



BHARAT HEAVY ELECTRICALS LIMITED
PROJECT ENGINEERING MANAGEMENT, NOIDA

Date-6-Nov-24

CORRIGENDUM- 07

PROJECTs	:	3X800 MW TALABIRA
PACKAGE	:	COOLING TOWER - Induced Draft Cooling Towers (IDCT)
Enquiry No.	:	77/23/6121/VIN Dated 18.09.24
SUBJECT	:	PRE-BID REPLIES

Type of Corrigendum			
Technical Corrigendum -	<input checked="" type="checkbox"/>	Commercial Corrigendum -	<input checked="" type="checkbox"/>

In reference to the above-mentioned tender enquiry please note the following.

1. Pre-Bid replies attached

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

Vinit Kumar Verma
Sr. Manager/BOP

PRE-BID CLARIFICATIONS (FOLLOW-UP QUERIES)								
PBQ Sl No	PBQ Pg No	Reference			Queries -Cooling Towers Ltd dated 24-09-2024	Clarification from BHEL dtd. 10.10.2024	Response / Follow-Up Queries dtd. 24.10.2024	Response from BHEL
		Section	Chapter / Cl. No	Page No.				
COMMERCIAL								
15	9/16	Tender Notice_4 (Tender Notice_15 / Annexure to SCC)	3.2	1 of 8 (3 OF 10)	We request BHEL to provide construction power at 2 points per IDCT (one near each IDCT & the other near the batching plant area for each IDCT).	Please follow tender documents.	Please confirm that Constrction power shall be provided by BHEL at a single point near each cooling tower location within the plant boundary Also please furnish the distance of the point of connection from each cooling tower.	Tender documents are clear. Hence, please follow tender documents.
16	9/16	Tender Notice_4 (Tender Notice_15 / Annexure to SCC)	3.3	2 of 8 (4 of 10)	We request BHEL to provide construction water at 2 points per IDCT (one near each IDCT & the other near the batching plant area for each IDCT). Also we request BHEL to provide water for drinking purpose for site office / canteen.	Please follow tender documents.	Please confirm that Constrction water shall be provided by BHEL at a single point near each cooling tower location within the plant boundary. Also please furnish the distance of the point of connection from each cooling tower.	Tender documents are clear. Hence, please follow tender documents.
18	9/16	Tender Notice_4 (Tender Notice_15 / Annexure to SCC)	3.12.5	7 of 8 (9 of 10)	We request BHEL to provide construction water at a single point near each IDCT & near batching plant for each IDCT within the plant premises.	Please follow tender documents.	We request BHEL to provide Constrction water at a single point near each cooling tower location within the plant boundary on free of charge basis. Distance of point of connection from each cooling tower and rate is also required by us. Kindly furnish the same.	Tender documents are clear. Hence, please follow tender documents.
19	9/16	Special Conditions of Contract	General	--	Following provisions need to be incorporated in SCC / NIT: (a) Timeline for approval of drawing / documents. (b) Provision of Change Order should be incorporated. (c) Provision towards extension of time. (d) Formal Contract Agreement format is required for our review & comments, if any. (e) Order of precedence.	Tender documents are clear. Please follow tender documents.	Kindly furnish the Clause Nos where these points have been clarified in the tender document.	Replies as follows: (a) Please follow the tender documents. (b) Tender documents are clear. Hence, please follow tender documents. (c) Same has already been covered in BOP GCC. Please follow the same. (d) Available format for submission of BID have already been provided. (e) Same has already been covered in BOP GCC. Please follow the same.
20	9/16	Tender Notice_13	Price Adjustment - PVC	1 thru' 4 of 4	Price Adjustment Clause / PVC should be applicable for entire duration of contract period, as accepted by BHEL in their recent tenders. Please confirm.	Tender documents are clear. Please follow tender documents.	We once again request BHEL to agree to appliability of Price Adjustment Clause / PVC for the entire duration of contract period, as accepted in recent tenders.	Tender documents are clear. Hence, please follow tender documents.
23	9/16	Tender Notice_6	3.4.4	4 of 9	BHEL is requested to issue Cut-to Length Steel if it is aimed at reduction of wastage.	Please follow tender documents.	We once again request BHEL to confirm our requirement.	Tender documents are clear. Hence, please follow tender documents.
24	10/16	Tender Notice_15	3.1.1.a & b & 3.8.1	3 of 10 6 of 10	Contractor objects to the phrase "as per availability within project premises". BHEL to ensure availability within the premises and within 100-150 meters from the site location.	Please follow tender documents.	Please specify the distance of allocated space for site offer from construction site of cooling towers, since no information is provided in the tender documents.	Tender documents are clear. Hence, please follow tender documents.
27	10/16	General Conditions of Contract	GCC Cl. 9.0	28 of 89	We understand that the Terms of Payment shall be guided by the NIT document and the GCC provisions shall be applied only if there as some gaps in NIT provisions. However, NIT shall prevail.	Tender documents are clear. Please follow tender documents.	As order of precedence, we shall consider NIT terms of payment as the predominant criteria and GCC only when the relevant NIT clause is missing / unclear. Please confirm.	Tender documents are clear. Hence, please follow tender documents.
30	10/16	General Conditions of Contract	GCC Cl. 10	33 of 89	Contractor doesn't agree to adjustment of recoveries from any other contract against this contract.	Please follow tender documents.	We once again request BHEL to confirm our requirement.	Tender documents are clear. Hence, please follow tender documents.
TECHNICAL								
2	3/16	Technical Specification No. PE-TS-511-165-W001	Volume: II-IA / Section-IV / Clause No 2.01.03	18 of 372	Clause b) asks for vibration sensor and monitor.....while the same is under exclusion vide point no. 16.2 Page 8. Kindly confirm.	As mentioned in Clause 16.2 of detailed scope document, regarding vibration measuring instruments bidder has to include only vobration pad for mounting for BHEL supplied VMS sensor / probes.	Provision for installing BHEL supplied VMS sensor / probes shall be available in our gear box. However, as per standard practice, vibration pad is a part of scope of supply of VMS sensor / probes supplier only. Please note.	Noted. Kindly refer C&I technical requirement at sheet 234 of 1274 point no. 21 of technical specification. Bidder to follow the same.
--	--	Technical Specification No. PE-TS-511-165-W001	Volume: II-IA / Section-IV / Clause No 2.01.03	18 of 372	Scope - Instrumentation	--	Bidder's scope for instrumentation is not clear in the specification. Please confirm that bidder's scope for instruments for the subject project is limited to the items mentioned under SI No a, c & d only as mentioned in this clause. In addition provision for installation of BHEL supplied VMS sensor / probes (with vibration pad, as applicable) is in bidder's scope. Also please confirm that instrument cables from these field instruments, as applicable, have to be terminated at junction box located on the cooling tower fan deck. Also please furnish Volume II-E and Secion-I, as mentioned in this caluse, for further review and needful actions. In addition, as per Annexure-I, all testing instruments is in Supplier's scope. We confirm to this requirement in line with the specification. However, same shall be supplied on returnable basis and will remain testing agency's property. PG test instruments as mentioned under SI No 14 in C&I specification (Page 233 of 372) shall be supplied but on returnable basis and will be taken back by the testing agency after completion of the PG tests. No new PG test instruments need to be supplied by bidder. Please confirm.	1. Kindly refer C&I technical requirement point no. 13 at sheet 233 of 1274 of technical specification. Bidder to follow the same. 2. For cable pls. refer sheet 99 of 1274, ELECTRICAL SCOPE BETWEEN BHEL AND VENDOR.Bidder to follow the same 3. Specification of the instruments is already provided in C&I section. Bidder to follow the same. (sheet 233 to 303 of 1274). 4. Confirmed, instrument for PG test is listed at point 14
38	11/16	Technical Specification No. PE-TS-511-165-W001	Broad Scope	6 of 372	Please note that supervision of erection and commissioning of cooling tower package components (as applicable within our scope limit) is included in Bidder's lumpsum scope for erection and commissioning.	Please follow specification	Response is not clear. Please note that erection and commissioning activity of cooling towers is mentioned as "NO" in subject clause, whereas our understanding is that the same shall have to be considered under Bidder's lumpsum scope of work. Please check and confirm.	Please refer the Scope sheet, it is clearly mentioned that Erection and commissioning is in Bidder scope.

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40	11/16	Technical Specification No. PE-TS-511-165-W001	Volume: II-IA / Section-IV / Clause No 2.01.01 (a)	2 of 40	For counter flow cooling tower we recommend removable type access platform / GI grating to enable approach of personnel from fan stack door at tower deck level to fan gear box. Bidders can consider 2 nos. of such platform per IDCT in their scope. Please confirm.	Please follow specification	Specification is silent about this requirement. Hence we request BHEL to confirm our preferred consideration as mentioned in this query.	Please follow specification
41	11/16	Technical Specification No. PE-TS-511-165-W001	Volume: II-IA / Section-IV / Clause No 4.07.01	7 of 40	Film type fill, specified for this project, are not supported on grids.	Please follow specification	Response is not clear. The tender specification mentions "Film type fills shall be supported suitably on the grids with suitable intervals", which is not applicable for film type fills. As per standard design, film type fills are bottom supported on RCC beams. We are, therefore, ignoring the requirement of "Grids".	Bidder's understanding with respect to bottom support of fill on RCC beams is in line with contract specification. However Bidder to ensure suitable intervals, to minimise sag, possibility of dislodgement, and damage to fill materials as a consequence of induced vibration in the fill.
42	11/16	Technical Specification No. PE-TS-511-165-W001	Volume: II-IA / Section-IV / Clause No 4.14.05	11 of 40	As mentioned in the specification, Bidder's scope includes stop log gates. IS: 3042 refers to sluice gate and hence should not be applicable. Kindly confirm that stop log gates need to be supplied as per IS: 5620.	Please refer Annexure-II (Page 38 of 40) Volume: II-IA / Section-IV also for the same.	Referred clause mentions IS:3042 which is not applicable for stop log gates as specified in Annexure-II. Please confirm that relevant standard shall be IS:5620 is stop log gates are required for subject tender.	It is already clarified that Annexure-II (Page 38 of 40) Volume: II-IA / Section-IV also to be referred for the same.
44	11/16	Technical Specification No. PE-TS-511-165-W001	Volume: II-IA / Section-IV / Annexure-I	32 of 40	Bidder's scope already includes manual butterfly type riser isolation valves (1 no. per cell). Supplying separate flow control valves on hot water distribution lines for each cell is therefore not applicable.	Please follow specification	Response is not clear. For counterflow cooling towers with individual side inlet type hot water risers, one no. isolation valve near grade level per riser is sufficient. We are ignoring the mention of separate flow control valve as same is not applicable for for a counter flow cooling tower.	The referred clause with respect to "Flow control valves on hot water distribution lines for each cell: Yes" shall not be applicable. Bidder to follow the clause no: 4.09.02, Section-IV of Vol-II-IA.
46	11/16	Technical Specification No. PE-TS-511-165-W001	Volume: II-IA / Section-IV / Annexure-I	33 of 40	As mentioned elsewhere in the specification, all fasteners (bots / nuts / washers) in direct contact with water shall be of SS-304. All other fasteners shall be of HDG Steel. All miscellaneous steel fittings viz. clamps, supports, etc. shall be of MS HDG. Please confirm.	Please follow specification	Please confirm that HDG steel fasteners for general hardware (apart from bolts / nuts / washers) and MS HDG for clamps / supports / other fittings are acceptable.	Please follow specification
47	11/16	Technical Specification No. PE-TS-511-165-W001	Volume: II-IA / Section-IV / Annexure-I	34 of 40	Since scope already includes 2 nos. RCC staircases at both ends of each IDCTs (from ground level to fan deck level), kindly clarify whether ladders up to top of CT will be still required to be supplied in addition to the stairways.	Please follow specification	Please confirm whether HDG steel ladder of quantity two (2) nos. per cooling tower (instead of specified 4 nos. per tower) are acceptable, transposed on opposite sides.	Please follow specification
53	12/16	Technical Specification No. PE-TS-511-165-W001	Technical Data - Part A (Mechanical) / SI Nos 2.27 & 2.29	Tender Notice_19 / 57 of 372	Please clarify which shall govern out of the following two: (i) Minimum and Maximum Water Levels specified under SI Nos 2.29 & 2.27 respectively or, (ii) Actual levels based on specified 10 minutes hold-up requirement between Minimum and Maximum Water Levels as mentioned on Page 29 of 40 of Annexure-I of technical specification (Book 1 of 2).	Specification is clear. Please follow specification. Further, Extended basin may be considered by Bidder if required.	Please state which of the following conditions for deciding the RCC cold water basin depth will govern: (a) 10 mins retention capacity based on the basin dimensions of selected cooling tower model, or (b) Water levels specified under subject clause of specification.	Specification is clear. Please follow specification. Further, Extended basin may be considered by Bidder if required.
54	12/16	Technical Specification No. PE-TS-511-165-W001	Technical Data - Part A (Mechanical) / SI No 4.5	Tender Notice_19 / 58 of 372	Kindly calrify whether separate ladders (up to top of CT) will be required in addition to the 2 nos. stairways to be included in Bidder's scope.	Please follow specification	Requirement of four (4) nos. ladders (apart from two (2) nos. staircases) in each cooling tower is not clear. We request BHEL to re-check this requirement.	Please follow specification
55	12/16	Technical Specification No. PE-TS-511-165-W001	Technical Data - Part A (Annexure - II) / SI No 2.8 (b)	Tender Notice_19 / 101 of 372	As per SI No 3.7 of Technical Data - Part A (Mechanical) on Page 58 of 272, fan motor rating should be at least 15% above the maximum load demand of the driven equipment. However, as per this clause, design margin should be 10%. Please clarify the design margin to be considered while selecting the IDCT fan drive motor rating above the fan BkW at fan design point at test block condition as per Clause No 40 of General Technical Requirement on Page 12 of 372 of technical specification (Book 1 of 2).	Please follow sl. No. 3.7 of Technical Data - Part A (Mechanical) of specification.	Please confirm that complying to Clause No 3.7 of Technical Data i.e. providing a margin of 15% is applicable based on design duty conditions only i.e. motor rating has to be at least 15% over design BkW. However, based on specified test block condition, a margin of 10% over test block BkW will be applicable.	Please follow sl. No. 3.7 of Technical Data - Part A (Mechanical) of specification.
57	12/16	Technical Specification No. PE-TS-511-165-W001	Volume: II-A / Section-XV / Annexure-1/ Table-IV	Tender Notice_19 / 315 of 372	1. Kindly provide the TSS for the circulating water. 2. Please provide make-up water analysis.	Please refer Vol. II-A/Section-XV Salient Design Data of specification	TSS of circulating water is not mentioned in referred document. Also, the make-up water analysis need to be shared at this stage. Please furnish the same.	Please refer Vol. II-A/Section-XV Salient Design Data of specification. Also refer sl. No. 15 of general technical requirement regarding circulating water (CW).
59	12/16	Technical Specification No. PE-TS-511-165-W001	Volume: II-G2 / Part-A / Section-VI / Clause Nos. 3.26.07 & 3.27.01	42 of 51 (Tender Notice_18 / 137 of 429)	Please clarify whether the waterproofing is to be applied for cooling tower foundation? Also please specify the areas for application of polyethylene film treatment like CT base, vertical sufaces, etc.	Bidder to follow specification	Specification is silent about this requirement. Hence we request BHEL to respond to this query.	SPECIFIC DESIGN REQUIREMENTS [CIVIL] of Tender specification: Clause 4.00.00 is clear with respect to water proofign requirement for various structural elements of IDCT. Bidder to follow tender specification. Volume: II-G2 / Part-A / Section-VI / Clause Nos. 3.26.07 is clear about polyethylene film treatment. bidder to follow specification.
61	13/16	Technical Specification No. PE-DC-511-IDCT	--	Tender Notice_20 / 32 of 404	This stipulation is not acceptable to Bidder. BHEL / Owner should take responsibility for the correctness / accuracy of the geo-technical investigation report furnished with the specification for bidders' guidance. Nature of soil, type of foundation, soil bearing capacity, sub-soil water, etc. should be considered by Bidder for estimation purpose based on available geo-technical investigation report only. However, any price &/or time implication due to change in the actual soil profile, if encountered by Bidder / Contractor during execution stage, should be borne by BHEL / Owner. Please confirm.	Bidder to follow specification	Any price &/or time implication due to change in the actual soil profile, if encountered by Bidder / Contractor during execution stage, should be borne by BHEL / Owner. Please confirm.	Not acceptable. The bidder shall fully satisfy himself about the nature of sub-strata expected to be encountered including the type of foundation, ground water table and construction methodology to be adopted etc prior to the submission of the bid. Any variation in the data between the one furnished and to that found during execution of the work at site shall not constitute a valid reason in affecting the terms & conditions of this bid and the bidder shall note that nothing extra will be payable on this account.