of Table showing details of the T - slots etc. should be submitted.  Drawing of Table showing details of the T - slots etc. should be submitted.  MACHINE GUIDEWAYS  128 Hardness of Guideways  MACHINE GUIDEWAYS  129 Hardness of Guideways  Metallic Telescopic Covers: The guide ways of all axes should have suitable prevent seepage of dust & coolant oil inside.  FREED AND DRIVE SYSTEMS  FREED AND DRIVE SYSTEMS  Linear Axis 1 Feed Drives/Motors (AC Servo Motors) Either Siemens or Fanuce  Digital  Linear Axis 2 Feed Drives/Motors (AC Servo Motors) Either Siemens or Fanuce  Digital  Linear Axis 2 Feed Drives/Motors (AC Servo Motors) Either Siemens or Fanuce  Digital  Linear Axis 2 Feed Drives/Motors (AC Servo Motors) Either Siemens or Fanuce  Digital  Linear Axis 2 Feed Drives/Motors (AC Servo Motors) Either Siemens or Fanuce  Digital  Loading & rack drive for Linear Axis 1 Linear Axis 2 & Z axes: Heidenhain linear scale with pressurised compressed air cleaning  Pre-loaded backlash free Hydrostatic worm OR Pre-loaded double mut for all other axes (Z & W).  Backlash free re-circulating ball screw with Pre-loaded double or further axes (Z & W).  Backlash free re-circulating fall Linear axes (Linear Axis 1, Linear Axis 2 & Z Axis).  Machanism for Locking of all Linear axes (Linear Axis 1, Linear Axis 2 & Z Axis).	2.7.1.33	Any platforms for accessing the rotary table shall be within the scope of	Vendor to confirm (if applicable)			
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7.2.2 Table / Bed width : 5500 mm. or more 7.2.3 Loading capacity of Table/Bed : 10,000 Kg/sq. meter. (minimum) OR MORE 7.2.4 Loading capacity of Table/Bed : 10,000 Kg/sq. meter. (minimum) OR MORE 7.2.5 Any platforms for accessing the machine bed plate shall be within the scope of 7.2.5 Any platforms for accessing the machine bed plate shall be within the scope of 7.2.5 Height of macine table top with ref to shop floor 7.2.6 Height of macine table top with ref to shop floor 7.2.6 Height of macine table top with ref to shop floor 7.2.7 Linear Axis 1. Linear Axis 2. & Z Axes traverse shall necessarily be with 7.2.8 Hardness of Guideways 7.2.9 Hardness of Guideways 7.2.1 Hardness of Guideways 7.2.1 Linear Axis 1. Feed Drives/Motors (AC Servo Motors) Either Siemens or Fanuc 7.2.2 Linear Axis 2. Feed Drives/Motors (AC Servo Motors) Either Siemens or Fanuc 7.2.3 Linear Axis 2. Feed Drives/Motors (AC Servo Motors) Either Siemens or Fanuc 7.3.2 Linear Axis 2. Feed Drives/Motors (AC Servo Motors) Either Siemens or Fanuc 7.3.3 Z Axis Feed Drives/Motors (AC Servo Motors) Either Siemens or Fanuc 7.3.4 With pressurised compressed air cleaning 7.3.5 Packlash free for Linear Axis 1. Linear Axis 2. & Z axes: Heidenhain linear scale 7.3.5 Machinian for Locking of all Linear axes (Linear Axis 1. Linear Axis 2. & Z Axis). 7.3.6 Maximum cutting force permissible on RAM (Detail to be provided for further 7.3.4 Maximum cutting force permissible on RAM (Detail to be provided for further 7.3.5 Comments.	2.7.2.1	Table / Bed length	Vendor to specify			
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SI. NO.	DESCRIPTION FOR BHEL REQUIREMENT	REQUIRED	OFFERED	DEVIATIONS	REMARKS
2.12	OPERATOR'S PLATFORM	Vendor to Offer			
2.12.1	It should be Independent motorised type, movable/adjustable in Vertical direction.	Vendor to confirm			
2.12.2	In Vertical Direction it should be able to move to such an extent that maximum height of job that can accommodated on machine	Vendor to confirm			
2.12.3	Interlocks should be provided for its linear movement against Table Rotation(if applicable) to avoid collision/accident.	Vendor to confirm	10	•	
2.12.4	Minimum Size of platform: Specify LXWXH. The operator platform should be opened from the side opposite to machine for proper ventilation and desk type structre for keeping. Drawings. The cabin should have the doors towards and opposite to machining side.	Vendor to specify and confirm			
2.12.5	2.12.5 Height of Platform Railing	Vendor to specify			
2.12.6	Minimum Position of Platform from Shop Floor	Vendor to specify			
2.12.7	Vendor to provide suitable arrangements for accessing Platform from the Shop Floor.	Vendor to confirm	÷		
2.12.8	2.12.8 Weight capacity of Platform (Suitable for at least 3 people)	Vendor to confirm & submit details			
2.12.9	2.12.9 Power Socket of 220V/15 Amp/5 Amp is to be provided on Platform	Vendor to confirm			
2.12.10	One wall mounted fan is to be provided on the operator's Platform at convenient tocation.	Vendor to confirm			
2.12.11	Operators platform to be equipped with Safety Glass Window for viewing machining area along with safety enclosures. The Glass window should be equipped with vertical up/down motion for clear machining view.	Vendor to confirm	4		
2.13	AUTO FOCUS HD VIDEO CAMERA	Vendor to Offer			
2.13.1	A detachable/flexible Auto Focus video camera preferably with a magnetic base with zoom facility shall be provided on the RAM, internally connected with colour Monitor fixed on the Operator's panel to view the tool while machining.	Vendor to confirm			
2.13.2	Camera Eyes/lens and connecting cables shall be safe guarded against heat, chips, 2.13.2 coolant, dust etc. to maintain clear visibility of tool in any adverse machining conditions	Vendor to confirm		X	*
2,13.3	Suitable sockets and power connections shall be provided (At operator panel as well as in electrical panel)	Vendor to confirm			1 A
2.13.4	Drawings showing mounting and clamping of Camera on the RAM to be submitted with the offer.	Vendor to confirm & submit details			
2.14	OPERATOR'S PANEL:  Swivelling type operator's panel having complete CNC and machine control system with display of required configuration shall be provided on the operators platform. All switches on the Operator's panel should be within reach of operator of average height (Indian) for convenient efficient & safe consention.	Vendor to Orier Vendor to submit details			
	should also be conveniently placed accordingly. Layout showing complete details of the panel should be submitted.		- II		
2,14.2	OPERATOR'S PANEL FEATURES:  The Operator Control panel should have the following operational KEYS features on the MCP along with other features as specified by the vendor:				
2.14.2.1	2.14.2.1 Axes selection keys (Separate for each axis.) 2.14.2.2 Directional keys + & - for axis movement in jog (Separate for each axis)	Vendor to confirm Vendor to confirm			
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214.21 Biguigle traverse key 214.21 Biguigle traverse key 214.22 Biguigle traverse key 214.23 Recel key 214.21 Biguigle traverse from the first with regulator to control the flow (Coolant Should be confirm 214.21 Day transvolital, Day run freely executable during program run in automatic) 214.21 Mode Selector switch 214.21 Mode Selector switch 214.21 Mode Selector switch 214.21 Biguigle coveride switch 214.21 Biguigle coveride switch 214.21 Biguigle coveride switch 214.21 Mode Selector switch 214.21 Mode Selector switch 214.21 Push buttor/key for activating "Delete distance to go" 214.21 Push buttor/key for Activating tool defination when the tools are loaded manually vendor to confirm 214.21 Push buttor/key for Activating tool defination when the tools are loaded manually vendor to confirm 214.21 Push buttor/key for Activating tool defination when the tools are loaded manually vendor to confirm 214.21 Push buttor/key for Activating tool defination when the tools are loaded manually vendor to confirm 214.21 Push buttor/key for Activating tool defination when the tools are loaded manually vendor to confirm 214.21 Push buttor/key for activating tool defination when the tools are loaded manually vendor to confirm in the confirm of the firm of the confirm of the firm of the confirm o		
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2.5 Reset key 2.6 Single block switch 2.5 Single block switch 2.5 Single block switch 2.5 Single block switch 2.5 Single block switch 2.6 Single block switch 2.7 Coolant ON / OFF switch/key with regulator to control the flow (Coolant should be program). Or or market a program of the definition in the part program). Or or switch on of Top and Switch of Top and Switch of Top and Switch or of Top and Switch 2.10 Charles switch 2.11 Machine illumination switch 2.12 Feed override switch 2.13 Spindle override switch 2.14 Machine illuminations switch 2.15 Brakh meilluminations switch 2.14 Machine illuminations switch 2.15 Pash button/Key for leading/unloading of tools 2.16 Pash button/Key for leading/unloading of tools 2.17 Machine illuminations switch 2.18 Machine illuminations switch 2.19 Machine illuminations switch 2.11 Machine illuminations switch 2.12 Index button/Key for leading/unloading of tools 2.14 Machine illuminations switch 3.14 Machine illuminations switch 3.15 Peaker Siemens or Fanue, suitable for simultaneous and synchronous 5 Axis 3.14 Machine illuminations switch 3.15 Peaker Siemens or Fanue, suitable for simultaneous and synchronous 5 Axis 3.15 Peaker Siemens or Fanue, suitable for simultaneous and synchronous 5 Axis 3.17 Peaker Siemens or Fanue, suitable for simultaneous and synchronous 5 Axis 3.17 Peaker Siemens or Fanue, suitable for simultaneous and synchronous 5 Axis 3.17 Peaker Siemens or Fanue, suitable for gent in case of non-new nary of Rechaels, Option for display, editing, loading & backup of PLC program on Operator Panel, up of St. Drays of PNC & PLC Alamas with remedial solution, for each function) are provided, suitable hardware/connectors shall be provided on Operator Panel, up of 30 min for CNC control for Automatic unattended shutdown in the case of power failure or functions available and Scanning head for position for each function in the Confering solution.  1.34 Replaceable SSD Hard disk 10GB, 3GB for User Data or higher as the case may be at the time of ordering.  1.35 Standar		
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2.29 Switch of OPF switch/key with regulator to control the flow (Coolant should be part provided moviorf during Auto/log mode irrespective of the definition in the part program.)  2.10 Chip conveyer forward / reverse push button  2.11 Mode selector switch  2.12 Fushbutton / key for activating "Delete distance to go"  2.13 Dush button/Key for activating witch  2.14 Machine illumination switch  2.15 Fush button/Key for loading/unloading of tools  2.16 Push button/Key for loading/unloading of tools  2.16 Push button/Key for loading/unloading of tools  2.17 Push button/Key for loading/unloading of tools  2.18 Machine illumination switch  2.19 Push button/Key for loading/unloading of tools  2.10 Push button/Key for loading/unloading of tools  2.11 Push button/Key for loading/unloading of tools  2.12 Push button/Key for selection witch  2.13 Type Version Pe Dased latest version  2.14 Machine illumination switch  2.15 Push button/Key for selection for the tools are loaded manually  2.16 Push button/Key for loading/unloading of tools  2.17 Push button/Key for selection for simulation when the tools are loaded manually  2.18 Push button/Key for loading/unloading of tools  2.19 Push button/Key for selection for simulation when the tools are loaded manually  2.19 Push button/Key for selection for language tools  2.10 Push button/Key for selection f		
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210 Chip conveyer forward / reverse push button 211 Rode selector switch 212 Feed override switch 213 Founder override switch 213 Founder override switch 214 Machine illumination switch 215 Founder override switch 215 Push button/Key for Axis Reference 216 Push button/Key for Axis Reference 216 Push button/Key for activating tool definition when the tools are loaded manually 217 Push button/Key for activating tool definition when the tools are loaded manually 218 Push button/Key for activating tool definition when the tools are loaded manually 219 Rachining(ALL AXIS MACHINING AT SAME TIME) .  Machining(ALL AXIS MACHINING AT SAME TIME) .  The CNC system should have full alphanumeric keyboard. Are stored with minimum I GB Pen drive for data input/output to/from CNC system in CNC mode, additional qwerty keyboard. Go portical mouse etc. and preinstalled licensed software & ready to use offered features for CNC system manufacturer at the time of supply), suitable separate ports for networking with LAN, data input/output, time of supply), suitable separate ports for networking with LAN, data input/output, on ensure above functional ties. (Linear scale and Scamming head for position feedback). Option for display, editing, loading & backup of PLC program on Operator Panel through USB. Display of NC & PLC Alamns with remedial solution. Power back-up of 30 min for CNC control for Automatic unattended shutdown in the case of power failure or if machine switches OPF. This offered CNC system should be OPC UA compliant with valid ileense. The system should have feature to store machine related data to BHEL server.  Replaceable SSD Hard disk I OGB, 3GB for User Data or higher as the case may be at the time of ordering.  Replaceable SSD Hard disk I OGB, 3GB for User Data or higher as the case may be fait the time of ordering.  Display of PUC ladder along with online status in realtime on Ope		
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2.12 Feed override switch 2.13 Spindle override switch 2.14 Shadhier illumination switch 2.15 Push buttour/Key for Axis Reference 2.16 Push buttour/Key for Axis Reference 2.16 Push buttour/Key for activating tool definition when the tools are loaded manually 2.17 Push buttour/Key for activating tool definition when the tools are loaded manually 2.17 Push buttour/Key for activating tool definition when the tools are loaded manually 2.17 Push buttour/Key for activating tool definition when the tools are loaded manually 2.18 Push buttour/Key for activating tool definition when the tools are loaded manually 2.19 Machining(ALL AXIS MACHINING AT SAME TIME) 2.10 Machining(ALL AXIS MACHINING AT SAME TIME) 2.11 Machining(ALL AXIS MACHINING AT SAME TIME) 2.12 Type Version: PC based latest version 2.13 Type Version and the Was full alphanumeric keyboard, TFT colour display 15" or more, network ready with LAN, R\$232C port, electronic hand wheels for all axes, USB Port with minimum 1 GB Pen drive for data input/output to/from CNC system 3.10 Nos. from 2.14.3.5 to 2.14.3.38 of tender specifications). In case of non-availability of R\$232-C etc. (if not provided by CNC system manufacturer at the turn of supply), suitable separate ports for networking with LAN, data input/output, 2.13 tele diagnostics & USB ports shall be provided. In case, only USB ports (separate ports for networking with LAN, data input/output, 3.14 tele diagnostics & USB ports shall be provided. In case, only USB ports (separate ports for each function) are provided, suitable hardware/connectors shall be provided. 3.13 tele diagnostics & USB ports shall be provided. In case, only USB ports (separate ports for enter above functionalities. (Linear scale and Scanning head for position feedback). Option for display, editing loading & backup of PLC program on Operator Panel through USB. Usel and and messages with their remedial action and Display of Servo-waveforms on Operator Panel. 3.14 the time of ordering 3.15 Standard interfaces 3.16 push and push to PLC In		
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2.14 Machine illumination switch 2.15 Push buttour/key for Asis Reference 2.16 Push buttour/key for Asis Reference 2.16 Push buttour/key for activating tool definition when the tools are loaded manually 2.17 Push buttour/key for activating tool definition when the tools are loaded manually 2.18 Make: Stemens or Fanue, suitable for simultaneous and synchronous 5 Axis 3.14 Make: Stemens or Fanue, suitable for simultaneous and synchronous 5 Axis 3.15 Type Version: PC based latest version 3.16 Type Version: PC based latest version 3.17 Type Version: PC based latest version 3.18 Port with minimum 1 GB Pen drive for data input/output to/from CNC system 3.19 Fort with minimum 1 GB Pen drive for data input/output to/from CNC system 3.10 For CNC mode. additional querry keyboard & optical mouse etc. and preinstalled 3.10 For CNC mode. additional querry keyboard & optical mouse etc. and preinstalled 3.11 For CNC mode. additional querry keyboard & optical mouse etc. and preinstalled 3.11 For CNC mode. additional querry keyboard & optical mouse etc. 3.11 For CNC additional querry keyboard & optical mouse etc. 3.11 For CNC additional querry keyboard & optical mouse etc. 3.11 For CNC additional querry keyboard & optical mouse etc. 3.11 For CNC additional querry keyboard & optical mouse etc. 3.11 For CNC additional guerry provided by CNC system manufacturer at the time of supply), suitable separate ports for networking with LAN, data input/output, to ensure above functional are provided, suitable hardware/connectors shall be provided to ensure above functional are provided, suitable hardware/connectors shall be provided bor for ease of four in the CNC control for Automatic unattended shutdown in the case of power failure of functions. 3.12 Figualded data to BHEL server. 3.13 Flandard interfaces 3.14 the time of ordering 3.15 Standard interfaces 3.15 Standard interfaces 3.16 For Ladder along with online status in realtime on Operator Panel, display of PLC ladder along with heir remedial action and Display of Server-waveforms on		
Push button/Key for Axis Reference  Push button/Key for loading/unloading of tools  Push button/Key for loading/unloading of tools  Push button/Key for loading/unloading of tools  Push button/Key for activating tool definition when the tools are loaded manually  CNC SYSTEM  Machining(ALL AXIS MACHINING AT SAME TIME)  Machining(ALL AXIS MACHINING AT SAME TIME)  The CNC system should have full alphanumeric keyboard, TFT colour display 15" or more, network ready with LAN, RS232C port, electronic hand wheels for all axes, USB Port with minimum 1 GB Pen drive for data input/output to/from CNC system in CNC mode, additional qwerty keyboard & optical mouse etc. and preinstalled licensed software & ready to use offered features for CNC system (as mentioned at SI.Nos. from 2.14.36 to 2.14.3.38 of tender specifications). In case of non-availability of RS232-C etc. (if not provided by CNC system manufacturer at the time of supply), suitable separate ports for networking with LAN, data input/output, time of supply), suitable separate ports for networking with LAN, data input/output, to ensure above function are provided, suitable hardware/connectors shall be provided to ensure above functionalities. (Linear scale and Scanning head for position feedback). Option for display, editing, loading & backup of PLC program on Operator Panel through USB. Display of NC & PLC Alams with remedial solution. Power back-up of 30 min for CNC control for Automatic unattended shutdown in the case of power failure or if machine switches OFF. This offered CNC system should be OPC UA compliant with valid ticense. The system should have feature to store machine related data to BHEL server.  Replaceable SSD Hard disk 10GB, 3GB for User Data or higher as the case may be at the time of ordering.  Display of PLC ladder along with online status in realtime on Operator Panel, display of of alarm and messages with their remedial action and Display of Servo-waveforms on Operator Panel.		
Push button/Key for loading/unloading of tools  Push button/Key for activating tool definition when the tools are loaded manually  Push button/Key for activating tool definition when the tools are loaded manually  CNC SYSTEM  Machining(ALL AXIS MACHINING AT SAME TIME).  The CNC system should have full alphanumeric keyboard, TFT colour display 15" or more, network ready with LAN, RS232C port, electronic hand wheels for all axes, USB Port with minimum 1 GB Pen drive for data input/output to/from CNC system in CNC mode, additional qwerty keyboard & optical mouse etc. and preinstalled licensed software & ready with LAN, RS232C port, electronic hand wheels for all axes, USB Port with minimum 1 GB Pen drive for data input/output to/from CNC system in CNC mode, additional qwerty keyboard & optical mouse etc. and preinstalled licensed software & ready to use offered features for CNC system (as mentioned at SI. Nos. from 2.14.3.6 to 2.14.3.8 of tender specifications). In case of non-availability of RS232-C etc. (if not provided by CNC system manufacturer at the time of supply), suitable separate ports for networking with LAN, data input/output, tele diagnostics & USB ports shall be provided. In case, only USB ports separate port for each function) are provided, suitable hardware/connectors shall be provided to ensure above functionalities. (Linear scale and Scanning head for position feedback). Option for display, editing, loading & backup of PLC program on Operator Panel through USB. Display of NC & PLC Alams with remedial solution. Power back-up of 30 min for CNC control for Automatic unattended shutdown in the case of power failure or if machine switches OFF. This offered CNC system should be OPC UA compliant with valid license. The system should have feature to store machine related data to BHEL server.  Replaceable SSD Hard disk 10GB, 3GB for User Data or higher as the case may be at the time of ordering  Display of PLC Index along with online status in realtime on Operator Panel, display of PLC Index along with on		
Push button/Key for activating tool definition when the tools are loaded manually  CNC SYSTEM  Make: Siemens or Fanue, suitable for simultaneous and synchronous 5 Axis  Machining(ALL AXIS MACHINING AT SAME TIME).  Type Version: PC based latest version  The CNC system should have full alphanumeric keyboard, TFT colour display 15" or more, network ready with LAN, RS232C port, electronic hand wheels for all axes, USB Port with minimum 1 GB Pen drive for data input/output to/from CNC system in CNC mode, additional qwerty keyboard & optical mouse etc. and preinstalled licensed software & ready to use offered features for CNC system (as mentioned at SI,Nos. from 2.14.3.6 to 2.14.3.38 of tender specifications). In case of non-availability of RS232-C rec. (if not provided by CNC system manufacturer at the time of supply), suitable separate ports for networking with LAN, data input/output, tele diagnostics & USB ports shall be provided. In case, only USB ports (separate port for each function) are provided, suitable hardware/connectors shall be provided to ensure above function) are provided, suitable hardware/connectors shall be provided to ensure above functional titles. (Linear scale and Scaminig head for position feedback). Option for display, editing, loading & backup of PLC program on Operator Panel through USB. Display of NC & PLC Alarms with remedial solution. Power back-up of 30 min for CNC control for Automatic unattended shutdown in the case of power failure or if machine switches OFF. This offered CNC system should be OPC UA compliant with valid license. The system should have feature to store machine related data to BHEL server.  Replaceable SSD Hard disk 10GB, 3GB for User Data or higher as the case may be at the time of ordering.  Standard interfaces  Display of PLC ladder along with online status in realtime on Operator Panel, display of PLC padder along with online status in realtime on Operator Panel.  Operator Panel.		
CNC SYSTEM  Make: Siemens or Fanue, suitable for simultaneous and synchronous 5 Axis  Make: Siemens or Fanue, suitable for simultaneous and synchronous 5 Axis  Makelining(ALL. AXIS MACHINING AT SAME TIME),  13.2 Type Version: PC based latest version  Type Version: PC based latest version  Type Version: PC based latest version  The CNC system should have full alphanumeric keyboard, TFT colour display 15" or more, network ready with LAN, RS232C port, electronic hand wheels for all axes, USB Port with minimum 1 GB Pen drive for data input/output to/from CNC system in CNC mode, additional qwerry keyboard & optical mouse etc. and preinstalled licensed software & ready to use offered features for CNC system (as mentioned at SI.Nos. from 2.14.3.6 to 2.14.3.38 of tender specifications). In case of non-availability of RS232-C etc. (if not provided by CNC system manufacturer at the time of supply), suitable separate ports for networking with LAN, data input/output, time of supply), suitable separate ports for networking with LAN, data input/output, port for each function) are provided, suitable hardware/connectors shall be provided to ensure above functionalities. (Linear scale and Scanning head for position feedback). Option for display of NC & PLC Alarms with remedial solution. Power back-up of 30 min for CNC control for Automatic unattended shutdown in the case of power failure or if machine switches OFF. This offered CNC system should be OPC UA compliant with valid license. The system should have feature to store machine related data to BHEL server.  Replaceable SSD Hard disk 10GB, 3GB for User Data or higher as the case may be at the time of ordering.  Replaceable SSD Hard disk 10GB, 3GB for User Data or higher as the case may be at the time of ordering.  Bisplay of PLC ladder along with online status in realtime on Operator Panel, display of servo-waveforms on Operator Panel.		
Make: Siemens or Fanue, suitable for simultaneous and synchronous 5 Axis  Machining(ALL AXIS MACHINING AT SAME TIME)  The CNC system should have full alphanumeric keyboard, TFT colour display 15" or more, network ready with LAN, RS232C port, electronic hand wheels for all axes, USB Port with minimum I GB Pen drive for data input/output to/from CNC system in CNC mode, additional qwerty keyboard & optical mouse etc. and preinstalled licensed software & ready to use offered features for CNC system (as mentioned at SI.Nos. from 2.14.3.6 to 2.14.3.38 of tender specifications). In case of non-availability of RS232-C etc. (if not provided by CNC system manufacturer at the time of supply), suitable separate ports for networking with LAN, data input/output, tele diagnostics & USB ports shall be provided. In case, only USB ports shall be provided to ensure above function) are provided, suitable hardware/connectors shall be provided to ensure above functionalities. (Linear scale and Scanning head for position feedback). Option for display, editing, loading & backup of PLC program on Operator Panel through USB. Display of NC & PLC Alarms with remedial solution. Power back-up of 30 min for CNC control for Automatic unattended shutdown in the case of power failure or if machine switches OFF. This offered CNC system should be OPC UA compliant with valid license. The system should have feature to store machine related data to BHEL server.  Replaceable SSD Hard disk 10GB, 3GB for User Data or higher as the case may be at the time of ordering  1.3.5 Standard interfaces  Display of PLC ladder along with online status in realtime on Operator Panel, display  Operator Panel.		
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Operator Panel.		
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2.14.3.8 Coordinate System Rotation		
Coordinate System Transformation		

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2.14.3.1 Scaling  On secreen graphic simulation. (Offline graphic simulation-fist simulation of fool  On secreen graphic simulation. (Offline graphic simulation-fist simulation of fool  2.14.3.1 Procuses contended the simulation of foolsing machine axes/independent of machine movements without requirement of locking machine axes/independent of machine movements without requirement of locking machine axes/independent of machine movements)  2.14.3.1 Procuses cortended Camed Cycles for Drilling & Milling operation.  2.14.3.1 Procuses cortended Camed Cycles for Drilling & Milling operation.  2.14.3.2 Foolity to store at least 20 zero offsets  2.14.3.2 Foolity to store at least 20 zero offsets  2.14.3.2 Foolity to store at least 20 zero offsets  2.14.3.2 Foolity to store at least 20 zero offsets  2.14.3.3 Programmable of bytel  2.14.3.2 Foolity to store at least 20 zero offsets  2.14.3.3 Deorgamming of the gramming  2.14.3.2 Foolity to store at least 20 zero offsets  2.14.3.3 Deorgamming of the discussion of message in the part program  2.14.3.3 Deorgamming of the discussion of message in the part program  2.14.3.3 Deorgamming of the discussion of message in the part program  2.14.3.3 Deorgamming of charles accordinates  2.14.3.3 Programming with radius & end-point  2.14.3.3 Programming of charles of CNC System must also be quoted  2.14.3.3 Programming of charles of CNC System must also be quoted  2.14.3.3 Programming de chamlering feature  2.14.3.3 Programming explorant features of CNC System must also be guoted  2.14.3.3 Programming explorant features of CNC System must also be guoted  2.14.3.3 Programming feet ONO/OFF Gippul Reduction of message in the part program of the caperator panel for selection of required switches/keys shall be provided on the operator panel for selection of required switches/keys shall be provided on the operator of machine through of independent of CNC System must also be guoted  2.14.3 Features of CNC System required for identified jobs or foreseen by the vendor as required axis, asis	2.14.21 [Stringer and Confirm		Vendor to confirm		
2.14.3.12 Scaling  2.14.3.12 Programmable mirror image machining  2.14.3.13 Programmable mirror image machining  2.14.3.14 movements without requirement of locking machine axes/independent of machine movements without requirement of locking machine axes/independent of machine movements  2.14.3.15 Foreground/Background editing  2.14.3.17 Process oriented Canned Cycles for Drilling & Milling operation.  2.14.3.18 Rigid Tapping  2.14.3.17 Process oriented Canned Cycles for Drilling & Milling operation.  2.14.3.19 Process oriented Canned Cycles for Drilling & Milling operation.  2.14.3.20 Block search without calculations as well as with calculation in automatic mode  2.14.3.21 Process oriented Canned Cycles for Drilling & Milling operation.  2.14.3.22 Absoluted-incemental programming  2.14.3.21 Decimal point programming  2.14.3.21 Process oriented Canned Cycles for Drilling & Milling operation  2.14.3.23 Programmable dwell  2.14.3.24 Processor defined subcoutine independent of the main program  2.14.3.35 Programming with radius & end-point  2.14.3.36 Programming with radius & end-point  2.14.3.37 Processor of the Cycles o	2.14.13 [Angurmanal Resistance of confirm and confirm of the confi	2.14.3.11 Helical & cylindrical Interpolation	Vendor to confirm		
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	DESCRIPTION FOR BREE REQUIREMENT	7			
2.16	HIPS FOR CNC SVSTEM	Vendor to offer			
2.16.1	UPS unit including UPS module with rechargeable battery of sufficient time and 2.16.1 having provision for unattended automatic shutdown feature for Windows/Linux operating system & Control circuit.	Vendor to confirm & submit details			
2.17	MACHINE LIGHTS	Vendor to offer			
2.17.1	2.17.1 Flashing/rotary type end of cutting and program stop light.	Vendor to confirm			
2.17.2	The control cabinets (Electrical & Operator panel) shall be provided with sufficient illumination and a 220 V/5A & 15A socket to be provided in control cabinets.	Vendor to confirm	2		
2.17.3		Vendor to confirm			
2.17.4	Portable Lamp with magnetic base and chord of suitable length. Plug point for its use shall be provided on Head Stock at suitable location.	Vendor to confirm			
2.17.5	Sufficient illumination of working area to be provided. Consumables should be available in India.	Vendor to confirm	3		
2.17.6	Sufficient lighting with control switch shall be provided in all foundation / pit area. Consumables for the same should be available in India.	Vendor to confirm			
	the section of the se	A P. C. B. C. C. C. C.			
2.18	AIR CONDITIONERS:	Vendor to offer			
2.18.1	Cabinet/ Panel Air Conditioners of suitable/ sufficient capacity with proper drainage pipes and storage for condensate, are to be provided for different control electrical, electronics panels/cabinets including operators panels considering specified outer ambient conditions and inside ambient condition of panel/cabinet. Detailed of specifications of the same are to be submitted. The air conditioners are not to be mounted on top of the panels. Only Eco-friendly refrigerants are to be used in Air Conditioners. (User manual to be provided with each Air Conditioners Unit)	Vendor to offer and submit details		1	
	In case of order, vendor shall confirm to provide following information about air conditioners and chiller units used in the machine:  Type of refrigerant, medium to be cooled, capacity of chiller unit, type of compressor with complete specifications, type of thermostatic expansion valve, specification 2.18.2 details of condenser fan, specification of the evaporator unit (plate type/ coil type), details of liquid (oil/water) circulatory pump (if any), name of refrigerant used,	Vendor to confirm			
	details of Digital Temperature Controller used in the children unit. Only Eco-menty refrigerants are to be used in children units. (User manual to be provided with each Children Unit)				
2.19	HYDRAULIC & HYDROSTATIC SYSTEM:	Vendor to offer			
2.19.1		Vendor to confirm			
2.19.2	Pumps/valves/switches (pressure & flow) should be of make : Rexroth/Parker/Hawe/Eaton/Hydac/IFM (Details to be submitted)	Vendor to submit details			
2.19.3	Filtration System: Sufficient no of Filters (with Electric Clogging Indicator & alarm son PLC). Filter element should preferrably be of make EPE/Hydac/MP Filtri/ Mahle/Sofima. Details to be submitted.	Vendor to submit details			
2.19.4	Failure indication	Vendor to confirm			
2.19.5	2.19.5 Automatic shut off provision, Details to be submitted.	Vendor to confirm & submit details			

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SI. NO.	DESCRIPTION FOR BHEL REQUIREMENT	REQUIRED	OFFERED	DEVIATIONS	REMARKS
2.19.4	Refrigerated type cooling and electric heating (Electric heating only if required) system of sufficient capacity to maintain complete Hydraulic System, including 2.19.6 lubrication oil, hydrostatic oil and gearbox oil, etc. at a temperature not exceeding 40 deg C irrespective of the ambient conditions. Complete details should be submitted	Vendor to confirm & submit details			
2.19.	2.197 Hydraulic & HYDROSTATIC pump capacity (flow / pressure)	Vendor to submit details			
2.19.3	2.19.8 Each pump should have an independent motor. Tandem pumps should not be used	Vendor to confirm			
2 19.9	First filling of all required Oils, Coolant & Grease etc.; Supplier is to provide first filling of all oils / lubricants / coolant required for the machine from Indian source/equivalent ISO grade, indicating grade of all oils used. Eco Friendly Coolant to be suitably recommended for the machine.	Vendor to confirm & submit details		11	iii l
2.19.10	Supplier may recommend three alternative sources for all types of hydraulic & HYDROSTATIC & lubricating oil of equivalent B507ISO grade.	Vendor to inform			
2.19.11		Vendor to confirm		11.	
2.19.12		Vendor to confirm			
2.20	COOLANT SYSTEM:	Vendor to offer			
2.20.1		Vendor to confirm		ė	
2.20.2	Recirculating Type Flood Coolant System with nozzles around spindle.	Vendor to confirm			
2.20.3	Air coolant system	Vendor to confirm			
2.20.4	2.20.4 High Pressure Coolant through Spindle	Vendor to confirm			
2.20.5	All attachments, tool holders, boring bars, cassettes, adapters etc. shall have the provision so that coolant is available directly at the tool-cutting tip.	Vendor to confirm			
2.20.6	Coolant collection and recirculation system should be leak-proof & perfect to avoid any spillage on shop floor, trenches for cables & foundation pit of the machine etc.	Vendor to confirm			
2.20.7	Coolant Filtration System: Recirculating type coolant system with centrifugal 2.20.7 Hydrocyclone System/ Vacuum Rotary drum type System/ Cartridge Type Filtration System and magnetic separator.	Vendor to inform & submit details			
2.20.8	Coolant Flow Diagram showing filters, pumps, valves, tanks etc. to be submitted with the offer.	Vendor to submit details			
2.20.5	Pressure & rate of flow of coolant for different variants should be furnished in the case of offer. The Pressure should be sufficient for the coolant to reach the tool tip at full pressure.	Vendor to confirm & submit details			
2.20.10	The coolant tank capacity shall also be intimated. Coolant tank capacity, discharge 2,20.10 rate & pressure of coolant should be sufficient enough to meet the machining requirement.	Vendor to confirm & submit details			
2.20.11	In addition to M codes and push buttons provided on the operator's panel for activation & deactivation of coolant supply, additional rotary switch shall also be provided on the operator's panel for finer control of coolant flow rate and its pressure after its activation through M codes/ Push button.	Vendor to confirm			
2.20.12		Vendor to submit details			
2.20.13	The coolant tank should be fitted with skimmer for regular cleaning of coolant from contamination with tramp oil.	Vendor to confirm			
	George Sundan Good Sup	S)		Page	Page 10 of 31

SI. NO.	DESCRIPTION FOR BHEL REQUIREMENT	REQUIRED	OFFERED	DEVIATIONS	REMARKS
2.20.14	If any PLC system is used for the operation of coolant system, the same should be included in spare and licensed software and cables to be provided to connect with the PLC through portable programming device/laptop.	Vendor to confirm			
2.21	ELECTRICAL SYSTEM:	Vendor to offer			
2.21.1	415V + 10%, / -10%, 50HZ +/-3 %, 3 Phase AC (3 wire system without neutral) Power Supply Source will be provided by BHEL at a single point near the machine, as per layout recommended by Vendor. All types of cables, connections, circuit breakers etc. required for connecting BHEL's power supply point to different parts of the machine/control cabinets, shall be the responsibility of vendor. Requirement of grounding/earthing with required material details is to be informed by vendor well in advance so that same could be incorporated during construction of foundation.	Vend			
2.21.2	Tropicalisation: All machine electrical, controls, instrumentation and paints shall be suitably tropicalized.	Vendor to confirm			
	All electrical & electronic control cabinets & panels should be dust and vermin proof	Vendor to confirm			
2.21.5	All electrical and electronic panels including operator's panel should be provided with fluorescent lamps for sufficient illumination and power receptacles of 220Volts, 5/15 Amp AC. All adapters/receptacles should have compatibility with Indian courvalents.	Vendor to confirm Vendor to confirm			
2.21.6	Motors shall conform to IEC or Indian Standards	Vendor to confirm			
221.7	All cables moving with traversing axes should be installed in Caterpillar/ Drag chain. Additionally, all the cable trays required for laying of cables should be included in the offer.	Vendor to confirm			
2.21.8	Vendor should ensure the proper earthing for the machine and its peripherals. Any material required for the same shall also to be supplied. The vendor can take earthing connection from the nearest column of the production shop.	Vendor to confirm			
2.21.9	The offered Electrical System should ensure 5 Axis Continuous & Synchronous Machining (All 5 Axis Machining together)	Vendor to confirm			
21.10	2.21.10 Vendor to inform rated power consumption of the machine	Vendor to specify			
2.21.11	An Electric meter displaying the power consuption of the the machine with memory capacity to be provided along with the machine.	Vendor to offer			4.6
2.22	SAFETY ARRANGEMENTS: Following safety features in addition to other standard safety features should be provided on the machine:	Vendor to confirm & offer			
2.22.1 12	Machine should have adequate and reliable safety interlocks / devices to avoid damage to the machine, workpiece and the operator due to the malfunctioning or mistakes. Machine functions should be continuously monitored and alarm / warning indications through lights/ alarm number with messages (on CNC display and panels) should be available.	Vendor to confirm		,	
2.22.2	A detailed list of all alarms, messages, indications long with remedial solution to be provided on machine should be submitted by the supplier.	Vendor to confirm			
2223/	All the pipes, cables etc. on the machine should be well supported and protected.  All the rotating parts used on machine should be statically & dynamically balanced to avoid undue vibrations.	Vendor to confirm Vendor to confirm			
2.22.5	Emergency Switches at suitable locations as per International Norms are to be provided.	Vendor to confirm			
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SI. NO.	DESCRIPTION FOR BHEL REQUIREMENT	REQUIRED	OFFERED	DEVIATIONS	KEWIAKK
2 22 6	2.22.6 Oil & water pipe lines should not run with electrical cable in the same tray / trench.	Vendor to confirm			
2.22.7	2.22.7 Safety Lights at both ends of moving column (preferably Flashing during X-travel).	Vendor to confirm			
3 73	ENVIDONMENTAL DEDECORMANCE OF THE MACHINE .	•			
07.1	The Machine shall conform to following factors related to environment:				
2.23.1		Vendor to confirm		4.0	
2.23.2	There shall not be any emissions from the machine except fumes of cutting fluid during machining.	Vendor to confirm		٠	4
2.23.3	There should not be any effluent from the machine. In case there are any effluents 2.23.3 from the machine, requisite effluent treatment plant or pollution control device should be built into the machine by the supplier.	Vendor to confirm			-
2234	2.23.4 No hazardous chemicals shall be required to be used in the machine.	Vendor to confirm			
2.23.5	Safety / environmental protection enclosure as required, should be built in/round the machine by the vendor.	Vendor to confirm & offer			
2.23.6	Paint of the machine should be oil / coolant resistant and should not peel off and mix up with coolant.	Vendor to confirm			
2.24	The machine will have manual tool loading/ unloading with push buttons mounted on headstock / Auxiliary Hand pendant/MCP.	Vendor to confirm			
3	AUTOMATIC CHIP CONVEYOR:	Vendor to Offer			
3.1	No.of swarf / chip conveyors: 2 (one on each side of work table along Linear Axis Perpendicular to Cross rail)	Vendor to confirm	4		
3.2		Vendor to specify			
3.3		Vendor to specify			
3.4	3.4 Elevation of chip conveyor for chip bin	Vendor to specify			
3.5	Material of chip conveyor (to be rust resistant)	Vendor to specify			
3.6	Operation of chip conveyor (forward & reverse) through push buttons on operator's panel and at Chip Conveyor	Vendor to confirm	A		•
3.7	Layout showing location of chip conveyor to be submitted.	Vendor to submit details			
os m	The chips shall be brought by chip chures manually as well as by gravity into the coolant channels, which are provided on both sides along the machine table. Chip chutes shall be provided by the vendor. Detailed drawings of the same shall also be provided by the vendor. With the help chip conveyor the chips are to be transported to a suitable container located at one end of the machine. The container shall be included in the standard scope.	Vendor to confirm & submit details	9		

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Power Supply will be provided by BHEL at a single point ricar the machine, as per layout recommended by Yendor. All types of cables, connections, circuit breakers etcrequired for connecting BHEL's power supply point to different parts of the machine. Voltage BHEL's power supply point to different parts of the machine. Voltage Stabilizer, Isolation Transformer, control cabinets etc. shall be supplied by the vendor. The Oil / Air Cooled Servo Controlled Voltage Stabilizer (of reputed Indian make) should be suitable for the complete machine, its drives, controls, PLC etc. for unbalanced load & supply conditions considering specified power supply & ambient conditions. Catalogue of the same shall be submitted along with the offer.  The offer should be submitted with spares package (Variacs-2 nos., Correcting exeromotors-2 nos., Control cards-2 nos, Main switch in op path buttons-5 nos each spains at no. 4.1, the same should be included in spare and licensed software and eablest to be provided to connect with the PLC through portable programming device/dapton.  The offer should be submitted with spares package (Variacs-2 nos., Control cards-2 nos, Main switch in pare and licensed software and eablest to be provided to connect with the PLC through portable programming device/dapton.  The offer should be submitted with the PLC through portable programming device/dapton.  Catalogue of the SERVO VOLTAGE STABILIZER shall be submitted with the offer.  Ultra Isolation Transformer suitable for complete machine, its drives, constrols. PLC etc. shall be supplied for unbalanced load & supply conditions  Catalogue of the Ultra Isolation Transformer shall be submitted with the offer.  PNELIMATIC SYSTEM:  ARR COMPRESSOR:  ARR COMPRESSOR:  ARR COMPRESSOR:  ARR COMPRESSOR:  ARR COMPRESSOR:  Alth COMPRESSOR:  Alth COMPRESSOR:  Alth Compressed air requirements of the machine & accessories and to suit required type and by solid by solid by espared beneficial type of the total compressed air required ase and when required. The compresse		SERVO VOLTAGE STABILIZER:	Vendor to Offer			
The offer should be submitted with spares package (Variacs-2 nos., Correcting servomotors- 2 nos., Control cards-2 no's, Main switch-1 no, push buttons-5 nos. each type) required for long term maintenance of this stabilizer. If any PLC system is used against s. no. 4.1, the same should be included in spare and licensed software and against s. no. 4.1, the same should be included in spare and licensed software and device/laptop.  Make: NEEL, Aplab or Auto Electric or equivalent Rating & Input/output Voltage etc.  Monitoring device with cut-off facility for under/over output voltage, Devices for load current measurement. MCCB at input for overload/short circuit protection.  (Details to be submitted)  Catalogue of the SERVO VOLTAGE STABILIZER shall be submitted with the offer.  Catalogue of the SERVO VOLTAGE STABILIZER shall be submitted with the offer.  Catalogue of the SERVO VOLTAGE STABILIZER shall be supply conditions considering specified power supply & ambient conditions.  Make: NEEL, Aplab or Auto Electric or equivalent  Rating  Spares Package for the Ultra Isolation Transformer stiall be submitted with the offer.  Catalogue of the Ultra Isolation Transformer shall be submitted with the offer.  ARR COMPRESSOR:  ARR COMPRESS	4	Power Supply will be provided by BHEL at a single point riear the machine, as per layout recommended by Vendor. All types of cables, connections, circuit breakers etc. required for connecting BHEL's power supply point to different parts of the machine. Voltage Stabilizer, Isolation Transformer, control cabinets etc. shall be supplied by the vendor. A suitable servo-controlled voltage stabilizer of Indian Make and of appropriate rating shall be supplied and connected to the machine by the vendor. The Oil / Air Cooled Servo Controlled Voltage Stabilizer (of reputed Indian make) should be suitable for the complete machine, its drives, controls, PLC etc. for unbalanced load & supply conditions considering specified power supply & ambient conditions. Catalogue of the same shall be submitted along with the offer.	Vendor to confirm along with make ,model and technical details			
Make : NEEL, Aplab or Auto Electric or equivalent Rating & Input/output Voltage etc.  Monitoring device with cut-off facility for under/over output voltage, Devices for load current measurement, MCCB at input for overload/short circuit protection.  (Details to be submitted)  Catalogue of the SERVO VOLTAGE STABILIZER shall be submitted with the offer.  ULTRA ISOLATION TRANSFORMER Indian make Ultra Isolation Transformer suitable for complete machine , its drives, controls, PLC etc. shall be supplied for unbalanced load & supply conditions  Considering specified power supply & ambient conditions.  Make: NEEL, Aplab or Auto Electric or equivalent Rating Spares Package for the Ultra Isolation Transformer shall be submitted with the offer.  Catalogue of the Ultra Isolation Transformer shall be submitted with the offer.  PNEUMATIC SYSTEM:  AIR COMPRESSOR:  Independent Reciprocating or Screw Air Compressor (of reputed make Elgi, Chicago Pheumatic or Ingersol Rand) with refrigerated type Dryer & Filter of suitable capacity for the total compressed air requirements of the machine & accessories and to suit arequired air quality should be supplied. The system should be so designed to suit stequired are applied. The system should be so designed to suit stequired a provision and required supplied. The system should be suitable for continuous duty operation.  Make & Model of Air Compressor and Refrigerator type Dryer.  Capacity (Flow, Pressure & KW)	4		Vendor to offer		n 11	
Rating & Input/output Voltage etc.  Monitoring device with cut-off facility for under/over output voltage, Devices for load current measurement, MCCB at input for overload/short circuit protection.  (Details to be submitted)  Catalogue of the SERVO VOLTAGE STABILIZER shall be submitted with the offer.  ULTRA ISOLATION TRANSFORMER  Indian make Ultra Isolation Transformer suitable for complete machine, its drives, controls, PLC etc. shall be supplied for unbalanced load & supply conditions  Considering specified power supply & ambient conditions.  Make: NEEL, Aplab or Auto Electric or equivalent  Rating  Spares Package for the Ultra Isolation Transformer shall be submitted with the offer.  Catalogue of the Ultra Isolation Transformer shall be submitted with the offer.  PNEUMATIC SYSTEM:  AIR COMPRESSOR:  Independent Reciprocating or Serew Air Compressor (of reputed make Elgi, Chicago Pheumatic or Ingersol Rand) with refrigerated type Dryer & Filter of suitable capacity for the total compressed air requirements of the machine & accessories and to suit for the total compressed air requirements of the machine & accessories and to suit for the total compressed of required accessories (including separate buffer tank) before additional provision and required accessories (including separate buffer tank) before Refrigerated type Air Dryer so that BHEL compressed air supply having pressure 13-15 Kg/sq. cm with high moisture could be used as and when required. The compressor unit should be suitable for continuous duty operation.  Make & Model of Air Compressor and Refrigerator type Dryer.  Capacity (Flow, Pressure & KW)	7		Vendor to specify			
Monitoring device with cut-off facility for under/over output voltage, Devices for load current measurement, MCCB at input for overload/short circuit protection.  (Details to be submitted)  Catalogue of the SERVO VOLTAGE STABILIZER shall be submitted with the offer.  ILITRA ISOLATION TRANSFORMER  Indian make Ultra Isolation Transformer suitable for complete machine, its drives, controls, PLC etc. shall be supplied for unbalanced load & supply conditions considering specified power supply & ambient conditions.  Make: NEEL, Aplab or Auto Electric or equivalent  Rating Spares Package for the Ultra Isolation Transformer shall be submitted with the offer.  Catalogue of the Ultra Isolation Transformer shall be submitted with the offer.  PNEUMATIC SYSTEM:  AIR COMPRESSOR:  Independent Reciprocating or Screw Air Compressor (of reputed make Elgi, Chicago Pneumatic or Ingersol Rand) with refrigerated type Dryer & Filter of suitable capacity for the total compressed air requirements of the machine & accessories and to suit required air quality should be supplied. The system should be so designed to have additional provision and required accessories (including separate buffer tank) before Refrigerated type Air Dryer so that BHEL compressed air supply having pressure 13-15 Kg/sq.cm with high moisture could be used as and when required. The compressor unit should be suitable for continuous duty operation.  Make & Model of Air Compressor and Refrigerator type Dryer.  Capacity (Flow, Pressure & KW)	**	-	Vendor to specify			
Catalogue of the SERVO VOLTAGE STABILIZER shall be submitted with the offer.  ULTRA ISOLATION TRANSFORMER Indian make Ultra Isolation Transformer suitable for complete machine, its drives, controls, PLC etc. shall be supplied for unbalanced load & supply conditions considering specified power supply & ambient conditions.  Make: NEEL, Aplab or Auto Electric or equivalent Rating Spares Package for the Ultra Isolation Transformer for 2 years working should also be offered.  Catalogue of the Ultra Isolation Transformer shall be submitted with the offer.  PNEUMATIC SYSTEM:  AIR COMPRESSOR: Independent Reciprocating or Screw Air Compressor (of reputed make Elgi, Chicago Pneumatic or Ingersol Rand) with refrigerated type Dryer & Filter of suitable capacity for the total compressed air requirements of the machine & accessories and to suit required air quality should be supplied. The system should be so designed to have additional provision and required accessories (including separate buffer tank) before Refrigerated type Air Dryer so that BHEL compressed air supply having pressure 13-15 Kg/sq.cm with high moisture could be used as and when required. The compressor unit should be suitable for continuous duty operation.  Make & Model of Air Compressor and Refrigerator type Dryer.  Capacity (Flow, Pressure & KW)	4	Monitoring device with cut-off facility for under/over output voltage, Devices for load current measurement, MCCB at input for overload/short circuit protection. (Details to be submitted)	Vendor to specify with technical details.			
Intrra isolation Transformer suitable for complete machine, its drives, controls, PLC etc. shall be supplied for unbalanced load & supply conditions considering specified power supply & ambient conditions.  Make: NEEL, Aplab or Auto Electric or equivalent Rating Spares Package for the Ultra Isolation Transformer for 2 years working should also be offered.  Catalogue of the Ultra Isolation Transformer shall be submitted with the offer.  PNEUMATIC SYSTEM:  AIR COMPRESSOR: Independent Reciprocating or Screw Air Compressor (of reputed make Elgi, Chicago Pneumatic or Ingersol Rand) with refrigerated type Dryer & Filter of suitable capacity for the total compressed air requirements of the machine & accessories and to suit required air quality should be supplied. The system should be so designed to have additional provision and required accessories (including separate buffer tank) before additional provision and required accessories (including separate buffer tank) before additional provision with high moisture could be used as and when required. The compressor unit should be suitable for continuous duty operation.  Make & Model of Air Compressor and Refrigerator type Dryer.  Capacity (Flow, Pressure & KW)	4	Catalogue of the SERVO VOLTAGE STABILIZER shall be submitted	Vendor to submit	*		
Indian make Ultra Isolation Transformer suitable for complete machine, its drives, controls, PLC etc. shall be supplied for unbalanced load & supply conditions considering specified power supply & ambient conditions.  Make: NEEL, Apiab or Auto Electric or equivalent  Rating  Spares Package for the Ultra Isolation Transformer for 2 years working should also be offered.  Catalogue of the Ultra Isolation Transformer shall be submitted with the offer.  PNEUMATIC SYSTEM:  AIR COMPRESSOR:  Independent Reciprocating or Screw Air Compressor (of reputed make Elgi, Chicago Pneumatic or Ingersol Rand) with refrigerated type Dryer & Filter of suitable capacity for the total compressed air requirements of the machine & accessories and to suit required air quality should be supplied. The system should be so designed to have additional provision and required accessories (including separate buffer tank) before Refrigerated type Air Dryer so that BHEL compressed air supply having pressure 13-15 Kg/sq.cm with high moisture could be used as and when required. The compressor unit should be suitable for continuous duty operation.  Make & Model of Air Compressor and Refrigerator type Dryer.  Capacity (Flow, Pressure & KW)		HITTRA ISOLATION TRANSFORMER	Vendor to offer			
Make: NEEL, Aplab or Auto Electric or equivalent Rating Spares Package for the Ultra Isolation Transformer for 2 years working should also be offered. Catalogue of the Ultra Isolation Transformer shall be submitted with the offer.  PNEUMATIC SYSTEM: AIR COMPRESSOR: Independent Reciprocating or Screw Air Compressor (of reputed make Elgi, Chicago Pneumatic or Ingersol Rand) with refrigerated type Dryer & Filter of suitable capacity for the total compressed air requirements of the machine & accessories and to suit required air quality should be supplied. The system should be so designed to have additional provision and required accessories (including separate buffer tank) before Refrigerated type Air Dryer so that BHEL compressed air supply having pressure 13- 15 Kg/sq.cm with high moisture could be used as and when required. The compressor unit should be suitable for continuous duty operation.  Make & Model of Air Compressor and Refrigerator type Dryer. Capacity (Flow, Pressure & KW)	10	Indian make Ultra Isolation Transformer suitable for complete machine, controls, PLC etc. shall be supplied for unbalanced load & supply conditions specified power supply & ambient conditions.	Vendor to offer			
Rating Spares Package for the Ultra Isolation Transformer for 2 years working should also be offered.  Catalogue of the Ultra Isolation Transformer shall be submitted with the offer.  PNEUMATIC SYSTEM:  AIR COMPRESSOR: Independent Reciprocating or Screw Air Compressor (of reputed make Elgi, Chicago Pneumatic or Ingersol Rand) with refrigerated type Dryer & Filter of suitable capacity for the total compressed air requirements of the machine & accessories and to suit required air quality should be supplied. The system should be so designed to have additional provision and required accessories (including separate buffer tank) before Refrigerated type Air Dryer so that BHEL compressed air supply having pressure 13- 15 Kg/sq.cm with high moisture could be used as and when required. The compressor unit should be suitable for continuous duty operation.  Make & Model of Air Compressor and Refrigerator type Dryer.  Capacity (Flow, Pressure & KW)	in		Vendor to specify			
Spares Package for the Ultra Isolation Transformer for 2 years working should also be offered.  Catalogue of the Ultra Isolation Transformer shall be submitted with the offer.  PNEUMATIC SYSTEM:  AIR COMPRESSOR: Independent Reciprocating or Screw Air Compressor (of reputed make Elgi, Chicago Pneumatic or Ingersol Rand) with refrigerated type Dryer & Filter of suitable capacity for the total compressed air requirements of the machine & accessories and to suit required air quality should be supplied. The system should be so designed to have additional provision and required accessories (including separate buffer tank) before Refrigerated type Air Dryer so that BHEL compressed air supply having pressure 13-15 Kg/sq.cm with high moisture could be used as and when required. The compressor unit should be suitable for continuous duty operation.  Make & Model of Air Compressor and Refrigerator type Dryer.  Capacity (Flow, Pressure & KW)	lis.	Rating	Vendor to specify			
Catalogue of the Ultra Isolation Transformer shall be submitted with the offer.  AIR COMPRESSOR: Independent Reciprocating or Screw Air Compressor (of reputed make Elgi, Chicago Pneumatic or Ingersol Rand) with refrigerated type Dryer & Filter of suitable capacity for the total compressed air requirements of the machine & accessories and to suit required air quality should be supplied. The system should be so designed to have additional provision and required accessories (including separate buffer tank) before Refrigerated type Air Dryer so that BHEL compressed air supply having pressure 13-15 Kg/sq.cm with high moisture could be used as and when required. The compressor unit should be suitable for continuous duty operation.  Make & Model of Air Compressor and Refrigerator type Dryer.  Capacity (Flow, Pressure & KW)	in	Spares Package for the Ultra Isolation Transformer for 2 years working be offered.	Vendor to offer			
PNEUMATIC SYSTEM:  AIR COMPRESSOR: Independent Reciprocating or Screw Air Compressor (of reputed make Elgi, Chicago Pneumatic or Ingersol Rand) with refrigerated type Dryer & Filter of suitable capacity for the total compressed air requirements of the machine & accessories and to suit required air quality should be supplied. The system should be so designed to have additional provision and required accessories (including separate buffer tank) before Refrigerated type Air Dryer so that BHEL compressed air supply having pressure 13-15 Kg/sq.cm with high moisture could be used as and when required. The compressor unit should be suitable for continuous duty operation.  Make & Model of Air Compressor and Refrigerator type Dryer.  Capacity (Flow, Pressure & KW)	in	Catalogue of the Ultra Isolation Transformer shall be submitted with the offer.	Vendor to submit			
AIR COMPRESSOR: Independent Reciprocating or Screw Air Compressor (of reputed make Elgi, Chicago Pneumatic or Ingersol Rand) with refrigerated type Dryer & Filter of suitable capacity for the total compressed air requirements of the machine & accessories and to suit required air quality should be supplied. The system should be so designed to have additional provision and required accessories (including separate buffer tank) before Refrigerated type Air Dryer so that BHEL compressed air supply having pressure 13-15 Kg/sq.cm with high moisture could be used as and when required. The compressor unit should be suitable for continuous duty operation.  Make & Model of Air Compressor and Refrigerator type Dryer.  Capacity (Flow, Pressure & KW)		PNEUMATIC SYSTEM:				
Independent Reciprocating or Screw Air Compressor (of reputed make Elgi, Chicago Pneumatic or Ingersol Rand) with refrigerated type Dryer & Filter of suitable capacity for the total compressed air requirements of the machine & accessories and to suit required air quality should be supplied. The system should be so designed to have additional provision and required accessories (including separate buffer tank) before Refrigerated type Air Dryer so that BHEL compressed air supply having pressure 13-15 Kg/sq.cm with high moisture could be used as and when required. The compressor unit should be suitable for continuous duty operation.  Make & Model of Air Compressor and Refrigerator type Dryer.  Capacity (Flow, Pressure & KW)	19		Vendor to offer			
Make & Model of Air Compressor and Refrigerator type Dryer.  Capacity (Flow, Pressure & KW)		Independent Reciprocating or Screw Air Compressor (of reputed make Elgi, Chicago Pneumatic or Ingersol Rand) with refrigerated type Dryer & Filter of suitable capacity for the total compressed air requirements of the machine & accessories and to suit required air quality should be supplied. The system should be so designed to have additional provision and required accessories (including separate buffer tank) before Refrigerated type Air Dryer so that BHEL compressed air supply having pressure 13-15 Kg/sq.cm with high moisture could be used as and when required. The compressor unit should be suitable for continuous duty operation.	Vendor to offer with details.			
Capacity (Flow, Pressure & KW)	-	Make & Model of Air Compressor and Refrigerator type Dryer.	Vendor to specify			
	-	Capacity (Flow, Pressure & KW)	Vendor to specify			

SI. NO.	DESCRIPTION FOR BHEL REQUIREMENT	REQUIRED	OFFERED	DEVIATIONS	REMARKS
614	Spares Package for the compressor for 2 years trouble free working should also be offered. List to be submitted.	Vendor to offer and submit			
61.5	The spares package must include all type of filters and separators (5 no each type), 6.1.5 Temperature probe, Belt, air intake valve, RTD, Thermal valve and Oil (30 litres).	Vendor to offer and submit	•		
6.1.6	If supplied air compressor is equipped with any PLC device, the same should be 6.1.6 included in spare and licensed software and cables to be provided to connect with the PLC through portable programming device/laptop.	Vendor to specify			
6.2	COMPRESSED AIR POINTS: Compressed Air Point with manual ON/ OFF Valve and flexible spiral pipe of	Vandor to confirm			
6.2.1	suitable length with air gun for work piece cleaning.  Programmable Compressed air point in the head stock to be used as coolant for	Vendor to confirm			
6.2.3	earonde toots. 6,2,3 Vendor to offer one spare air gun	Vendor to confirm			
1	DIAGNOSTIC SYSTEMS:	Vendor to offer			+
7.1	REMOTE TELE DIAGNOSTIC SERVICE:	Vendor to offer			
7.1.1	Tele-diagnostic service should be provided through Ethernet along with required Hardware / Software package for the supplied CNC system for remote diagnosis and correction of the problems in both CNC System and PLC of the machine. This should be provided free of charge for the guarantee period. Terms and conditions for the service after guarantee period should be informed by vendor. Help guide should be provided for use of the system/service. Subsequently, it should be possible to use other platforms, such as Internet or ISDN, subject to their availability in future. The poor should be made available in the electrical panel.	Vendor to confirm & submit details			
7.2	EATH T DIAGNOSTIC SYSTEM:	Vendor to offer			
7.2.1	Supplier's own diagnostic system with required Software and Hardware installed on the CNC system, which shows detailed cause and remedy for the fault on the CNC system display with diagnostics (including images/Electrical circuit drawing) indicating the element /device name causing the fault.	Vendor to offer & submit			
7.2.2	Vendor to offer a programming device/laptop having at least core i7 (13 generation or above). FHD, 16GB RAM (DDR5), 512 GB SSD, 15" display, Windows 11 pro 64 bit licensed. The supplied programming device/laptop should be loaded with all the licensed software required to connect with any supplied PLC, HMI, Servo drives and CNC for diagnostic, commissioning and maintenance purpose. All necessary cables, PCMCIA card / Adaptor required to be included in offer. The supplied programming device/laptop should be loaded with complete Electrical Schemes, Mechanical Assembly drawings, Hydraulic Circuit Diagrams, Operation and Maintenance Manuals, Special procedures required for restoration and operation of AAC/ATC/Attachments. Machine Alarm list along with Help text wiring diagram, On-Line display of PLC user should be available on the note book PC.	Vendor to offer & submit			
7.2.3	Provision of OEM Screen with soft keys enabling the service personnel to bring back the tool carriers of the AAC to its initial/nearest position in case of interruption of tool carrier's positioning cycle due to alarm on the machine or power failure. With this OEM screen, service personnel should be able to perform individual steps of Tool carriers positioning cycle manually. Separate Hand Held Pendent should also be provided to retrieve the tool carrier to it's initial position.	Vendor to offer			
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7.2.4	1 C. meters of the first annual above an excitation from Brown manifolding from from the contraction of				
7.2.5	Machine should have provision to switchover from position feedback system -2 (direct) to Position feed back system-1 ( Motor encoder ) through password protected customised screen on operator panel as well as through PLC program ( for service personnel only).	Vendor to offer			
	Provision to correct the misaligned gantry for the service personnel to be provided.  Detailed documents to be provided for this purpose.	Vendor to provide detail			
7.2.6	Vendor shall provide all tool and tackles required for CNC maintenance like Clamp meter, Multimeter, Socket Set etc.	Vendor to offer			T.
7.2.7	Help guide should be provided to use above two diagnostic systems shall be provided.	Vendor to confirm	Le		
00	LEVELING & ANCHORING SYSTEM:	Vendor to offer			
8.	_	Vendor to confirm			
6	TOOLS FOR ERECTION, OPERATION & MAINTENANCE:	Vendor to offer			
9.1		Vendor to confirm & submit details			8
9.2		Vendor to confirm & offer			
9.3		Vendor to confirm & offer			
10	MANUAL LOADING & UNLOADING OF TOOLS:				
101	The machine will have manual tool loading/ unloading with push buttons mounted on Auxiliary Hand pendant as well as Attachments Heads mentioned at S.no 11.2 to 11.5	Vendor to confirm			
11	ACCESSOBIES AND ATTACHMENTS:	Vendor to offer			
171	AUTO ATTACHMENT CHANGER SYSTEM (AAC):	Vendor to offer			
		Vendor to confirm & submit details	11 11	al A	u .
11.12	_	Vendor to confirm			
11.13		Vendor to confirm			
11.11.4	11.1.4 Location of the attachment changer along with sketch	Vendor to specify and submit sketch			
1.11	11.1.5 Mounting plates as required for attachments should be supplied	Vendor to confirm			
11.11.6	11.1.6 Maximum Permissible Weight on Complete AAC.	Vendor to specify			
11.17	Suitable Software based and manual key based arrangement should be provided to extract an Attachment trapped in the AAC cycle. Details of both the system to be provided along with the offer.	Vendor to offer and submit		*	
11.2	MILLING HEAD WITH CONTINOUS SWIVELLING AXIS FOR MACHINING 3D SUIDEACES	Vendor to offer			
11.2.11	Samule sketch of head attached in Annexure 1	Vendor to Note			

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SI. NO.	DESCRIPTION FOR BHEL REQUIREMENT	REQUIRED	OFFERED	DEVIATIONS	REMARKS
11.2.2	Geometry and Physical Dimensions of the Milling Head should be designed in such a manner that this head, along with other attachments mentioned at S.no 11.3 to 11.6 are able to machine entire surfaces including airfoil, fillets, conical bore, slots & Drills of the proveout component as per S.no 20.	Vendor to confirm		12	
11.2.3	Something Axis to be continuous and not indexable	Vendor to confirm			
11.2.4	4 No of Continuous Swivelling Axis: 1 or more	Vendor to specify			
11.2.5		Vendor to specify			
11.2.6	Resolution of Swivelling	Vendor to confirm			
11.2.7	7 Transmittable Power : 50 KW or more	Vendor to specify			
11.2.8	11.2.8 Max Torque	Vendor to specify			
11.2.5	11.2.9 Speed Ratio: 1:1 Between Main spindle and Head	Vendor to confirm			
11.2.10	Speed Range (RPM-Infinitely Variable)	Vendor to specify			
11.2.11		Vendor to confirm			
11.2.12		Vendor to specify			
11.2.13	Max Weight of the tool that can be accommodated in Head	Vendor to specify			
11.2.14	External as well as Internal (through spindle) Coolant System with requisite flexible pipes on its snout is to be provided. Its details shall be submitted with the offer.	Vendor to confirm & submit details			
11.2.15		Vendor to confirm			
11.2.16	Power/Torque-Speed characteristic diagram of the Milling head to be submitted with the offer.	Vendor to submit details.			
11.2.17		Vendor to submit details			
11.2.18		Vendor to confirm & submit details			
11.2.19		Vendor to confirm & submit details			7
11.2.20	The offered milling head should be fully programmable & customized to carryout machining (Facing, drilling, Boring, Circular interpolation with cutter compensation, Tapping, thread milling etc.) at different angular positions with reference to existing work offset.	Vendor to confirm			•
. 11.3	SPECIAL MILLING HEAD WITH CONTINOUS SWIVELLING AXIS FOR MACHINING NARROW GAPS ON 3D SURFACES	Vendor to offer			
11.3.1	-	Vendor to Note			
11.3.2	The purpose of this Milling Head is to machine Narrow Zones between the Blades and Intersection of Blades with Hub	Vendor to Note	**		4)
11.3.3	Geometry and Physical Dimensions of the Milling Head should be designed in such a manner that this head, along with other attachments mentioned at S.no 11.2,11.4 to 11.6 are able to machine entire surfaces including airfoil,fillets, conical bore, slots & Drills of the proveout component as per S.no 20.	Vendor to confirm			
11.3.4	Swivelling Axis to be continuous and not indexable	Vendor to confirm			
11.3.5		Vendor to specify			
11.3.6	A/B - axis Range +/- 95 Deg. (Minimum) from Vertical Axis	Vendor to specify			
11.3.7	C - axis Range (if applicable): 0-360 Deg. (Minimum) from Vertical Axis	Vendor to specify			
11.3.8	11.3.8 Resolution of Swivelling Axis for A/B Axis: 0.001 Deg	Vendor to confirm			
11.3.9	Resolution of Swivelling Axis for C Axis (If Applicable)	Vendor to specify			
11.3.10	11.3.10 Transmittable Power : 25 KW or more	. Vendor to specify			
	Ashan Durved But sent and			Page	Page 16 of 31

11.3.11 Max Torque 11.3.12 Speed Ratio: 11.3.13 Speed Range (RPM-Infinitely Variable) 11.3.14 Spindle taper 11.5.19 Speed Range (RPM-Infinitely Variable)	Vendor to specify		
11.3.12 Speed Ratio: 11.3.13 Speed Range (RPM-Infinitely Variable) 11.3.14 Spindle taper : BT 50			
11.3.13 Speed Range (RPM-Infinitely Variable) 11.3.14 Spindle taper : BT 50	Vendor to specify		
	Vendor to specify		
	Vendor to confirm		
11.3.15 Weight of the head	Vendor to specify		
11.3.16 Max Weight of the tool that can be accommodated in Head	Vendor to specify		
an with requisite flexible nitted with the offer.	Vendor to confirm & submit details		4
The Milling Head should have a push button to enable manual loading and unloading of tools	Vendor to confirm		
Power/Torque-Speed characteristic diagram of the Milling head to be submitted with the offer.	Vendor to submit details		
Make & Model of Head including drawing/sketch/catalogue pages showing major dimensions of the Head to be submitted with the offer.	Vendor to submit details		
II be supplied along with	Vendor to confirm & submit details		
to be provided for programmable positioning/indexing of the drilling/milling at compound angle and the same to be demonstrated of component/test piece.	Vendor to confirm & submit details		
The offered milling head should be fully programmable & customized to carryout machining (Facing, drilling, Boring, Circular interpolation with cutter compensation, Tapping, thread milling etc.) at different angular positions with reference to existing work offset.	Vendor to confirm	×	2
11.4 LONG VERTICAL HEAD	Vendor to offer		
141	Vendor to Note		
	Vendor to confirm		
11.4.3 Length of Long Vertical Head from Ram Face to Tip of Spindle: Min 800 mm	Vendor to specify		
11.4.4 Diameter of Long Vertical Head	Vendor to specify		
11.4.5 Power of Long Vertical Head	Vendor to specify		
11.4.6 Spindle:Taper: BT50	Vendor to confirm		
	Vendor to specify		
	Vendor to specify		
11.4.9 Torque at 100% Duty Cycle	Vendor to specify		
11.4.11 Max. weight of fool that can be accommodated in the Long Vertical Head	Vendor to submit details		
	Vendor to specify		
	Vendor to specify		
te flexible offer.	Vendor to confirm & submit details		
Make & Model of Long Vertical Head including drawing/sketch/catalogue pages 11.4.15 showing major dimensions of the Head to be submitted with the offer.	Vendor to submit details		
be supplied	Vendor to confirm & submit details		
11.5 SPECIAL BORING AND FACING HEAD (Body Dia. 360mm)	Vendor to offer		
11.5.1 Sample sketch of Special Boring & Facing Head is attached in Annexure 1	Vendor to Note		
11.5.2 Special Boring & Facing Head to be directly mountable on RAM	Vendor to Confirm		
11.5.3 Head body diameter: 360 mm	Vendor to specify		

SI. NO. DESCRIPTION FOR BHEL REQUIREMENT	REQUIRED	OFFERED	DEVIATIONS	NEWAKAS
11.5.4 Tool slide stroke: 120 mm or more	Vendor to specify			
11.5.5 Facial and Radial Run outs	Vendor to specify			
11.5.6 Max RPM: 500 or more	Vendor to specify			
11.5.7 Boring Accuracy, H7	Vendor to specify			
11.5.8 Surface Finish: 0.8 Microns Ra or better	Vendor to specify			
11.5.9 Min. Boring Dia : 400 mm or less	Vendor to Confirm			
11.5.10 Max. Boring dia: 670 mm or more	Vendor to Confirm		*	
11.5.11 Max. Boring depth (With Tool.): 1300 mm or more	Vendor to Confirm			
11.512 Min. Facing Dia:	Vendor to specify			
11.5.13 Max. Facing dia :	Vendor to specify			
11.5.14 Slide feed rate	Vendor to specify			
11.5.15 Maximum torque	Vendor to specify			
11.5.16 Maximum cutting force in boring:	Vendor to specify			
11.5.17 Slide Counter Balance mechanism details	Vendor to specify			
11.5.18 Complete set of standard Tool Holders and Tools, to be used with the offered Head.				
Any special arrangement offered to meet the specified requirement of Conical Bore		7		
of proveout component to be discussed during Pre Bid Meeting. Top mounting	Vendor to confirm and submit details			
extension/tool neads like MK/TU/ in sufficient numbers with at reast one adaptor for				
every boung tool Cataloge used in the prove out components	Wandow to Office			
11.5.19 Catalogue of the offered Head.	Vendor to Offer			
11.5.20 Coolant system: External coolant with requisite flexible pipes on its snout is to be	3			
provided. The arrangement for its supply may be made unough the coolant supply	vendor to Continu			
system available on the Head Stock.				
11.5.21 Details of the Boring head along with its drawing/sketch.	Vendor to submit			
THE ADDITIONAL ATTACHMENT	Vandor to offer if annipable			
ILO ADDITIONAL ATTACHMENT	vendor to otter it applicable			
The Vendor to offer any other attachment apart from attachments mentioned at S.no 11.6.1 11.2 to 11.5 to ensure successful machining of the Proveout Component as per S.no 20	Vendor to Note & Submit Details if applicable		,	
The offered additional attachment (if applicable) must comply following technical parameters				
11.6.3 Transmittable Power : 25 KW or more	Vendor to inform			
11.6.4 Resolution of any Indexable/Continuous Swivelling Axis	Vendor to inform			
11.6.5 Provision for External and Internal coolant	Vendor to inform			
11.6.6 Provision for manual tool loading and unloading	Vendor to inform			
Make & Model of Additional Attachment (if applicable) including 11.6.7 drawing/sketch/catalogue pages showing major dimensions of the Head to be submitted with the offer.	Vendor to submit details			
11.7 CAM SIMULATION OF ATTACHMENTS				
The Vendor has to submit 3D CAM Simulation of Machining Strategy using all the attachments mentioned at S.no 11.2 to 11.6.	Vendor to confirm			
11.7.2 This CAM Simulation has to be provided after PO Placement.	Vendor to confirm			
	200			
11.8 MEASURING SYSTEM	Vendor to Offer			

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SI. NO.	DESCRIPTION FOR BHEL REQUIREMENT	REQUIRED	OFFERED	DEVIATÍONS	REMARKS
1.8.1	Vendor to offer Automatic Job Measuring System, comprising of Spindle mounted Renishaw or equivalent make Wireless system, with measuring cycles, calibration 11.8.1 system and all types of probes/styli required for measuring all machined dimensions of proveout component mentioned at S.no 20. It should have following features	Vendor to confirm			
11.8.2	11.8.2 Latest RENISHAW probe	Vendor to confirm			
11.8.3	11.8.3 Holder for probe with taper suitable to the machine	Vendor to confirm			
11.8.4	11.8.4 Probe stylus (2 sets )	Vendor to confirm			
11.8.5	Calibration master including the calibrating programs. The calibration master should 11.8.5 be fixed at suitable loaction so that calibration can be done without setting the master each time.	Vendor to confirm	,		
11.8.6	11.8.6 Requisite electronic interface	Vendor to confirm			
11.8.7	7 Receiver module	Vendor to confirm			
11.8.8	Service Kit	Vendor to confirm			
11.8.9	Spares Package for the Job Measuring system for 2 years trouble free working should also be offered. List to be submitted.	Vendor to confirm			
11.8.10	Format of report produced after measurement to be submitted. Format to be modified as per BHEL requirement if required.	Vendor to submit			
	AND COMMANDS IN CO.	Vocates to Office			
77	Vandante office DC based latest consists CAM Software (10 MV or acciding last)	vendor to Offer			
12.1	Vendor to offer PC based latest version CAM Software (UG-NX or equivalent) suitable to generate tool path for 5 Axis machining strategy for complex airfoils.	Vendor to confirm and submit details			
12.2		· Vendor to confirm			
12.3	_	Vendor to confirm		V	
12.4	<sup>1</sup> 3D Model of Machine and all attachments mentioned at S.no 11.2 to 11.6 to be supplied with software, in order to simulate the tool path for checking collisions.	Vendor to confirm	>		
12.5	For this purpose, vendor to provide a suitable windows based PC with latest configuration suitable to run offered CAM software.	Vendor to confirm and submit details	- T		
12.6	12.6 PC to be used in offline mode. CAM software should work in offline mode	Vendor to confirm			
. 12.7	CAM software License should not be restrictive to hardware of supplied PC. It should 12.7 be provided in Dongle/Pendrive/CD Drive etc so that it may be transferred to another PC, if supplied PC corrupts/becomes obsolete.	Vendor to confirm			
12.8	Validity of CAM software License key to be lifetime or Vendor has to renew the provided License key every year without any financial implication to BHEL.	Vendor to confirm			
13	SPARES: (AS USED ON MACHINE)	Vendor to Offer			
13.1	Mechanical, Hydraulic & Lubrication System, Electrical and Electronic spares used on the machine are to be recommended and offered by the vendor in sufficient quantity for 2 years frouble free operation of the complete machine including CNC system and its accessories considering three shifts continuous running of the machine. Detailed list is to be submitted.	Vendor to agree, offer & submit details			
	Following spare parts of electrical/electronics and CNC system shall be offered itemwise per machine (if not included in recommended spares):			*	
13.1.1		Vendor to offer	1		
13.1.2		Vendor to offer			
13.1.3		Vendor to offer			
7	Limit Switches, Pricto Switches is Nos cacit type )	Velico to otici			
Tshone		*	D.	Гаде	Page 19 of 31

SI. NO.	DESCRIPTION FOR BHEL REQUIREMENT	REQUIRED	OFFERED	DEVIATIONS	REMARKS
13.1.5	Relays and fusable relay boards ( 2 Nos each type )	Vendor to offer			
13.1.6	8 RTD temperature transmitter (1 No each type)	Vendor to offer			
13.1.7		Vendor to offer			
13.1.8	8 Semiconductor Fuses (5 Nos each type)	Vendor to offer			
13.1.9		Vendor to offer			
13.1.10		Vendor to offer			
13.1.11		Vandor to offer			
13.1.12	2 Scanning Heads for Linear Scales ( I No each type )	Vendor to offer			
13.1.14		Vendor to offer			
13.1.15	Power Module / Servo amplifier & Control Cards for Main Drive as well as Feed	Vendor to offer			
12 1 15	Drives ( 1 Nos each type )	Vendor to offer			
13.1.17	13.1.10 Prover cable and encoder cable (01 no. each type) 13.1.17 One each of the following items: CNC Power Supply, Interface Modules, Hand Held	Vendor to offer			
13.1.18	13.1.8 HPS Module for CNC System safe shutdown-1 No	Vendor to offer			
13.1.19	13.1.19 Line Filter and Line Choke Module-1 No.	Vendor to offer			
13.1.20	13.1.20 Proportional Control Valve Controller 2 Nos. each type (if applicable)	Vendor to offer			
13.1.21	Push Buttons- 5 No. each type	Vendor to offer			
13.1.22	13.1.22 Indicating Lamp- 10 Nos each type	Vendor to offer			
13.1.23	3 Contactors- 2 Nos. each type	Vendor to offer			
13.1.24	4 Overloads/ Automats- 1 No. each type	Vendor to offer			
13.1.25	5 Machine Status Indicating Lamp (Complete unit) - 1 No	Vendor to offer			
13.1.26		Vendor to offer			
13,1.27	Encoders, limit switches, proximity switches, reed switch, optical sensors used in attachments/head/AAC- 1 no. each type	Vendor to offer			
13.1.28		Vendor to confirm	) *	-	*
13.1.29	-	Vendor to offer			
13.1.30	Vendor to confirm that complete list of spares for machine and accessories, along with specification / type / model, and name & address of the spare supplier shall be furnished along with documentation to be supplied with the machine. Vendor to also confirm that documentation shall include list of all type of parts used along with specifications, type, model, quantity etc.	Vendor to confirm	3		
13.2	Mechanical, Hydraulic & Lubrication System Spares for 2 years trouble free operation of the complete machine (if not included in recommended spares offered by the vendor). Detailed list is to be submitted.		**	Ŧ	
13.2.1	Set of Gears for All the attachments used on the machine- 1 set of each type	Vendor to offer			
13.2.2		Vendor to offer			
13.2.3		Vendor to offer	+		
	Ashan Durwed Reet Suft fundable	No.		Page	Page · 20 of 31

SI. NO.	DESCRIPTION FOR BHEL REQUIREMENT	REQUIRED	OFFERED	DEVIATIONS	REMARKS
13.2.4	All types of pressure switches, flow switches and float switches, level indicator used in used in Hydrostatic, Hydraulic, lubrication, coolant, pneumatic circuit of the machine. (2 no. each type)	Vendor to offer		-	4
13.2.5		Vendor to offer	*		
13.2.6		Vendor to offer			
13.2.7		Vendor to offer			
13.2.8	All types of regenerative type filter inserts (5 No. of each type)	Vendor to offer			
13.2.9	All types of Disposable type filter inserts (10 nos. of each type)	Vendor to offer			
13.2.10	Set of all type of belts (including timing belts) (1 no. each type)	Vendor to offer			
13.2.11		Vendor to offer			
13.2.12	-	Vendor to offer			
13.2.13	All couplings including hydraulic, hydrostatic, lubrication pump couplings, pressure steeves etc. (2 nos. of each type)	Vendor to offer			
13.2.14		Vendor to offer			
13.2.15		Vendor to offer			
13.2.10	13.2.16 Rotary Coupling for Coolant through Spindle(1 no.).	Vendor to offer		7	
13.2.17	All Air Compressor spares to be provided along with the machine. The spares provided should facilitate trouble free operation of the unit for two years.	Vendor to offer			
13.2.18	Vendor shall provide all tool and tackles required for maintenance of the machine like	Vendor to offer			
13.2.19	Special Oil/ Grease/ Cooling Agent (if any)- Sufficient qty. for 1 year (operation on 3 shift basis) along with grease Gun	Vendor to offer			
13.2.20		Vendor to offer	11 .		
13.2.21		Vendor to offer			
13.2.22		Vendor to offer	-		
13.2.23	Air Conditioning Spares for 2 years (on three shift basis; As applicable on machine) of trouble free operation of the all type of Panel Air Conditioners and refrigerant based Chiller Units.	Vendor to agree	2		
13.2.24	Refrigerant Compressor (1 no. for each type)	. Vendor to offer			
13.2.25		Vendor to offer			
13.2.26	S Condenser Fan ( 1 no. for each type)	Vendor to offer			
13.2.27		Vendor to offer			
13.2.28	13.2.28 Pumps used in Chiller Unit (1 no. each type).	Vendor to offer			
13.2.29	Refrigerant Expansion Valve (1 no. for each type)	Vendor to offer			
13.2.30		Vendor to offer			
13.2.31		Vendor to offer			
4	DOCUMENTS: Following manuals/diagrams/ list/ specifications shall be supplied in English	Vendor to offer			2

4 hard copies of all Sien  14.1 management, all special manuals shall be supplic  14.2 Basic Machine operation  14.4 PLC print-out in Operan  14.5 PLC print-out in Operan  14.5 Hard disk as applicable. Complete list of parts us  14.6 specification, part/order in case of purchased ite Detailed assembly draw  14.7 Assembly drawing of speach assembly drawing of speach assembly sharb-asset  14.8 Wiring diagram indicati  14.9 Wiring diagram indicati  14.0 List of all bearings, L.M  14.10 List of all bearings, L.M  14.11 Alarm list and fault diage  14.12 Spare part list along with	4 hard copies of all Siemens/ Fanue programming (Basic and Advance). Cycles, Tool 14.1 management, all special procedure for AAC/Attachment etc. and all operational manuals shall be supplied in English language. 14.2 Basic Machine operation and maintenance/ service manual (in English) - 4 copies 14.3 Electrical schematic & wiring diagram of the machine with the list of all electrical, electronics items used on machine- 4 copies 14.4 PLC print-out in Operand form with comments in English- 4 copies GHOST back up of hard disk/memory card of CNC controller on CD / full backup on 14.5 Hard disk as applicable. Complete list of parts used in the machine along with 14.6 specification, part/ ordering numbers and address of manufacturer in case of purchased item- 4 copies.	Vendor to offer			
14.2 Basic Machine 14.3 Electrical sche 14.4 PLC print-out 14.5 GHOST back 14.5 Hard disk as a Complete list of 14.6 specification, in case of pur Detailed assen 14.7 Assembly draw each assembly 14.8 Hydraulic, Hy Hydraulic, Hy 14.8 Wiring diagran 14.9 Wiring diagran 14.10 List of all bean 14.10 List of all bean 14.11 Alarm list and 14.12 Spare part list 14.12 Spare part list 14.12 Spare part list	ne operation and maintenance/ service manual (in English) - 4 copies hematic & wiring diagram of the machine with the list of all electrical, cms used on machine- 4 copies at in Operand form with comments in English- 4 copies k up of hard disk/memory eard of CNC controller on CD / full backup on applicable.  t of parts used in the machine along with o, part/ ordering numbers and address of manufacturer archased item- 4 copies.	Vendor to offer		*	
Electrical sche 14.4 PLC print-out 14.5 GHOST back 14.5 Hard disk as a Complete list of 14.6 specification, in case of pur Detailed assen 14.7 Assembly draw each assembly each assembly 14.8 Witing diagran 14.9 Wiring diagran 14.10 List of all bean 14.10 List of all bean 14.11 Alarm list and 14.12 Spare part list 14.12 Spare part list 14.12 Spare part list	hematic & wiring diagram of the machine with the list of all electrical, cans used on machine- 4 copies at in Operand form with comments in English- 4 copies k up of hard disk/memory card of CNC controller on CD / full backup on applicable.  1 of parts used in the machine along with a part ordering numbers and address of manufacturer archased item- 4 copies.				
14.4 PLC print-out 14.5 Hard disk as a Complete list of 14.6 specification, in case of pur. Detailed assen 14.7 Assembly draw each assembly 14.8 Hydraulic, Hy Wiring diagran 14.9 Wiring diagran 14.0 Assembly 14.1 Alarn list and 14.10 Assembly 14.1 Alarn list and 14.10 Assembly 14.1 Alarn list and 14.10 Assembly 14.11 Alarn list and 14.11 Alarn list and 14.12 Spare part list	at in Operand form with comments in English- 4 copies k up of hard disk/memory card of CNC controller on CD / full backup on applicable. t of parts used in the machine along with n, part/ ordering numbers and address of manufacturer archased item- 4 copies.	Vendor to offer			
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Complete list complete list of specification, in case of pur Detailed assem 14.7 Assembly draw each assembly list. Hydraulic, Hy with part list, of list of all bean 14.10 List of all bean 14.11 Alarm list and 14.12 Spare part list one.	t of parts used in the machine along with a, part/ ordering numbers and address of manufacturer archased item- 4 copies.	Vendor to offer			
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Hydraulie, Hydraulie, Hydraulie, Wiring diagrau 14.0 Wiring diagrau 14.10 List of all bear 14.11 Alarm list and 14.12 Spare part list ones	Detailed assembly drawing with clear marking of each component including Assembly drawing of spindle, attachments and giving reference of manufacturer of each assembly/sub-assembly-3 copies.	Vendor to offer			
Wring diagram 3 sets 14.10 List of all bear 14.11 Alarm list and 14.12 Spare part list seas.	Hydraulie, Hydrostatic, Pneumatic, Lubrication and Coolant circuit diagram along with part list, complete specification and make of each element used — 3 copies.	Vendor to offer			(80)
14.10 List of all bear 3 sets. 14.11 Alarm list and 14.12 Spare part list	Wiring diagram indicating lay out of cables, plugs, junction boxes, terminal strips etc 3 sets	Vendor to offer			
14.11 Alarm list and Spare part list	List of all bearings, L.M. guides, ball bushings etc. with full specification and make 3 sets.	Vendor to offer			
14.12 Spare part list	Alarm list and fault diagnostic manual- 4 sets	Vendor to offer			
3013.	Spare part list along with specification, part number and address of manufacturers-4 sets.	Vendor to offer			
. 14.13 Service and us	Service and user manuals of all bought out items- 4 sets.	Vendor to offer			
14.14 CDs of provide	CDs of provided control system documentation.	Vendor to offer			
14 15 Documents co	Documents comprising Operating manuals, Signals, Interfacing and diagnostic guide of offered CNC System - 3 set	Vendor to offer			
14.16 Help guides fi	14.16 Help guides for tele-diagnostic service systems- 3 sets	Vendor to offer			
14.17 PLC print out sets.	PLC print out with comments in English(Hard copy) of auxiliary systems(if used)-3 sets.	Vendor to offer			
14 18 junction box d	All O&M manuals including electrical schematic, wiring diagram, cable layout, junction box details and connector diagrams soft copy on CD/Pen Drive- 2 nos.	Vendor to offer			
14.19 Compressor &	O&M manuals shall include complete part list with make & specifications for compressor & refrigeration system.	Vendor to confirm		1	
14.2 O&M manuals	O&M manuals shall include complete part list with make & specifications for stabiliser & isolation transformer.	Vendor to confirm		10.00	-
14.21 Vendor to subn to training cun	Vendor to submit one set of all documents in best available condition one month prior to training cum pre acceptance of BHEL Engineers.	Vendor to confirm			
14.22 Sketches of all	Sketches of all the attachments as per clause no 11.	Vendor to confirm			
14.23 Soft copies of	Soft copies of all the above manuals to be provided.	Vendor to confirm			
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SI. NO.	DESCRIPTION FOR BHEL REQUIREMENT	REQUIRED	OFFERED	DEVIATIONS	REMARKS
÷	Four BHEL Persons should be trained at vendor's works for the area & period given below:  (a) CNC 5 Axis Part Programming for components with 3 D geometry, application of all CNC Features. Programming for Measuring Systems & supplied accessories etc. (Period 2 Weeks).				27
15,	(b) Electrical. Electronic & CNC maintenance for machine & other supplied equipment's ( Period 2 weeks )  15.1 (c) Mechanical & Hydraulic maintenance of the machine & other supplied equipment's (Period 2 weeks)  (d) Operation of the machine & other supplied equipment's ( Period 2 weeks )	Vendor to offer		-	<u> </u>
	Pre-dispatch inspection of the machine as per S.No 23.1 shall also be carried out by the team during their stay at vendor's works for the training. BHEL reserves the right to choose no. of persons, field & period of training, out of above, while deputing their engineers for training.				
15.	15.2 Air-fare, boarding & lodging for the trainees shall be borne by BHEL.	Vendor to note			
15.	Competent, English speaking experts shall be arranged by the vendor during training for satisfactory & effective training of BHEL personnel.	Vendor to confirm			
15.	15.4 Vendor to quote for Training on per man per day basis	Vendor to offer			

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REMARKS	7		of 31
DEVIATIONS			Page 24 of 31
OFFERED			
REQUIRED	Vendor to confirm	Vendor to offer	Vendor to confirm Vendor to confirm
DESCRIPTION FOR BHEL REQUIREMENT	FOUNDATION: Vendor shall submit the preliminary layout drawing for getting BHEL's approval within one month from the date of Letter of Intent (LOI) / P.O. Final Layout and complete civil drawings for foundation of machine shall be submitted by the supplier within three months after getting BHEL's approval. The layout should consist of all requirements pertaining to complete machine including space requirement for Voltage Stabilizer, Isolation Transformer, Air compressor, Chip Bin & any other accessories. The civil drawings shall cover complete details of foundation viz. Details of Reinforcement, grade of concrete, plain Cement Concrete and any other details required as per existing bearing capacity of soil, position and size pockets in top bed of foundation, details of trenches, depression (if any), provision of fixtures, protection mechanism for vibration isolation /settlements. BHEL shall construct complete foundation for the machine under supervision of vendor and at vendor's responsibility. The vendor shall also indicate detailed specifications of grouting compound and Grouting procedure etc. for foundation bolts of the machine. Vendor shall arrange required facilities for the testing of foundation at his own cost (if requirement arises).	Soil condition data at BHEL, Hardwar is as detailed below:  Based on the block resonance test, the dynamic soil parameters are as below:  (i) Cu = 4.937 kg/cm3 (for block size of 1.5mx lmx lm)  Cu = 1.667 kg/cm3 (for block size of 10m2 or more,)  (ii) CΦ = 9.70 kg/cm3  16.2 (iii) CΨ = 4.20 kg/cm3  Bearing Capacity:  Depth : 5 M  From Shear consideration : 39 T/M2  From Settlement consideration : 9-10 T/M2  From Settlement consideration : 9-10 T/M2  Recommended B.Capacity: 9 T/M2  Recommended B.Capacity is experts deployed for E&C (including VISA, travel, boarding, lodging, insurance etc). Şervice requirement like power, air & water shall be provided by BHEL at only one point to be indicated by supplier in their shall be provided by BHEL at only one point to be indicated by supplier in their	shall also be provided by BHEL. Details of these requirements should be vendor in advance. The available crane capacity at the proposed location machine will be 150 Ton. The vendor will ensure to make requisite arraliting of heavier consignment/ items/ assembly of the machine not gett by this capacity.  Erection & Commissioning of Voltage stabilizer, Isolation Transt Compressor shall also be responsibility of the vendor.  Successful proving of BHEL components by the supplier shall be con of commissioning. All tests, as mentioned at S.No 23 (Machine Act form part of the commissioning activity.
SI. NO.	16.1	17.1	17.2

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SI. NO.	DESCRIPTION FOR BHEL REQUIREMENT	REQUIRED	OFFERED	DEVIATIONS	REMARKS
17	17.4 Test mandrel for checking run-out/taper & alignment should be supplied	Vendor to confirm			
17	Tools, Tackles, Test Mandrels, instruments and other necessary equipment including Laser equipment required to carry out all above activities should be brought by the supplier. Special Tools/fixtures required to check & align the accuracy of machine shall be supplied.	Vendor to confirm		9 31	
17	Commissioning spares, required for commissioning of the machine within stipulated time, shall be brought by the supplier on returnable basis.	Vendor to confirm	4		
17	All Cover Plates required for the machine and its peripherals including pits, if any, shall be supplied and installed by the vendor.	Vendor to confirm		•	
17	The vendor shall supply sufficient quantity of paint of the machine and carry out touching wherever the paint is damaged during transit or erecting of the machine.	Vendor to confirm			
17	17.9 Schedule of Erection and Commissioning shall be submitted with the offer.	Vendor to submit			
17.10	Charges, duration, terms & conditions for E&C should be furnished in detail separately by vendor along with offer.	Vendor to offer			
91	ACCIDACY TREFTS.				
18.1	Geometrical Accuracy				
181.1		Vendor to confirm & submit details			
18.1.2	All the above Geometrical accuracies to be demonstrated to BHEL engineers during 2 pre-acceptance at Suppliers works and during Erection & Commissioning at BHEL Works	Vendor to Confirm			
18.2	Positioning Accuracies and Repeatability				
18.2.1		Vendor to Confirm			
18.2.2	Positional Accuracy (Pa) for Linear Axis				
18.2.2.1		Vendor to Specify			*
18.2.2.2	Positional Accuracy (Pa) for Linear Axiş 2 (Axis Perpendicular to Cross rail) per 1000 mm should be less than equal to 0.015mm	Vendor to Specify			
18223	Positional Accuracy (Pa) for Z Axis per 1000 mm should be less than equal to 0.015mm	Vendor to Specify			
18.2.2.4	4 Positional Uncertainty (P) for entire stroke in all Linear Axes	Vendor to Specify			
18.2.3	Repeatability/Positional Scatter(Ps) for Linear Axis				
18.2.3.1		Vendor to Specify			
18.2.3.2	The second second	Vendor to Specify			
18.2.3.3		Vendor to Specify			
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SI. NO.	DESCRIPTION FOR BHEL REQUIREMENT	REQUIRED	OFFERED	DEVIATIONS	REMARKS
18.2.4	Positional Accuracy (Pa) & Repeatability/Positional Scatter for Table Rotary Axis (If Applicable)				
18.2.4.1	-	Vendor to Specify			
18.2.4.2	Repeatability / Positional Scatter (Ps) for Table Rotation Axis to be less than 8 Arc seconds	Vendor to Specify			
18.2.5	All the above Positioning accuracies & Repeatability to be demonstrated to BHEL engineers during pre-acceptance at Suppliers works and during Erection & Commissioning at BHEL Works.	Vendor to confirm		11 22	
18,3	Accuracy for Rotary Axis in Attachments				
18.3.1	Accuracy for "A"/"B" Continuous Swivelling Axis over entire stroke of attachments mentioned at S.no 11.2 & 11.3 : Less than 10 Arc seconds as per ISO-230-2-2014	Vendor to Specify	•		
18.3	Accuracies of "A/B" Continuous Swivelling Axis to be demonstrated to BHEL 18.3.2 engineers during pre-acceptance at Suppliers works and during Erection & Commissioning at BHEL Works	Vendor to Specify			
18.4	NAS Test Piece Machining	Vendor to Offer			
18.4.1	Machining of NAS Test Piece as per standard NAS-979 at vendor's work & at BHEL. Haridwar to be carried out by the vendor. The NAS test piece & tooling for it's machining shall be provided by the vendor at their works as well as at BHEL, Hardwar, Details of NAS test piece to be submitted with the offer.	Vendor to confirm & submit details			
18.4.2	Since the machine shall be installed in shop with operating conditions as per clause. No 19, the vendor shall guarantee achieving the above mentioned accuracies throughout the year.	Vendor to confirm			
			•		
61	AMBIENT CONDITIONS & THERMAL STABILITY:				
	Total machine including CNC system and all supplied items should work trouble free and efficiently under following operating conditions and should give specified accuracies.		2		
1.61	Power Supply (AC): Voltage: 415 V - 10%, +10% Frequency: 50 Hz +/- 3% No. of phases = 3 phase (3 wire system without neutral) Ambient Operating Conditions:	Vendor to take note			*
	Temperature = 5 to 45 degree Celsius Relative Humidity = 95% max. (Vendor to confirm that machine is suitable for above)				
761	Weather conditions are tropical, Atmosphere may be dust laden during some part of the year. Machine shall be kept in the normal shop floor condition. Max. temperature 19.2 variation is up to 25 deg Celsius in 24 hours.  (Vendor to confirm that machine is suitable for above and details of provisions on the machine for the same are to be furnished by Vendor).	Vendor to confirm			

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SI. NO.	DESCRIPTION FOR BHEL REQUIREMENT	REQUIRED	OFFERED	DEVIATIONS	REMARKS
	Thermal Stability of the complete machine keeping in view specified Ambient Conditions and accuracy requirements of BHEL components and trouble free 19.3 operation of the machine should be ensured by vendor.  (Vendor to confirm that machine is suitable for above and details of provisions on the machine for the same should be furnished by Vendor).	Vendor to confirm			
	The equipment for refrigeration type cooling and electric heating (if needed) for re- 19.4 circulating lubricating oil, spindle head oil and hydraulic system oil for tropical temperature fluctuations, as indicated at clause no. 19.1, of sufficient capacity should be offered with detailed specifications.	Vendor to submit details			
	The machine, including attachments and accessories, should be suitable for 24 hrs. 19.5 continuous operation to its full capacity for 24 hour a day and 7 days a week throughout. Vendor to ensure and confirm the same.	Vendor to confirm			
20	PROVEOUT OF COMPONENTS AT BHEL, HARDWAR:	Vendor to Offer			
	A monoblock multibladed Turbofan with Outer Dia 5.5m or more will be prove out component. Job setting plan, Machining process plan & Requirement of Tools, fixtures, attachments etc. for machining of prove out components shall be discussed and mutually agreed with vendor.	Vendor to Note			
	Information regarding geometry of Prove out Component will be provided on need to know basis during Pre Bid Meeting to be held at BHEL Haridwar.  Vendors would be required to sign an NDA for Pre Bid meeting.  20.2 A MoM mentioning the information shared with Vendor during PreBid meeting would be recorded and be part of the PO.  Vendor to confirm in MoM that offered Machine along with accessories, toolings and fixtures would to suitable to machine proveout components.	Vendor to Confirm			
	Vendor shall submit final job setting plan, machining process plan, tool, fixtures & 20.3 attachments layout & list with complete description, time study etc. for the prove out machining within two months of placement of order.	Vendor to Confirm		-	
	Complete machining of Prove out Component shall be done by the Vendor at BHEL 20.4 works after complete erection, performance tests & test piece machining etc.	Vendor to Confirm		11	
(6	The Vendor needs to develop CAM toolpath and CNC programs for machining Prove out Component at BHEL Premises on BHEL PC/Workstations supplied as S.No 12.5, 20.5 only in presence of BHEL Programmers. No data including drawings, CAD Model, CAM toolpath, CNC Programs etc. shall be transferred to Vendor's Laptop or any storage device.	Vendor to Confirm			
	20.6 The material for the prove out components shall be provided by BHEL.	Vendor to Note			
1	20.7 There shall be "IN PROCESS" inspection of the machined component using Renishaw Probe being provided with the machine as per clause no 11.9.	Vendor to Note			
	The vendor shall be responsible, financially or otherwise, for any deviation/ rejection in prove out components to the extent of its cost, due to wrong machining or malfunctioning of the machine during prove out machining and also for the delay in machining due to improper recommended tooling etc. The cost of such deviation / rejection, if any, shall be refunded by the vendor to BHEL.	Vendor to Confirm			
21	PROVEOUT TOOLINGS:	Vendor to Offer			
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DEVIATIONS	al III									<b>24</b> 20												
OFFERED					+					*.			,									
REQUIRED	Vendor to confirm, offer & submit details	Vendor to confirm, offer & submit details	Vendor to confirm & submit details	Vendor to confirm	Vendor to confirm	Vendor to confirm	Vendor to offer		Vendor to confirm, offer & submit details	Vendor to confirm, offer & submit details	Vendor to confirm & submit details	Vendor to note & Offer	Vendor to note	Vendor to confirm	Vendor to confirm	Vendor to confirm	Vendor to confirm	Vendor to confirm Vendor to confirm	Vendor to note	Vendor to confirm	Vendor to confirm	
DESCRIPTION FOR BHEL REQUIREMENT	Complete set of Tools, Cutter bodies & Tool- Holders in sufficient quantity required for machining of prove-out component mentioned at clause no.: 20 should be offered with item wise price & description and supplied along with machine.	Consumables like inserts, screws, solid carbide & HSS cutters, etc. should be separately quoted and offered for machining of 2 no's of prove out components along with the machine.		It is advisable to use long tool holders with standard length tools instead of longer length of cutting tools to meet the requirement of long working length wherever it is possible. HSS tools to be avoided wherever possible.				FIXTURES		Consumables like screws, nuts, clamping heads, etc. should be separately quoted as a set and 2 more sets in addition to the set mounted on fixture should be offered with the machine.	Sketches/ copy of catalogue pages of the fixture should be provided.	MACHINE ACCEPTANCE:	PDI: Pre Dispatch Inspection Tests/Activities to be carried out at vendor's works by vendor on the machine before dispatch using spindle & attachments:	Geometrical Accuracy Tests as per clause No 18,1	23.1.2 Positioning Accuracy Tests as per clause No 18.2	Accuracy of Swivelling Axis "A/B" of attachments The machine should be tested for continuous running of 48 hrs. If any break down		23.1.5 Demonstration of all teatures of the machine, CNC system and all Accessories.  Machining of NAS Test Pièce clause No 18.4. Vendor to supply test piece & tooling for its machinine.	Test to be carried out by Vendor at BHEL works post delivery of the machine using soindle & attachments.	Geometrical Accuracy Tests as per clause No 18.1	23.2.2 Positioning Accuracy Tests as per clause No 18.2 23.2.3 Accuracy of Systyelling Axis "A/R" of attachments	Ashon Durved Bout Suft Sug
SI. NO.	21.1	21.2	213	21.4.1	21.4.2	21.4.3	21.4.4 r	22	22.1	22.2 8	. 22.3	23	23.1	23.1.1 (	23.12		23.1.4	23.1.5 L	23.2	23.2.1	23.2.2	Jshon

	DESCRIPTION FOR BHEL REQUIREMENT	REQUIRED	OFFERED	DEVIATIONS	KEMAKKS
23.2.4	The machine should be tested for continuous running of 48 hrs. If any break down occurs during this test, the test should be repeated for 48 hrs from that time.	Vendor to confirm			
23.2.5	Demonstration of all features of the machine, CNC system & all accessories to the satisfaction of BHEL for their efficient and effective use.	Vendor to confirm		+	
23.2.6		Vendor to confirm			
23.2.7	Demonstration by actual use of all supplied attachments and accessories to their full capacity.	Vendor to confirm			
23.2.8	Successful Job prove out of BHEL component as per clause 20	Vendor to confirm			
23.2.9	Two weeks supervision of independent operation of machine by BHEL after job prove out.	Vendor to confirm			
23.2.10	Training of BHEL machine operators in operation of complete machine & accessories etc. through association of the operator with vendor's expert during commissioning and job prove out during their stay at BHEL works.	Vendor to confirm			
24	PACKING:	Vendor to offer			
24.1	Sea worthy & Road worthy rigid packing for all items of complete machine, CNC System, all accessories and other supplied items to avoid any damage/loss in transit. When machine is dispatched in containers, all small loose items shall be suitably packed in boxes.	Vendor to confirm		-	
211.00		und to the			
25	GUARANTEE:	Vendor to offer			
25.1	Guarantee for 2 years of complete machine and attachments/accessories from date of acceptance of machine.	Vendor to confirm			
36	Naganad				
26.1	of the machine is to be designed ergonomically, ensuring the ry Table (if applicable), Operator panel etc. are easily ac	Vendor to confirm	P		
	platforms for accessing the machine and covering of open spaces shall be within the scope of Vendor				
26.2	Ladder, at suitable location, is to be provided to access the machine elements located at the top of the column as well as movement of operator from/ to Operator's platform in case of power failure or any other emergency.	Vendor to offer & confirm	,	¥1	
. 26.3	The vendor should reproduce the specification and submit compliance / agreement / comment against each and every feature/item. Any deviation in the offer should be clearly highlighted against that particular item/feature	Vendor to confirm	5		
26.4	Supplier should submit following details along with the technical offer:				
26.4.1	Total connected load of machine and its peripherals (KVA).	Vendor to submit details			
26.4.2	Floor area required (Length, Width, Height) for complete machine & accessories.  Proper Layout drawing to be submitted along with the offer.	Vendor to submit details			
26.4.3	26.4.3 Weight of the machine and its major assemblies	Vendor to submit details			
26.4.4	Weight of the heaviest part & sub-assembly of the machine.	Vendor to submit details			
26.4.5	Dimensions of largest part/ subassembly/ assembly of the machine	Vendor to submit details		4	
	Hardness of the Guideways.	Vendor to submit details			
26.4.7		Vendor to submit details			
26.4.8	Detailed catalogues, sketch / photographs of the M/c and accessories / attachments should be submitted with the offer.	Vendor to submit details .			
26.5	Colour of the machine, RAL 6011, Apple Green (Polyurethane Paint)	Vendor to confirm			
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26 Highering: Promining by the presence of the present should be been compared by the presence of the presence	SI. NO.	DESCRIPTION FOR BHEL REQUIREMENT	REQUIRED	OFFERED	DEVIATIONS	REMARKS
The case of other Activated stall aspirate product with scheduled vander to confirm to the conflict making by the presentive maintenance work scheduled vander to confirm (Vender dail statistic for the complete machine) (Institute	26.6	Hydraulic, Pneumatic & oil piping's should be preferably metallic except places where flexible piping's are essential. All the pipes required for the same shall be included in the standard scope of the machine.	Vendor to specify			
Vendor shall send bi-monthly progress report with digital photographs of machine, its major components and Sub-Assemblies for appraisal of progress of the machine by BHEL.  There shall be joint inspection of divered machine/packages at BHEL Haridwar after receipt and before taking up Erection of machine  Machine control should have necessary hardware and software including cables so that it is ready for interfacing with gigabit Ethernet Local Area Network with 100  27.1 MESec. speed waitable on machine on UTP cables for NC program and other related data transfer. This network to be connected to wide area network/Internet.  The networking should have following copy and paste method provided sharing access is allowed between any PC and the machine across the network.  The program transfer shall be by single copy and paste method provided sharing access is allowed between any PC and the machine across the network.  The program transfer between CNC system and network should also be possible in CNC system state of the machine commissioning.  The program transfer between the CNC system and other file/data transfer across network shall be exablished and demonstrated by the vendor during machine commissioning.  MACHINE MONITORING SYSTEM (MMS) SIGNALS  28.1 The supplied CNC system shall have OPC-UA compliance with valid licence.  PRE-QUALIFYING REQUIREMENT (POR).  Only those vendors (OEMs) should quote who have supplied & commissioned in the past (10) years on the dure of opening of Tender) at least one number of 5 AXIS CNC VERICAL MACHINE of same or higher sizes 5.5 M or more Pixed Bed Plate 5 5 5 most on near with suph accuracy, either (a) in at least one common methors to the nachine to low ith les supplied to establish vendor's (OEM's y global business activity or (b) in India: and referred machine is presently working statisfactorily for more than one power aftered machine is presently working statisfactorily for more than one year after commissioning (on the date of opening of reporting of reporting of reporting o	26.7	In case of order, vendor shall supply the preventive maintenance work schedule/ requirement/ charts for the complete machine.	Vendor to confirm			
There shall be joint inspection of divered machine/packages at BHEL Haridwar after recepts and before taking up Erection of machine  NETWORKING:  Machine control should have necessary bardware and software including cables so that it is ready for interfacing with gigabit Ethernet Local Area Network with 100 and achine control should have following capabilities:  27.1 MB/sec. speed available on machine on UTP cables for NC program and other related data transfer. This network to be connected to wide area network/Internet.  The networking should have following capabilities:  27.2 The machine shall appear as a node in the Entire Network (Network Neighbourhood) access is allowed between any PC and the machine across the network. The program transfer shall be by simple copy and paste method provided sharing access is allowed between any PC and the machine across the network shall be between any PC and the machine costs the network shall concern and network and the machine commissioning.  27.4 The program transfer between TNC system and network should also be possible in CNC Mode.  27.5 The program transfer between TNC system and other file/data transfer across network shall be established and demonstrated by the vendor during machine commissioning.  28.8 MACHINE MONITORING SYSTEM (MMS) SIGNALS  28.9 The supplied CNC system shall have OPC-UA compliance with valid licence.  29.9 TRE-QUALIFYING REQUIREMENT (POR):  Only those vendors (OEMs) should quote who have supplied & commissioned in the past (10) years (00 Hallows) should quote who have supplied & commissioned in the past (10) years (00 Hallows) should supplied shallowed songer of the nachine components larger than 2 m having 3D randements with one or more continuous machine components larger than 2 m having 3D randements with one or more continuous machine components larger than 2 m having 3D randements with one or more continuous machine components larger than the country from where the machine of will be supplied to establish vendor's (OEMs) global business act	26.8	Vendor shall send bi-monthly progress report with digital photographs of machine, its major components and Sub-Assemblies for appraisal of progress of the machine by BHEL.	Vendor to confirm			¥
Machine control should have necessary hardware and software including cables so that it is ready for interfacing with gigabit Ethernet Local Area Network with 100 27.1 MB/Sec, speed available on machine on UTP cables for NC program and other related data transfer. This network to be connected to wide area network/Internet. The networking should have following capabilities:  27.2 The machine shall appear as a node in the Entire Network (Network Neighbourhood) access is allowed between any PC and the machine across the network. The program transfer between CNC system and network should also be possible in CNC Mode.  27.3 The program transfer between CNC system and network should also be possible in CNC Mode.  27.4 The above capability of NC Program and other file/data transfer across network shall be be established and demonstrated by the vendor during machine commissioning.  28 MACHINEM MONITORING SYSTEM (MMS) SIGNALS  28 IThe applied CNC system shall have OPC-L/A compliance with valid licence.  29 PRE-QUALIFYING REQUIREMENT (PQRL Only those vendors (CEMS) should quote who have supplied & commissioned in the past (10) years (on the date of opening of Tender) at least one number of 5 AXIS CNC VERTICAL MACHINE of same or higher sizes 5.5 M or more /Fixed Bed Plate 5.5 mxom or more(whichever is applicable), Hydrostatic Guideways, Special Attachments with one or more continuous machining axis and simultaneous 5 Axis Machining capabilities, accuracies as person 18 and des Impellers/Blisses/Stationary Bladed Rings ev. with high accuracy, either (a) in at least one country other than the country from where the machine tool will be supplied to establish vendor's (OEM's) global business activity or (b) in India: and referred machine is presently working satisfactorily for more than one year after commissioning (on the date of opening of Tender).	26.9	There shall be joint inspection of dlivered machine/packages at BHEL Haridwar after receipt and before taking up Erection of machine	Vendor to confirm			
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	. 29.1	(Milling Spindle 80 KW or More, Rotary Table size 5.5 M or more /Fixed Bed Plate 5.5mx6m or more(whichever is applicable), Hydrostatic Guideways, Special Attachments with one or more continuous machining axis and simultaneous 5 Axis Machining Capabilities, accuracies as pers.no 18)	Vendor to confirm			
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Jshan Quinada

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## **ANNEXURE 1**

INDENT NO: 20234312 REV 01

#### SPECIAL ATTACHMENTS

## ATTACHMENT 1: (S.NO 11.2 OF TENDER SPECIFICATIONS)

## MILLING HEAD WITH CONTINOUS SWIVELLING AXIS FOR MACHINING 3D SURFACES

Milling Head with Continuous Milling Axis ("A" or "B")

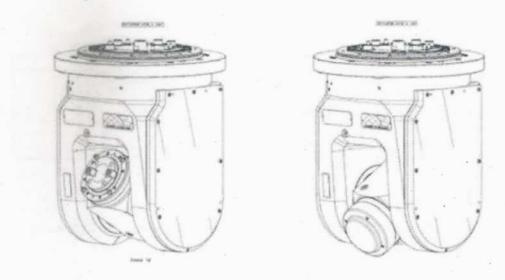
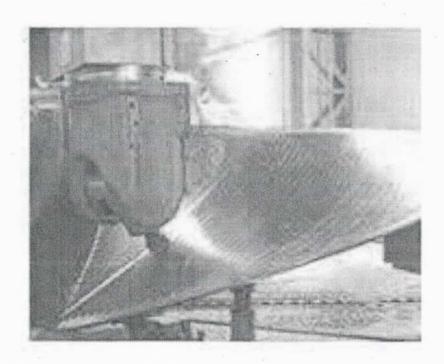


Fig 1: Schematic View of Continuous Milling Head (For Reference)



Shandwived

# Fig 2: Continuous Milling Head in use (For Reference)

## ATTACHMENT 2: (S.NO 11.3 OF TENDER SPECIFICATIONS)

# SPECIAL MILLING HEAD WITH CONTINOUS SWIVELLING AXIS FOR MACHINING NARROW GAPS ON 3D SURFACES

Design Ideas: Vendor to Design the Special Head to achieve the desired objective i.e. to machine narrow zones between the blades. Following are two Design Concepts

## Concept 1: 90 Degree Special Milling Head

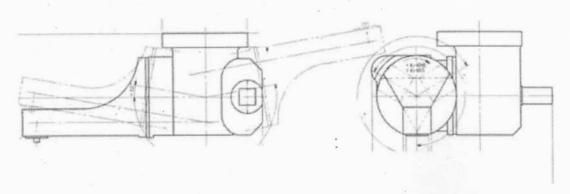
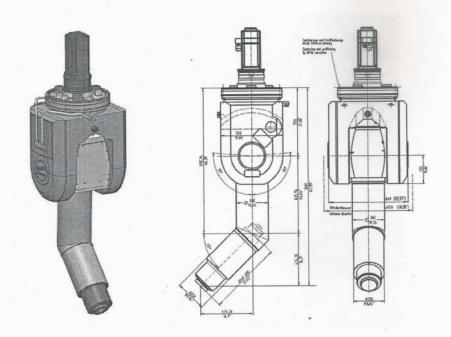


Fig 3: Schematic View of 90-degree Continuous Milling Head (For Reference)

## Concept 2: 45 Degree Special Milling Head



Ashan Dwiveds

Fig 4: Schematic View of special 45 Degree Continuous Head to machine narrow zones between blades (For Reference)

### ATTACHMENT 3: LONG VERTICAL HEAD

### (S.NO 11.4 OF TENDER SPECIFICATIONS)

The purpose of this Long Vertical Head is to do rough machining on the Blade Profiles to ensure that there is less & uniform material to be removed by Special Heads/Attachments

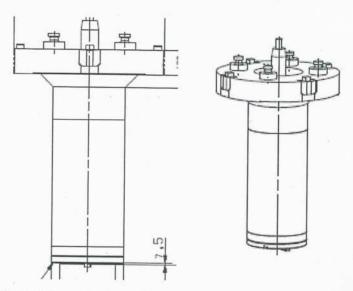


Fig 5: Schematic View of Long Vertical Milling Head (For Reference)

### ATTACHMENT 4: SPECIAL BORING AND FACING HEAD

(S.NO 11.5 OF TENDER SPECIFICATIONS)

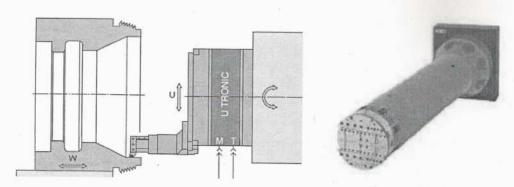


Fig 6: Concept of Special Boring & Facing Head (For Reference)

Ashan Dwweds

### Activity Schedule for Vertical 5 Axis CNC Milling Machine

Indent No. 20234312 Rev 01 ; dated 28.03.2024 Material code: ZWA170101010

Name/Address & other details of Bidder:-

SI. No.	Activity	Activity Time in Weeks	Remarks if Any
1	Acceptance of PO		Vendor to inform
2	Submission of Documents necessary for getting manufacturing clearance like Civil Drawing, Foundation Drawings and other layouts drawings	4	Post placement of PO
3	Comments on Documents from BHEL	2	
4	Final Layout drawings submitted by the vendor		The upper cap limit for activity mentioned in sl no. 4 shall be 12 weeks, however if any bidder wants to quote less than 12 weeks, than he can quote in left column else the activity time given by BHEL as 12 week shall be final.
5	Manufacturing Time of Machine		Vendor to inform
6	Inspection Call by Vendor		At least 45 days before the PDI date
7	Pre- Dispatch Inspection by BHEL and dispatch clearance	2	
8	Delivery at BHEL haridwar		Vendor to inform. Delivery Date at BHEL Haridwar not to exceed 14 Oct 2026.
9	<b>E&amp;C Milestone 1</b> : Readiness of Machine to commence machining Post Delivery. Erection, Installation, Performance Tests,NAS test Piece Machining	20	
10	E&C: Milestone 2: Job Proveout	20	Post availability of Rough Casting

### **FINANCIAL PQR**

	FINANCIAL PQR FOR GLOBAL TENDER ENQUIRY NO. 2890/C/6410/4312/T2 for VERTICAL CNC 5 AXIS MILLING MACHINE -01 NO.				
SL. NO.	DESCRIPTION	BIDDER TO CONFIRM	WHETHER DOCUMENTS SUBMITTED		
1	Bidder should have average annual turnover of minimum Rs. 23.13 crores during last four consecutive financial years i.e. FY 2020-21, 2021-22, 2022-23 & 2023-24.				
2	Bidder to submit latest Income Tax Return and Balance sheet & Profit & Loss Account Statement of last four consecutive financial years i.e. FY 2020-21, 2021-22, 2022-23 & 2023-24.				
3	Bidder should have positive net worth during last four consecutive financial years i.e. FY 2020-21, 2021-22, 2022-23 & 2023-24.				
4	For Indian suppliers: above documents will be duly supported by valid UDIN number.				
5	For Foreign suppliers: Financial report of the supplier will be solicited from a reputed third-party business rating agency like Dun & Bradstreet, Creditre form or equivalent agency in their country.				

### NOTE:

In case above documents for F.Y. 2023-24 are not available owing to respective Government guidelines or relaxation/Extension of due date under Government direction, last four consecutive financial years to be considered as 2019-20, 2020-21, 2021-22 & 2022-23. However, the above documents for the FY 2023-24 will have to be submitted before opening of price bid.

## BHARAT HEAVY ELECTRICALS LIMITED HEEP: HARDWAR-249 403 (UA)

Fax: +91 1334-226462, Phone: +911334-281961; Mobile: +91 9997459201

E-mail: ashishkumar.keshari@bhel.in

No. Cap/GTE\_5 Axis Vertical CNC Milling/2024-25

### GLOBAL TENDER ENQUIRY

Subject: Tender as detailed below:

- 1. Sealed tenders with the Tender No. and opening date clearly super scribed on the cover are invited for the supply of the following items.
- 2. Last date for obtaining tender documents and opening of tenders is indicated against each tender. Tenders will be received up to 1.45 P.M. on opening date and opened on the same day at 2.00 P.M. in the Tender Room.
- 3. After downloading the tender documents from web site, while submitting the tender as detailed in "Instruction to Bidders", intending vendors must remit the requisite EMD in the form of Electronic Fund Transfer credited in favour of BHEL account (before tender opening)/Banker's cheque/Pay Order / Demand draft in favour of BHEL (along with offer) / Fixed Deposit Receipt (FDR)/Bank Guarantee from any of scheduled banks/Insurance Surety Bonds.
- 4. BHEL will not be responsible for any type of postal delay / incomplete information from vendor.
- 5. Other terms and conditions will be as per tender documents.

Sl. No.	Tender No.	Description of Equipment	Qty. (No.)	Last date to submit offer in BHEL HEEP Tender Room	Opening date
1.	2890/C/6410/2023/4312/T2	VERTICAL CNC 5 AXIS MILLING MACHINE	01	14-Sept -2024; 01:45 PM	14-Sept -2024; 02:00 PM

- Technical POR & Financial POR enclosed.
- Technical specifications enclosed.
- Pre-bid meeting is mandatory and will be held at BHEL Haridwar in presence of customer & no video conferencing will be held.
- Test Certificate required.
- Operation and Maintenance Manual Required.
- GST Input Tax credit available.
- User Manuals required for all equipment as applicable.
- Guarantee certificate is required for two years (for complete machine and attachment/accessories) after successful commissioning.
- Pre-dispatch inspection is required & vendor shall inform to BHEL at least 45 days before the date of pre-dispatch inspection.
- Early Delivery is not acceptable.
- Recommended Spares are required.
- Erection & Commissioning is required at BHEL Haridwar.
- Erection & Commissioning charges are 5 % of equipment cost.

Date: 23 -July-2024

- E&C Milestone 1: Errection & Commissioning: Time period shall be 20 Calendar weeks from the date of first intimation given by BHEL Haridwar.
- E&C: Milestone 2: Job Proveout: Time period shall be 20 Calendar weeks from the date of first intimation given by BHEL Haridwar
- Participating bidders are requested to reply against each and every point of Technical Specification, Technical PQR, Financial PQR and Commercial terms and conditions.
- Vendors who doesn't meet the requirement of PQR (Technical & Financial) will not be assessed further against Technical specification & Commercial points.
- Wherever Service charges like Supervision, Inspection, etc. consequent or incidental to supply are envisaged in tender, such charges should not exceed 2% of the total contract value. It is recommended that such charges be sought on per visit/per day basis, and the evaluation of the tender is to be done including the cost of the service charges.

For & ON BEHALF OF BHEL, HARDWAR /AGM (Capital Purchase)

## BHARAT HEAVY ELECTRICALS LIMITED HEEP: HARDWAR-249 403 (UA)

Fax: +91 1334-226462, Phone: +911334-281961; Mobile: +91 9997459201

E-mail: ashishkumar.keshari@bhel.in

No. Cap/GTE_5 Axis Vertical CNC Milling/2024-25	Date: 23 -July-2024
M/s	
Sub: Global Tender Enquiry No. 2890/C/6410/2023/4312/T2	

We are pleased to invite your offer in **TWO PARTS (PART-II)** strictly as per enclosed terms and conditions and "Instruction to Bidders", in sealed covers for the under mentioned equipment / systems.

Sl. No.	Description of Equipment	Qty. (No.)	Delivery Required	EMD (Earnest Money Deposit)
1.	VERTICAL CNC 5 AXIS MILLING MACHINE	01	14.08.2026	Rs. 40,00,000/-

Please submit your lowest quotation / offer for the above requirement subject to our terms and conditions. Your offer should reach us on or before the due date by 1.45 PM.

NOTE: The vendors should submit their best price at this stage itself and they will not be allowed to revise the price. Any revision / discount given by vendor subsequently will be ignored.

Any clarification on technical specifications can be obtained from BHEL Haridwar before tender opening.

### **PRE-BID MEETING:**

Vendors to note the following points about **pre-bid meeting**:

- a. Pre-bid meeting will be held at BHEL Haridwar in presence of customer & no video conferencing will be held.
- b. As per tender condition, only OEM's who have supplied and commissioned at least one 5 Axis CNC Vertical Machine with the following specifications in the past 10 years (from the tender opening date) can quote:
  - i) Distance between columns: 6m or more
  - ii) Milling Spindle: 80KW or more
  - iii) Rotary Table Size: 5.5m or more, or Fixed Bed Plate: 5.5mx6m or more
  - iv) Hydrostatic Guideways
  - v) Special attachments with continuous machining axis and simultaneous 5 Axis Machining Capabilities
- c. Vendor will share/submit following preliminary documentary evidence via e-mail, post or in person to establish their eligibility for pre-bid meeting:
  - i) Unpriced PO details of a 5 Axis CNC Machine supplied in the past
  - ii) Detailed technical specification of the reference machine
  - iii) Customer information (Company Name, Contact Person, Phone, Email, Address)
  - iv) Commissioning report of the referenced machine

- d. Eligible vendor will be invited to attend the pre-bid meeting post evaluation of shared preliminary information.
- e. Vendors to ensure that their technical experts or authorized representatives will be present in prebid meeting for evaluating prove out component. Information about prove out component will be provided on need to know basis during this pre-bid meeting.
- f. Attending pre-bid meeting is mandatory as offers of only those vendors would be evaluated who have attended pre-bid meeting and signed MOM.
- g. Vendors will be required to sign NDA for participating in pre-bid meeting at BHEL Haridwar. A MOM mentioning the information shared with vendor during pre-bid meeting would be recorded and will be the part of Purchase Order in case of ordering.
- h. Vendor will confirm in MOM that offered machine along with accessories, toolings and fixtures would be suitable to machine prove out components.

### TIME-LINES FOR PRE-BID MEETING:

- Vendors will submit/share the preliminary documents evidence within 2 weeks of tender floating.
- Invitation for pre-bid meet will be given to vendors in 3rd week after tender floating.
- Likely pre-bid meet will be held at BHEL Haridwar in 6th week after tender floating.

### PURCHASE PREFERENCE TO MAKE IN INDIA

For this procurement, Public Procurement (Preference to Make in India), Order 2017 dated 04.06.2020 & revision dated 16.09.2020 and subsequent Orders issued by respective Nodal Ministry shall be applicable even if issued after issue of this Tender Enquiry but before finalization of contract/ PO/ WO against this tender enquiry.

As per clause 3(b) of Make in India circular 04-06-2020, Class-I Local supplier, Class –II local supplier and Non-Local suppliers shall also be eligible to bid in this tender as this case is a **Global Tender case**.

### **Purchase preference to Micro and Small Enterprises (MSEs)**

Purchase preference will be given to MSEs as defined in Public Procurement Policy for Micro and Small Enterprises (MSEs) Order, 2012 dated 23.03.2012 issued by Ministry of Micro, Small and Medium Enterprises and its subsequent Orders/Notifications issued by concerned Ministry. If the bidder wants to avail the Purchase preference, the bidder must be the manufacturer of the offered product in case of bid for supply of goods. Traders are excluded from the purview of Public Procurement Policy for Micro and Small Enterprises. Relevant documentary evidence in this regard shall be uploaded along with the bid in respect of the offered product.

If L-1 is not an MSE and MSE Seller (s) has/have quoted price within L-1+ 15% (Selected by Buyer) of margin of purchase preference /price band defined in relevant policy, such Seller shall be given opportunity to match L-1 price and contract will be awarded for 100% (selected by Buyer) of total quantity.

**EMD (EARNEST MONEY DEPOSIT):** EMD shall be applicable for this tender of **Rs. Forty Lacs** Only.

EMD shall be waived off in following cases:

 Micro and Small Enterprises (MSEs) or Startups as recognized by Department for Promotion of Industry and Internal Trade (DPIIT).

- Central/ State PSUs/ Government deptts/ Autonomous/ Educational/Research institutions.
- Joint Venture or Subsidiary companies of BHEL.

EMD given by the unsuccessful tenderer shall be refunded on acceptance of award / LOI/ PO by successful tenderer. The EMD of successful bidder shall be returned after submission of Contract execution bank guarantee. EMD shall be not carry any interest.

The EMD will be accepted only in the following forms:

- (i) Electronic Fund Transfer credited in BHEL account (before tender opening).
- (ii) Banker's cheque/ Pay order/ Demand draft, in favour of BHEL (along with offer).
- (iii) Fixed Deposit Receipt (FDR).
- (iv) Bank Guarantee from any of the Scheduled Banks.
- (v) Insurance Surety Bonds.

In case of foreign bidders, it may be in the form of a bank guarantee (in equivalent Foreign Exchange amount, in case of foreign bidders) issued/confirmed from any of the scheduled commercial bank in India in an acceptable form. The EMD shall remain valid for a period of 45 (forty-five) days beyond the final bid validity period. EMD validity will be extended by supplier if required.

### **Forfeiture of EMD**

- i) A bidder's EMD will be forfeited if the bidder withdraws or amends its/his tender or impairs or derogates from the tender in any respect within the period of validity of the tender or if the successful bidder fails to furnish the required performance security within the specified period mentioned in the Tender.
- (ii) EMD by the tenderer to be withheld in case any action on the bidder is envisaged under the provisions of extant "Guidelines on Suspension of business dealings with suppliers/ contractors" and forfeited/ released based on the action as determined under these guidelines.

**PLEASE SUBMIT EMD IN PART- I BID.** This Part—I bid shall be opened by BHEL at 02:00 PM on the due date, in the presence of authorized representatives of the bidders who may like to be present. The authorized representative should bring authority letter from their principals for attending the bid opening.

BHEL Bank Details for e-remittances of EMD by bidders:

ACCOUNT HOLDER NAME: BHARAT HEAVY ELECTRICALS LIMITED, HEEP, HARIDWAR

STATE BANK OF INDIA RANIPUR BRANCH, OPP: BHEL MAIN GATE, SECTOR-5, RANIPUR,

HARIDWAR, UTTRAKHAND, INDIA

PIN CODE: 249403

SWIFT NO : SBININBB225 CC ACCOUNT NO : 10667995458 IFSC CODE : SBIN0000586

### Performance Bank Guarantee/Contract Execution Bank Guarantee

CEBG/PBG will be furnished (for 10% of total PO Value in the prescribed Format) in the following forms:

- i) Local cheques of Scheduled Banks (subject to realization)/ Pay Order/Demand Draft/ Electronic Fund Transfer in favour of BHEL.
- ii) Bank Guarantee from Scheduled Banks / Public Financial Institutions as defined in the Companies Act. The Bank Guarantee format should have the approval of BHEL.
- iii) Fixed Deposit Receipt issued by Scheduled Banks / Public Financial Institutions as defined in the Companies Act (FDR should be in the name of the Contractor, a/c BHEL).
- iv) Securities available from Indian Post offices such as National Savings Certificates, Kisan Vikas Patras etc. (held in the name of Contractor furnishing the security and duly endorsed/ hypothecated/ pledged, as applicable, in favour of BHEL).
- v) Insurance Surety Bond.

#### Note:

- a. The Performance Security shall not carry any interest.
- b. BHEL will not be liable or responsible in any manner for the collection of interest or renewal of the documents or in any other matter connected therewith.
- c. In case of GTE tenders, the performance security should be in the same currency as the contract and must conform to Uniform Rules for Demand Guarantees (URDG 758) an international convention regulating international securities.

### **Forfeiture of Performance Security:**

The performance security will be forfeited and credited to BHEL's account in the event of a breach of contract by the supplier.

For & ON BEHALF OF BHEL, HARDWAR / AGM (Capital Purchase)

### **Instruction to Bidders**

### Clause 1.0 – Tender submission

The tenders have to be submitted in **TWO PARTS (Envelopes)** as described below on or before the due date and time of tender opening:

- a) Part-I (Envelope I) : 1. EMD
  - 2. Pre-Qualifying Requirement (PQR-Technical & Financial)
  - 3. Techno-Commercial Bid.
- b) Part-II (Envelope II) : Price Bid.

Any corrections / amendments shall be properly & fully authenticated with signature.

BHEL will deal directly with the manufacturers / principal vendors and no correspondence with the agents will be entertained. The agents will not be permitted to visit / interact with BHEL on behalf of their principals. Subsequently also, no correspondence of any type will be made with any agent. (All individuals / companies - representing / Advisor /retainership basis or claimed to be part time employees for many OEMs / claiming to be channel or business partner for BHEL work / stockist not registered specifically etc. are Agents). Communications with only those agents who have submitted agency agreement with their respective principal may be done.

Agents shall not be allowed to represent more than one manufacturer / supplier in the same tender. Moreover, either the agent could bid on behalf of the manufacturer / supplier or the manufacturer / supplier could bid directly but not both. In case bids are received from both, the manufacturer / supplier and the agent, bid received from the agent shall be ignored.

The bidders (original manufacturers) will have to submit signed offer/ bid in original directly to BHEL. **Unsigned bids shall be ignored.** 

The suppliers or their authorized person may be allowed to attend the tender opening, if duly authorized by their principals, through a specific letter for a particular enquiry for specific price bid opening on that particular day. General authorization letter is not acceptable.

### Clause 1.1

The Techno-commercial offer and PQR (Technical & Financial) in envelope - I (Part-I) shall comprise of following:

- i) Point wise reply to all the points mentioned in Pre- Qualifying Requirement specified in the tender.
- ii) Relevant documents as requested in Pre-Qualifying Requirement must be attached.
- iii) Complete Technical offer.
- iv) Catalogue of the Equipment, Complete reference of the past supply of equipment for the same or similar specification giving details of customer with Name of the contact person, Fax no, phone no, E-mail if available.
- v) Acceptance of commercial terms by vendor as per **Annexure I**.
- vi) Deviation with reference to specification to be laid down on separate sheet.

  Cost of deviation is to be submitted along with the price bid essentially. In case vendor withdraws the deviation clauses the same will be considered for final evaluation,
- vii) Copy of price Bid (without prices).
- viii) Any additional documents (please specify).

While submitting the offer, following points are to be taken care of by the vendor:

- > Documents submitted with the offer/bid by the bidder shall be signed and stamped in each page by authorized representative of the bidder.
- > If the documents are received in soft form, the same should be transmitted through vendor's authorized e-mail to BHEL tender room e-mail id i.e. tendercell.heep@bhel.in followed by the signed and stamped copy of the same documents.
- > Documents not signed and stamped in each page by the authorized signatory of the bidder, shall not be accepted and not considered for evaluation of the bid.

### Clause 1.2

The Price Bid in envelope - II (Part-II) shall comprise of following:

The price Bid (with price) for the complete scope strictly as specified in the price Format attached as Annexure-II. If price bid is not submitted along with Part-I bid, the offer will be rejected out rightly.

### Note:

If in a price bid, non-conformities /errors /discrepancies are observed between the quoted prices in figures and that in words the following guidelines will be followed: -

- a) If, in the price structure quoted for the required goods/ services/ works, there is discrepancy between the unit price and the total price (which is obtained by multiplying the unit price by the quantity), the unit price shall prevail and the total price corrected accordingly, unless in the opinion of the purchaser there is an obvious misplacement of the decimal point in the unit price, in which case the total price as quoted shall govern and the unit price corrected accordingly.
- b) If there is an error in a total corresponding to the addition or subtraction of subtotals, the subtotals shall prevail and the total shall be corrected; and
- c) If there is a discrepancy between words and figures, the amount in words shall prevail, unless the amount expressed in words is related to an arithmetic error, in which case the amount in figures shall prevail subject of (a) and (b) above.
- d) If there is such discrepancy in an offer, the same is to be accepted by the bidder by a target date and in case the bidder does not agree to the decision of the purchaser, the bid is liable to be ignored.

### Clause 2.0 – Tender Opening:

- a) Offer should be complete in all respect (i.e. Part-I & Part-II) as described below:
- Part I: Part I bid (Envelope-I) comprising EMD (if applicable) or MSE Certificate/ Startups as recognized by Department for Promotion of Industry and Internal Trade (DPIIT) towards exemption of EMD, Pre- Qualifying Requirement (PQR-Technical as well as Financial) and Techno-commercial bid as mentioned above.
- Part II : Part II bid (Envelop-II) comprising Price Bid.
- b) The tenders shall be opened in **TWO PARTS (Part-II & Part-II)** as described below:
  - Part-I containing EMD (if applicable) or MSE Certificate/ Startups as recognized by Department for Promotion of Industry and Internal Trade (DPIIT) towards exemption of EMD, Pre- Qualifying Requirement (PQR-Technical & Financial) and Techno-commercial bid will be opened on the date and

time specified in the tender cover page, in the presence of those vendors, who wish to attend the tender opening.

- Part II containing Price Bid will be opened on a separate date for those vendors who have qualified in the Part I. The opening date of Part II will be intimated in advance to the vendors qualified in Part-I.
- In the event of BHEL calling for supplementary bid, the part-II price Bid along with supplementary priced bid (if necessary) will be opened at a later date of only those bidders who have qualified in the Part I. The opening date of Part II along with supplementary price bid (if necessary) will be intimated in advance to the vendors qualified in Part-I.

BHEL reserves the right to evaluate vendor's process capability / quality systems etc. by visiting vendor works (if required).

### Clause No. 3:

As per directives of CENTRAL VIGILANCE COMMISSION, GOVERNMENT OF INDIA, one agent can not represent two or more suppliers or quote on their behalf in a particular tender. If so found at any stage, BHEL Hardwar is likely to cancel Enquiries / POs to such suppliers. Further, such Indian Agent is likely to be de-listed (Black listed for business from BHEL).

### Clause No. 4: Conflict of interest among Bidders/Agents

"A bidder shall not have conflict of interest with other bidders. Such conflict of interest can lead to anti-competitive practices to the detriment of Procuring Entity's interests. The bidder found to have a conflict of interest shall be disqualified. A bidder may be considered to have a conflict of interest with one or more parties in this bidding process, if:

- a) They have controlling partner (s) in common; or
- b) They receive or have received any direct or indirect subsidy/financial stake from any of them; or
- c) They have the same legal representative/agent for purposes of this bid; or
- d) They have relationship with each other, directly or through common third parties, that puts them in a position to have access to information about or influence on the bid of another bidder; or
- e) Bidder participates in more than one bid in this bidding process. Participation by a Bidder in more than one Bid will result in the disqualification of all bids in which the parties are involved. However, this does not limit the inclusion of the components/sub-assembly/Assemblies from one bidding manufacturer in more than one bid; or
- f) In cases of agents quoting in offshore procurements, on behalf of their principal manufacturers, one agent cannot represent two manufacturers or quote on their behalf in a particular tender enquiry. One manufacturer can also authorize only one agent/dealer. There can be only one bid from the following:
  - 1. The principal manufacturer directly or through one Indian agent on his behalf; and
  - 2. Indian agent on behalf of only one principal;
- g) A bidder or any of its affiliates participated as a consultant in the preparation of the design or technical specifications of the contract that is the subject of the bid; or
- h) In case of a holding company having more than one independently manufacturing units, or more than one unit having common business ownership/management, only one unit should quote. Similar restrictions would apply to closely related sister companies. Bidders must proactively declare such sister/common business/management units in same/similar line of business."

### Clause No. 5: Restrictions under Rule 144(xi) of the General Financial Rules (GFRs)

- I. Any bidder from a country which shares a land border with India will be eligible to bid in any procurement whether of goods, services (including consultancy services and non-consultancy services) or works (including turnkey projects) only if the bidder is registered with the Competent Authority. Further, any bidder (including bidder from India) having specified Transfer of Technology (TOT) arrangement with an entity from a country which shares a land border with India, shall also require to be registered with the same competent authority.
- II. "Bidder" (including the term 'tenderer', 'consultant' or 'service provider' in certain contexts) means any person or firm or company, including any member of a consortium or joint venture (that is an association of several persons, or firms or companies), every artificial juridical person not falling in any of the descriptions of bidders stated hereinbefore, including any agency branch or office controlled by such person, participating in a procurement process.
- III. "Bidder (or entity) from a country which shares a land border with India" for the purpose of this Order means: -

An entity incorporated, established or registered in such a country; or

A subsidiary of an entity incorporated, established or registered in such a country; or An entity substantially controlled through entities incorporated, established or registered in such a country; or

An entity whose beneficial owner is situated in such a country; or

An Indian (or other) agent of such an entity; or

A natural person who is a citizen of such a country; or

A consortium or joint venture where any member of the consortium or joint venture falls under any of the above

IV. The beneficial owner for the purpose of (iii) above will be as under:
In case of a company or Limited Liability Partnership, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person, has a controlling ownership interest or who exercises control through other means.

### Clause No. 6:

### **Breach of contract, Remedies and Termination**

In case of breach of contract, recovery of 10% of total PO/contract value shall be applicable. Recovery shall be done by encashing security instruments like Contract Execution Bank Guarantee, performance bank guarantee. In case value of security instruments available is less than 10% of the contract value, the balance amount be recovered from other financial remedies (i.e. available bills of the contractor, retention amount, etc. with BHEL) or legal remedies shall be pursued. Further, levy of liquidated damages, debarment, termination, de-scoping, short-closure, etc., shall be applied as per provisions of the contract.

### Clause No. 7:

The offers of the bidders who are on the banned list and also the offer of the bidders, who engage the services of the banned firm, shall be rejected. The list of banned firms is available on BHEL website <a href="https://hwr.bhel.com">https://hwr.bhel.com</a>

NOTE: PLEASE VISIT OUR SITE <a href="https://hwr.bhel.com">https://hwr.bhel.com</a> FOR GENERAL INSRUCTIONS AND STANDARD TERMS AND CONDITIONS (GISTC) FOR TENDER ENQUIRIES. ALL THE BIDDERS/VENDORS MUST ENSURE COMPLIANCE OF THESE GISTC. NO INTEREST SHALL BE PAYABLE UPON THE EARNEST MONEY DEPOSIT & PERFORMANCE SECURITY OR AMOUNT PAYABLE TO THE CONTRACTOR UNDER THE CONTRACT.

For & on behalf of BHEL, Hardwar. AGM (Capital Purchase)

### ANNEXURE – I

### ACCEPTANCE OF COMMERCIAL TERMS BY VENDOR

S. N.	Terms	Description	Your confirmation
1	Confirmation to General Instructions and standard terms & conditions:	<ol> <li>Please confirm each clause of following documents: -</li> <li>General Instructions and standard terms &amp; conditions for bidding against tender enquiry (GISTC Version May-2024, Rev: 07):</li> <li>Risk Purchase Clause of GISTC is not applicable and has been replaced with Breach of Contract mentioned at SL No. 29 of Annexure-I.</li> <li>Additional terms &amp; conditions of tender enquiry.</li> </ol>	
		Deviation to conditions mentioned in above documents, if any, shall be submitted along with offer in separate documents.  Please note that in case, no- deviation sheet is received along with the offer, it will be considered that all terms and conditions mentioned in above documents are acceptable to the bidder and your offer will be processed accordingly.	
2	Submission of Offer & Documents Checklist:	Superscription on envelopes: The following shall be super scribed on the envelopes: Kindly confirm that the following documents have been submitted along with your offer:	
		PART-I  1. TENDER NO. AND ITEMS DESCRIPTION 2. DUE DATE FOR OPENING. 3. EMD (IF APPLICABLE) OR MSE CERTIFICATE TOWARDS EXEMPTION OF EMD 4. PRE- QUALIFYING REQUIREMENT (PQR- Technical & Financial) 5. TECHNO-COMMERCIAL BID 6. Un-Price Bid Copy with mentioning only Taxes and Duties (NO PRICE TO BE MENTIONED IN UN-PRICE BID COPY)  PART-II 1. TENDER NO. AND ITEMS DESCRIPTION 2. DUE DATE FOR OPENING OF PART-I 3. PRICE BID  Clause 1.1:  The Part-I & part-II shall be individually sealed and super scribed as indicated above and shall be enclosed further in the envelop duly sealed and super scribed as:  "TENDER FOR (ITEM NAME) AGAINST TENDER NO	
		Administrative Building, Heavy Electrical Equipment Plant,	

		BHEL, Ranipur	
		Hardwar- 249403, Uttrakhand.	
		Note: Please note that all details required in supplier registration form to be filled and submitted through online supplier registration portal on <a href="https://hwr.bhel.com">https://hwr.bhel.com</a> along with complete documents.	
3	Schedule of Technical Deviation and Schedule of Commercial Deviation.	Schedule of Commercial Deviation and Schedule of Technical Deviation has been annexed along with this tender enquiry. All the Bidders are directed to mention any commercial or Technical deviation in Schedule of Commercial Deviation and Schedule of Technical Deviation only. If any deviation mentioned anywhere other than the Schedule of Commercial Deviation and Schedule of Technical Deviation, then that shall be ignored and It shall be assumed that participating bidder has no deviation against this tender.	
		Please note that as per BHEL's Policy, we cannot allow Price impact for the requirement / scope of supply, which is a part of specifications of our tender enquiry. Hence please read all specification / documents thoroughly and submit your offer as per specifications of tender enquiry.	
4	Validity:	Confirm that your offer shall be valid for 180 days from the date of tender opening.  BHEL will reserve the right to reject any or all quotations, quoting validity less than 180 days.	
5	Evaluation criterion:	The evaluation of tender shall be on the basis of "Total Landed cost at Destination" including Supply and Erection & Commissioning as per tender condition.  For evaluation of foreign bids, exchange rate (TT selling rate of SBI) as on scheduled date of tender opening (Part-I bid opening) shall be considered. If the relevant day happens to be a bank holiday, then the Forex rate as on the previous bank (SBI) working day shall be taken.  Indigenous suppliers: Vendors to quote rates on FOR destination (BHEL Haridwar) basis. However, the insurance will be arranged by BHEL. Vendor can dispatch good through any Indian Bank Association approved transporters having their branch at Haridwar / destination. For the convenience name and address of transporters approved by IBA and BHEL are posted at website www.bhelhwr.co.in. If any bidder still quotes rates on ex-works basis such offers will be loaded by 1.5% of ex-works value towards freight or with actual freight charges as per BHEL freight rate contract whichever is higher. Further, non-availability of BHEL approved transporter will not be accepted for rescheduling of delivery or waiver of penalties.  Final evaluation currency for this Tender shall be in "INDIAN RUPEES (INR)" for all the participating bidders.  For Cost evaluation purpose, only the date of Part-1 Opening shall be considered.	
6	Insurance:	The Transit Insurance will be arranged by BHEL. Please send your offer keeping this in view.	
7	Bank Charges:	Kindly Confirm that Bank Charges shall be either side otherwise your prices will be loaded suitably.	
8	Technical Requirements	Kindly quote your valuable offer as per Technical Specification of Vertical CNC 5 Axis Milling Machine – 01 No. (enclosed with enquiry).	

		Please ensure that documents submitted with the offer/bid shall be signed and	
9	Payment Terms:	stamped in each page by authorized representative of the bidder.  80% payment of Supply value shall be made within 45 days for MSE, 60 days for Medium Enterprises and 90 days for Non-MSE from the date of receipt of material at BHEL. Balance 20% of Supply value plus 100% of E&C portion of PO value will be paid against E&C certificate issued by BHEL and submission of Performance Bank Guarantee (PBG) valid for 27 months from the date of successful commissioning and final acceptance by BHEL, by Supplier from any of the scheduled Banks for 10% of total PO Value in the prescribed Format. PBG confirmation charges shall be borne by vendor.	
		Total Erection & commissioning value should be quoted separately by bidders. Only in case where quoted value is less than the value (in %) specified in the NIT or separate commissioning values are not mentioned in the offer, value for commissioning portion shall be deemed to be considered as the value indicated in NIT & accordingly supply value will be adjusted from that quoted value and balance will be released as commissioning payment term mentioned above.  For Indian Vendors: Payment of GST will be made after submission of signed and stamped GST certificate, enclosed and submission of Performance Bank	
		Guarantee (PBG) in the prescribed Format. The PBG confirmation charges shall be borne by vendor.  Bank Guarantee and Loading against non-acceptance of BHEL's Payment Terms:  If payment terms as mentioned by BHEL are not agreed by bidder, such bidder have to submit Advance Bank Guarantee at the time of payment in the prescribed Format of the amount, exceeding 80% of the SUPPLY value, valid till issue of Acceptance Certificate for the equipment. However, in no case, payment against dispatch shall exceed 90% of the SUPPLY Value.	
		Please note that in case of any deviation in the payment terms, BHEL shall evaluate your offer after loading on account of deviation in payment terms as per BHEL practice/policy/"GISTC Rev 07".  Loading of any deviation in the payment terms will be done @ Base rate of SBI(as applicable on 31st March of preceding year from tender due date) + 6% (per annum) of basic cost of the items.	
10	PBG terms	Performance Bank Guarantee (PBG) valid for 90 days beyond the guaranty period ( <b>for 27 months from the date</b> of successful commissioning of material at BHEL, HEEP Haridwar) by Supplier from any scheduled bank for 10% of total PO Value in the prescribed Format. The PBG confirmation charges shall be borne by vendor. This bank guarantee shall have to be submitted before release of last balance payment. Please note that claim period of BG will be 90 days beyond validity period.	
		The PBG should be in BHEL's PBG format and should be from one of the scheduled bank of India. The PBG confirmation charges shall be borne by vendor. The Performa of Bank Guarantee and the list of BHEL consortium bank are displayed at BHEL website <a href="www.hwr.bhel.com">www.hwr.bhel.com</a> .  This should be read and complied in conjunction with Bank Guarantee clause in General Instructions and Standard Term and Conditions for bidding against Tender Enquiry (herein called as GISTC)	

		Please note that, no deviation in submission of Bank Guarantee is acceptable. The offers of the vendors not agreeing to submit PBG is likely to be rejected by BHEL and no further communication in this regard will be entertained.	
11	Contract Execution Bank Guarantee (CEBG):	The successful vendor shall have to furnish a Contract Execution Bank Guarantee (CEBG) for 10% of the Total PO value in the prescribed format within 30 days from the date of P.O. CEBG shall be from one of the scheduled. All bank charges on account of issuance and confirmation of CEBG will have to be borne by the vendor.	
		CEBG shall be kept valid until 30 days after the date of issuance of Final E&C Certificate, which will be issued on completion of Erection & Commissioning of equipment which includes erection, commissioning, job proving, performance tests, training to operators etc. as prescribed in PO. Please note that claim period of BG will be 90 days beyond validity period.	
		If the supplier fails to submit the CEBG even within 60 days from the date of PO, BHEL reserves the right to cancel PO & forfeit the EMD given by the supplier. In addition, in such case, action will be initiated in line with extant guidelines for Suspension of Business dealings with Suppliers.	
		Under all circumstances, CEBG shall be kept valid till the PBG becomes operational.	
		In case of delay in submission of CEBG, enhanced CEBG which would include interest (SBI rate + 6%) for the delayed period, shall be submitted by the bidder. Further, if CEBG is not submitted till such time the first bill becomes due, the amount of performance security due shall be recovered from the bills along with due interest "	
12	CURRENCY OF PAYMENT	For foreign bidders: Freely tradable currency like Euro/ USD/CHF/GBP/YEN etc. For indigenous supply the currency shall be Indian Rupees.	
13	CHARGES FOR SERVICES AT	Services to be rendered at BHEL Haridwar like commissioning, proving, training to operators, supervising foundation work etc.	
	BHEL HARIDWAR	These charges are essentially to be indicated separately in price bid. Vendor to confirm BHEL will not provide boarding, lodging, travel cost (Air ticket, local transport etc.) to vendor's representatives visiting BHEL Haridwar for Commissioning.	
		Total commissioning value should be quoted separately by bidders. Only in case where quoted value is less than the value (in %) specified in the NIT or separate commissioning values are not mentioned in the offer, value for commissioning portion shall be deemed to be considered as the value indicated in NIT & accordingly supply value will be adjusted from that quoted value and balance will be released as commissioning payment.  The estimated percentage of erection & commissioning value is: 5 % of machine cost.	

14	TAXES &	For Foreign Vendors:	
	DUTIES	Foreign Supply – No Taxes. Foreign Services: TDS shall be applicable.	
		Toreign betwees. The sman be applicable.	
		For Indian Vendors: GST shall be payable with documentary proofs. TDS – Payment of TDS shall be recovered as applicable. All statutory taxes, if any, will be deducted at source & to be borne by the beneficiary. Tax deduction certificate shall be issued at the end of financial year if required.	
		Details of applicable taxes & duties are to be mentioned as per GISTC Rev. 07.	
		<ul> <li>a) GST Registration Number</li> <li>b) Address of Principal place of Business</li> <li>c) Type of Business</li> <li>d) HSN Code, its description &amp; rate of applicable GST for the offered material</li> </ul>	
		e) Whether registered under Composite scheme of GST (Y/N).	
		It should be noted that the evaluation of the offers shall be done considering the taxation/benefits as applicable under GST. Please submit your GST registration certificate.	
		Note: TDS as per Statutory guidelines will be deducted at source. Kindly submit your offer accordingly.	
15	GST Rate	1) Rate of GST applicable on Equipment Cost.	
		2) Rate of GST applicable on E&C Charges	
		GST Input Tax Credit shall be applicable for this tender.	
16	ORDER ACCEPTANCE	Order acceptance (ink-signed) must be submitted within 07 days from the date of PO. If Purchase Order acceptance is not received within 07 days from the date of PO, then it shall be deemed accepted after 07 days from the date of PO.	
16		of PO. If Purchase Order acceptance is not received within 07 days from the	
	ACCEPTANCE  Submission of Bank Guarantee Time Period	of PO. If Purchase Order acceptance is not received within 07 days from the date of PO, then it shall be deemed accepted after 07 days from the date of PO.  All bank guarantees like Contract Execution Bank Guarantee and performance bank guarantee should be in the format as prescribed by BHEL (Annexure-D).  Activity Schedule has been incorporated in along with this Tender and all the	
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17	ACCEPTANCE  Submission of Bank Guarantee  Time Period for Supply and Commissioni ng of equipment	of PO. If Purchase Order acceptance is not received within 07 days from the date of PO, then it shall be deemed accepted after 07 days from the date of PO.  All bank guarantees like Contract Execution Bank Guarantee and performance bank guarantee should be in the format as prescribed by BHEL (Annexure-D).  Activity Schedule has been incorporated in along with this Tender and all the participating bidders are directed to fill the activity schedule with realistic time in weeks for the activities mentioned in activities schedule.  Time period to be taken by BHEL has already been mentioned in the activity schedule. Time period of E&C Milestone-1 and Milestone-2 from the date of first intimation given by BHEL Haridwar has been mentioned in activity schedule, but if any vendor wants to quote less time than specified in activity schedule, then vendor can mention that time period in activity schedule else time period mentioned shall be considered by default for this tender. Liquidated Damage (LD) shall be governed by the Activity Schedule.	
17	ACCEPTANCE  Submission of Bank Guarantee  Time Period for Supply and Commissioning of	of PO. If Purchase Order acceptance is not received within 07 days from the date of PO, then it shall be deemed accepted after 07 days from the date of PO.  All bank guarantees like Contract Execution Bank Guarantee and performance bank guarantee should be in the format as prescribed by BHEL (Annexure-D).  Activity Schedule has been incorporated in along with this Tender and all the participating bidders are directed to fill the activity schedule with realistic time in weeks for the activities mentioned in activities schedule.  Time period to be taken by BHEL has already been mentioned in the activity schedule. Time period of E&C Milestone-1 and Milestone-2 from the date of first intimation given by BHEL Haridwar has been mentioned in activity schedule, but if any vendor wants to quote less time than specified in activity schedule, then vendor can mention that time period in activity schedule else time period mentioned shall be considered by default for this tender.	
17	ACCEPTANCE  Submission of Bank Guarantee  Time Period for Supply and Commissioning of equipment  Liquidated Damages	of PO. If Purchase Order acceptance is not received within 07 days from the date of PO, then it shall be deemed accepted after 07 days from the date of PO.  All bank guarantees like Contract Execution Bank Guarantee and performance bank guarantee should be in the format as prescribed by BHEL (Annexure-D).  Activity Schedule has been incorporated in along with this Tender and all the participating bidders are directed to fill the activity schedule with realistic time in weeks for the activities mentioned in activities schedule.  Time period to be taken by BHEL has already been mentioned in the activity schedule. Time period of E&C Milestone-1 and Milestone-2 from the date of first intimation given by BHEL Haridwar has been mentioned in activity schedule, but if any vendor wants to quote less time than specified in activity schedule, then vendor can mention that time period in activity schedule else time period mentioned shall be considered by default for this tender. Liquidated Damage (LD) shall be governed by the Activity Schedule.  For the purpose of Liquidated Damages for delay E&C of the equipment the duration will be reckoned from the date of intimation by BHEL to vendor for	

The rate of Liquidated Damages for delayed E&C shall be @ 0.5% per week of delay of total PO value (Supply + E&C) in E&C subject to a maximum of 10% of total PO value (Supply + E&C). Maximum Liquidated Damages for delay in Supply and E&C together shall be limited to 15% of total PO value (Supply + E&C). Loading on account of non-acceptance of Liquidated Damages for delayed Supply and/or E&C shall be as under: In case any bidder is not accepting the above Liquidated Damages for delayed Supply and/or E&C, the offer of bidder shall be loaded to the extent to which it is not agreed by the bidder. In case, any shortage is noticed viz-a-viz PO requirement in the main equipment /spares, such shortages shall be replenished by supplier on FOR destination basis without any cost implication to BHEL i.e freight charges etc. up to destination for such short supplies shall be borne by the supplier. Supply period indicated by bidder should include reasonable time required for approval of drawings and other inputs from BHEL. In the Techno-Commercial Bid, the bidder shall submit milestones for various activities in co-relation with Supply and E&C period quoted by him. For calculating Late Delivery Liquidated Damages, delivery date shall be considered as per following: 1. Indigenous Suppliers: a. Delivery Ex-works: - Date of GR /LR b. Delivery FOR Transporter Godown: - Date of GR/LR c. Delivery FOR Destination: - Date of receipt at BHEL Hardwar (if supply is direct to BHEL) or date of GR + one week (if documents are through bank). 2. Foreign Supplier: a. Delivery FOB / FCA port of discharge: - Date of BL/AWB b. Delivery CPT port of destination: - Date of AWB **Delivery basis** 20 For Import: (A) SEA CONSIGNMENTS: Please quote your rates with both the options (a) FOB / FAS dispatching port & (b) CFR Landing Port. (B) AIR CONSIGNMENTS: Please quote your rates with both the options: (a) FCA dispatching Airport & (b) CPT Landing Airport. (Sea / Air Freight charges for import items must essentially be quoted and indicated separately in price bid.) For Indigenous: Delivery must essentially be FOR BHEL Haridwar basis. (Freight charges for indigenous items must essentially be quoted and indicated separately in price bid.) However, loading shall be done as per GISTC Rev 07.

21	Settlement of Disputes	If any dispute, controversy or claim arising out of, relating to, or in connection with, this contract, or the breach, termination or validity thereof, arises, both parties hereto shall endeavor to settle such dispute amicably. Should this attempt fail, the disputes between the parties shall be resolved through arbitration in accordance with the Arbitration and Conciliation Act, 1996. The attempt to bring about an amicable settlement is considered to have failed as soon as one of the parties hereto, after reasonable attempts (which attempt shall continue for not less than 30 days); give 30 days' notice, in writing, invoking arbitration and calling upon the other party to constitute the tribunal as provided.  All or any such disputes or differences arising between the parties to this contract shall be referred to an Arbitral Tribunal consisting of single arbitrators. Sole arbitrator shall be appointed on mutually agreed by both the parties.  The language of arbitration shall be English. The substantive law applicable to the substance of the dispute shall be the Indian Law. GISTC clause may be referred for this clause.  For Indigenous Source. The venue of arbitration shall be Haridwar Courts, which will have exclusive jurisdiction.  Conciliation Clause: Model conciliation clause for conduction conciliation proceedings under the BHEL conciliation scheme, 2018 (enclosed) will be applicable against this enquiry.  Arbitration Clause:  In case of any dispute arising out of or in connection with this contract, the same shall be referred to arbitration under Arbitration & Conciliation Act 1996 of a sole arbitrator who shall be appointed by mutual consent of the parties. The seat & venue of arbitration shall be Haridwar. The proceedings shall be conducted in English. The governing law of the contract shall be the substantive Law of India.	
22	Drawing / data approval: (If applicable)	Any drawing / data approval, if required, from BHEL after placement of order shall be the responsibility of the vendor and any delay on account of the same shall be the responsibility of the vendor and have no bearing on the penalty applicable.	
23	Drawing / design / information use (if applicable):	The vendor to confirm that the drawing / design / information enclosed with the enquiry / proposed order will not be parted to any other agency and will also not be used for manufacturing for any other customer.	
24	Authorization for pre- inspection (If applicable):	BHEL is authorized to pre-inspect the material at vendor's works as per the enclosed technical specifications. The material will be dispatched only after getting clearance from BHEL.  Vendor should give PDI call at least 45 days in advance. If supplier fails to give pre-inspection call with in stipulated time, this will not be a reason of penalty waiver or delivery extension.  Travel, Lodging & Boarding charges of BHEL inspectors / trainees during pre-inspection and training will be borne by BHEL.	

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25	Attending to	Vendor will have to ensure deputation of their people for commissioning or for	
	any complaint	attending to any complaint during guarantee period within 6 days of intimation. In case of delay RHEL will be within their rights to get the job	
	during	intimation. In case of delay BHEL will be within their rights to get the job completed at the risk and cost of the supplier.	
	guarantee period	completed at the risk and cost of the supplier.	
26	Contact	Datails of Contact nerson Name Designation Department complete postal E	
20	Details	Details of Contact person Name, Designation, Department complete postal, Email address & Fax no, phone, Mobile no. to be mentioned.	
27	Beneficiary of PO	Please confirm the beneficiary of PO along with the complete address.	
28	<b>Participation</b>	"BHEL shall be resorting to Reverse Auction (RA) (Guidelines as available on	
	in Reverse	https://www.bhel.com/guidelines-reverse-auction-2021) for this tender. RA	
	Auction	shall be conducted among the techno- commercially qualified bidders	
		(Guidelines for Reverse Auction – 2021 Doc. No. AA: SSP: RA:05 Dated:	
		08.03.2021 & subsequent revision dated 02.09.2023). Price bids of all techno-	
		commercially qualified bidders shall be opened and shall be considered for RA	
		as per RA guidelines. In case any bidder(s) do(es) not participate in online	
		Reverse Auction, their sealed envelope price bid along with applicable loading,	
20	Breach of	if any, shall be considered for ranking.  In case of breach of contract, recovery of 10% of total contract value shall be	
29	contract,	applicable. Recovery shall be done by encashing security instruments like	
	Remedies and	Contract Execution Bank Guarantee, performance bank guarantee. In case	
	Termination	value of security instruments available is less than 10% of the contract value,	
		the balance amount be recovered from other financial remedies (i.e. available	
		bills of the contractor, retention amount, etc. with BHEL) or legal remedies	
		shall be pursued. Further, levy of liquidated damages, debarment, termination,	
		de-scoping, short-closure, etc., shall be applied as per provisions of the	
	T	contract.	
30	Import Supply	a. Phyto-sanitary Certificate essential for packages (Wooden). b. Country or origin certificate: Vendor to furnish the country of origin	
	Supply	certificate from Chamber of Commerce with dispatch documents.	
31	Foreign	Dispatching port & Country to be mentioned essentially.	
0-	Suppliers		
32	Force	Force Majeure Clause shall be governed in-line with GISTC Version May-	
	Majeure	2024, Rev 07.	
	Clause		
33	War Like	If the war like situation has developed in a country where a vendor's works	
	Situation	involved in this tender is located or there is political instability and Indian	
		Embassy located in that country forbids dealing with the said vendor or advises for not having any business dealing with vendor located in such zone / region/	
		country, then BHEL reserves the right not to consider the offer of such a vendor	
		or to cancel the order in case the order has already been placed and suspend	
		further dealings till normalcy in the country/ region is confirmed by Indian	
		Embassy.	
34	Signing of	a) IP is a tool to ensure that activities and transactions between the Company	
	Integrity Pact	and its Bidders/ Contractors are handled in a fair, transparent and corruption	
	(IP)	free manner. A panel of Independent External Monitors (IEMs) have been appointed to oversee implementation of IP in BHEL.	
		The IP as enclosed with the tender (as Annexure-IV) is to be submitted (duly	
		signed by authorized signatory who signs in the offer) along with techno-	
		commercial bid. Only those bidders who have entered into such an IP with	
		BHEL would be competent to participate in the bidding. In other words,	
		entering into this Pact would be a preliminary qualification.	
		D. C. CYPAGE COLUMN AS A COLUM	
		Details of IEM for this tender is furnished below:	
		Name: Following IEMs have been appointed by BHEL for a period of	
		three years:	
		1. Shri Otem Dai, IAS (Retd.)	
	İ		

		Email Id - <u>iem1@bhel.in</u>	
		2. Shri Bishwamitra Pandey, IRAS (Retd.)	
		Email Id - <u>iem2@bhel.in</u>	
		3. Shri Mukesh Mittal, IRS (Retd.)	
		Email Id - iem3@bhel.in  (b) Please refer Section-8 of IP for Role and Responsibilities of IEMs. In case of any complaint arising out of the tendering process, the matter may be referred to the IEM mentioned in the tender.  Note:  No routine correspondence shall be addressed to the IEM (phone/ post/email) regarding the clarifications, time extensions or any other administrative queries, etc. on the tender issued. All such clarification/issues shall be addressed directly to the tender issuing (procurement) department. For all clarifications/ issues related to the tender, please contact:	
		Name: Ashish Keshari, Sr. Manager Deptt: Purchase Capital Address: 4 <sup>th</sup> Floor, Main Administrative Building, BHEL HEEP, Ranipur, Haridwar, Uttrakhand-249403 Phone: +91-1334-281961; +91 9997459201. Email: ashishkumar.keshari@bhel.in Fax:01334-226462	
		The IP duly signed by authorized official of bidder / contractor / vendor and authorized official of BHEL will form a part of Purchase order / contract.	
35	Details to be furnished by bidder	<ul> <li>i) Kindly specify the category of your registration under GST like Registered, Unregistered and composite dealer.</li> <li>ii) Kindly furnish your GST registration number, State Code and Name of the State of both the agency who will raise invoice &amp; from where goods will be dispatched.</li> <li>iii) The bidder shall clearly indicate HSN (Harmonised System Nomenclature) / SAC (Service Accounting Code), and its description.</li> <li>iv) Kindly furnish the rate of GST applicable on your item against subject tender enquiry.</li> </ul>	
36	Origin of quotation	a) The quotation should preferably be from the principal bidder. However tender specific authorized registered dealer / agent can also submit the bid on their behalf, failing which the quotation is liable to be ignored. BHEL prefers to deal directly with the principal manufacturers. b) An agent cannot quote on behalf of more than one principal in the same tender enquiry. Please refer clause no. 2 of GISTC Rev. 07 and quote offer accordingly.	
37	Purchase Preference for (Make in India)	For this procurement, the local content to categorize a supplier as a Class-I supplier / class-II local supplier / Non-local supplier and purchase preference to class —I local supplier, is as defined in public procurement (preference to make in India), Order 2017 revision dated 16.09.2020 issued by DPIIT. In case of subsequent orders issued by the nodal ministry, changing the definition of local content for the items of the NIT, the same shall be applicable even if issued after issue of this NIT, but before opening of Part-II bids against this NIT".  The local supplier at the time of tender, bidding or solicitation shall be required to provide self-certification (Format enclosed) that the item offered meets the	

		minimum local content and shall give details of the location (s) at which the local value addition is made.	
38	Training to customer	As per Clause no-15.0 of Technical Specification. <b>Kindly confirm and quote accordingly.</b>	
		Kindly confirm that Lump sum training charges (inclusive of all and irrespective of no. of Man days, visits, Fooding, Boarding, (To & fro) Travelling, accommodations, Lodging, Visaetc.) have been quoted separately in your offer.	
39	Guarantee Clause:	Kindly confirm that Guarantee shall be offered for a period of 24 <b>months</b> after date of successful commissioning.	
40	Cost of Withdrawal:	<ol> <li>Cost of withdrawal of deviation will be applicable on the basic price (i.e. excluding taxes, duties &amp; freight) only.</li> <li>All the bidders have to list out all their Technical &amp; Commercial Deviations (if any) in detail in the format for cost of withdrawal only.</li> <li>Any deviation not mentioned in the format for cost of withdrawal and shown separately or found hidden in offer, will not be taken cognizance of.</li> <li>Bidder shall submit duly filled unpriced copy of in the format for cost of withdrawal indicating "quoted" in "cost of withdrawal of deviation" column of the schedule above along with their Techno-commercial offer, wherever applicable. In the absence of same, such deviation(s) shall not be considered and offer shall be considered in total compliance to NIT.</li> <li>Bidder shall furnish price copy of the format for cost of withdrawal along with price bid.</li> <li>The final decision of acceptance/ rejection of the deviations quoted by the bidder shall be at discretion of the Purchaser.</li> <li>Bidders to note that any deviation (technical/commercial) not listed in the format for cost of withdrawal and asked after Part-I opening shall not be considered.</li> <li>For deviations w.r.t. Credit Period, Liquidated damages if a bidder chooses not to give any cost of withdrawal of deviation loading as per GISTC, will apply. For any other deviation mentioned in un-priced copy of this format submitted with Part-I bid but not mentioned in priced copy of this format submitted with Priced bid, the cost of withdrawal of deviation mentioned in priced copy of the format for cost of withdrawal, but not mentioned in priced copy of the format for cost of withdrawal, but not mentioned in the un-priced copy, shall not be considered.</li> <li>All techno-commercial terms and conditions of NIT shall be deemed to have been accepted by the bidder, other than those listed in unpriced copy of the format for cost of withdrawal.</li> <li>Cost of withdrawal is to be given s</li></ol>	
11	Submission of	positive will be considered for evaluation and negative for ordering.	
41	offer:	All envelopes to be marked with whether "Priced Bid" (Part – 2) or "Un- Priced Bid Cum Techno-Commercial Bid & PQR" (Part-1). The	
	-		

		replica of Priced Bid (without prices) would be necessarily submitted along with Part-1 of the offer.	
42	General Terms:	Please mention <b>separately Packing and Forwarding charges in terms of % of basic prices (if any)</b> and mention specifically that it is inclusive or not in the quoted price. In case the offer is silent regarding these charges, the same would be considered to be inclusive in the offer. Kindly confirm.	
		Please mention <b>separately Freight charges in terms of % of basic prices (if any)</b> and mention specifically that it is inclusive or not in the quoted price. In case the offer is silent regarding these charges, the same would be considered to be inclusive in the offer. Kindly confirm.	
		Confirm that prices will remain firm and fixed during the entire validity and execution of the project.	
43	Delivery Period	Kindly quote the delivery period in no. of weeks from the date of issue of purchase order in Activity Schedule.	
	Non- Disclosure Agreement	Global Tender enquiry for <b>Vertical CNC 5 Axis Milling machine</b> is being floated through traditional mode i.e hard copy. BHEL Haridwar has internal drawings for this tender enquiry along with Technical Specifications and PQR which shall be required by the participating bidders for better understanding about the requirement of <b>Vertical CNC 5 Axis Milling machine</b> before quoting the tender.	
44		BHEL Haridwar has uploaded Tender Document including <b>Technical Specifications</b> , <b>PQR</b> ( <b>Technical &amp; Financial</b> ), <b>Photos of Vertical CNC 5 Axis Milling machine</b> , <b>Non-Disclosure Agreement</b> , <b>Integrity Pact</b> , <b>GISTC &amp; Activity Schedule etc on www.hwr.bhel.com</b> and www.bhel.com. As drawings are highly confidential so considering this, drawings will be shared/shown to bidders during pre-bid meeting at BHEL Haridwar only in presence of customer after furnishing Non-disclosure agreement (NDA) from respective bidders to BHEL.	
	Action against Bidders / vendor /	In order to protect the commercial interests of BHEL, BHEL shall take action against supplies / contractors by way of suspension of business dealings, who either fail to perform or are in default without any reasonable cause, cause loss of business/ money/ reputation, indulge in malpractices, cheating, bribery, fraud or any other misconduct or formation of cartels so as to influence the	
45	supplier / contractor in case of default:	bidding process or influence the price etc.  Suspension of Business Dealings could be in the form of "Hold" or "Banning" a supplier/ contractor or a bidder and shall be as per "Guidelines for Suspension of Business Dealings with Suppliers/ Contractors" available at BHEL's website "https://www.bhel.com/guidelines-suspension-business-dealings-supplierscontractors"	
46	SPECIAL TERMS -1	Bidder agrees to submit performance security required for execution of the contract within the time period mentioned. In case of delay in submission of performance security, enhanced performance security which would include interest (SBI rate+6%) for the delayed period, shall be submitted by the bidder. Further, if performance security is not submitted till such time the first bill becomes due, the amount of performance security due shall be recovered as per terms defined in NIT contract, from the bills along with due interest.	
47	SPECIAL TERMS -2	The Bidders has to declares that they will not enter into any illegal or undisclosed agreement or understanding, whether formal or informal with other Bidder(s). This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to introduce cartelization in the bidding process. In case, the Bidder is found having indulged in above	

		activities, suitable action shall be taken by BHEL as per extant policies / guidelines.
48	SPECIAL TERMS -3	<ol> <li>In the event of any disallowance of input credit or applicability of interest or any other financial liability arises on BHEL-Haridwar due to any default of supplier under GST, such implication shall be to supplier's account.</li> <li>Statutory Variation in Taxes &amp; duties as applicable at the time of supply shall be payable. However, in the event of no change in law but bidder quoting certain tax structure in bid document which is lower than the applicable one, such amount shall be the maximum amount of tax that can be claimed by bidder.</li> <li>Attach separate sheet for additional information if necessary. The above terms &amp; condition supersedes the terms &amp; conditions found contradictory written elsewhere in the offer.</li> <li>Attach separate sheet for additional information if necessary. The above terms &amp; condition supersedes the terms &amp; conditions found contradictory written elsewhere in the offer.</li> </ol>

Note: This Special Terms and Conditions shall prevail for commercial parameters for this Tender Enquiry.

Signature of supplier with Seal

ANNEXURE-II

### **PRICE SCHEDULE**

### **VERTICAL CNC 5 AXIS MILLING MACHINE -01 No**

### For import supply

Description	Total Price (in foreign currency)
<b>Total Supply Value</b> (including Essential Tooling, Accessories, Attachments, Spares, Training of BHEL Engineers at vendor works as per clause 15 of technical specifications, Packing & Forwarding charges (if any) on FOB (for Sea)/FCA (for Air)	(in foreign currency)
Freight Charges (Sea / Air freight charges essentially to be quoted)	
Total CFR / CPT cost =	
** Total Erection & Commissioning Value including all Services like erection, commissioning, Job proving, performance tests, training to operators etc. at BHEL Haridwar.	

### For indigenous supply

Description	Total Price (in
	Indian rupees)
<b>Total Supply Value</b> (including Essential Tooling, Accessories, Attachments,	
Spares, Training of BHEL Engineers at vendor works as per clause 15 of technical	
specifications, Packing & Forwarding charges if any) on (F.O.R Haridwar)	
GST on total supply value (mention applicable rate of GST)	
Total supply value at BHEL Haridwar =	
** Total Erection & Commissioning Value including all Services like erection,	
commissioning, Job proving, performance tests, training to operators etc. at BHEL	
Haridwar.	
<b>GST</b> on Erection & Commissioning charges (mention applicable rate of	
GST)	
Total Supply Value (Incl of GST) + E& C Charges (Incl of GST)	

Please attach un-priced copy of your price bid with technical bid. The sequence of price and other details shall be kept same as stated in the specifications.

FINANCIAL EVALUATION (L1, L2...) WILL BE DONE ON THE BASIS OF TOTAL LANDED COST (SUPPLY + E&C) AT BHEL HARIDWAR.

<sup>\*\*</sup>Price break-up shall be furnished by bidder as per TECH. SPECIFICATION.

<sup>&</sup>quot;ALL BIDDERS ARE REQUESTED TO QUOTE IN FIGURES" WITH CORRESPONDING "WORDS".

#### **NOTE:**

- a) Item wise breakup of the prices shall be furnished as per TECH. SPECIFICATION / DISCUSSIONS. Wherever the prices mentioned are unit prices, it should be clearly specified.
- b) Per day per person rates against each category of training at vendor's work must be mentioned separately in Technical Specification.
- c) Bidder to note that total price indicated above shall be considered for evaluation and hence should be complete in all respects for the full scope defined and considering all terms and conditions. Optional as indicated in specification will not be taken for evaluation.
- d) Any item not included in this price quoted above and shown separately will not be taken cognizance of and shall be ignored while evaluation.
- e) Following details shall be provided in separate Annexure.
  - i) Unit prices for variable items.
  - ii) Prices for any other OPTIONAL items.
- f) Transit insurance shall be arranged by BHEL.
- g) The bidder to specify in their offer (part 1 bid) the category of their registration under GST like Registered, Unregistered and composite dealer.
- h) The provisional GST registration number of Bharat Heavy Electrical Ltd, Heavy Electricals Equipment Plant, Ranipur, Haridwar is "05AAACB4146P1ZL" with state Code as "05" and State Name as "Uttarakhand".
- i) Please quote our provisional GST registration number in all invoices raised for supply of goods and services under GST regime and also ensure filing of timely return and payment of tax and compliance of other applicable provisions on supplier under GST regime.
- j) No GST will be reimbursed to unregistered or composite dealer. In the event, any GST is quoted by composite dealer, the same shall be added to the cost of supply in evaluating the bid.
- k) Since, input credit of GST will be available to BHEL-Haridwar only after correct filing of return and payment of applicable GST by supplier, reimbursement of GST shall be made by BHEL-Haridwar on matching of vendor inputs at GST portal, ensuring availability of input credit to BHEL Haridwar. Payment of GST will be made to vendor after matching of input credit and vendor to ensure submission of their invoices along with consent to accept payment of tax after such matching in all cases where bills are submitted directly to BHEL-Haridwar or through bank or under LC or through any other mode.
- l) In the event of any disallowance of input credit or applicability of interest or any other financial liability arises on BHEL-Haridwar due to any default of supplier under GST, such implication shall be to supplier's account.
- m) In the event of any change in the status of the vendor after the submission of the bid but before the supply, GST applicable at the time of supply or in the bid, based on the registration status of the vendor, whichever is lower shall be payable.
- n) Where ever applicable If PAN (Permanent Account Number) of the recipient is not available, income tax is deductible either at the normal rate or at the rate of 20 percent, whichever is higher as per Section 206AA of Indian Income Tax Act 1961.
- o) The bidder shall clearly indicate HSN (*Harmonised System Nomenclature*) / SAC (*Service Accounting Code*), its description and applicable rate of GST for each item in his techno-commercial bid.

- p) Statutory Variation in Taxes & duties as applicable at the time of supply shall be payable. However, in the event of no change in law but bidder quoting certain tax structure in bid document which is lower than the applicable one, such amount shall be the maximum amount of tax that can be claimed by bidder.
- q) IMPORTED GOODS OFFERED BY INDIAN BIDDERS AGAINST DEALER INVOICE: Wherever the material being offered is imported, the bidder must quote the prices inclusive of IGST. The rate and value of IGST as included in the price must be indicated separately. In case quantum of IGST is not mentioned by the bidder the same will not be considered for evaluation. However, bidder will have to pass on the benefit of IGST to BHEL at the time supply.
- r) In case of directly dispatchable items to Customer's Site, BHEL-Haridwar will inform the GST registration number of the respective customer which must be mentioned on the vendor's invoice. Vendor to ensure availability of such information from BHEL-Haridwar before dispatch of any material. However, while filing GSTN-1, BHEL Haridwar GSTN number to be quoted.
- s) Vendors must ensure compliance of all the applicable rules and procedure as envisaged in the GST Regime. Any loss to BHEL-Haridwar due to fault / non-compliance by the vendor will be to the vendor's account.
- 1. BHEL will evaluate the technical bids against essential criteria/requirements. BHEL may seek clarifications, if required, from the qualified bidders only. These clarifications will be communicated to the eligible vendors and they will be asked to attend techno-commercial discussions on specified dates. The bidders will be given 15 days' notice to come prepared with the required documents/ clarifications. No extension will be given. **The offers of those bidders, who are unable to respond in this time frame, are likely to be ignored.**

Date
Signature
Name
Designation
Department
M/s

### Details on Capacity/Supply and E&C performance of Bidder

The performance of the vendors and meeting commitments is of utmost importance. In order to keep this in focus during evaluation / finalization of tenders, Bidder shall be asked to furnish specific details of company performance as per Annexure-III (1. Capacity details; 2. Performance of supplies to BHEL).

- (A. Capacity details in Part (1) are about the Manufacturing Capacity (Major Machine: category-wise & number-wise), No. of Machines supplied during last 5 years, Outstanding Order Book position, Liquidation Plan of all machines including BHEL machines under consideration for ordering. Wherever possible, efforts are to be made to contact some of the references of past supplies given.
- (B. **The Performance details of supplies to BHEL will be sought in Part (2)** for the POs placed by BHEL which can be verified; hence submission of these information by vendors is mandatory. BHEL will reserve the right to reject the offer, if past performance of the bidder is evaluated to be unsatisfactory and / or false information is given by the bidder.
  - i) Immediately after opening of Techno Commercial Bid, the BHEL Haridwar Indenting Unit shall get the past performance details with BHEL verified from concerned Units as a second check.
  - ii) The tender Technical Committee at BHEL Haridwar Unit shall make use of the information on past performance of the bidders during technical evaluation of the offers. If Delivery Index of any bidder is >0.20, then his offer shall be liable for rejection. However, offer of bidder with Delivery Index >0.20 can also be accepted for further evaluation on exception basis with justified recorded reasons with approval of Unit Head & provided the bidder fulfils the requirement of proven

experience of supplying similar machines & have adequate available capacity to meet BHEL tender requirement.

iii) The actual / likely Supply and E&C period vis-à-vis scheduled Supply and E&C period (delay for reasons attributable to vendor only to be considered) shall be considered for all the machines against the POs placed by BHEL during last 5 years (limited to 5 latest executed POs) and all POs overdue for Supply and/or E&C.

For purpose of calculation of Delivery Index in case of overdue POs, the delay period for Supply and/or E&C will be reckoned from the date of bid opening of the tender under evaluation. In case of two-part bid, part-I (i.e. Techno-Commercial Bid) shall be considered as date of bid opening.

Early Supply and/or E&C vis-à-vis scheduled dates will not be entitled for any consideration for calculation of Delivery Index.

Delay in E&C shall be applicable only in such cases where E&C period has been mentioned in the PO.

In case a PO includes more than one machine, then all the machines of the PO shall be considered for calculation of Delivery Index.

- iv) The details of bidder who has been disqualified based on the delivery performance with BHEL Units should be shared by Purchase Department of indenting Unit with all sister Units under intimation to CMT&IP. CMT&IP shall host the details on website of CMT&IP department.
- v) Illustration for calculation of Delivery Index:

Delivery Index = 
$$\sum_{i=1}^{n} \left\{ \frac{(\Delta X_i + \Delta Y_i)}{(X_i + Y_i)} \right\} / n$$

i = No. of Machines; Where, i= 1...... to n (n = no. of m/cs.)

X<sub>i</sub> = Scheduled Delivery (no. of days)

 $\Delta X_i$  = Supply delay (no. of days)

Y = Scheduled E&C (no. of days)

 $\Delta Y_i = E\&C delay (no. of days)$ 

ANNEXURE-III

#### **DETAILS OF COMPANY PERFORMANCE**

### A. Capacity Details:

Manufacturing Capacity (Major machines with Qty.)	Type of Major Machines	Qty.
Machines supplied during last 5 years (Year-wise with Qty.)	Scheduled Supply Period	Actual Supply Period
Outstanding Order Book position		
(Type of Machine with Qty. & name of customers*)		
Liquidation Plan of all machines including BHEL machines under consideration for ordering		

<sup>\*</sup> If any bidder is unable to give name of ALL the customer(s) due to confidentiality restrictions, they may give details without disclosing such customer's identity.

### **B.** Performance of supplies to BHEL:

Details of POs to be considered in last 5 years shall include (i) Last 5 POs fully executed and (ii) all POs overdue for supply and/or E&C. Details of all machines in the POs to be given.

Sl. No.	Name of M/c with	Name of BHEL	P.O. No. &	P.O. Value	Supply	Date	Erection & Commissioning	5	Reason of delay,
	broad specs.	Unit	Date		As per P.O.	Actual/ Likely	E&C period incl. job prove out as agreed (in days)	Actual / Likely period of E&C completion (in days)	if any
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1.									
2.									
3.									
4.									

### Note:

- 1. In case bidder has not received any Purchase Order in the last 5 years from any of the Units of BHEL, then 'NIL' should be indicated.
- 2. Reasons for delay to be explained in details.
- 3. BHEL reserves the right to reject the offer, if past performance of the bidder is evaluated to be unsatisfactory and/or false information is given by the bidder.

Annexure-1

### **INTEGRITY PACT**

#### Between

Bharat Heavy Electricals Ltd. (BHEL), a company registered under the Companies Act 1956 and having its registered office at "BHEL House", Siri Fort, New Delhi - 110049 (India) hereinafter referred to as "The Principal", which expression unless repugnant to the context or meaning hereof shall include its successors or assigns of the ONE PART

and
, (description of the party along with address), hereinafter referred to as "The Bidder/ Contractor" which expression unless repugnant to the context or meaning hereof shall include its successors or assigns of the OTHER PART
<u>Preamble</u>
The Principal intends to award, under laid-down organizational procedures, contract/s for
(hereinafter referred to as "Contract"). The Principal values full compliance with all relevant laws of the land, rules and regulations, and the principles of economic use of resources, and of fairness and transparency in its relations with its Bidder(s)/ Contractor(s).

In order to achieve these goals, the Principal will appoint panel of Independent External Monitor(s) (IEMs), who will monitor the tender process and the execution of the contract for compliance with the principles mentioned above.

### Section 1- Commitments of the Principal

- 1.1 The Principal commits itself to take all measures necessary to prevent corruption and to observe the following principles: -
- 1.1.1 No employee of the Principal, personally or through family members, will in connection with the tender for, or the execution of a contract, demand, take a promise for or accept, for self or third person, any material or immaterial benefit which the person is not legally entitled to.
- 1.1.2 The Principal will, during the tender process treat all Bidder(s) with equity and reason. The Principal will in particular, before and during the tender process, provide to all Bidder(s) the same information and will not provide to any Bidder(s) confidential/ additional information through which the Bidder(s) could obtain an advantage in relation to the tender process or the contract execution.
- 1.1.3 The Principal will exclude from the process all known prejudiced persons.
  - 1.2 If the Principal obtains information on the conduct of any of its employees which is a penal offence under the Indian Penal Code 1860 and Prevention of Corruption Act 1988 or any other statutory penal enactment, or if there be a substantive suspicion in this regard, the Principal will inform its Vigilance Office and in addition can initiate disciplinary actions.

### Section 2 - Commitments of the Bidder(s)/ Contractor(s)

2.1 The Bidder(s)/ Contractor(s) commit himself to take all measures necessary to prevent corruption. The Bidder(s)/ Contractor(s) commits himself to observe the following principles during participation in the tender process and during the contract execution.

- 2.1.1 The Bidder(s)/ Contractor(s) will not, directly or through any other person or firm, offer, promise or give to the Principal or to any of the Principal's employees involved in the tender process or the execution of the contract or to any third person any material, immaterial or any other benefit which he/ she is not legally entitled to, in order to obtain in exchange any advantage of any kind whatsoever during the tender process or during the execution of the contract.
- 2.1.2 The Bidder(s)/ Contractor(s) will not enter with other Bidder(s) into any illegal or undisclosed agreement or understanding, whether formal or informal. This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to introduce cartelization in the bidding process.
- 2.1.3 The Bidder(s)/ Contractor(s) will not commit any penal offence under the relevant Indian Penal Code (IPC) and Prevention of Corruption Act; further the Bidder(s)/ Contractor(s) will not use improperly, for purposes of competition or personal gain, or pass on to others, any information or document provided by the Principal as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically.
- 2.1.4 Foreign Bidder(s)/ Contractor(s) shall disclose the name and address of agents and representatives in India and Indian Bidder(s)/ Contractor(s) to disclose their foreign principals or associates. The Bidder(s)/ Contractor(s) will, when presenting his bid, disclose any and all payments he has made, and is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the contract.
  - 2.2 The Bidder(s)/ Contractor(s) will not instigate third persons to commit offences outlined above or be an accessory to such offences.
  - 2.3 The Bidder(s)/ Contractor(s) shall not approach the Courts while representing the matters to IEMs and shall await their decision in the matter.

### Section 3 - Disqualification from tender process and exclusion from future contracts

If the Bidder(s)/ Contractor(s), before award or during execution has committed a transgression through a violation of Section 2 above, or acts in any other manner such as to put his reliability or credibility in question, the Principal is entitled to disqualify the Bidder(s)/ Contractor(s) from the tender process, terminate the contract, if already awarded, exclude from future business dealings and/ or take action as per the separate "Guidelines on Banning of Business dealings with Suppliers/ Contractors", framed by the Principal.

### **Section 4 - Compensation for Damages**

- 4.1 If the Principal has disqualified the Bidder (s) from the tender process before award / order acceptance according to Section 3, the Principal is entitled to demand and recover the damages equivalent to Earnest Money Deposit/ Bid Security.
- 4.2 If the Principal is entitled to terminate the Contract according to Section 3, or terminates the Contract in application of Section 3 above , the Bidder(s)/ Cotractor (s) transgression through a violation of Section 2 above shall be construed breach of contract and the Principal shall be-entitled to demand and recover from the Contractor an amount equal to 5% of the contract value or the amount equivalent to Security Deposit/ Performance Bank Guarantee , whichever is higher, as damages, in addition to and without prejudice to its right to demand and recover compensation for any other loss or damages specified elsewhere in the contract.

### **Section 5 - Previous Transgression**

- 5.1 The Bidder declares that no previous transgressions occurred in the last 3 (three) years with any other company in any country conforming to the anti-corruption approach or with any other Public Sector Enterprise in India that could justify his exclusion from the tender process.
- 5.2 If the Bidder makes incorrect statement on this subject, he can be disqualified from the tender process or the contract, if already awarded, can be terminated for such reason or action can be taken as per the separate "Guidelines on Banning of Business dealings with Suppliers/ Contractors", framed by the Principal.

### Section 6 - Equal treatment of all Bidder (s)/ Contractor (s) / Sub-contractor (s)

- 6.1 The Principal will enter into Integrity Pacts with identical conditions as this Integrity Pact with all Bidders and Contractors.
- 6.2 In case of Sub-contracting, the Principal Contractor shall take the responsibility of the adoption of Integrity Pact by the Sub-contractor(s) and ensure that all Sub-contractors also sign the Integrity Pact.
- 6.3 The Principal will disqualify from the tender process all Bidders who do not sign this Integrity Pact or violate its provisions.

### Section 7 - Criminal Charges against violating Bidders/ Contractors /Subcontractors

If the Principal obtains knowledge of conduct of a Bidder, Contractor or Subcontractor, or of an employee or a representative or an associate of a Bidder, Contractor or Subcontractor which constitutes corruption, or if the Principal has substantive suspicion in this regard, the Principal will inform the Vigilance Office.

### Section 8 -Independent External Monitor(s)

- 8.1 The Principal appoints competent and credible panel of Independent External Monitor (s) (IEMs) for this Integrity Pact. The task of the IEMs is to review independently and objectively, whether and to what extent the parties comply with the obligations under this Integrity Pact.
- 8.2 The IEMs are not subject to instructions by the representatives of the parties and performs his functions neutrally and independently. He reports to the CMD, BHEL.
- 8.3 The IEMs shall be provided access to all documents/ records pertaining to the Contract, for which a complaint or issue is raised before them as and when warranted. However, the documents/records/information having National Security implications and those documents which have been classified as Secret/Top Secret are not to be disclosed.
- 8.4 The Principal will provide to the IEMs sufficient information about all meetings among the parties related to the Contract provided such meetings could have an impact on the contractual relations between the Principal and the Contractor. The parties offer to the IEMs the option to participate in such meetings.

- 8.5 The advisory role of IEMs is envisaged as that of a friend, philosopher and guide. The advice of IEMs would not be legally binding and it is restricted to resolving issues raised by a Bidder regarding any aspect of the tender which allegedly restricts competition or bias towards some Bidders. At the same time, it must be understood that IEMs are not consultants to the Management. Their role is independent in nature and the advice once tendered would not be subject to review at the request of the organization.
- 8.6 For ensuring the desired transparency and objectivity in dealing with the complaints arising out of any tendering process or during execution of Contract, the matter should be examined by the full panel of IEMs jointly, who would look into the records, conduct an investigation, and submit their joint recommendations to the Management.
- 8.7 The IEMs would examine all complaints received by them and give their recommendations/ views to the CMD, BHEL at the earliest. They may also send their report directly to the CVO, in case of suspicion of serious irregularities requiring legal/ administrative action. Only in case of very serious issue having a specific, verifiable Vigilance angle, the matter should be reported directly to the Commission. IEMs will tender their advice on the complaints within 30 days.
- 8.8 The CMD, BHEL shall decide the compensation to be paid to the IEMs and its terms and conditions.
- 8.9 IEMs should examine the process integrity, they are not expected to concern themselves with fixing of responsibility of officers. Complaints alleging mala fide on the part of any officer of the Prinicpal should be looked into by the CVO of the Principal.
- 8.10 If the IEMs have reported to the CMD, BHEL, a substantiated suspicion of an offence under relevant Indian Penal Code / Prevention of Corruption Act, and the CMD, BHEL has not, within reasonable time, taken visible action to proceed against such offence or reported it to the Vigilance Office, the IEMs may also transmit this information directly to the Central Vigilance Commissioner, Government of India.
- 8.11 After award of work, the IEMs shall look into any issue relating to execution of Contract, if specifically raised before them. As an illustrative example, if a Contractor who has been awarded the Contract, during the execution of Contract, raises issue of delayed payment etc. before the IEMs, the same shall be examined by the panel of IEMs. Issues like warranty/ guarantee etc. shall be outside the purview of IEMs.
- 8.12 However, the IEMs may suggest systemic improvements to the management of the Principal, if considered necessary, to bring about transparency, equity and fairness in the system of procurement.
- 8.13 The word 'Monitor' would include both singular and plural.

### **Section 9 - Pact Duration**

- 9.1 This Integrity Pact shall be operative from the date this Integrity Pact is signed by both the parties till the final completion of contract for successful Bidder, and for all other Bidders 6 months after the Contract has been awarded. Any violation of the same would entail disqualification of the bidders and exclusion from future business dealings.
- 9.2 If any claim is made/ lodged during currency of this Integrity Pact, the same shall be binding and continue to be valid despite the lapse of this Pact as specified above, unless it is discharged/ determined by the CMD, BHEL.

### **Section 10 - Other Provisions**

- 10.1 This Integrity Pact is subject to Indian Laws and exclusive jurisdiction shall be of the competent Courts as indicated in the Tender or Contract, as the case may be.
- 10.2 Changes and supplements as well as termination notices need to be made in writing.
- 10.3 If the Bidder(s)/ Contractor(s) is a partnership or a consortium or a joint venture, this Integrity Pact shall be signed by all partners of the partnership or joint venture or all consortium members.
- 10.4 Should one or several provisions of this Integrity Pact turn out to be invalid, the remainder of this Integrity Pact remains valid. In this case, the parties will strive to come to an agreement to their original intentions.
- 10.5 Only those bidders / contractors who have entered into this Integrity Pact with the Principal would be competent to participate in the bidding. In other words, entering into this Integrity Pact would be a preliminary qualification.
- In the event of any dispute between the Principal and Bidder(s)/ Contractor(s) relating to the Contract, in case, both the parties are agreeable, they may try to settle dispute through Mediation before the panel of IEMs in a time bound manner. In case, the dispute remains unresolved even after mediation by the panel of IEMs, either party may take further action as the terms & conditions of the Contract. The fees/expenses on dispute resolution through mediation shall be shared by both the parties. Further, the mediation proceedings shall be confidential in nature and the parties shall keep confidential all matters relating to the mediation proceedings including any settlement agreement arrived at between the parties as outcome of mediation. Any views expressed, suggestions, admissions or proposals etc. made by either party in the course of mediation shall not be relied upon or introduced as evidence in any further arbitral or judicial proceedings, whether or not such proceedings relate to the dispute that is the subject of mediation proceedings. Neither of the parties shall present IEMs as witness in any Alternative Dispute Resolution or judicial proceedings in respect of the dispute that was subject of mediation.

For & On behalf of the Principal  (Office Seal)	For & On behalf of the Bidder/ Contracto (Office Seal)
Place Date	
Witness: (Name & Address)	Witness: (Name & Address)

### Clause on IP in the tender

### Integrity Pact (IP)

(a) IP is a tool to ensure that activities and transactions between the Company and its Bidders/ Contractors are handled in a fair, transparent and corruption free manner. Following Independent External Monitors (IEMs) on the present panel have been appointed by BHEL with the approval of CVC to oversee implementation of IP in BHEL.

SI	IEM	Email
1.	Shri Otem Dai, IAS (Retd.)	iem1@bhel.in
2.	Shri Bishwamitra Pandey, IRAS (Retd.)	iem2@bhel.in
3.	Shri Mukesh Mittal, IRS (Retd.)	iem3@bhel.in

- (b) The IP as enclosed with the tender is to be submitted (duly signed by authorized signatory) along with techno-commercial bid (Part-I, in case of two/ three part bid). Only those bidders who have entered into such an IP with BHEL would be competent to participate in the bidding. In other words, entering into this Pact would be a preliminary qualification.
- (c) Please refer Section-8 of IP for Role and Responsibilities of IEMs. In case of any complaint arising out of the tendering process, the matter may be referred to any of the above IEM(s). All correspondence with the IEMs shall be done through email only.

### Note:

No routine correspondence shall be addressed to the IEM (phone/ post/ email) regarding the clarifications, time extensions or any other administrative queries, etc on the tender issued. All such clarification/ issues shall be addressed directly to the tender issuing (procurement) department's officials whose contact details are provided below:

Details of contact person(s):

(1)	(2)
Name:	Name:
Deptt:	Deptt:
Address:	Address:
Phone: (Landline/ Mobile)	Phone: (Landline/ Mobile)
Email:	Email:
Fax:	Fax:

1

### NON-DISCLOSURE AND PROPRIETARY INFORMATION AGREEMENT

BETWEEN
(Name of the Vendor)., having its registered offices in
(Address of Vendor), registered under the no of
the Companies' register of(Name of Place and Country), capital stock of
(Value), with a place of business in(Name of Place and
Country) (hereinafter referred to as "(Name of Vendor)" which expression
shall unless repugnant to the context shall include its successors & assigns.
AND
AND
Bharat Heavy Electricals Ltd a company incorporated under the Indian Companies Act 1956 having
its registered offices at BHEL House, Siri Fort, New Delhi -110 049 and having one of its works at
Heavy Electrical Equipment Plant, Ranipur, Haridwar-249403 (Uttarakhand), India registered under
the No. 4281 of 1964-65 of the companies register of Delhi, capital stock of Rs 4895.2 million with a
place of registered office in New Delhi (hereinafter referred to as "BHEL") which expression shall
unless repugnant to the context shall include its successors & assigns.
hereinafter also referred to individually as "the Party" or collectively as "the Parties".
BACKGROUND
This Agreement sets forth the rights and obligations of the Parties with respect to the use, handling,
protection and safeguarding of Proprietary Information that is disclosed by and between the Parties.
WHEREAS
A) the Parties wish to pursue exploratory discussions concerning a possible collaboration between
them in relation to the Tender Enquiry No
Exhibit 1;
D) It is anticipated that desire the model of the control of the c
B) It is anticipated that during the possible discussions it may be necessary for BHEL to share
certain confidential and proprietary information in written, oral, visual and/or physical/sample/ form
to the other party (collectively " <b>Proprietary Information</b> ", more fully detailed in clause 1 herein
below) for the purpose of enabling the parties to interact and deliberate the aforementioned order and
take it further (hereinafter referred to as " <b>Purpose</b> ")
The parties desire to protect such Proprietary Information and ensure that it is not disclosed to any third
party without the permission of the party disclosing such Proprietary Information;

**NOW, THEREFORE,** the Parties have agreed as follows:

- 1. The term "Proprietary Information" shall mean any information or data of whatsoever kind of a confidential or proprietary nature disclosed by BHEL (hereinafter called the "Disclosing Party") to the vendor ) hereinafter called the "Receiving Party"), including but not limited to, commercial information, knowhow and technical information in the form of designs, drawings, concepts, requirements, specifications, trade secrets, IPR, brand name, marketing plans & all other non-public information, software, interfaces, components, processes, or the like, that have been or will be disclosed by the Disclosing Party to the Receiving Party pursuant to this Agreement, either in writing, orally or other form, which is designated as "Proprietary" or "Confidential" by the Disclosing Party by means of formal declaration or an appropriate stamp, legend or any other written or orally notice. Notwithstanding anything to the contrary contained hereinabove, all the drawings and other technical information shared regarding the above mentioned order by the Disclosing Party shall be considered Proprietary Information with or without being marked as confidential/proprietary at the time of sharing the same.
- 2. Proprietary Information may be conveyed, without limitation, through any written or printed documents, samples, models, electronic form on disk, tape, other storage media or any other means of disclosing such Proprietary Information that Disclosing Party may elect to use during the life of this Agreement, but if Disclosing Party originally discloses information orally or visually, the Receiving Party will protect such information as Proprietary Information to the extent that the Disclosing Party:
- identifies the Information as Proprietary at the time of original disclosure,
- summarizes the Proprietary Information in writing.

Information stored in electronic form on disk, tape, other storage media will be adequately marked if a proprietary legend displays when the information originally runs on a computer system and when the information is printed from its data file. Proprietary Information also includes any information which can be obtained by examination, testing or analysis of any hardware or material substance or any component part of such hardware or material substance provided by the Disclosing Party even though the requirements in Clause 1 for marking and designation have not been fulfilled.

- 3. The Disclosing Party, to the extent of its rights to do so, shall disclose to the other only the Proprietary Information which the Disclosing Party deems appropriate to fulfil the objectives of this Agreement. The Parties hereby represent that the disclosure of Proprietary Information by and between themselves shall be made in compliance with, and subject to the Indian laws and regulations.
- 4. The Receiving Party hereby agrees and covenants that, from the effective date of this Agreement until the expiry date as per article 11 and the following period as per article 12, the Proprietary Information that it receives from the Disclosing Party shall:

- a) be protected and kept in strict confidence by the Receiving Party which must use the same degree of care it uses to protect its own confidential information and in no case less than a reasonable care;
- b) be only disclosed to and used by those persons within the Receiving Party's organization who have a need to know and solely for the purposes specified in this Agreement, and be treated by such persons or entities with the same degree of care and subject to the same restrictions;
- c) to procure that each third party to whom Proprietary Information is disclosed under this Agreement
  is made aware of the provisions of this Agreement prior to such disclosure to it and that each such
  third party is bound by obligations of confidentiality which are no less onerous than those contained
  in this Agreement;
- d) neither be disclosed nor caused to be disclosed or made available, either directly or indirectly, to any third Party or persons other than those mentioned in subparagraph b) above or other persons upon which both of the contractual Parties shall agree in an amendment to this Agreement;
- e) not to reverse engineer, disassemble or decompile any prototypes, software or other tangible objects which embody the Propietary Information and which are provided to the Receiving Party hereunder;
- f) not to copy, reproduce or reduce to writing any part of such Proprietary Information except as may be reasonably necessary for the purpose referred to in the Recitals of this Agreement

PROVIDED THAT the Receiving Party shall be entitled to make any disclosure required by court order or government or regulatory requirement of the Disclosing Party's Proprietary Information subject to notifying the Disclosing Party as soon as possible of such requirement.

- 5. Any Proprietary Information and copies thereof disclosed by the Disclosing Party to the other shall remain the property of the Disclosing Party and shall be immediately returned or destroyed by the Receiving Party upon request or upon expiry of this Agreement.
- 6. The Receiving Party shall have no obligations or restrictions with respect to any Proprietary Information for which the Receiving Party can prove that:
- a) is in or which comes into the public domain otherwise than as a result of a breach of this Agreement by any person to whom a disclosure of Proprietary Information is made as permitted under this Agreement or of any other duty of confidentiality relating to the Proprietary Information of which the Receiving Party has knowledge; or
- b) it has been in its possession without restriction at the time of the disclosure, as evidenced by written documentation in its files; or
- c) it has been lawfully received from a third Party without breach of this Agreement; or
- d) it has been or is published without violation of this Agreement; or
- e) disclosure of such proprietary information is required by Law or by a court of competent jurisdiction.

- 7. With respect to any exchange of Proprietary Information which may occur as a result of this Agreement, it is expressly understood and agreed that the persons listed in Exhibit 2 shall, on behalf of the respective Parties, be the exclusive individuals authorized to receive from and transmit to the other Party Proprietary Information under this Agreement. Each Party may replace at any time its respective authorized individuals identified in such Exhibit 2, within its own organization. Any such new designation by a Party shall be made by written notice to the other at the address indicated in such Exhibit 2.
- 8. Any Proprietary Information which is identified as "Classified Information", or whose export is subject to an export license, shall be identified as such by the Disclosing Party at the time of disclosure and the disclosure, protection, use and handling thereof, shall remain subject to the security procedures and restrictions imposed by the Disclosing Party's Government.
- 9. The disclosure of Proprietary Information under this Agreement by the Disclosing Party to the Receiving Party shall not be construed as granting to the Receiving Party any right, whether express or implied by licence or otherwise, on the matters, inventions or discoveries to which such information pertains, or as granting any trademark, patents, copyrights, trade secret right or other form of intellectual property right.
- 10. This Agreement covers the exchange of Proprietary Information which may be made by the Disclosing Party to the Receiving Party until ten years from signing of the agreement or any extension thereto which may be agreed upon by the Parties in writing. Proprietary information relevant to the Program detailed in Exhibit 1, already made available to the Receiving Party before the effective date, shall also be protected under this Agreement.

It is understood by the parties that, prior to disclosure, the Disclosing Party shall have obtained any government authorisation needed for the export of the Proprietary Information

- 11. The expiry of the period contemplated in Article 10 of this Agreement shall not relieve the Receiving Party from complying with the obligations imposed by Article 4 here above with respect to the use and protection of the Proprietary Information, received prior the date of such expiry, for a period of ten (10) years after such expiry.
- 12. The Parties are independent contractors. Each will bear all costs and expenses in connection with this Agreement. This Agreement is intended to facilitate only the exchange of Proprietary Information in connection with the contract entered between both the parties and is not intended to be, and shall not be construed to create a teaming agreement, joint venture, association, partnership, or other business organisation or agency arrangement and no Party shall have the authority to bind the other without the other Party's separate prior written agreement.

13. The Receiving Party shall indemnify the Disclosing Party for all costs, expenses or damages that

Disclosing Party incurs as a result of any violation of any provisions of this Agreement. This obligation shall include court, litigation expenses, and actual, reasonable attorney's fees. The Receiving Party also agrees that monetary damages may be inadequate compensation to the Disclosing Party in the event the Receiving Party breaches any provision of this Agreement.

Therefore, the parties agree that in the event of a breach or threatened breach of confidentiality, the

Disclosing Party shall also be entitled to specific performance and injunctive or other equitable

relief as a remedy for any such breach or anticipated breach.

14. This Agreement shall be governed by and shall be interpreted in accordance with the substantive

Indian laws. Irrespective of the foregoing each Party shall remain bound by the provisions of its

own national laws and regulations with respect to the transfer or use of Classified Information or

information whose export is subject to an export license.

15. All disputes among the Parties, in connection with or arising out of the existence, validity,

construction, performance and termination of this Agreement (or any terms thereof), which the

Parties are unable to resolve among themselves, shall be finally settled by an Arbitration as per the

Arbitration & Conciliation Act, 1996. The Arbitration shall be held in Haridwar (India), in English

language, in accordance with the rules laid down in the Arbitration and Conciliation act of India

1996, of a sole arbitrator mutually appointed by both the parties. The courts of Haridwar shall have

exclusive jurisdiction.

16. The foregoing constitutes the entire Agreement among the Parties with respect to the subject matter

hereof and supersedes and cancels all prior representations, negotiations, commitments,

undertakings, communications, either oral or written, acceptances, understandings and agreements

among the Parties with respect to or in connection with any of the matters to which such Agreement

applies or refers.

17. Notices to \_\_\_\_\_\_(Name of Vendor) shall be made at the following address:

(Complete Address of Vendor)

Attention: Mr. \_\_\_\_\_(Name of the Authorised Person of Vendor)

Notices to BHEL shall be made at the following address:

BHARAT HEAVY ELECTRICALS LIMITED,

HEAVY ELECTRICAL EQUIPMENT PLANT,

Ranipur, Haridwar-249403 (Uttarakhand), India ]

Attention: (Name of the PPX Incharge)

18. The effective date of this Agreement shall be the date of the last signature appearing herein.

**IN WITNESS WHEREOF**, each of the Parties has caused this Agreement, to be executed by its duly authorized officer.

1	Doto	
1	Date	- 3

Signed for and on behalf of Signed for and on behalf of

(Name of Vendor) BHEL
By: By:

Title: Title:

Signature: Signature:

- 19. No failure or delay by either party in exercising on enforcing any right, remedy or power here under shall operate as a waiver hereof.
- 20. In the event that any provision of this Agreement shall be held by a court of competent jurisdiction to be unenforceable, the remaining portion hereof shall remain in full force & effect.

### **EXHIBIT 1**

to the
NON-DISCLOSURE AGREEMENT
between
(Name of Vendor) and
BHARAT HEAVY ELECTRICALS LIMITED
dated:
The Non Disclosure Agreement covers the exchange of Proprietary Information which may occur during the discussions and negotiations in view of a possible cooperation between the Parties in the
following programs:
-Description of Material or Services
/ Purchase order to be placed
(Name of Vendor) list of products that require an exchange of Proprietary
Information which may be occur during the discussions and negotiations in view of a possible
cooperation for the above programs:

### **EXHIBIT 2**

to the	
NON-DISCLOSURE AGREEMEN	NT
between	
(Name of Ven	dor) and
Bharat Heavy Electricals Ltd.	
dated:	
Personnel of the Parties authorized t	o receive and/or transmit Proprietary Information under this
Agreement:	
For (Name of Vendor)	For Bharat Heavy Electricals Ltd.
(Name of Person)	Mr.
Tel.	Tel. 01334
Fax	Fax 01334
Address.	Address. Main Administration Building
	BHEL, HEEP, Haridwar
	India
	Mr.
Tel.	Tel. 01334
Fax	Fax 01334
Address.	Address. Main Administration Building
	BHEL, HEEP, Haridwar
	India



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### 1. GENERAL.

21.

22.

23.

24.

These general terms & conditions shall apply to all the Tender Enquiries, notice inviting tenders, request for quotations concerning the supply of goods and / or rendering of services to Bharat Heavy Electricals Ltd., HEEP, Haridwar (hereinafter referred to as BHEL or the Purchaser). In case of placement of order these conditions will become part of purchase order until unless the deviations are specifically agreed by BHEL.

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### 1. ORIGIN OF QUOTATION.

"A bidder shall not have conflict of interest with other bidders. Such

- conflict of interest can lead to anti-competitive practices to the detriment of Procuring Entity's interests **The bidder found to have a conflict of interest shall be disqualified.** A bidder may be considered to have a conflict of interest with one or more parties in this bidding process, if:
- a) they have controlling partner (s) in common; · or
- b) they receive or have received any direct or indirect subsidy/ financial stake from any of them; **or**
- c) they have the same legal representative/agent for purposes of this bid: **or**
- d) they have relationship with each other, directly or through common third parties, that puts them in a position to have access to information about or influence on the bid of another Bidder, · or e) Bidder participates in more than one bid in this bidding process. Participation by a Bidder in more than one Bid will result in the disqualification of all bids in which the parties are involved. However, this does not limit the inclusion of the components/ subassembly/ Assemblies from. one bidding manufacturer in more than one bid; or
- f) In cases of agents quoting in offshore procurements, on behalf of their principal manufacturers, one agent cannot represent two manufacturers or quote on their behalf in a particular tender enquiry. One manufacturer can also authorise only one agent/dealer. There can be only one bid from the following:
- 1. The principal manufacturer directly or through one Indian agent on his behalf; and  $\,$
- 2. Indian/foreign agent on behalf of only one principal,  $\cdot$  or g) A Bidder or any of its affiliates participated as a consultant in the preparation of the design or technical specifications of the contract that is the subject of the Bid,  $\cdot$  or
- h) In case of a holding company having more than one independently manufacturing units, or more than one unit having common business ownership/management, only one unit should quote. Similar restrictions would apply to closely related sister companies. Bidders must proactively declare such sister/ common business/ management units in same/ similar line of business."

### 3. SUBMISSION OF TENDER.

A) Bid/Quotation must be enclosed in sealed cover on which tender enquiry number and the due date MUST BE written and be invariably sent under REGISTERED POST / SPEED POST / COURIER/Dropped in the Tender Box: addressed as follows: -

Quotation against Enquiry No	Dated:
Due on:	

Τo,

THE HEAD OF MATERIALS MANAGEMENT, Heavy Electrical Equipment Plant, Bharat Heavy Electricals Limited, HARIDWAR-249403 (Uttarakhand), INDIA.

B) TENDER BOX is located at TENDER ROOM, Room No. - 415, 4th Floor, Main Admin. Building, BHEL-HEEP, Haridwar.



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- C) In case of Three / Two Part Bid, technical bid containing technical offer, duly signed; and un-priced copy of the Price Bid should be kept in one envelope. Price Bid containing only the price should be kept in a separate envelope. All envelopes indicating Part-1 or Part-2 or Part-3 as the case may be to be put in a bigger envelope. Please note that un-priced bid should be the exact replica of price bid but without prices.
- D) The bid / quotation must be posted before due date, keeping allowance for postal transit time. Quotations sent by any mode but not received in time will be ignored. Tender received through authorized E-mail is also acceptable. However, in time submission of tender in tender box shall be the responsibility of the bidder, sent through any mode. Documents submitted with the offer / bid shall be signed and stamped in each page by authorized representative of the bidder.
- Any additional documents submitted by supplier / bidder, during processing of registration application / tender or after placement of order shall not be accepted unless it is submitted with forwarding letter and duly signed and stamped.
- F) The bids of the bidders who are on the banned list and also the bids of the bidders, who engage the services of the banned firms, shall be rejected. The cutting / overwriting in the bid / offer must be duly attested by the signatories to the bid. The list of firms banned by BHEL is available on BHEL web site <a href="https://www.bhel.com">www.bhel.com</a>.
- G) Being PMD vendor, if you are not quoting against this tender enquiry, please send your regret letter positively for our reference with valid reasons for not participating in the tender enquiry. Repeated lack of response on the part of bidder may lead to deletion of such PMD vendor from BHEL's approved vendor list.

- H) The bidders will submit Integrity Pact, duly signed by its authorized signatory, along with their bids wherever estimated tender value is Rs. 2 Crore or more.
- In case of open tender, technically qualified unregistered bidders may apply online for registration through http://www.bhel.com/index.php/vender.
- J) BHEL reserves the right to award tendered quantities among more than one bidder (after acceptance of L1 price by the other bidders). BHEL can also consider awarding of part of the tendered quantity to other than L-1 bidder at L1 counter offered rates, if the quantity offered by the L-1 bidder is less than the quantity tendered for.

If the counter offer is to be given to other qualifying Vendor(s) (e.g. in case of splitting of order, MSE Vendors or the case of Purchase preference to make in India), then the basic price for each qualifying vendor has to be calculated taking the landed cost of the L1 vendor as reference. Basic price will be calculated by working backwards from the landed cost of L1 vendor in following manners;

(1) Counter offer in case of MSE Vendor(s) or the case of Purchase preference to make in India:

Landed cost of L-1 vendor will be reduced by notional loading of late delivery penalty to the extent the same is not applicable to the vendor being counter offered. The result so arrived at will be put as landed cost and basic price to be counter offered will be worked backward therefrom in price structure of the concerned vendor.

### (2) Counter offer in case of Splitting:

Landed cost of L-1 vendor will be reduced by custom duty and notional loading of late delivery penalty to the extent the same is not applicable to the vendor being counter offered. The result so arrived at will be put as landed cost and basic price to be counter offered will be worked backward therefrom in price structure of the concerned vendor.



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If the basic price so computed is less than the basic price of the L1 vendor, then this basic price shall be counter offered, otherwise the basic price of L1 vendor shall be counter offered.

- K) BHEL may also reduce the Tender Quantity for offering it to Micro & Small Enterprise (MSE) Indian Vendors as per applicable Government of India rules whose prices are within 15% of L1 prices as per directives of Government of India.
- L) In case of e-Tendering (Online bidding through e portal), offline bid submitted in hard copy or in any other form by the vendor / supplier will not be accepted and will be rejected out rightly. Only e-portal bid will be accepted.

### 4. TENDER OPENING.

2:00 PM, on the due date. Therefore, bid / quotations must reach this office / tender Box latest by 1:45 PM on due date. Only participating bidders are allowed to attend tender opening. TENDERS RECEIVED AFTER THE SPECIFIED TIME OF THEIR 'SUBMISSION' WILL BE TREATED AS LATE TENDERS AND SHALL NOT BE CONSIDERED UNDER ANY CIRCUMSTANCES. The bidders or their authorized representatives may be allowed to attend tender opening if duly authorized by their principals, through a tender specific letter on that particular day. General authorization letter is not acceptable.

Tender opening is scheduled to start in the Tender Room at

Note: - Foreign bidders willing to attend the bid opening has to provide the requisite documents to the concerned Purchase executives for arranging gate pass for them.

### 5. SPECIFICATION, DRAWINGS & STANDARD.

- a) Bidders must give their detailed specification in the quotation along with relevant technical literature / catalogue etc. against the tender enquiry.
- b) The Bid should be accompanied with relevant copies of catalogues, drawings or specification as per tender enquiry.

- If these documents are not furnished, the offer is liable to be rejected.
- c) Wherever national / international (N/IN) standards are referred, the latest N/IN standards are to be followed. Mention year & date of standard revision that shall be followed for the supply.
- d) All Drawings and Standards are proprietary of BHEL. It must not be used in anyway detrimental to the interest of BHEL or without permission of BHEL.

### 6. PRICE SCHEDULE.

- a) Kindly quote your prices in figures and words both. In case of any discrepancy in value, the prices quoted in words shall be considered for evaluation and establishing L1 status.
- b) Prices quoted should not be more than the prices quoted to any other BHEL units / offices / divisions. Vendor to submit copy of latest Purchase Order placed by any unit of BHEL for similar items in the technical bid. In case no order has been placed on such items, specific confirmation that no order has been placed on such items should be provided.
- c) Bidders need to quote their prices on CFR any sea port in Mumbai or FCA basis to the named airport in Euro/USD/JPY/UK Pound/SF/Singapore Dollar or any other Internationally freely tradable currency only. The name of the currency should be clearly indicated in your bids.
- d) In case the vendor quotes the prices on CFR basis and BHEL accepts the delivery term on CFR, 0.25 % (of CFR Value) towards port handling charges & 1.5 % (of CFR Value) towards inland freight or actual freight charges as per BHEL freight rate contract whichever is higher, shall be loaded in the prices for ascertaining the landed cost to decide the comparative status of the prices.
- e) However, if BHEL agrees to accept the FOB delivery terms, the FOB prices shall be loaded **2.0%** (of FOB Value) towards sea freight, **0.25%** (of FOB Value) towards port handling charges & **1.5%** (of FOB value) towards inland freight for



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ascertaining the landed cost to decide the comparative status of the prices.

### f) Basis of Evaluation for Bid / Quotation in foreign currency:

- Currency exchange rate (TT selling rates of SBI) for evaluation of the bid / quotation received in foreign currency will be as follows:
- 2. Single part bid Date of tender opening.
- 3. Two / Three-part bid Date of part 1 opening.
- 4. Reverse auction Date of part-1 opening.

Note: - Financial evaluation of L1, L2 ------ status will be on the basis of Landed Cost to BHEL.

f1) Currency of Evaluation shall be INR.

### g) Evaluation of Indian Agents Commission:

- BHEL prefers to deal directly with foreign bidder, wherever required, for procurement of Goods. However, if the Foreign Principal desires to avail services of an Indian Agent then the Principal should ensure compliance to applicable guidelines.
- 2. The FOB / CIF price quoted will be deemed to be inclusive of Indian Agency commission. Agency commission if payable shall be converted to Indian Rupees at TT buying rates of exchange ruling on tender opening date which shall not be subjected to any further exchange rate variation, as disclosed by the bidder in his quoted FOB / CIF price will be paid in Indian Rupees on receipt & acceptance of Materials or it's installation at destination, as the case may be. The lower of the TT buying rate prevailing on the date of technical bid opening shall be considered for computation of Agency commission.
- 3. In a tender either the Indian Agent on behalf of Principal / OEM or the Principal / OEM itself can bid, but both cannot bid simultaneously for same item / product in the same Tender. If both OEM and its authorized agent submit their bids separately in that case only the offer of OEM can be considered as an exception.

### h) While submitting your bids please clearly indicate:

- 1. Expected weight of goods (lots wise).
- 2. The size of packed goods.
- 3. Whether the goods can be dispatched in containers?
- 4. Port of Loading.
- 5. Port of Discharge.

### 7. REVERSE AUCTION.

Wherever RA is declared in the special terms and conditions of tender enquiry, following shall be applicable and Bidders to confirm the same:

"BHEL shall be resorting to Reverse Auction (RA) (Guidelines as available on www.bhel.com) for this tender. RA shall be conducted among all the techno-commercially qualified bidders.

Price bids of all techno-commercially qualified bidders shall be opened and same shall be considered as initial bids of bidders in RA. In case any bidder(s) do(es) not participate in online Reverse Auction, their sealed envelope price bid along with applicable loading, if any, shall be considered for ranking."

### 8. DELIVERY TERMS.

- a) Goods shall be dispatched by sea, unless stated otherwise in the tender enquiry or purchase order.
- b) Specifically confirm your agreement to change the mode by Air at BHEL's request as per mutually agreed terms even after placement of Purchase Orders.
- c) The Trans-shipment is not permissible in case of Break Bulk Cargo. In rest of the case Trans-Shipment condition in BHEL purchase order / letter of credit will be as per Uniform Custom and Practice for documentary credits, UCP 600 of International Standard Bank proceed re-issued by International chamber of Commerce (ICC).



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- d) Any demurrage / Godown Rent payable to the Port Authorities due to any delay attributed by the supplier will be recovered from supplier's account.
- e) A certificate of origin (COO) sanctioned in country of origin from chamber of commerce of the manufacturing country is to be provided mandatorily. However, a certificate of origin (COO) from the countries under the restricted list of Govt. of India will not be acceptable.
- f) For reasons of delay in receipt of documents from suppliers or due to the same being found to be incomplete, and / or faulty, the suppliers shall be responsible to reimburse in all demurrages / wharfages, if any paid by BHEL (for stated reasons).
- g) Load port charges shall be settled by the supplier and not be passed on to BHEL in form of destination charges.
- h) In the event of bidder offering CFR delivery terms for delivery in FCL (Full Container Load), the bidder shall provide
   21 days' time free of detention for General Purchase
   Container / High Cube Container and 14 days for the other types from the date of delivery at delivery port. Wherever the detention free period offered is less than the above specified period, the consequential cost at port of clearance shall be to the account of the bidder. Number of detention free days must be mentioned on Bill of Lading (BL).
- i) In case of CFR delivery, Port congestion charges or any additional charges claimed by shipping line till delivery at destination port shall be to the bidder's account.
- j) The shipping line should be ready to move the containers to consignees nominated CFS (Container Freight Station) yard and Indian agent of shipping line should issue Cargo Arrival Notice (CAN) 7 days in advance for filing the IGM (Import General Manifest) at discharge port.
- k) In case of CFR contract, bidder to supply the material through a Certified Sea worthy vessel.

- The invoices being issued by shipping lines must be in the name of BHEL. Any loss in GST due to submission of discrepant document will be recovered from supplier / vendor.
- m) While booking the shipment, bidder to also finalize destination charges and the same should appear over BL or agreed tariff to be provided to BHEL before arrival of shipment.
- If cargo is stuffed in container, then the same should be allowed to be moved to CFS of importers choice without any additional charges.
- o) NNDs (Non Negotiable Documents) (preferably with OBLs) should be sent to BHEL as detailed in para "p" (below), at least 7 days in advance i.e. 7 days before the arrival of vessel so as to enable BHEL to move the containers to JWC CFS.
- p) Information related to OBL / AWB Documents:
- I. Consignee name and address should be same as mentioned in the Purchase order.
- II. Notify party: Name and address will be as follows :( For discharge port Mumbai or Nhava Sheva)

**Bharat Heavy Electricals Limited** 

14th Floor World Trade Centre-1, Cuffe Parade, Colaba, Mumbai -400005

Email: msseahwr@bhel.in & ppximx@bhelh.in (in case of Sea Shipments)

Email: <a href="msair@bhel.in">msair@bhel.in</a> and <a href="msair@bhel.in">ppximx@bhel.in</a> (in Case of Air shipments)

For latest updating please refer our web site: <a href="https://hwr.bhel.com">https://hwr.bhel.com</a>

- III. OBL should clearly mention the Indian agent address and contact details.
- IV. OBL should be issued as per UCP 600.
- V. In case of shipments other than FOB, OBL should mention the container detention free period.



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VI. In case of placement of an Order, BHEL requests bidder to supply one Original Bill of Lading / AWB directly to BHEL-Mumbai office (Address at Para "p-II") with other non-negotiable documents to ensure timely clearance of goods. The other Original Bill of Ladings (BL) may be routed through bank based on the other agreed terms and conditions of purchase order.

### 9. LIQUIDATED DAMAGES (LD) FOR LATE DELIVERY.

### a) Where items of Purchase Order are independently usable.

Liquidated Damages (LD) for Late Deliveries shall be applicable @0.5% per week or part thereof on the value of respective delayed supplies subject to a maximum of 10% of the value of respective delayed supplies. Value of delayed supplies will mean the Gross Value payable to the vendor (Before LD) against such supplies excluding taxes and duties.

# b) Where the total items are required for a main equipment and items are interdependent.

Liquidated Damages (LD) for Late Deliveries shall be applicable @0.5% per week or part thereof on total value of Purchase Order subject to maximum of 10% of the total value of Purchase Order. Purchase Order value for this purpose shall be the Total Gross Value payable to the vendor (Before LD) excluding taxes and duties.

"In case of CFR shipment where BHEL accepts the date of inspection as the date of delivery for the purpose of LD, the vendor has to ensure the shipment within 30 days for containerized cargo and 45 days maximum for Break bulk cargo from the date of inspection. Any delay, beyond this period, which is not attributable to BHEL shall be considered for application of LD."

"In case of FOB shipment, vendor has to intimate the readiness of cargo after inspection to BHEL nominated Freight forwarder minimum 15 days in advance for containerized cargo and 30 days in advance for Break bulk cargo before the FOB delivery date. The delay in shipment due to late intimation to BHEL nominated freight forwarder

and not attributable to BHEL will be considered for application of LD".

- c) Bidders are requested to quote the best delivery meeting the delivery requirements. BHEL reserves the right to reject the offers not meeting BHEL's delivery requirement.
- d) Commencement of delivery period shall be reckoned from the date of PO / LOI or any other agreed milestone.
- e) Bidder shall deliver the goods in the manner and schedule agreed under the terms and conditions of Purchase order.
- f) The delivery date for LD purpose will be the Bill of Lading Date/Air way bill.
- g) Payment of Liquidated Damages (LD) shall not in any way relieve the vendor from any of its obligations & liabilities under the contract.

### 10. PAYMENT TERMS.

- a) BHEL's standard payment term is Payment after Receipt and Acceptance of Material / Item at HEEP, BHEL-Store or at desired destination unless otherwise specified in Special Terms attached to the tender enquiry.
- b) BHEL reserves the right to accept or reject the offer of the bidder who quotes the payment term other than BHEL's standard payment term.
- c) Where the payments are through bank, the documents may be presented for negotiation through BHEL designated banks which will be specified in Purchase order. Documents should be submitted within 5 days of vessel sailing and receipt of OBL from shipping line.
- d) In case BHEL agrees for payment through LC, the same shall be irrevocable, unconfirmed and will be opened 30 days prior to the scheduled delivery and will be valid for a period of 60 days.



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e) In case of payment after receipt and acceptance of material, 100% payment will be made within 75 days from the date of invoice subject to submission of non-discrepant documents within 15 days of supply as per terms and conditions of Purchase Order. In case any discrepancy found in the documents, BHEL will notify the same to vendor within 7 days of receipt. Vendor has to clear all the discrepancies in one go within 7 days thereafter else the payment may get delayed.

# The loading criteria for the different payment terms shall be as under;

Payment Terms		Days of	
·		Loading	
After Receipt & Acceptance of material within 75 days of supply.		No Loading	
Against Delivery at BHEL-Stores Haridwar.		45	
Against documents through bank (CAD):		45	
Letter of Credit (LC)		120	
	No Loading if usance period is > 120 Days.		
Usance LC	Loading of days difference i.e difference between 120 days and usance period if the usance period is < 120 days.		
Advance	Delivery Period + Payment Days	120 Days -Advance	

### 11. BANK GUARANTEE.

In case the bank guarantees are required to be deposited towards security deposit / performance guarantee or for any other purpose as per the terms of this tender enquiry, such bank guarantees of the requisite value in the denominated currency of the purchase order should be from one of the Indian branch of BHEL consortium banks and the bank guarantee should be in the proforma as prescribed by BHEL. The proforma of bank guarantee and the list of consortium banks are displayed at BHEL website www.bhelhwr.co.in. However, in case the bank guarantee is not from BHEL consortium banks, then the bidder has to get the bank guarantee confirmed from one of the Indian branch of BHEL

consortium banks and the bank charges for such confirmation will be borne by the bidder.

# 12. GUARANTEE / WARRANTY AND CORRESPONDING REPAIRS / REPLACEMENT OF GOODS.

- a) Goods shall comply with the specifications for material, workmanship and performance. Unless otherwise specified, the warranty shall be for a period of 18 months from the date of receipt. If the delivery is found non-compliant during the warranty period, leading to rejection, the Seller shall arrange free replacement / repair of goods, within one month from the date of intimation or any mutually agreed period. The rejected goods shall be taken away by the Seller at his cost and replaced on Delivered Duty Paid (DDP) (FOR -BHEL Stores / designated destination basis) within such period. In the event of the Seller's failure to comply, Purchaser may take action as appropriate, including Repair / Replenish rejected goods & disposal of rejections, at the risk & cost of the Seller. In case the defects attributable to Seller are detected during processing of the goods at BHEL or at our subcontractor's works, the Seller shall be responsible for free replacement / repair of the goods as required by BHEL.
- b) In case the material is rejected, then date of replacement will be considered as the actual date of delivery.
- c) The bidder shall have to pay 5% incidental charges while taking back supplied material if it is found rejected on receipt. The rejected material shall be sent back only after receipt of replacement /submission of BG/refund of amount paid.

### 13. QUALITY REQUIREMENT.

Your bid/quotation should have specific confirmation regarding meeting all our quality requirements such as. (i) Test Certificate (TC), (ii) Guarantee Certificate (GC) / Warranty Certificate (WC), (iii) Quality Plan (QP) (if applicable); and (iv) Pre-Dispatch Inspection at your works (if applicable).



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### 14. VALIDITY.

The quotation should be valid for a minimum period of 90 days effective from the date of opening of tender, unless otherwise specified in the tender enquiry.

### 15. RIGHT OF ACCEPTANCE.

- a) BHARAT HEAVY ELECTRICALS LIMITED HARIDWAR reserves the right to reject any or all the bids / quotations without assigning any reason thereof. BHEL also reserves the right to increase or decrease the tendered quantities. Bidders should be prepared to accept order for reduced quantity without any extra charges.
- b) Any discount / revised offer / bids submitted by a bidder on its own shall be considered, provided it is received on or before the due date and time of offer / bid submission (Part-1). Conditional discounts shall not be considered for evaluation of tenders.
- c) Unsolicited discounts / revised offers / bids given after Part-1 bid opening shall not be accepted. No change in price will be permitted within the validity period asked for in the tender enquiry.
- d) In case of changes in scope and / or technical specification and / or commercial terms & conditions having price implication, techno-commercially acceptable bidders shall be asked by BHEL to submit the impact of such changes on their price bids. In case a bidder opts to submit revised price bid instead of impact called for, then latest price bid shall prevail. However, in both situations, original price bid will be necessarily opened.
- e) The bidder whose bid is technically not accepted will be informed & EMD wherever submitted shall be returned after finalization of contract. EMD shall be forfeited in the event of bidder opting out after tender opening.

f) BHEL reserves the right to short close the existing Purchase Order / Rate Contract / Work Order or any extension thereof at any stage.

### **16. TRANSIT INSURANCE.**

- a) Transit Insurance will be covered by BHEL under its open Marine Insurance Policy. Seller shall inform dispatch particulars (Purchase Order, RR/GR/BL/ AWB, Invoice value etc.) to Finance department (Store bill Section), BHEL Ranipur Haridwar (Uttarakhand -India) with value of consignment to the Purchaser within 07 days of dispatch for BHEL to arrange insurance coverage in its policy. Failure on the part of seller to inform dispatch particulars will make him liable to pay for any transit damages / losses suffered by the Purchaser.
- b) If Quoted Prices are inclusive of transit insurance, no weightage shall be given while evaluating the bids for Cost of Insurance, being in BHEL Scope.

### 17. PHYTOSANITARY CERTIFICATE:

- a) As per the Indian Law, all consignments being imported into India by air / sea require a phytosanitary certificate from the country of origin-if articles have been packed with wooden packaging materials. This is mandatory. Please confirm in your offer / dispatch documents that the required phytosanitary certificate will be submitted.
- b) Packaging material means any kind of material of plant origin used for packing which include hay, straw wood shavings, wood chips, saw dust, wood waste, wooden pallets, dunnage mats, wooden packages, coir pith, peat or sphagnum moss etc.

### 18. RISK PURCHASE.

In case of abnormal delays (beyond the maximum late delivery period as per LD clause) in supplies / defective supplies or nonfulfillment of any other terms and conditions given in Purchase Order, BHEL may cancel the Purchase Order in full or part



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thereof, and may also make the purchase of such material from elsewhere / alternative source at the risk and cost of the supplier. BHEL will take all reasonable steps to get the material from alternate source at optimum cost. If bidder does not agree to the above Risk Purchase Clause, BHEL reserves the right to reject the offer. In case for compelling reasons BHEL accepts the offer without acceptance of this clause by the bidder and in the eventuality of Risk Purchase, appropriate action will be taken as per BHEL extant rules. This will be without prejudice to any other right of BHEL under the contract or under General Law.

### 19. FORCE MAJEURE CLAUSE.

Notwithstanding any other thing contained anywhere else in the contract or PO (Purchase Order), In case the discharge of obligation under the contract by either party is impeded or made unreasonably onerous, neither party shall be considered in breach of the contract to the extent that performance of their respective obligation is prevented by an event of Force Majeure that arises after the effective date (PO date).

In the above clause, Force Majeure means an event beyond the control of the parties to the contract which prevents a party from complying with any obligation of the contract including but not limited to:

- a) Act of God (Such as but not limited to earthquake, drought, tidal waves, floods etc.).
- b) War (whether war be declared or not), Hostilities Invasion, Act of foreign enemy etc.
- c) Rebellion, revolution, insurrection, civil war etc.
- d) Contamination of Radio Activity from any nuclear fuel or from any other nuclear waste or any other hazardous materials.
- e) Riots, commotions, strike unless restricted to the employees of supplier.
- f) Acts of terrorism.
- g) Other unforeseeable circumstances beyond the control of the parties and which the affected party cannot avoid even by using its best efforts.
- h) Cancellation of contract by customer.

- i) Change in law/ government. Regulation making the performance impossible.
- j) Pandemic or Epidemic.

The party claiming to be affected by force majeure shall notify the other party in writing immediately without delay on the intervention and on the cessation of such circumstances.

Irrespective of any extension of time, if an event of force majeure occurs and its effect continues for more than 180 days the affected party shall have right to cancel the contract.

As soon as reasonably practicable following the date of commencement of a Force Majeure Event, and within a reasonable time following the date of termination of a Force Majeure Event, either Party invoking it shall submit to the other Party reasonable proof of the nature of the Force Majeure Event and of its effect upon the performance of the Party's obligations under this Agreement.

The party shall, and shall ensure that its Subcontractors shall, at all times take all reasonable steps within their respective powers and consistent with Good Operating Practices (but without incurring unreasonable additional costs) to:

- a) Prevent Force Majeure Events affecting the performance of the party's obligations under this Agreement;
- b) mitigate the effect of any Force Majeure Event; and
- c) Comply with its obligations under this Agreement.

If the war like situation has developed in a country where a seller's works is located in the P.O. or there is political instability and Indian Embassy located in that country forbids or advises for not having any business dealing with the sellers located in such zone / region/ country, then BHEL reserves the right to cancel the order.

### 20. NON-DISCLOSURE AGREEMENT.

All Drawing and Technical Documents relating to the product or it's manufacture submitted by one party to the other, prior or subsequent to the formation of contract, shall remain property of the submitting party. Drawing, technical documents or other



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technical information received by one party, shall not without the consent of the other party, be used for any other purpose than that, for which they were provided. Such technical information shall not without the consent of the submitting party, otherwise be used or copied, reproduced, transmitted or communicated to a third party. Patterns supplied by BHEL will remain BHEL's property which shall be returned by the bidder on demand to BHEL. Bidder shall in no way share or use such intellectual property of BHEL to promote his own business with others or to gain a commercial advantage. BHEL reserves the right to claim damages from the bidder, or take appropriate action as deemed fit against the bidder, for any infringement of the provisions contained herein as available under law or equity.

### 21. SETTLEMENT OF DISPUTES/ARBITRATION.

Any dispute/difference arising out of or in connection with this contract, including any question regarding its existence, validity or termination, shall be referred to and finally resolved by arbitration under the Arbitration and Conciliation Act, 1996 of India by a Sole Arbitrator to be appointed with mutual consent of the parties. Such Sole Arbitrator shall be either a retired judge of Supreme Court or High Court or District Court of India or some Advocate having practiced in Indian Courts. The seat or place of arbitration shall be New Delhi, India. The language to be used in the arbitration shall be English. The governing law of the contract shall be the substantive law of India. In case the parties fail to agree on the appointment of arbitrator within 2 months of the notice invoking arbitration by one party, then the arbitrator shall be appointed in accordance with the Arbitration and Conciliation Act, 1996 of India.

**JURIDICTION:** The courts of New Delhi, India, shall have exclusive jurisdiction.

### 22. INFORMATION TO THE BIDDERS.

 a) Purchase related information is available at our Business-to-Business (B2B) Portal available on our website <a href="https://hwr.bhel.com">https://hwr.bhel.com</a>. The user ID & password can be obtained by sending a request to concerned purchase executives.

- b) Intimate your change in mail address or communication address or changes, if any, by email to AGM (SDX/MM) giving your bidder Code.
- c) Please resolve your rejections and unexecuted overdue purchase order immediately which are posted at our B2B Portal, which can be visited through our site <a href="https://hwr.bhel.com.">https://hwr.bhel.com.</a>
- d) Copy of this Tender Enquiry is being sent through the post/ Courier / E-mail or by any existing means.
- e) Invoice description and Unit of measurement should be strictly in accordance with Purchase order.
- f) Unit of measurement for dimension and weight should be in metric system only.
- g) The Bidder declares that they will not enter into any illegal or undisclosed agreement or understanding, whether formal or informal with other bidder(s). This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to introduce cartelization in the bidding process.
  - In case, the bidder is found having indulged in above activities, suitable action shall be taken by BHEL as per extant policies/ guidelines.
- h) Supplier must upload digitally signed e-Invoice on B2B portal for processing of Bills.
  - In other cases, inked signed hard copy of Invoice to be submitted for processing of Bills.

### 23. MAKE IN INDIA (GOVT-NOTIFICATION).

- A. This tender enquiry shall be governed by notification no. P-45021/2/2017-PP (BE-II) dated 04.06.2020 of government of INDIA and subsequent circulars issued afterwards. Accordingly, the minimum local content, the margin of purchase preference and the procedure for preference to make in INDIA shall be adhered.
- B. The margin of purchase preference shall be 20%.



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- 'Class-I local Supplier' means a supplier or service provider, whose goods, services or works offered for procurement, has local content equal to or more than 50%, as defined under this order.
- 'Class-II local Supplier' means a supplier or service provider, whose goods, services or works offered for procurement, has local content more than 20% but less than 50%, as defined under this order.
- 'Non- local Supplier' means a supplier or service provider, whose goods, services or works offered for procurement, has local content less than or equal to 20%, as defined under this order.
- C. Vendor to specifically confirm if they are Class-I or Class-II local supplier or not as per above mentioned notification. Accordingly, the 'Class-I local supplier', 'Class-II local Supplier' at the time of tender, bidding or solicitation shall be required to indicate percentage of local content and provide self-certification that the item offered meets the local content requirement for 'Class-I local supplier', 'Class-II local Supplier', as the case may be. They shall also give details of the location(s) at which the local value addition is made.
- D. In cases of Procurement for a Value in Excess of Rs. 10 Crores, the 'Class-I local supplier'/ 'Class-II local Supplier' shall be required to provide a Certificate from the Statutory Auditor or Cost Auditor of the Company (in the case of companies) or from a practicing Cost Accountant or practicing Chartered Accountant (in respect of suppliers other than companies) giving the percentage of Local Content.
- E. Requirement of Purchase Preference:

Purchase preference shall be given to 'Class-I local supplier' in procurements undertaken by procuring entities in the manner specified hereunder -

- a. In the procurements of goods or works, which are covered by para 3(b) of mentioned Govt. circular and which are divisible in nature, the 'class-I local supplier' shall get purchase preference over 'Class-II supplier' as well as 'Non-local supplier', as per following procedure:
  - Among All qualified bids, the lowest bid will be termed as L1. If L1 is 'Class-I local

- supplier', the contract for full quantity will be awarded to L1.
- ii. If L1 bid is not a 'Class-I local supplier', 50% of the order quantity shall be awarded to L1. Thereafter, the lowest bidder among the 'Class-I local supplier' will be invited to match the L1 price for the remaining 50% quantity subject to the class-I local supplier's quoted price falling within the margin of purchase preference, and contract for that quantity shall be awarded to such 'Class-I local supplier' subject to matching the L1 price. In case such lowest eligible 'Class-I local supplier' fails to match the L1 price or accepts less than the offered quantity, the next higher
  - 'Class-I local supplier' within the margin of purchase preference shall be invited to match the L1 price for remaining quantity and so on, and contract shall be awarded accordingly. In case some quantity is still left uncovered on Class-I local supplier, then such balance quantity may also be ordered on the L1 bidder".
- b. In the procurements of goods or works, which are covered by para 3(b) of mentioned Govt. circular and which are not divisible in nature, and in procurement of services where the bid is evaluated on price alone, the 'class-I local supplier' shall get purchase preference over 'Class-II supplier' as well as 'Non-local supplier', as per following procedure:
  - i. Among all qualified bids, the lowest bid will be termed as L1. If L1 is 'Class-I local supplier', the contract will be awarded to L1
  - ii. If L1 is not 'Class-I local supplier', the lowest bidder among the 'Class-I local supplier', will be invited to match the L1 price subject to Class-I local supplier's quoted price falling within the margin of purchase preference, and the contract shall be awarded to such 'Class-I local supplier' subject to matching the L1 price.
  - iii. In case such lowest eligible 'Class-I local supplier', fails to match the L1 price, the 'Class-I local supplier' with the next higher bid within the margin of purchase preference



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shall be invited to match the L1 price and so on and contract shall be awarded accordingly.

In case none of the 'Class-I local supplier' within the margin of purchase preference matches the L1 prices, the contract may be awarded to the L1 bidder.

- c. 'Class-II local supplier' will not get purchase preference in any procurement, undertaken by procuring entities.
- F. For this procurement, the local content to categorize a supplier as a Class-I local supplier/ Class-II local supplier/ Non-local supplier and purchase preference to Class-I local supplier, is as defined in Public Procurement (Preference to Make in India), Order 2017 dated 04.06.2020 issued by DPIIT. In case of subsequent orders issued by nodal ministry, changing the definition of local content for the items of the NIT, the same shall be applicable even if issued after issue of this NIT, but before opening of Part-II bids against this NIT.
- G. Procurements where estimated value to be procured is less than Rs. 5 lakhs shall be exempted from GOI order No. P-45021/2/2017-PP (BE-II) dated 04.06.2020.
- H. For procurement of Goods & Services which are divisible in nature, following shall be operated for MSE bidders under Public procurement Policy for the Micro and Small Enterprises (MSEs) Amendment Order, 2019, Ref. No. AA: SSP: MSE: Amndt, dtd. 30.11.2018, Circular No. 44 of 2018-19;-
- a. If L1 bid is not from "Class-I local Supplier" and price quoted by MSE bidder falls within the margin of Purchase preference (L1+15% for MSEs), then 25 % of total order quantity of respective item (rounded off to nearest number) shall be awarded to MSE bidder, subject to MSE bidder matching the L1 Price. Out of Remaining 75% quantity, distribution shall be operated as per below subclause (2) —
- b. If "Class- I Local Supplier" (Next to L1, other than MSE) quoted price falling within the Margin of Purchase Preference, and "Class-I local supplier" matches the L1 price, then 50% of remaining Quantity (after allocation of 25% to MSE) i.e. 37.5% shall be awarded to local supplier and 37.5% shall be awarded to foreign bidder.

Note: L1 Price refers to lowest evaluated / landed cost to Company.

For Further details, please refer GOI order no. P-45021 / 2 / 2017 - PP (BE-II) dated 04.06.2020.

24. RESTRICTIONS UNDER RULE 144(XI) OF THE GENERAL FINANCIAL RULES (GFRs), 2017

All provisions of Order No. F.No.6/18/2019-PPD of Department of Expenditure (DoE) shall be applicable for this tender enquiry (Order copy is available at <a href="https://doe.gov.in/procurement-policy-divisions">https://doe.gov.in/procurement-policy-divisions</a>). Accordingly, any bidder from a country which shares a land border with India (except the countries to which the Govt. of India has extended lines of credit or in which the Govt. of India is engaged in development projects for which list is available at <a href="https://www.mea.gov.in/">https://www.mea.gov.in/</a>) will be eligible to bid in this tender only if the bidder is registered with the Competent Authority as specified in Annex I of the said Order of DoE.

Updated list of the countries to which lines of credit have been extended or in which development projects are undertaken are available on the Ministry of External affairs website (https://www.mea.gov.in/)

For the purpose of this order, definition of Bidder from a country which shares a land border with India shall be same as defined in the Annex III of the said order.

Registration with the competent authority as stipulated in the said order is responsibility of bidder. Bidder has to submit a certificate certifying following along with offer:

"I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with

India; I certify that bidder (.... Name of Bidder) is not from such a country or, if from such a country, has been registered with the Competent Authority. I hereby certify that bidder (.....Name of bidder) fulfils all requirements in this regard and is eligible to be considered"

If the bidder is from such country which shares a land border with India evidence of valid registration by the Competent Authority shall also be attached along with offer."



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### 25. NOTE.

- a) Special conditions of enquiry, if enclosed by BHEL, will supersede the respective standard/general terms of enquiry.
- b) Any other Standard terms and Conditions of the bidder attached/referred against the tender enquiry will be treated as null and void ab initio.
- c) In order to protect the commercial interests of BHEL, it becomes necessary to take action against suppliers / contractors by way of suspension of business dealings, who either fail to perform or are in default without any reasonable cause, cause loss of business / money / reputation, indulged in malpractices, cheating, bribery, fraud or any other misconducts or formation of cartel so as to influence the biding process or influence the price etc. Guide- lines for Suspension of Business Dealings with Suppliers / Contractors shall prevail over which is available at BHEL website <a href="http://www.bhel.com">http://www.bhel.com</a>
- d) The bidder along with its associate / collaborators / sub-contractors / sub-vendors / consultants / service providers shall strictly adhere to BHEL Fraud Prevention Policy displayed on BHEL website <a href="http://www.bhel.com">http://www.bhel.com</a> and shall immediately bring to the notice of BHEL-Management about any fraud or suspected fraud as soon as it comes to their notice.
- e) "BHEL shall recover the amount of compensation paid to victim(s) by BHEL towards loss of life / permanent disability due to an accident which is attributable to the negligence of contractor, agency or firm or any of its employees as detailed below;
  - Victim: Any person who suffers permanent disablement or dies in an accident as defined below.
  - 2. Accident: Any death or permanent disability resulting solely and directly from any unintended and unforeseen injurious occurrence caused during the manufacturing / operation and works incidental thereto at BHEL factories/ offices and precincts thereof , project execution , erection and commissioning, services, repairs and maintenance, trouble

shooting, serving, overhaul, renovation and retrofitting, trial operation, performance guarantee testing undertaken by the company or during any works / during working at BHEL Units/ Offices/ townships and premises/ project sites.

- 3. Compensation in respect of each of the victims:
- (i) In the event of death or **permanent disability** resulting from **Loss of both limbs:** Rs. 10,00,000/-(Rs. Ten Lakh).
- (ii) In the event of **other permanent disability**: Rs. 7,00,000/-(Rs. Seven Lakh).

Permanent Disablement: A disablement that is classified as a permanent total disablement under the proviso to Section 2(I) of the Employees Compensation Act, 1923."

f) The bidder shall be in compliance with applicable laws, rules and regulations throughout the terms of the contract for conducting its business generally and to perform its obligations under this contract.

# वास्त्रज्ञाः HHH

### BHARAT HEAVY ELECTRICALS LIMITED

**HEEP-HARIDWAR, UTTARAKHAND (249403)** 

General Instructions and Standard Terms & Conditions for bidding against Tender Enquiry (GISTC)

For Indian Bidders (Version May-2024, Rev: 07)

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These general terms & conditions shall apply to all the Tender Enquiries, notice inviting tenders, request for quotations concerning the supply of goods and / or rendering of services to Bharat Heavy Electricals Ltd., HEEP, Haridwar (hereinafter referred to as BHEL or the Purchaser). In case of placement of order these conditions will become part of Purchase Order (P.O) until unless the deviations are specifically agreed by BHEL.

### 2. ORIGIN OF QUOTATION.

'A bidder shall not have conflict of interest with other bidders. Such conflict of interest can lead to anti-competitive practices to the detriment of Procuring Entity's interests. **The bidder found to have a conflict of interest shall be disqualified.** A bidder may be considered to have a conflict of interest with one or more parties in this bidding process, if:

- b) they have controlling partner (s) in common; or
- b) they receive or have received any direct or indirect subsidy/ financial stake from any of them; **or**
- they have the same legal representative/agent for purposes of this bid; or
- d) they have relationship with each other, directly or through common third parties, that puts them in a position to have access to information about or influence on the bid of another Bidder; or
- e) Bidder participates in more than one bid in this bidding process. Participation by a Bidder in more than one Bid will result in the disqualification of all bids in which the parties are involved. However, this does not limit the inclusion of the components/ subassembly/ Assemblies from. one bidding manufacturer in more than one bid; or
- f) In cases of agents quoting in offshore procurements, on behalf of their principal manufacturers, one agent cannot represent two manufacturers or quote on their behalf in a particular tender enquiry. One manufacturer can also authorise only one agent/dealer. There can be only one bid from the following:
  - The principal manufacturer directly or through one Indian agent on his behalf; and
  - 2. Indian/foreign agent on behalf of only one principal; or
- g) A Bidder or any of its affiliates participated as a consultant in the preparation of the design or technical specifications of the contract that is the subject of the Bid; **or**
- n) In case of a holding company having more than one independently manufacturing units, or more than one unit having common business ownership/management, only one unit should quote. Similar restrictions would apply to closely related sister companies. Bidders must proactively declare such sister/ common business/ management units in same/similar line of business."

### B. SUBMISSION OF TENDER.

a) Bid / Quotation must be enclosed in sealed cover on which tender enquiry number and the due date MUST BE written and be invariably sent under REGISTERED POST / SPEED POST / COURIER / Dropped in the Tender Box: addressed as follows:

Quotatio	n against Enquiry No.	
Dated: _		=
Due on:		
To,		

THE HEAD OF MATERIALS MANAGEMENT, Heavy Electrical Equipment Plant, Bharat Heavy Electricals Limited, HARIDWAR-249403 (Uttarakhand), INDIA.

 TENDER ROOM is located at: Room No. - 415, 4<sup>th</sup> Floor, Main Admin. Building, BHEL-HEEP, Haridwar.

# ताखडणा BHH

### **BHARAT HEAVY ELECTRICALS LIMITED**

**HEEP-HARIDWAR, UTTARAKHAND (249403)** 

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- c) In case of Three / Two Part Bid, technical bid containing technical offer, duly signed and un-priced copy of the Price Bid should be kept in one envelope. Price Bid containing only the price should be kept in a separate envelope. All envelopes indicating Part-1 or Part-2 or Part-3 as the case may be to be put in a bigger envelope. Please note that un-priced bid should be the exact replica of price bid but without prices.
- d) The bid / quotation must be posted before due date, keeping allowance for postal transit time. Quotations sent by any mode but not received in time will be ignored. Tender received through authorized E-mail is also acceptable. However, in time submission of tender in tender box shall be the responsibility of the bidder, sent through any mode. Documents submitted with the offer / bid shall be signed and stamped in each page by authorized representative of the bidder.
- e) Any additional documents submitted by supplier / bidder, during processing of registration application / tender or after placement of order shall not be accepted unless it is submitted with forwarding letter and duly signed and stamped.
- f) The bids of the bidders who are on the banned list and also the bids of the bidders, who engage the services of the banned firms, shall be rejected. The cutting / overwriting in the bid / offer must be duly attested by the signatories to the bid. The list of firms banned by BHEL is available on BHEL web site www.bhel.com.
- g) Being PMD vendor, if you are not quoting against this tender enquiry, please send your regret letter positively for our reference with valid reasons for not participating in the tender enquiry. Repeated lack of response on the part of bidder may lead to deletion such PMD vendor from BHEL's approved vendor list.
- h) The bidders will submit Integrity Pact, duly signed by its authorized signatory, along with their bids wherever estimated tender value is Rs. 2 Crore or more.

- i) In case of open tender, technically qualified unregistered bidders may apply online for registration through <a href="http://www.bhel.com/index.php/vender">http://www.bhel.com/index.php/vender</a>.
- j) BHEL reserves the right to award tendered quantities among more than one bidder (after acceptance of L1 price by the other bidders). BHEL can also consider awarding of part of the tendered quantity to other than L-1 bidder at L1 counter offered rates, if the quantity offered by the L-1 bidder is less than the quantity tendered for.
- k) In case of e-Tendering (Online bidding through e-portal), offline bid submitted in hard copy or in any other form by the vendor / supplier will not be accepted and will be rejected out rightly. Only e-portal bid will be accepted.

### 4. TENDER OPENING.

Tender opening is scheduled to start in the Tender Room at 2:00 PM, on the due date. Therefore, bid / quotations must reach this office / tender Box latest by 1:45 PM on due date. Only participating bidders are allowed to attend tender opening. TENDERS RECEIVED AFTER THE SPECIFIED TIME OF THEIR 'SUBMISSION' WILL BE TREATED AS LATE TENDERS

AND SHALL NOT BE CONSIDERED UNDER ANY CIRCUMSTANCES. The bidders or their authorized representatives may be allowed to attend tender opening if duly authorized by their principals, through a tender specific letter on that particular day. General authorization letter is not acceptable.

Note: - Foreign bidders willing to attend the bid opening has to provide the requisite documents to the concerned Purchase executives for arranging gate pass for them.

- 5. SPECIFICATION, DRAWINGS & STANDARD.
- a) Bidders must give their detailed specification in the quotation along with relevant technical literature / catalogue etc. against the tender enquiry.
- b) The Bid should be accompanied with relevant copies of catalogues, drawings or specification as per tender enquiry.



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If these documents are not furnished, the offer is liable to be rejected.

- c) Wherever national / international (N/IN) standards are referred, the latest N/IN standards are to be followed. Mention year & date of standard revision that shall be followed for the supply.
- d) All Drawings and Standards are proprietary of BHEL. It must not be used in anyway detrimental to the interest of BHEL or without permission of BHEL.

### 6. PRICE SCHEDULE.

- a) Kindly quote your prices in figures and words both. In case of any discrepancy in value, the prices quoted in words shall be considered for evaluation and establishing L1 status.
- b) Prices quoted should not be more than the prices quoted to any other BHEL units / offices / divisions. Vendor to submit copy of latest Purchase Order placed by any unit of BHEL for similar items in the technical bid. In case no order has been placed on such items, specific confirmation that no order has been placed on such items should be provided.
- c) Prices should be quoted on F.O.R. Destination basis. Transit insurance shall be arranged by BHEL and not to be included in the prices. The offers quoted on other than F.O.R destination basis may result in non-consideration of such bids.
- d) In case BHEL accepts the EX-Works prices, such offers will be loaded by 1.5% of EX-Works value towards freight or with actual freight charges as per BHEL freight rate contract whichever is higher.
- e) In case of Indigenous items covered by DGS & D Rate Contract, the bidders should submit latest valid copy of the rate contract along with bid / quotation
- f) Applicable IGST / CGST / SGST and any other statutory levy should be indicated separately and clearly in the bid / quotation.

- g) Bidders can dispatch goods through any Indian Bank Association approved transporters having their branch at HARIDWAR / destination. If material is dispatched through other than Indian Bank Association approved transporter, material to be delivered on door delivery BHEL Stores basis.
- h) In case of dispatch of material through any other unapproved transporter, payment shall be made only after receipt of material and any additional charges payable to the transporter shall be to the bidder's account.
- i) Any demurrage / godown rent payable to the transporter / or to godown's owner due to any delay attributed by the supplier shall be recovered from supplier's account.
- j) Currency of Evaluation shall be INR.

NB: Financial evaluation of L1, L2 .....Status will be on the basis of Landed Cost to BHEL.

### 7. REVERSE AUCTION.

Wherever RA is declared in the special terms and conditions of tender enquiry, following shall be applicable and Bidders to confirm the same:

"BHEL shall be resorting to Reverse Auction (RA) (Guidelines as available on www.bhel.com) for this tender. RA shall be conducted among all the techno-commercially qualified bidders.

Price bids of all techno-commercially qualified bidders shall be opened and same shall be considered as initial bids of bidders in RA. In case any bidder(s) do(es) not participate in online Reverse Auction, their sealed envelope price bid along with applicable loading, if any, shall be considered for ranking."

### 8. DELIVERY TERMS.

- a) Goods shall be delivered on 'FOR Destination' basis to the named destination unless otherwise called for in the tender enquiry.
- b) Loading on account of 3rd party inspection charges in case of Indian bidders shall be 0.20%.



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### 9. LIQUIDATED DAMAGES (LD) FOR LATE DELIVERY.

a) Where items of Purchase Order are independently usable.

Liquidated Damages (LD) for Late Deliveries shall be applicable @0.5% per week or part thereof on the value of respective delayed supplies subject to a maximum of 10% of the value of respective delayed supplies. Value of delayed supplies will mean the Gross Value payable to the vendor (Before LD) against such supplies excluding taxes and duties.

b) Where the total items are required for a main equipment and items are interdependent.

Liquidated Damages (LD) for Late Deliveries shall be applicable @0.5% per week or part thereof on total value of Purchase Order subject to maximum of 10% of the total value of Purchase Order. Purchase Order value for this purpose shall be the Total Gross Value payable to the vendor (Before LD) excluding taxes and duties.

- c) Bidders are requested to quote the best delivery meeting the delivery requirements. BHEL reserves the right to reject the offers not meeting BHEL's delivery requirement.
- d) Commencement of delivery period shall be reckoned from the date of PO / LOI or any other agreed milestone.
- e) Bidder shall deliver the goods in the manner and schedule agreed under the terms and conditions of Purchase order.
- f) <u>DELIVERY IN CASE OF REJECTION</u>: In case the material is rejected, then date of replacement will be considered as the actual date of delivery.
- g) <u>DELIVERY AGAINST BANK DOCUMENTS:</u> In case payment terms quoted by bidder are documents through bank, and the delivery terms being "FOR Haridwar / FOR Transporter Go-down" then date of delivery will be date of intimation by transporter / bidder of delivery of material at Haridwar for the LD purpose.
- h) Where the payments are through bank, the documents may be presented for negotiation to BHEL authorized / nominated bank.

i) Payment of Liquidated Damages (LD) shall not in any way relieve the vendor from any of its obligations & liabilities under the contract.

### 10. PAYMENT TERMS.

- a) BHEL's standard payment term is Payment after receipt and acceptance of materials / items at HEEP, BHEL-Store or at desired destination unless otherwise specified in Special Terms attached to the tender enquiry.
- b) BHEL reserves the right to accept or reject the offer of the bidder who quotes the payment term other than BHEL's standard payment term.
- c) Loading on account of deviation in payment terms shall be done as per extant rules of BHEL-Haridwar.
- d) 100% payment along with taxes, freight & insurance will be made after receipt and acceptance of material and within 75 days from the date of invoice subject to submission of nondiscrepant documents within 15 days of supply as per terms and conditions of Purchase Order. In case any discrepancy found in the documents, BHEL will notify the same to vendor within 7 days of receipt. Vendor has to clear all the discrepancies in one go within 7 days thereafter else the payment of vendor may get delayed.
- e) For MSEs (covered under MSME Act) which are registered and periodically renewed with BHEL, the payment will be made within 45 days or as prescribed in the relevant act.
- f) Adherence to the above time schedule of payment is contingent upon Vendor complying with GST Rules w.r.t availment of Input Tax Credit by BHEL.
- g) In case GST credit is delayed / denied to BHEL, due to non / delayed receipt of goods and / or tax invoice or expiry of the timeline prescribed in GST Law for availing such ITC, or any other reason not attributable to BHEL, GST amount shall be recoverable from Vendor along with interest levied / leviable on BHEL.
- h) The taxes and duties that are reimbursed would be the ones applicable as on the contractual Purchase order delivery date or the amount actually paid whichever is less.



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### The loading criteria for the different payment terms shall be as under;

Payment Terms		Days of Loading	
After Receipt	& Acceptance of	No Loading	
material withi	n 75 days of supply.		
Against Delive	ery at BHEL-Stores	45	
Haridwar.			
Against documents through bank		45	
(CAD):			
Letter of Credit (LC)		120	
	No Loading if usance period is > 120 Days.		
	Loading of days' difference i.e. difference		
Usance LC	between 120 days and usance period if the		
	usance period is < 75 days.		
Advance	Delivery Period + 120	Days - Advance	
	Payment Days.		

### 11. TAXES & DUTIES.

- a) The bidder to specify in their offer (part 1 bid) the category of their registration under GST like Registered, Unregistered and composite dealer.
- b) The provisional GST registration number of Bharat Heavy Electrical Ltd, Heavy Electricals Equipment Plant, Ranipur, Haridwar is <u>"05AAACB4146P1ZL"</u> with state Code as "05" and State Name as "Uttarakhand".
- c) Please quote our provisional GST registration number in all invoices raised for supply of goods and services under GST regime and also ensure filing of timely return and payment of tax and compliance of other applicable provisions on supplier under GST regime.
- d) No GST will be reimbursed to unregistered or composite dealer. In the event, any GST is quoted by composite dealer, the same shall be added to the cost of supply in evaluating the bid.
- e) Since, input credit of GST will be available to BHEL-Haridwar only after correct filing of return and payment of applicable GST by supplier, reimbursement of GST shall be made by

BHEL-Haridwar on matching of vendor inputs at GST portal, ensuring availability of input credit to BHEL Haridwar. Payment of GST will be made to vendor after matching of input credit and vendor to ensure submission of their invoices along with consent to accept payment of tax after such matching in all cases where bills are submitted directly to BHEL-Haridwar or through bank or under LC or through any other mode.

- f) In the event of any disallowance of input credit or applicability of interest or any other financial liability arises on BHEL-Haridwar due to any default of supplier under GST, such implication shall be to supplier's account.
- g) In the event of any change in the status of the vendor after the submission of the bid but before the supply, GST applicable at the time of supply or in the bid, based on the registration status of the vendor, whichever is lower shall be payable.
- h) Where ever applicable If PAN (Permanent Account Number) of the recipient is not available, income tax is deductible either at the normal rate or at the rate of 20 percent, whichever is higher as per Section 206AA of Indian Income Tax Act 1961.
- The bidder shall clearly indicate HSN (Harmonised System Nomenclature) / SAC (Service Accounting Code), its description and applicable rate of GST for each item in his techno-commercial bid.
- j) Statutory Variation in Taxes & duties as applicable at the time of supply shall be payable. However, in the event of no change in law but bidder quoting certain tax structure in bid document which is lower than the applicable one, such amount shall be the maximum amount of tax that can be claimed by bidder.
- k) IMPORTED GOODS OFFERED BY INDIAN BIDDERS AGAINST DEALER INVOICE: Wherever the material being offered is imported, the bidder must quote the prices inclusive of IGST. The rate and value of IGST as included in the price must be indicated separately. In case quantum of IGST is not mentioned by the bidder the same will not be considered for



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evaluation. However, bidder will have to pass on the benefit of IGST to BHEL at the time supply.

I) In case of directly dispatchable items to Customer's Site,

BHEL-Haridwar will inform the GST registration number of
the respective customer which must be mentioned on the
vendor's invoice. Vendor to ensure availability of such
information from BHEL-Haridwar before dispatch of any
material. However, while filing GSTN-1, BHEL Haridwar GSTN
number to be quoted.

Note: - Vendors must ensure compliance of all the applicable rules and procedure as envisaged in the GST Regime. Any loss to BHEL-Haridwar due to fault / non-compliance by the vendor will be to the vendor's account.

### 12. BANK GUARANTEE.

In case the bank guarantees are required to be deposited towards security deposit/performance guarantee or for any other purpose as per the terms of this tender enquiry, such bank guarantees of the requisite value in the denominated currency of the purchase order should be from one of the Indian branch of BHEL consortium banks and the bank guarantee should be in the proforma as prescribed by BHEL. The proforma of bank guarantee and the list of consortium banks are displayed at BHEL website www.bhelhwr.co.in. However, in case the bank guarantee is not from BHEL consortium banks, then the bidder has to get the bank guarantee confirmed from one of the Indian branch of BHEL consortium banks and the bank charges for such confirmation will be borne by the bidder.

# 13. <u>GUARANTEE / WARRANTY AND CORRESPONDING REPAIRS</u> / REPLACEMENT OF GOODS.

Goods shall comply with the specifications for material, workmanship and performance. Unless otherwise specified, the warranty shall be for a period of 18 months from the date of receipt. If the delivery is found non-compliant during the warranty period, leading to rejection, the Seller shall arrange free replacement / repair of goods, within one month from the date of intimation or any mutually agreed period. The rejected goods shall be taken away by the Seller at his cost and

replaced on Delivered Duty Paid (DDP) (FOR - BHEL Stores / designated destination basis) within such period. In the event of the Seller's failure to comply, Purchaser may take action as appropriate, including Repair / Replenish rejected goods & disposal of rejections, at the risk & cost of the Seller. In case the defects attributable to Seller are detected during processing of the goods at BHEL or at our subcontractor's works, the Seller shall be responsible for free replacement / repair of the goods as required by BHEL.

b) RETURN OF REJECTED MATERIAL FOR REPLACEMENT: The bidder shall have to pay 5% incidental charges while taking back supplied material if it is found rejected on receipt. The rejected material shall be sent back only after receipt of replacement / submission of BG / refund of amount paid.

### 14. QUALITY REQUIREMENT.

Your bid / quotation should have specific confirmation regarding meeting all our quality requirements such as. (i) Test Certificate (TC), (ii) Guarantee Certificate (GC) / Warranty Certificate (WC), (iii) Quality Plan (QP) (if applicable); and (iv) Pre-Dispatch Inspection at your works (if applicable).

### 15. VALIDITY.

The quotation should be valid for a minimum period of 90 days effective from the date of opening of tender, unless otherwise specified in the tender enquiry.

### **16. RIGHT OF ACCEPTANCE.**

- a) BHARAT HEAVY ELECTRICALS LIMITED HARIDWAR reserves the right to reject any or all the bids / quotations without assigning any reason thereof. BHEL also reserves the right to increase or decrease the tendered quantities. Bidders should be prepared to accept order for reduced quantity without any extra charges.
- b) Any discount / revised offer / bids submitted by a bidder on its own shall be considered, provided it is received on or before the due date and time of offer / bid submission (Part-1). Conditional discounts shall not be considered for evaluation of tenders.

# ताखडणा सम्भूता

### **BHARAT HEAVY ELECTRICALS LIMITED**

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- c) Unsolicited discounts / revised offers / bids given after Part-1 bid opening shall not be accepted. No change in price will be permitted within the validity period asked for in the tender enquiry.
- d) In case of changes in scope and / or technical specification and / or commercial terms & conditions having price implication, techno-commercially acceptable bidders shall be asked by BHEL to submit the impact of such changes on their price bids. In case a bidder opts to submit revised price bid instead of impact called for then the latest price bid shall prevail. However, in both situations, original price bid will be necessarily opened.
- e) The bidder whose bid is technically not accepted will be informed & EMD wherever submitted shall be returned after finalization of contract. EMD shall be forfeited in the event of bidder opting out after tender opening.
- f) BHEL reserves the right to short close the existing Purchase Order / Rate Contract / Work Order or any extension thereof at any stage.

### 17. TRANSIT INSURANCE.

- a) Transit Insurance will be covered by BHEL under its open Insurance Policy. Seller shall inform dispatch particulars (Purchase Order, RR /GR, Invoice value etc.) to "Finance department (Store bill Section), BHEL Ranipur, Haridwar (Uttarakhand-India) with value of consignment to the Purchaser within 07 days of dispatch for BHEL to arrange insurance coverage in its policy. Failure on the part of seller to inform dispatch particulars will make him liable to pay for any transit damages / losses suffered by the Purchaser.
- b) If Quoted Prices are inclusive of transit insurance, no weightage shall be given while evaluating the bids for Cost of Insurance, being in BHEL Scope.

### 18. RISK PURCHASE.

In case of abnormal delays (beyond the maximum late delivery period as per LD clause) in supplies / defective supplies or non-fulfillment of any other terms and conditions given in Purchase Order, BHEL may cancel the Purchase Order in full or part thereof, and may also make the purchase of such material from elsewhere / alternative source at the risk and cost of the supplier. BHEL will take all reasonable steps to get the material from alternate source at optimum cost. If bidder does not agree to the above Risk Purchase Clause, BHEL reserves the right to reject the offer. In case for compelling reasons BHEL accepts the offer without acceptance of this clause by the bidder and in the eventuality of Risk Purchase, appropriate action will be taken as per BHEL extant rules. This will be without prejudice to any other right of BHEL under the contract or under General Law.

### 19. FORCE MAJEURE CLAUSE.

Notwithstanding any other thing contained anywhere else in the contract or PO (Purchase Order), In case the discharge of obligation under the contract by either party is impeded or made unreasonably onerous, neither party shall be considered in breach of the contract to the extent that performance of their respective obligation is prevented by an event of Force Majeure that arises after the effective date (PO date).

In the above clause, Force Majeure means an event beyond the control of the parties to the contract which prevents a party from complying with any obligation of the contract including but not limited to:

- a) Act of God (Such as but not limited to earthquake, drought, tidal waves, floods etc.).
- b) War (whether war be declared or not), Hostilities Invasion, Act of foreign enemy etc.
- c) Rebellion, revolution, insurrection, civil war etc.
- d) Contamination of Radio Activity from any nuclear fuel or from any other nuclear waste or any other hazardous materials.
- e) Riots, commotions, strike unless restricted to the employees of supplier.
- f) Acts of terrorism.



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- g) Other unforeseeable circumstances beyond the control of the parties and which the affected party cannot avoid even by using its best efforts.
- h) Cancellation of contract by customer.
- i) Change in law / government. Regulation making the performance impossible.
- j) Pandemic or Epidemic.

The party claiming to be affected by force majeure shall notify the other party in writing immediately without delay on the intervention and on the cessation of such circumstances.

Irrespective of any extension of time, if an event of force majeure occurs and its effect continues for more than 180 days the affected party shall have right to cancel the contract.

As soon as reasonably practicable following the date of commencement of a Force Majeure Event, and within a reasonable time following the date of termination of a Force Majeure Event, either Party invoking it shall submit to the other Party reasonable proof of the nature of the Force Majeure Event and of its effect upon the performance of the Party's obligations under this Agreement.

The party shall, and shall ensure that its Subcontractors shall, at all times take all reasonable steps within their respective powers and consistent with Good Operating Practices (but without incurring unreasonable additional costs) to:

- **a)** Prevent Force Majeure Events affecting the performance of the party's obligations under this Agreement.
- **b)** mitigate the effect of any Force Majeure Event and
- c) Comply with its obligations under this Agreement.

If the war like situation has developed in a country where a seller's works is located in this P.O. or there is political instability and Indian Embassy located in that country forbids or advises for not having any business dealing with the sellers located in such zone / region/ country, then BHEL reserves the right to cancel the order.

### 20. NON-DISCLOSURE AGREEMENT.

All Drawing and Technical Documents relating to the product or it's manufacture submitted by one party to the other, prior or

subsequent to the formation of contract, shall remain property of the submitting party. Drawing, technical documents or other technical information received by one party, shall not without the consent of the other party, be used for any other purpose than that, for which they were provided. Such technical information shall not without the consent of the submitting party, otherwise be used or copied, reproduced, transmitted or communicated to a third party. Patterns supplied by BHEL will remain BHEL's property which shall be returned by the bidder on demand to BHEL. Bidder shall in no way share or use such intellectual property of BHEL to promote his own business with others or to gain a commercial advantage. BHEL reserves the right to claim damages from the bidder, or take appropriate action as deemed fit against the bidder, for any infringement of the provisions contained herein as available under law or equity.

### 21.SETTLEMENT OF DISPUTES / ARBITRATION.

In case of any dispute arising out of as in connection with this contract, the same shall be referred to arbitration under Arbitration & Conciliation Act 1996 of a sole arbitrator who shall be appointed by mutual consent of the parties. The seat & venue of arbitration shall be Haridwar.

The proceedings shall be conducted in English. The Governing law of contract shall be the substantive law of India.

### 22. WHARFAGE / DEMURRAGE RESPONSIBILITY.

In the event of delay in receipt of documents by Manager (Stores-Shipping) BHEL-Haridwar and in case where dispatches are made through Unapproved Transporter the sole responsibility for wharfage / demurrage for such delay shall be that of supplier.

# 23. <u>CONDITIONS FOR AVAILING MICRO & SMALL ENTERPRISES</u> (MSE'S) BENEFITS.

a) "MSE Suppliers can avail the intended benefits only if they submit along with the offer, attested copies of either EM II certificate having deemed validity (five years from the date of issue of acknowledgement in EM II) or valid NSIC certificate or EM II certificate along with attested copy of a CA certificate

# वास्त्रज्ञण H‡‡H

### **BHARAT HEAVY ELECTRICALS LIMITED**

**HEEP-HARIDWAR, UTTARAKHAND (249403)** 

General Instructions and Standard Terms & Conditions for bidding against Tender Enquiry (GISTC)

For Indian Bidders (Version May-2024, Rev: 07)

(Format enclosed at annexure-1 where deemed validity of EM II certificate of five years has expired) applicable for the relevant financial year (latest audited). Date to be reckoned for determining the deemed validity will be the date of bid opening (Part 1 in case of two-part bid) or vendor has to give Udyog Adhar Memorandum (UAM). Non submission of such documents will lead to consideration of their bid at par with other bidders. No benefit shall be applicable for this enquiry if any deficiency in the above required documents is found or the requisite documents are not submitted before price bid opening. If the tender is to be submitted through eprocurement portal, then the above require document are to be uploaded on the portal. Documents should be notarized or attested by a Gazetted officer." UAM need not required to be notarized or attested.

- b) Any new supplier will be eligible for registration with BHEL as MSE supplier provided at least any one of the following documents are submitted along with application for registration: -
- 1. Udyog Adhar Memorandum (UAM).
- 2. Valid National Small Industries Commission (NSIC) Certificate.
- 3. Entrepreneurs Memorandum part II (EM II) certificate (valid based on deemed validity of 5 years) or
- 4. EM II certificate along with attested copy of CA Certificate (as per prescribed format at annexure-A) applicable for the relevant financial year (latest audited), where the deemed validity of EM II is over.
- 5. However, credentials of all MSE suppliers will be verified before advancing the intended benefits.
- MSE bidders claiming SC/ST status will have to submit SC/ST certificate of the Proprietor from competent authority. Attested (notarized or attested by Gazetted officer) copy to be submitted along with the offer.
- 7. In case techno-commercial accepted bidders include MSE source and their prices (based on landed cost considering quoted prices) are within the price band of 15% w.r.t. L-1 bidder, then BHEL can offer 25% of quantity of respective item (rounded off to nearest number) to MSE bidders at L-1 price and in case, more than one MSE bidder is in 15 % band and the same is accepted by more than one MSE bidders then 25% quantities of respective items will be considered for ordering on proportionate basis amongst MSE bidders.

- 8. There will be minimum of **3**% reservation for women owned MSEs within the above mentioned 25% reservation.
- 9. The reservation for MSEs owned by SC/ST will be **6.25%** { 25% out of target of 25% refer para 4 of Public Procurement Policy for the Micro and Small Enterprises(MSEs)}.
- 10. The definition of MSEs owned by Women Entrepreneurs is clarified as under:
  - a) In case of proprietary MSE, proprietor shall be Woman.
  - b) In case of partnership MSE, the Woman partners shall be holding at least 51% of share in the unit.
  - c) In case of Private Limited companies, at least 51% share shall be held by Women promoters.
- 11. The definition of MSEs owned by SC/ST is clarified as under:
  - a) In case of proprietary MSE, proprietor(s) shall be SC/ST.
  - b) In case of partnership MSE, the SC/ST partners shall be holding at least 51% of shares in the unit.
  - c) In case of Private Limited companies, at least 51% share shall be held by SC/ST promoters.
- 12. While distributing the 25% quantity amongst MSE bidders the decimal points in quantity shall be ignored for all the bidders except the L-1 amongst MSE bidders. Balance quantity after allocating the quantity to other MSE bidders ignoring the quantities in decimal, shall be given to L-1 (amongst MSE) bidder. However, if there are more than one MSE bidder at the same price level than preference for additional quantities due to ignoring off the decimal (as mentioned above) shall be given to the bidder offering favorable terms to BHEL and if the conditions offered are also same then preference will be given to the bidder having high SPR rating.
- 13. In case there are more than one MSE bidders (with different landed cost to BHEL) within 15% price band of lowest bidder and quantity to be offered is 1 no. only, then preference shall be given to the MSE bidder with lowest landed cost.
- 14. In case there are more than one MSE bidders (with same landed cost to BHEL) within 15% price band of lowest bidder and quantity to be offered is 1 no. only, then preference shall be given first, based on the favorable terms in the bid and in case terms are also same, the bidder with high SPR rating shall be given preference.
- 15. If L1 bidder is MSE bidder, entire quantity will be given to such MSE bidder only.



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- 16. Note: It may however be noted that MSE guidelines as on date (Date of Technical Bid Opening Part-1) shall prevail.
- 17. "As per the OM No. F.No. 1(2)(1)/2016-MA dtd. 09.02.2017 issued from the Office of Development Commissioner (Micro, Small & Medium Enterprises), "Traders and agents should not be allowed to avail the benefits extended under the PP Policy."

In view of this, it is clarified that benefits of MSE (such as EMD Waiver, Tender fee exemption, Price preference, Payment preference etc.) will be given only to those MSE Vendors who are manufacturers of offered items against the NIT. No MSE benefits shall be provided to Agents / Stockists / Dealers / Traders etc. for the items offered but not manufactured by themselves."

### 24. INFORMATION TO THE BIDDERS.

- a) Purchase related information is available at our Business-to-Business (B2B) Portal available on our website <a href="https://hwr.bhel.com">https://hwr.bhel.com</a>. The user ID & password can be obtained by sending a request to concerned purchase executives.
- b) Intimate your change in mail address or communication address or changes, if any, by email to AGM (SDX/MM) giving your bidder Code.
- c) Please resolve your rejections and unexecuted overdue purchase order immediately which are posted at our B2B Portal, which can be visited through our site https://hwr.bhel.com
- d) Copy of this Tender Enquiry is being sent through the post.
- e) The Bidder declares that they will not enter into any illegal or undisclosed agreement or understanding, whether formal or informal with other bidder(s). This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to introduce cartelization in the bidding process.

In case, the bidder is found having indulged in above activities, suitable action shall be taken by BHEL as per extant policies/guidelines.

f) Supplier must upload digitally signed e-Invoice on B2B portal for processing of Bills.

In other cases, inked signed hard copy of Invoice to be submitted for processing of Bills.

### 25. MAKE IN INDIA (GOVT-NOTIFICATION).

- A. This tender enquiry shall be governed by notification no. P-45021/2/2017-PP (BE-II) dated 04.06.2020 of government of INDIA and subsequent circulars issued afterwards. Accordingly, the minimum local content, the margin of purchase preference and the procedure for preference to make in INDIA shall be adhered.
- B. The margin of purchase preference shall be 20%.
  - 'Class-I local Supplier' means a supplier or service provider, whose goods, services or works offered for procurement, has local content equal to or more than 50%, as defined under this order.
  - 'Class-II local Supplier' means a supplier or service provider, whose goods, services or works offered for procurement, has local content more than 20% but less than 50%, as defined under this order.
  - 'Non- local Supplier' means a supplier or service provider, whose goods, services or works offered for procurement, has local content less than or equal to 20%, as defined under this order.
- C. Vendor to specifically confirm if they are Class-I or Class-II local supplier or not as per above mentioned notification.

  Accordingly, the 'Class-I local supplier'/ 'Class-II local Supplier' at the time of tender, bidding or solicitation shall be required to indicate percentage of local content and provide self-certification that the item offered meets the local content requirement for 'Class-I local supplier'/ 'Class-II local Supplier', as the case may be. They shall also give details of the location(s) at which the local value addition is made.
- D. In cases of Procurement for a Value in Excess of Rs. 10 Crores, the 'Class-I local supplier'/ 'Class-II local Supplier' shall be required to provide a Certificate from the Statutory Auditor or Cost Auditor of the Company (in the case of companies) or from a practicing Cost Accountant or practicing Chartered Accountant (in respect of suppliers other than companies) giving the percentage of Local Content.

# ताखडणा सम्भूम

### BHARAT HEAVY ELECTRICALS LIMITED

**HEEP-HARIDWAR, UTTARAKHAND (249403)** 

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### E. Requirement of Purchase Preference:

Purchase preference shall be given to 'Class-I local supplier' in procurements undertaken by procuring entities in the manner specified hereunder -

- a. In the procurements of goods or works, which are covered by para 3(b) of mentioned Govt. circular and which are divisible in nature, the 'class-I local supplier' shall get purchase preference over 'Class-II supplier' as well as 'Non-local supplier', as per following procedure:
  - Among All qualified bids, the lowest bid will be termed as L1. If L1 is 'Class-I local supplier', the contract for full quantity will be awarded to L1.
  - ii. If L1 bid is not a 'Class-I local supplier', 50% of the order quantity shall be awarded to L1. Thereafter, the lowest bidder among the 'Class-I local supplier' will be invited to match the L1 price for the remaining 50% quantity subject to the class-I local supplier's quoted price falling within the margin of purchase preference, and contract for that quantity shall be awarded to such 'Class-I local supplier' subject to matching the L1 price. In case such lowest eligible 'Class-I local supplier' fails to match the L1 price or accepts less than the offered quantity, the next higher 'Class-I local supplier' within the margin of purchase preference shall be invited to match the L1 price for remaining quantity and so on, and contract shall be awarded accordingly. In case some quantity is still left uncovered on Class-I local supplier, then such balance quantity may also be ordered on the L1 bidder".
- b. In the procurements of goods or works, which are covered by para 3(b) of mentioned Govt. circular and which are not divisible in nature, and in procurement of services where the bid is evaluated on price alone, the 'class-I local supplier' shall get purchase preference over 'Class-II supplier' as well as 'Nonlocal supplier', as per following procedure:
  - Among all qualified bids, the lowest bid will be termed as L1. If L1 is 'Class-I local supplier', the contract will be awarded to L1.
  - ii. If L1 is not 'Class-I local supplier', the lowest bidder among the 'Class-I local supplier', will be invited to match the L1 price subject to Class-I local supplier's quoted price falling

- within the margin of purchase preference, and the contract shall be awarded to such 'Class-I local supplier' subject to matching the L1 price.
- iii. In case such lowest eligible 'Class-I local supplier', fails to match the L1 price, the 'Class-I local supplier' with the next higher bid within the margin of purchase preference shall be invited to match the L1 price and so on and contract shall be awarded accordingly. In case none of the 'Class-I local supplier' within the margin of purchase preference matches the L1 prices, the contract may be awarded to the L1 bidder.
- c. 'Class-II local supplier' will not get purchase preference in any procurement, undertaken by procuring entities.
- F. For this procurement, the local content to categorize a supplier as a Class-I local supplier/ Class-II local supplier/ Non-local supplier and purchase preference to Class-I local supplier, is as defined in Public Procurement (Preference to Make in India), Order 2017 dated 04.06.2020 issued by DPIIT. In case of subsequent orders issued by nodal ministry, changing the definition of local content for the items of the NIT, the same shall be applicable even if issued after issue of this NIT, but before opening of Part-II bids against this NIT.
- G. Procurements where estimated value to be procured is less than Rs. 5 lakhs shall be exempted from GOI order No. P-45021/2/2017-PP (BE-II) dated 04.06.2020.
- H. For procurement of Goods & Services which are divisible in nature, following shall be operated for MSE bidders under Public procurement Policy for the Micro and Small Enterprises (MSEs) Amendment Order, 2019, Ref. No. AA: SSP: MSE: Amndt, dtd. 30.11.2018, Circular No. 44 of 2018-19:-
- by MSE bidder falls within the margin of Purchase preference (L1+15% for MSEs), then 25 % of total order quantity of respective item (rounded off to nearest number) shall be awarded to MSE bidder, subject to MSE bidder matching the L1 Price. Out of Remaining 75% quantity, distribution shall be operated as per below sub-clause (2) —
- b. If "Class- I Local Supplier" (Next to L1, other than MSE) quoted price falling within the Margin of Purchase Preference, and "Class-I local supplier" matches the L1 price,



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then 50% of remaining Quantity (after allocation of 25% to MSE) i.e. 37.5% shall be awarded to local supplier and 37.5% shall be awarded to foreign bidder.

Note: L1 Price refers to lowest evaluated / landed cost to Company.

For Further details, please refer GOI order no. P-45021 / 2 / 2017 - PP (BE-II) dated 04.06.2020.

# 26. RESTRICTIONS UNDER RULE 144(XI) OF THE GENERAL FINANCIAL RULES (GFRs), 2017

All provisions of Order No. F.No.6/18/2019-PPD of Department of Expenditure (DoE) shall be applicable for this tender enquiry (Order copy is available at <a href="https://doe.gov.in/procurement-policy-divisions">https://doe.gov.in/procurement-policy-divisions</a>). Accordingly, any bidder from a country which shares a land border with India (except the countries to which the Govt. of India has extended lines of credit or in which the Govt. of India is engaged in development projects for which list is available at <a href="https://www.mea.gov.in/">https://www.mea.gov.in/</a>) will be eligible to bid in this tender only if the bidder is registered with the Competent Authority as specified in Annex I of the said Order of DoE.

Updated list of the countries to which lines of credit have been extended or in which development projects are undertaken are available on the Ministry of External affairs website

(https://www.mea.gov.in/)

For the purpose of this order, definition of Bidder from a country which shares a land border with India shall be same as defined in the Annex III of the said order.

Registration with the competent authority as stipulated in the said order is responsibility of bidder. Bidder has to submit a certificate certifying following along with offer:

"I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India;

I certify that bidder (.... Name of Bidder) is not from such a country or, if from such a country, has been registered with the

Competent Authority. I hereby certify that bidder (.....Name of bidder) fulfils all requirements in this regard and is eligible to be considered"

If the bidder is from such country which shares a land border with India evidence of valid registration by the Competent Authority shall also be attached along with offer."

### 27. NOTE.

- a) Special conditions of enquiry, if enclosed by BHEL, will supersede the respective standard / general terms of enquiry.
- b) Any other Standard terms and Conditions of the bidder attached / referred against the tender enquiry will be treated as null and void ab initio.
- c) In order to protect the commercial interests of BHEL, it becomes necessary to take action against suppliers / contractors by way of suspension of business dealings, who either fail to perform or are in default without any reasonable cause, cause loss of business / money / reputation, indulged in malpractices, cheating, bribery, fraud or any other misconducts or formation of cartel so as to influence the biding process or influence the price etc. Guidelines for Suspension of Business Dealings with Suppliers / Contractors shall prevail over which is available at BHEL website <a href="http://www.bhel.com">http://www.bhel.com</a>
- d) The bidder along with its associate / collaborators / sub-contractors / sub-vendors / consultants / service providers shall strictly adhere to BHEL Fraud Prevention Policy displayed on BHEL website <a href="http://www.bhel.com">http://www.bhel.com</a> and shall immediately bring to the notice of BHEL-Management about any fraud or suspected fraud as soon as it comes to their notice.
- e) "BHEL shall recover the amount of compensation paid to victim(s) by BHEL towards loss of life / permanent disability due to an accident which is attributable to the negligence of contractor, agency or firm or any of its employees as detailed below;
- 1. Victim: Any person who suffers permanent disablement or dies in an accident as defined below.
- 2. **Accident:** Any death or permanent disability resulting solely and directly from any unintended and unforeseen injurious



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occurrence caused during the manufacturing / operation and works incidental thereto at BHEL factories/ offices and precincts thereof , project execution , erection and commissioning, services, repairs and maintenance, trouble shooting, serving , overhaul, renovation and retrofitting , trial operation, performance guarantee testing undertaken by the company or during any works / during working at BHEL Units/ Offices/ townships and premises/ project sites.

### 3. Compensation in respect of each of the victims:

- (i) In the event of death or **permanent disability** resulting from **Loss of both limbs:** Rs. 10,00,000/-(Rs. Ten Lakh).
- (ii) In the event of **other permanent disability**: Rs. 7,00,000/-(Rs. Seven Lakh).
- 4. Permanent Disablement: A disablement that is classified as a permanent total disablement under the proviso to Section 2(I) of the Employees Compensation Act, 1923."
- f) The bidder shall be in compliance with applicable laws, rules and regulations throughout the terms of the contract for conducting its business generally and to perform its obligations under this contract.

# MODEL CONCILIATION CLAUSE FOR CONDUCTING CONCILIATION PROCEEDINGS UNDER THE BHEL CONCILATION SCHEME, 2018

Independent Experts Committee to be appointed by competent authority of BHEL may, be referred by either party to Conciliation to be conducted through which the Parties are unable to settle mumallyl, arise inter-se the Parties, the same difference, questim or disagreement arising in connection with construction, meaning, operation, effect, interpretation or breach of the agreement, contract or the Memorandum of Understanding (delete whichever is inapplicable), The Parties agree that if at any time (whether before, during or after the arbitral or judicial proceedings), any Disputes (which term shall mean and include any from the BHEL Panel of Conciliators.

# Notes:

- 1. No serving or a retired employee of BHEL/Administrative Ministry of BHEL shall be included in the BHEL Panel of Conciliators.
- 2. Any other person(s) can be appointed as Conciliator(s) who is/are mutually agreeable to both the parties from outside the BHEL Panel of Conciliators.

provided in Annexure---- to this GCC/Agreement/Contract/MoU etc. (strike off The proceedings of Conciliation shall broadly be governed by Part-III of the Arbitration and Conciliation Act 1996 or any statutory modification thereof and as whichever is inapplicable),

and parcel herent and shall be as effectual as if set out herein in this The Annexure ---- together with it's Formats will be treated as if the same is part GCC/Agreement/Contract/MoU etc., (strike off whichever is inapplicable).

strike off whichever is inapplicable, from time to time and confirms that it shall -with supulated in the Annesture ---- to this GCC/Agreement/Contract/MoU etc., the Agreement/Contract/MoU etc., - whichever is applicable) agrees that the Purchaser/Contractor/Seller etc. (maert the description of BHEL - whichever is applicable, may make any amendments or modifications to the provisions The Purchaser/Contractor/Selier etc. (insert the description of the other party to be bound by such amended or modified provisions of the Amerure effect from the date as intimated by BHEL to it.

Global Tender Enquiry No. 2890/C/6410/2023/4312/T2 for VERTICAL CNC 5 AXIS MILLING MACHINE-01 No.



### **SCHEDULE OF COMMERCIAL DEVIATION**

Name of Bidder :-	<u>Please fill here</u>

The following are the deviations/ variations exception from the General Terms and Conditions:  $\frac{1}{2} \left( \frac{1}{2} \right) = \frac{1}{2} \left( \frac{1}{2} \right)  

SL. No.	CLAUSE NO. OF GENERAL TERMS AND CONDITION	STATEMENT OF DEVIATION

- In case, this schedule is not submitted, it will be presumed that the equipment/ material to be supplied under this contract is deemed to be in compliance with the General Terms and Conditions
- If there is NIL deviation, even then the format to be filled as **NIL DEVIATION**.

Note: Continuation Sheets of like size and format may be used as per the Bidder's Requirement and shall be annexed to this scheduled

annexed to this scheduled	
Place:	
Date:	



### **SCHEDULE OF TECHNICAL DEVIATION**

Please fill here

Name of Bidder :-

The following are the deviations/ variations exception from the Specification:				
SL. No.	CLAUSE NO. OF GENERAL TERMS AND CONDITION	STATEMENT OF DEVIATION/ VARIATIONS/EXCEPTIONS		
	edule is not submitted, it will be presumed that	at the equipment/ material to be supplied under this contract is		

deemed to be In compliance with the General Terms and Conditions & Specifications

If there is NIL deviation, even then the format to be filled as **NIL DEVIATION**.

Note: Continuation Sheets of like size and format may be used as per the Bidder's Requirement and shall be annexed to this scheduled.

Place: -	 	 
Date:	 	 

### **COST OF WITHDRAWAL DEVIATION SHEET** SCHEDULE OF TECHNICAL AND COMMERCIAL DEVIATION Global Tender Enquiry No. 2890/C/6410/2023/4312/T2 for VERTICAL CNC 5 AXIS MILLING MACHINE-01 No. ITEM:- VERTICAL CNC 5 AXIS MILLING MACHINE-01 No. NAME OF VENDOR:-SL NO VOULME/ PAGE NO. CLAUSE TECHNICAL **COMPLETE COST OF** REFERENCE OF NATURE OF COST OF WITHDRAWL OF **SECTION** NO. **SPECIFICATIO** DESCRIPTIO WITHDRAWL OF **PRICE** N/ TENDER N OF **DEVIATION IN SCHEDULE ON DEVIATION DOCUMENT DEVIATION RUPEES)** WHICH COST OF (POSITIVE) WITHDRAWL OF **DEVIATION IS** APPLICABLE TECHNICAL DEVIATIONS COMMERCIAL DEVIATIONS PARTICULARS OF BIDDERS/ AUTHORISED REPRESENTATIVE **NAME DESIGNATIONS SIGN & DATE** NOTES: 1. Cost of withdrawl of deviation will be applicable on the basic price (i.e. excluding taxes, duties & freight) only. 2. All the bidders have to list out all their Technical & Commercial Deviations (if any) in detail in the above format. 3. Any deviation not mentioned above and shown separately or found hidden in offer, will not be taken cognizance of.

- 4. Bidder shall submit duly filled unpriced copy of above format indicating "quoted" in "cost of withdrawl of deviation" column of the schedule above along with their Techno-commercial offer, wherever applicable. In the absence of same, such deviation(s) shall not be considered and offer shall be considered in total compliance to NIT.
- 5. Bidder shall furnish price copy of above format along with price bid.
- 6. The final decision of acceptance/rejection of the deviations quoted by the bidder shall be at discretion of the Purchaser.
- 7. Bidders to note that any deviation (technical/commercial) not listed in above and asked after Part-I opening shall not be considered.
- 8. For deviations w.r.t. Credit Period, Liquidated damages, if a bidder chooses not to give any cost of withdrawl of deviation loading as per GISTC, will apply. For any other deviation mentioned in un-priced copy of this format submitted with Part-I bid but not mentioned in priced copy of this format submitted with Priced bid, the cost of withdrawl of deviation shall be taken as NIL.
- 9. Any deviation mentioned in priced copy of this format, but not mentioned in the un-priced copy, shall not be considered.
- 10. All techno-commercial terms and conditions of NIT shall be deemed to have been accepted by the bidder, other than those listed in unpriced copy of this format.
- 11. Cost of withdrawl is to be given seperately for each deviation. In no event bidder should club cost of withdrawl of more than one deviation else cost of withdrawl of such deviations which have been clubbed together shall be considered as NIL.
- 12. In case nature of cost of withdrawl is not specified it shall be assumed as positive.
- 13. In case of descrepancy in the nature of impact (positive), positive will be considered for evaluation and negative for ordering.

### PROFORMA OF BANK GUARANTEE FOR EARNEST MONEY

(On non-Judicial paper of appropriate value)

	Bank Guarantee No
	Date
То	
(Employer's Name and Address)	
Dear Sirs,	on of Invitation for Dida/Notice Inviting Touch
	ns of Invitation for Bids/Notice Inviting Tende
	.2 (hereinafter referred to as the 'Tenderer'), is submittin
	4.(name of the Employer) through its Unit a
(	
•	pay a sum of Rs as Earnest Mone
·	ment of Earnest Money Deposit includes Bank Guarante
executed by a Scheduled Bank.	•
In lieu of the stimulations contained in the aforesaid	Tender Conditions that an irrevocable and unconditions
·	Tender Conditions that an irrevocable and unconditional
Bank Guarantee against Earnest Money Deposit for an	amount of5
Bank Guarantee against Earnest Money Deposit for an is required to be submitted by the Tenderer as a condi	amount of5 tion precedent for participation in the said Tender and th
Bank Guarantee against Earnest Money Deposit for an	amount of5 tion precedent for participation in the said Tender and th
Bank Guarantee against Earnest Money Deposit for an is required to be submitted by the Tenderer as a conditenderer having approached us for giving the said Guawe, the	amount of5 tion precedent for participation in the said Tender and the arantee,[Name & address of the Bank
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Bank Guarantee against Earnest Money Deposit for an is required to be submitted by the Tenderer as a condi Tenderer having approached us for giving the said Guawe, the	amount of5 tion precedent for participation in the said Tender and the arantee,[Name & address of the Bank
Bank Guarantee against Earnest Money Deposit for an is required to be submitted by the Tenderer as a conditenderer having approached us for giving the said Guawe, the	amount of
Bank Guarantee against Earnest Money Deposit for an is required to be submitted by the Tenderer as a conditionally Employer without any demur, merely on your fire	tion precedent for participation in the said Tender and the sarantee, [Name & address of the Bank having our Registered Office a referred to as the Bank) being the Guarantor under thi undertake to forthwith and immediately pay to the st demand any sum or sums of Rs.
Bank Guarantee against Earnest Money Deposit for an is required to be submitted by the Tenderer as a conditional Tenderer having approached us for giving the said Guawe, the	tion precedent for participation in the said Tender and the arantee,
Bank Guarantee against Earnest Money Deposit for an is required to be submitted by the Tenderer as a conditionally Employer without any demur, merely on your fire	tion precedent for participation in the said Tender and the arantee,
Bank Guarantee against Earnest Money Deposit for an is required to be submitted by the Tenderer as a conditional Tenderer having approached us for giving the said Guawe, the	tion precedent for participation in the said Tender and the arantee,
Bank Guarantee against Earnest Money Deposit for an is required to be submitted by the Tenderer as a conditional Tenderer having approached us for giving the said Guawe, the	tion precedent for participation in the said Tender and the arantee,

We undertake to pay to the Employer any money so demanded notwithstanding any dispute or disputes raised by the Vendor/Contractor/Vendors in any suit or proceeding pending before any Court or Tribunal, Arbitrator or

any other authority, our liability under this present being absolute and unequivocal.

The payment so made by us under this Guarantee shall be a valid discharge of our liability for payment hereunder and the Tenderer shall have no claim against us for making such payment.
We
The Bank also agrees that the Employer at its option shall be entitled to enforce this Guarantee against the Bank as a principal debtor, in the first instance without proceeding against the Tenderer and notwithstanding any security or other guarantee that the Employer may have in relation to the Tenderer's liabilities.
This Guarantee shall be irrevocable and shall remain in force upto and including
shall be extended from time to time for such period as may be desired by the Employer.
This Guarantee shall not be determined or affected by liquidation or winding up, dissolution or change of constitution or insolvency of the Tenderer but shall in all respects and for all purposes be binding and operative until payment of all money payable to the Employer in terms hereof. However, unless a demand or claim under this Guarantee is made on us in writing on or before the
We, Bank lastly undertake not to revoke this guarantee during its currency except with the previous consent of the Employer in writing.
Notwithstanding anything to the contrary contained hereinabove:
<ul> <li>a) The liability of the Bank under this Guarantee shall not exceed</li></ul>
We, Bank, have power to issue this Guarantee under law and the undersigned as a duly
authorized person has full powers to sign this Guarantee on behalf of the Bank.
For and on behalf of
(Name of the Bank)
Date
Place of Issue

- <sup>1</sup> Details of the Invitation to Bid/Notice Inviting Tender
- <sup>2</sup> Name and Address of the Tenderer
- <sup>3</sup> Details of the Work
- <sup>4</sup> Name of the Employer
- <sup>5</sup> BG Amount in words and Figures
- <sup>6</sup> Validity Date
- <sup>7</sup> Date of Expiry of Claim Period

### Notes:

- 1. Units are advised that expiry of claim period may be kept 3-6 months after validity date. It may be ensured that the same is in line with the agreement/ contract entered with the Vendor.
- 2. The BG should be on Non-Judicial Stamp paper/e-stamp paper of appropriate value as per Stamp Act prevailing in the State(s) where the BG is submitted or is to be acted upon or the rate prevailing in the State where the BG was executed, whichever is higher. The Stamp Paper/e-stamp paper shall be purchased in the name of Contractor/sub-contractor /vendor/ Bank issuing the guarantee.
- 3. In line with the GCC, SCC or contractual terms, Unit may carry out minor modifications in the Standard BG Formats. If required, such modifications may be carried out after taking up appropriately with the Unit/Region's Law Deptt.
- 4. In Case of Bank Guarantees submitted by Foreign Vendors
  - a. From Nationalized/Public Sector / Private Sector/ Foreign Banks (BG issued by Branches in India) can be accepted subject to the condition that the Bank Guarantee should be enforceable in the town/city or at nearest branch where the Unit is located i.e. Demand can be presented at the Branch located in the town/city or at nearest branch where the Unit is located.
  - b. From Foreign Banks (wherein Foreign Vendors intend to provide BG from local branch of the Vendor country's Bank)
  - b.1 In such cases, in the Tender Enquiry/ Contract itself, it may be clearly specified that Bank Guarantee issued by **any of the Consortium Banks only** will be accepted by BHEL. As such, Foreign Vendor needs to make necessary arrangements for issuance of Counter- Guarantee by Foreign Bank in favour of the Indian Bank's (BHEL's Consortium Bank) branch in India. It is advisable that all charges for issuance of Bank Guarantee/ counter- Guarantee should be borne by the Foreign Vendor. The tender stipulation should clearly specify these requirements.
  - **b.2** In case, Foreign Vendors intend to provide BG from Overseas Branch of our Consortium Bank (e.g. if a BG is to be issued by SBI Frankfurt), the same is acceptable. However, the procedure at **sl.no. b.1** will required to be followed.
  - **b.3** The BG issued may preferably be subject to Uniform Rules for Demand Guarantees (URDG) 758 (as amended from time to time). The BG Format provided to them should clearly specify the same.