BHARAT HEAVY ELECTRICALS LIMITED
PROJECT ENGINEERING MANAGEMENT, NOIDA

Date-17-Feb-22

CORRIGENDUM- 01

PROJECTs	**:**	**3X200 + 3X500 MW NTPC RAMAGUNDAM TPP FGD**
PACKAGE	**:**	**GYPSUM DEWATERING SYSTEM**
ENQUIRY NO	**:**	**E-6861/2021 Dated 20.01.2022**
SUBJECT	**:**	**PRE-BID CLARIFICATION + DUE DATE EXTENSION**

Type of Corrigendum			
Technical Corrigendum -	☑	Commercial Corrigendum -	☑

Bidders are requested to go through the following -

1. Refer attached BHEL replies to pre-bid clarifications
2. Due date & time of bid submission has been extended upto 01.03.2022 @11:00 AM. Bid opening shall be done at 04:00 PM on the due date.

All the other terms and conditions of the tender enquiry remain unchanged. All the bidders are requested to quote accordingly.

Yours faithfully,

For and on behalf of BHEL

Digitally signed by UPENDRA CHAUDHARY
DN: c=IN, o=BHARAT HEAVY ELECTRICALS LIMITED, ou=PS PEM, postalCode=201301, st=Uttar Pradesh, 2.5.4.20=9aef92814d1167bfba18bea4c9c2ce391b8276731139d007915dbf62a123dc9f, cn=UPENDRA CHAUDHARY
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Upendra Chaudhary
Sr. Manager/BOP

Corrigendum

Replies to Pre-Bid Clarifications

ANNEXURE-3						
PRE-BID CLARIFICATION SCHEDULE for RAMAGUNDAM						
S. NO.	SECTION	CLAUSE	PAGE NO.	STATEMENT OF THE REFERRED CLAUSE	CLARIFICATION REQUIRED by bidder	BHEL's Reply
1	Tendernotice_7	2.1.1.9.ii	41 of 435	Scope of below-mentioned interconnected piping (slurry, air and water pipes) along with valves, rubber lining (wherever applicable), instruments, valves, supports, gaskets, fasteners and accessories which is non-integral to Gypsum dewatering system is limited to engineering only and supply shall be made by BHEL. Engineering includes layout & routing of pipes, preparation of isometric drawing and BOQ:	bidder understand all the drawings required for the engineering shall be provided by BHEL (Drawings for valves, pumps and other requirements). Please confirm.	All input drawings shall be made available during detailed engineering of the package.
2	Tendernotice_7	2.1.2	42 of 435	(iii) Performance guarantee tests at site & handover of the package in flawless condition to the customer.	only supervision is In bidder scope. Please confirm.	Performance guarantee test of complete GDS at site is in bidder's scope which is a prerequisite for handing over of the package to the customer. Bidder to refer price schedule wherein this has to be quoted separately and is mandatoriry required for scope in this tender.
3	Tendernotice_7	3.2	44 of 435	The performance tests shall be carried out in accordance with ASME PTC 40 (2017) code.	This clause is not applicable to HBF. Please confirm.	Bidder to follow Tender specification.
4	Tendernotice_7	4.3.10	47 of 435	The filtrate from gypsum slurry and from cake washing shall be taken to a common or separate vacuum receiver tank(s) as per the proven practice of the supplier.	Filtrate from slurry and cake washing will be collected in the single receiver, as shown in the client PID (Drawing no B240-00411 & B240-00412).	The arrangement indicated in P&IDs at page no. 428 & 429 of 435 are to be followed.
5	Tendernotice_7	4.4.1	48 of 435	The filtrate from each belt filter, cake washing & cloth washing shall be taken to a common or separate receiver tank(s) as per the supplier's proven practice	Filtrate and cake washed water shall be collected in single receiver and cloth washed water shall be collected in drip tray (client scope). as per client PID (Drawing no B240-00411 & B240-00412).	
6	Tendernotice_7	4.5.7	48 of 435	All pumps shall be fitted with suction and discharge pressure gauges.	bidder will supply pressure gauge as per Client PID.	The P&ID provided with tender specification have to be followed. However, if the pressure gauge is required at the pump suction for reliable operation; the same shall be provided to meet system control requirement.
7	Tendernotice_7	4.5.9	49 of 435	Design pumps not to be damaged during reverse rotation at up to 150% of design RPM, at full discharge head in the event that a pump trips while the other operating pump remain on line.	Reverse rotation is not recommended. To have check valve, Immediately after discharge flange of pump.	The mentioned condition is for design. For routine operation, Check valve/ NRVs have to be considered as per requirement of system.
8	Tendernotice_7	5.7.2	54 of 435	clarified water analysis	Provide the temperature of the clarified water.	Refer Table 4 page 34 of 435.
9	Tendernotice_7	5.7.2	54 of 435	clarified water analysis - Chlorides as CaCO3 - 63 mg/Litre	Provide chloride content in clarified water in ppm value.	The chloride content is 45 ppm in the cake wash water. Bidder to confirm that Chloride (Cl) content shall be <100 PPM in final output gypsum.
10	Tendernotice_7	10	56 of 435	Exclusion-3D Modeling	There is no input for 3d modeling from bidder side. bidder shall provide the basic engineering details for the supplied items. (AutoCAD drawings as per vendor standard).	Bidder to follow tender technical specification. Bidder to refer cl 10.0 page 56 of 435 wherein 3D modelling has already been indicated under exclusion.
11	Tendernotice_7	Vii	71 of 435	Vacuum Belt Filter, Vacuum Pump and its integral auxiliaries divided by the number of units in the project - including Filtrate Extraction Pump After Vacuum Receiver, Vent Fan & Sump Pump	As per ANNEXURE-IV GUARANTEED POWER CONSUMPTION FORMAT- filtrate extraction pump and sump pumps are not in the list, bidder understand that Annexure-IV list items are falls under Guaranteed Power Consumption category and other items are not considered under guaranteed power consumption, please confirm.	Refer note 7 of the price schedule. Bidder to quote accordingly.
12	Tendernotice_7		76 of 435	PART - C -GENERAL TECHNICAL REQUIREMENTS	This spec. is applicable for main contractor & not applicable to bidder. Please confirm.	Relevant clauses shall be applicable for the bidder limited to the Gypsum Dewatering System. Any specific point may be brought to BHEL's notice.
13	Tendernotice_7	19.00.00	105 of 435	COLOUR CODE FOR ALL EQUIPMENTS/ PIPINGS/ PIPE SERVICES ; All equipment/ piping/ pipe services are to be painted by the Contractor in accordance with Employer's standard colour coding scheme, which will be furnished to the Contractor during detailed engineering stage.	Vendor bought out equipments shall be as per vendor standards of colour coding, Pl confirm	Bidder to follow Tender specification.
14	Tendernotice_7	28.00.00	120 of 435	TRAINING OF EMPLOYER'S PERSONNEL	This clause is Not applicable to bidder. Please confirm.	Training requirement have been mentioned at clause no. 2.1.2, sub section C1, page 42-43 of 435 of technical specification. Bidder to follow Tender specification.
15	Tendernotice_7		225 of 435	**FIELD INSTRUMENTS BASED ON FIELDBUS** The following instruments shall be connected to DDCMIS through fieldbus i.e. FOUNDATION Fieldbus/PROFIBUS PA protocol complying to IEC 61158 directly from transmitter. **Electronic Transmitter for Pressure, Differential Pressure and DP based Flow / Level measurements.** S No. Features Essential/Minimum Requirements 1. Type of Transmitter FOUNDATION Fieldbus/PROFIBUS PA based output 2 Accuracy ± 0.060 % of calibrated range (minimum) for calibrated range greater than 400 mmwc. +0.065% of calibrated range (minimum) for calibrated range greater than 250 kg/cm2. ± 0.10 % of calibrated range (minimum) for calibrated range less than 400 mmwc.	Mentioned two protocols in technical spec Kindly clarify which protocol shall be consider for pressure, level and flow transmitters	Same has been specified at clause sl no. 3, page 214 of 435 of the technical specification.
16	Tendernotice_7	2.b	393 of 435	Mandatory spares list 2,b) Belt - 1 Set	bidder shall be supplying consumable belt.	Bidder to follow Tender specification. All applicable Belts shall be supplied.
17	Tendernotice_7		400 of 435	Statutory payments in respect of IBR approvals including inspection shall be made by the bidder. Bidder's scope shall include to preparation of all necessary documents, co-ordination and followup for above approval. Owner shall only forward assistance/endorsement of documents /design /drawings /reports/records to be submitted for approval as stipulated/ required by Statutory Authorities till registration of the unit and clearance for commercial operation.	Not acceptable, Bidder will submit the Supporting documents to client. All statuatory approval and cost will be in Clent scope.	The referred clause is under Annexure III- "Inspection and Test During Manufacture". Approval scope related to bidder's works shall be in bidder's scope.
18	Tendernotice_7		402 of 435	Conveyor & Silo Extraction Device	Not applicable to bidder.	The items as applicable for Gypsum Dewatering System indicated under General Inspection Requirements are to be covered.
19	Tendernotice_7	18	404 of 435	Mechanical running test shall be carried out for Vacuum Belt Filter, Vacuum Pump & Belt Filter Wash Pump. Bidder to arrange suitable Motor for the shop test and inspection.	Running test for Vacuum pump and Belt filter wash pump will done at vendor place as per vendor standard and for Vacuum Belt filter only Mock assembly for critical components will be done.	Bidder to follow Tender specification.
20	Tendernotice_7		428 of 435	As per PID, Seal water for VBF Vacuum box connection is taken from Belt Filter washing pump water pipeline.	bidder proposes, Seal water for VBF Vacuum box pipe connection taken from cake wash water line.	Bidder to follow Tender specification.
21	Tendernotice_8	1.0.II.7	95 of 115	Impeller Tip speed to be kept in range of 13-22 m/sec.	Impeller Tip speed shall be as per vendor design standard.	Bidder to follow Tender specification.
22	Tendernotice_8	1.0.III.C	96 of 115	Complete chute work in the region of flap gates (if applicable) shall be fabricated from 20 thk TISCRAL or equivalent.	flap gates are not applicable, Excluded from bidder scope.	Specification requirement is clear. Kindly refer relevant drawings.
23	Tendernotice_8	III.B	96 of 115	For sealing of inspection doors labyrinth type arrangement to be provided.	For sealing of inspection doors of chute rubber gaskets shall be provided instead of labyrinth as it is static / stationary equipment. Please confirm.	Bidder may propose better proven solution for finalization during detailed engineering.
24	PRICE FORMAT RAMAGUNDAM FGD				Please confirm that, In the given price sheet, Bidder has to enter base price only. GST or any other taxes are excluded.	As per Price schedule given with NIT, Prices are to be quoted excluded of GST
25	General				Drip tray (civil work) design, Engineering and supply is in Client scope. Please confirm.	Specification requirement is clear.Kindly refer exclusions mentioned at page 428/429 of 435. However, bidder to provide the input of the drip tray during detail engineering.
26	General				Provide Autocad drawing of the building layout drawing.	Same shall be provided during detail engineering.
27	General				Provide Interface details if any	Relevant drawings are already included in the specification. Further details shall be shared during detail engineering.
28	General				Piping software and version details to be provided	Bidder to note that CEASER is being used by BHEL for stress analysis. Bidder to share analysis compatible to same. Further details shall be shared during detail engineering.