



BHARAT HEAVY ELECTRICALS LIMITED
PROJECT ENGINEERING MANAGEMENT, NOIDA

Date-11-Oct-24

CORRIGENDUM- 03

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 and EMD format 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

SL. NO.	REFERENCE OF ENQUIRY DOCUMENT				BIDDER'S QUERY	BHEL REPLY
	PART / VOL.	PAGE NO.	CLAUSE NO.	SUBJECT / TENDER DETAILS		
1	Material of Construction	48 of 372	-	Fan Stack : RCC	We request BHEL to accept FRP recovery stack for RCC cooling tower, as it would save considerably on the construction time.	Please follow tender specification.
2	Material of Construction	48 of 372	-	Any other hardware such as fasteners, clamps, supports, etc in direct contact with water : SS316L	Since the circulating water quality is good, we shall provide SS304 instead of SS316L. Hence it is mainly suits for sea/brakish water applications. Please confirm.	Please follow tender specification.
3	Technical data - Part - A (Mechanical)	56 of 372	2.12	Hot water temp. - 43.94 °C, Cold water temp. - 33 °C & Cooling Range - 11.94 °C	As discussed during pre-bid meeting dated 26/09/2024, we understand that Hot water temp. shall be 44.94 °C to maintain the Cooling Range as 11.94 °C. Please confirm.	Cooling Range is 11.94 Deg. C. Please consider HWT as 44.94 Deg. C.
4	Technical data - Part - A (Mechanical)	57 of 372	2.17	Maximum limit on total fan power consumption per cooling tower for the cooling fans at fan motor inlet terminals: 2000 KW	Please clarify if there is any possibilities to increase the power consumption to 2100 KW instead of 2000 KW.	Maximum limit on total fan power consumption per cooling tower for the cooling fans at fan motor inlet terminals shall be 2100 KW
5	Technical data - Part - A (Mechanical)	57 of 372	2.23	Maximum permissable cooling tower plan dimensions at 'FGL' (Excluding staircase & pavement) : 200 X 36 (M X M)	Please clarify if there is any possibilities to increase the cooling tower length to 220 M instead of 200 M (Excluding staircase).	Maximum permissable cooling tower plan dimensions at 'FGL' (Excluding staircase & pavement) : 220 X 36 (M X M)
6	NIT	3 of 9	32	Reverse Auction (RA)	We request BHEL to delete the Reverse Auction (RA) Clause.	Bidder to follow tender documents only.

Sr. No.	Document	Clause no.	Page no.	Subject	Query	BHEL Response
1		2.01.03	18 of tender-19	clause a) asks for Pitot tube at hot water header.	As the header is not in vendor scope and the requirement is for performance guarantee we would provide a provision for mounting of the same. Pitot tube would be brought by vendor during testing and would be taken back. Kindly Confirm	Please follow specification
2		2.01.03	18 of tender-19	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 No 16.2 of Detailed Scope document, regarding vibration measuring instruments Bidder has to include only vibration pad for mounting for BHEL supplied VMS sensors / probes.
3	Annexure-1		49 of Tender-19	asks selection to be as per IS2309.	The same is absolute now and IEC62305 is in working. customer to confirm what is to be used for selection.	IEC62305 shall be used for selection.
4	Annexure-1		49 of Tender-19	Roads which are in CT battery limits are only to be illuminated or road touching the CT battery limits are also to be considered?	Kindly Confirm	Roads which are in CT battery limits are only to be illuminated.
5	Annexure-V			Lightning protection notes and details.	Are we to design the complete network as per the attached annexure or to use IEC62305 for designing of the protection system? Kindly Confirm	Please note that IEC62305 shall be used for designing of the protection system
6					Further there is no tender P&I for the project and as per the scope matrix instrument for Gearbox only have been asked for while provision for testing instruments need to be made in the system. Kindly check and confirm.	Please follow specification.
7					Accordinging layout – vol 2 (BH-17,18,19)Borehole location not matching with the key plan layout. Please clarify	Please refer co-ordinates indicated for respective Bore-holes.
8	NIT			Due Date & Time for Offer Submission 03.10.2024	The timeline is too short. Considering the package size, we request you to extend the bid submission date to 03rd Nov 2024.	Due date of submission and opening already extended from 03.10.2024 to 17.10.2024 (12:00 PM)
9				Payment terms for civil works : 10% on successful completion of PG test and handing over to customer....	We request BHEL to release the payment against this milestone, in case of delay in conducting PG test, due to reasons not attributable to bidder, beyond 6 months from mechanical completion.	Please follow commercial terms and conditions stated in tender documents.
10				Finished ground level (FGL) EL (-) 1.0 M (RL 202.0 M)	Kindly confirm the same	Specification is clear. Please follow specification.

Sr. No.	Document	Clause no.	Page no.	Subject	Query	BHEL Response
11				Earnest Money Deposit	The EMD amount of Rs.3 crore is on the higher side. Kindly re-visit and waive / reduce the same.	Please follow commercial terms and conditions stated in tender documents.
12				Inspection agency : Cat 1 - Inspection shall be done jointly or separately by NTPC and BHEL or BHEL's TPIA	The inspection visit charges of NTPC/BHEL/BHEL's TPIA shall be borne by BHEL and not by us. Kindly confirm	Inspection agency : Cat 1 - Inspection shall be done jointly or separately by NLC and BHEL or BHEL's TPIA. The inspection visit charges of NLC/BHEL/BHEL's TPIA shall be borne by BHEL.
13				Inlet air louvers for each cooling tower.	As per PDF page no. 31 of 195 under clause no.4.5, louvers are not required in case of over dimensioning the cold water basin. We shall adopt the design of over dimensioning of cold water basin and hence there shall not be any inlet air louvers. Please note.	Please follow specification.
14				One set of special tools & tackles required for maintenance of equipment & accessories in the cooling towers	1) We request BHEL to specify the list of special tools & tackles with quantity. 2) We also request BHEL to confirm whether we can consider one set of special tools & tackles common for cooling towers for each units.	Please follow specification.
15				Maximum CW Pumping head permissible, viz. static head plus frictional losses as below: - Static head w.r.t. FGL - Frictional losses within bidder's T.P. with 10% margin : 14.0 MWC	Considering the circulating water flow , duty conditions (cooling range, approach), fill type, plan area available, it would not possible to design the cooling tower with pumpig head of 14 MWC. We request BHEL to review and provide the minimum pumping head value of 19 MWC and confirm this value.	Maximum CW Pumping head permissible, viz. static head plus frictional losses as below: - Static head w.r.t. FGL Frictional losses within bidder's T.P. with 10% margin : 15.0 MWC Corrigendum shall be issued separately in this regard.
16				Maximum permissible drift loss : 0.002%.	This value (0.002%) is too low and we can offer the maximum permissible drift loss value of 0.005% . Please note.	Please follow specification.
17				Fan cylinder / Recovery stack : RCC	In case of RCC structure cooling tower, we intend to consider hand moulded FRP, which offers uniform tip cleannace and improves fan efficiency. Kindly confirm the material of construction of fan cylinder / Revcovery stack	Please follow specification.
18				Sub vendor list	We didn't find sub vendor list valves, drift eliminators, PVC pipes, flanges, pipe fittings, hardware and gasket etc. and request BHEL to provide the same alongwith their Pre-bid clarifications	Please follow specification.

Sl. No.	Specification Reference					Query	BHEL Reply
	Section- Part	Sub Section	Claus e no.	Page	Description		
1	Price Adjustment payment terms & condition	SCC			C - For Civil Works - Percentage component ('K') for civil works - for Labour component are mentioned as : (a) 0.20 - CPI index (b) 0.20 - Min wages	We understand that the Percentage component ('K') for civil works - for Labour Component shall be : (a) 20% - CPI index (b) 20% - Min wages Please confirm.	Please follow tender documents.
2	Design	Clauses 1.01.01 & 02, Page 32 of 304, Book 2 of 2 Civil			Geotechnical Report	It is mentioned that the geotechnical investigation report provided by NLC to BHEL has been included in the tender and that BHEL is presently carrying out a detailed geotechnical study at site. It is also stated therein that BHEL will not be responsible for any variation in the soil parameters given in the tender and those encountered during work execution at site. Please appreciate that each of the bidders cannot carry out detailed geotechnical investigation and analyse the data collected for foundation design. This is not how it is done at the tendering stage. The geotechnical data presented in the tender document as above must be reliable and valid, if not accurate. Hence, BHEL must take the onus for the correctness of the soil data presented in the tender. If not, the detailed geotechnical data being carried out by BHEL presently, may be completed and the data so collected may please be issued as a corrigendum to the tender. Only then the mutual interests of both BHEL and the bidders can be protected. Both Open raft and pile foundations are mentioned in the geotechnical report; their applicability to the IDCTs package must be mentioned specifically to enable the bidders to consider the cost of the correct type of foundation.	Bidder to note that Geotechnical Investigation Report attached along with bid document are comprising net safe bearing capacities/pile capacities to be adopted in IDCT area 1, 2 & 3. Bidder, as an EPC contractor for IDCT may adopt any type/design/size/depth of foundation system based on loads coming from their superstructure.
3	Design				Type of foundation	The geotechnical report that is presently part of the tender does not have any recommendations on the type of foundation and minimum foundation depth for each of the IDCTs based on varying EGL in each location. It is necessary to specify foundation information as above to ensure that all bidders have a common design basis for the foundation while working out cement and steel quantities.	Bidder to note that Geotechnical Investigation Report attached along with bid document are comprising net safe bearing capacities/pile capacities to be adopted in IDCT area 1, 2 & 3. Bidder, as an EPC contractor for IDCT may adopt any type/design/size/depth of
4	Tender document	424 to 429 of Book 1 of 2 Civil.			Specific Technical Requirement	It is noted that the civil design specs from Page 424 of 429 under Specific Technical Requirements is the only section related to IDCT civil specs. There are no other specifications anywhere else in both Books 1 & 2 of the tender. Most of the clauses before page 424 are struck off by BHEL. Hence, general specs before page 424 of 429 cannot be considered for IDCTs as they mention various BOP packages by name and there is no specific reference to IDCTs, except on pages 424 to 429. Please confirm that the civil design specs to be considered for the IDCTs package is from page 424 to 429 of Book 1 of 2 Civil.	Bidder to follow complete tender specifications.
5	Design				Painting specification for IDCT - Not specified	Please note that usually, painting is an important part of civil specifications. There are several mentions of hot bitumen, epoxy, etc at various places in the civil specs. But there is not one dedicated chapter/section for the IDCTs to enumerate the painting requirements. Hence, please let us know if there are any specific painting requirements for the IDCTs package. Kindly confirm the same.	Specification is clear regarding bidder's query. Tender specification may please be followed.
6	Design				Paving around IDCT	Is there a need to provide paving all around the IDCTs? There are no specs regarding the same in the tender.	Paving all around IDCT shall be provided as per functional requirement/approval of owner.
7	Design				Grade of Steel & Cement	Please confirm that the reinforcement bars to be used in this IDCTs package are of CRS, Gr Fe 500 per IS: 1786 and the Cement is OPC Gr 43.	Bidder understanding is correct.

Sl. No.	Specification Reference					Query	BHEL Reply
	Section- Part	Sub Section	Clause no.	Page	Description		
1	Price Adjustment payment terms & condition	SCC			PVC shall be applicable only during the extended period of contract (if any) after contractual completion period and for the portion of work delayed / backlog for the reasons not attributable to the Contractor.	We request the department to pay Price Adjustment (PVC) during the Contract Period also in line with other BHEL Contracts. Please confirm.	Bidder to follow tender documents only.
					The total amount of PVC payable shall not exceed 10% of the Basic contract value for respective order.	Further ,we also request the department not to limit PVC and the same shall be payable as actual. Or else, atleast increase the limit of PVC payable from 10% of Basic Contract value to 15% of cumulative executed Contract Value in line with other BHEL Contracts.	Bidder to follow tender documents only.
2	Construction Power	SCC	clause no. 3.11		Construction Power : Construction power (three phase, 415V/440V) will be provided to the Contractor on chargeable basis at one single point by BHEL . The Contractor shall make his own arrangement for further distribution with necessary isolation / LCB etc	Construction Power shall be made available at one point within the plant boundary on Free of Cost basis for Construction purpose in line with other BHEL Contracts.	Bidder to follow tender documents only.
3	Construction WATER	SCC	clause no. 3.12		Construction Water : Construction water (Raw water) required for site requirements shall be drawn from the Bhedan river at a point identified by contractor and approved by BHEL EIC. The required pumps & accessories , pipes for drawing water from the given point and for futher dist shall be arranged by the contractor at their cost to ensure supply of water without interruption.	Construction Water shall be made available at one point within the plant boundary Free of Cost basis for Construction purpose in line with other BHEL Contracts.	Bidder to follow tender documents only.
4	Design	Clause 2.01.01 (m)			Pump flow capacity & Head	The clause requires the sludge pump to be designed to be able to deliver water up to the central monitoring basin. BHEL may please provide the pump flow capacity and head required to meet the above specification.	Please follow specification regarding Flow capacity. Head shall be informed during detail engineering.
5	Intruments	Clause 2.01.03			Scope of Work	Instruments a. The pitot tube is required at the time of PG test and it cannot be mounted permanently. Hence, the pitot tube will brought to site by the test agency on "returnable basis" and taken back after the PG test is completed. Same will be the case for Demo test where the contractor himself will do the performance tests on the balance two IDCTs. In light of the above, please confirm that the pitot tube is not a supply item in this contract. b. The vibration monitoring system along with its cables, etc are excluded form the scope of the IDCT contractor as per clause 16.2. Hence, please confirm that this is excluded from the supply scope of the IDCT contractor.	Specification is clear. Please follow tender specification.
6	Design	Clause 4.06.00			Fill type	It is mentioned that the fill shall be of film type. Please clarify whether the film fill is required to be of cross fluted or straight fluted or off-set fluted and what should be the flute size (19 mm, 20 mm, etc). Film fills come are of many types and hence, it is necessary to specify the type of film fill to be used in this project.	Please follow tender specification.
7	Design	Clause 4.07.03				Please confirm that this clause does not apply to the case where the film type fills are supported on RCC beams.	Please follow tender specification.

Sl. No.	Specification Reference					Query	BHEL Reply
	Section- Part	Sub Section	Clause no.	Page	Description		
8	Design	Technical Data-Part A	Clause 2.12			The HWT & CWT are 43.94 and 33 deg.C respectively. The range will be (43.94-33) 10.94 deg.C. But the data sheet shows 11.94 deg.C. Please clarify what should be the correct range for design.	Cooling Range is 11.94 Deg. C. Please consider HWT as 44.94 Deg. C.
9	Design	Technical Data-Part A	Clause 2.23			The permissible length of the IDCTs is 200 m. This is a large length for a IDCT. Hence, the decision to offer either a single row IDCT or a double-row IDCT must be left to the bidder based on thermic design and cost optimizations. It must be noted that the occurrence of recirculation is more common in double-row IDCT than in single row IDCTs, as also the exit air velocity requirements. Hence, the design / configuration aspects of the IDCT must be left to the bidder.	Permissible length of a IDCT shall be 220 M.
10	Design	Technical Data-Part A	Clause 2.24		Plan area of fill	BHEL has fixed the tower length and the fan power consumption. Hence, the plan area of fill will vary depending on whether a double-row or a single-row tower configuration is opted for, depending on cost optimization. In view of the above, please confirm that the bidder can decide on the plan area of fill.	Please note that "Minimum plan area of fill is fixed". Specification is clear. Please follow specification.
11	Design	Technical Data-Part A	Clause 3.8		Gap between adjacent stacks	This clause is contradictory to the requirement of Annexure-1. This clause mentions that the gap between the adjacent stacks can be 1.5 m, whereas the Annexure-1 says it must be 2m as a minimum. Please clarify.	Minimum clear space required between any two fan stacks on adjacent cells at deck level shall be 2 meters.
12	Design	Mandatory Spares	Clause 3.10.02			Film fills cannot be stored for long durations (months) as heat deformation occurs. Drift eliminators can be stored but not film fills. Please review and let us know whether the fills will be part of mandatory spares or not.	Please follow tender specification.
13	Design	Scope of work	Clause 2.2			This clause mentions of manually operated B/F valves in each cell. However, Clause 1.00.00 of Annexure-II specifies that the B/F valves are hydraulic or motor operated. Please clarify.	Please refer Annexure-II of Vol. II-IA/Section-IV Cooling Tower of tender specification.
14	Tender document	Electrical Scope Split	Clause 3		Scope of Work	Please confirm that the power cables of the IDCT fan motors will be supplied by BHEL free of cost and the contractor has to only install the same.	Please follow tender specification.
15	Design	IDCT Civil Specs & Foundation Type			Type of Foundation	There are no IDCT specific civil specifications in the tender. Similarly, there are no recommendations regarding the type of foundation to be adopted for the IDCTs. Please clarify.	IDCT specific Civil specification is covered at tender specification (book 2 of 2). Customer (NLC) has provided Soil investigation report of the proposed site and the same is attached as Annexure I in tender specification as a reference for the bidders. However, bidder shall note that the net safe bearing capacity and foundation depth/ safe load carrying capacity of pile to be adopted for design during de-tailed engineering stage shall be got approved by BHEL/owner.
16	Tender document				Bid Due of submission - 03/10/2024	We request you to kindly extend the Bid due date of submission by atleast 2 weeks.	Extended from 03.10.2024 (12:00 PM) to 17.10.2024 (12:00 PM)

Sl No	Reference			Queries Cooling Towers dated 24-09-2024	Response from BHEL
	Section	Chapter / Cl. No	Page No.		
1	Notice Inviting Tender	21	Tender Notice_11 / 1 of 9	We also expect that comments on our documents / drawings will be received by us within 7 days of our submission of those documents / drawings.	Please follow tender documents.
2	Notice Inviting Tender	24	Tender Notice_11 / 2 of 9	This clause is not applicable for this tender.	Please follow tender documents.
3	Notice Inviting Tender	28 (BOP GCC - GCTC / Clause No 9.2.1)	Tender Notice_11 / 2 of 9 (7 of 31)	For a project of this dimension we expect 10% interest-free advance on Main Supply contract value. Please confirm. Referring to release of last 10% payment on Main Supply, kindly note that PG test will depend upon the ideal test conditions viz., plant load etc. which is beyond cooling tower contractor's control. Hence we cannot continue to extend the validity of the subject BG till completion of the PG Test, which is not under our control. Therefore, there should be a cut-off period for revalidating the BG. Ideally the PBG should be valid till the warranty period only.	Please follow tender documents.
4	Notice Inviting Tender	28 (GCC BOP - GCTC / Clause No 9.3)	Tender Notice_11 / 2 of 9 (7 of 31)	We expect 10% interest-free advance on E&C contract value. Please confirm. Referring to release of last 10% payment on E&C, kindly note that PG test will depend upon the ideal test conditions viz., plant load etc. which is beyond cooling tower contractor's control. Hence in case PG test / demonstration test of the cooling tower(s) cannot be completed within one year after completion of commissioning of cooling tower(s), for reasons not attributable to the contractor, BHEL shall release payment towards PG Test / demonstration test of the cooling tower(s) against existing performance security, valid till warranty period, that would have been submitted as per NIT Clause No 35 (Page 5 of 11). Please confirm.	Please follow tender documents.
5	Notice Inviting Tender	28 (i-a)	Tender Notice_11 / 2 of 9	Please confirm that BHEL shall release 5% of the civil work payment against site mobilization and not linking it with installation of the T&P as per Annexure - II. Labour colony shall be constructed as per bidder / contractor's standard practice / drawing.	Please follow tender documents.
6	Notice Inviting Tender	28 (i) (a)	Tender Notice_11 / 2 of 9	Contractor do not agree to additional BG provisions against mobilization advance of 5% as the payment of 5% will be paid after mobilization and installation, which is not logical. Further, if BG is provided, a mechanism to reduce the BG against recoveries in bill is to be done by BHEL. Further,	Please follow tender documents.
7	Notice Inviting Tender	28 (ii)	Tender Notice_11 / 3 of 9	For the last 10% payment against Civil Work, In case PG test / demonstration test of the cooling tower(s) cannot be completed within one year after completion of commissioning of cooling tower(s), for reasons not attributable to the contractor, BHEL shall release payment towards PG Test / demonstration test of the cooling tower(s) against existing performance security that would have been submitted as per NIT Clause 35 (Page 5 of 9). Please confirm.	Please follow tender documents.
8	Notice Inviting Tender	35	Tender Notice_11 / 5 of 9	This is understood to be applicable in case of a composite contract or for E&C package. Please provide PBG validity terms for Supply, Mandatory Spares and Civil packages.	Please follow tender documents.
9	Notice Inviting Tender	35	Tender Notice_11 / 5 of 9	Contractor cannot agree to a timeline of 14 days for submission of performance security from issuance of LOA. The timeline of 14 days should be calculated solely from issuance date of Purchase Order.	Please follow tender documents.
10	Notice Inviting Tender	38	Tender Notice_11 / 5 of 9	We understand that the annexure of BOCW (Tendernotice 2) shall be the guiding principles for BOCW Act and the Cess Act.	Tender documents are clear. Please follow tender documents.
11	Notice Inviting Tender	51	Tender Notice_11 / 8 of 9	It is not possible for bidder to assess any unprecedented or unforeseen situation which are non-existent at the time of site visit, hence cost consideration for such events is not considered. Hence in case of any circumstance or site related information which was non-existent at the time of site visit / bidding stages or not shared along with the tender document, suitable compensation (if applicable at the time of execution) has to be paid to the contractor. Please confirm.	Tender documents are clear. Please follow tender documents.
12	Tender Notice_16	--	--	T&P shall be deployed by us at site as per requirement to suit overall completion period based on our tried and proven standard for RCC structured IDCT as offered by us for the subject project. At the time of start of work, joint MOM may be prepared between BHEL and contractor about T&P to be deployed at site along with their individual quantities & deployment period.	Please follow tender documents.

Sl No	Reference			Queries Cooling Towers dated 24-09-2024	Response from BHEL
	Section	Chapter / Cl. No	Page No.		
13	Tender Notice_4 (Tender Notice_15 / Annexure to SCC)	3.1.2 a	1 of 8 (3 OF 10)	We request BHEL / Owner to provide space for labour colony on free of charge basis.	Please follow tender documents.
14	Tender Notice_4 (Tender Notice_15 / Annexure to SCC)	3.1	1 of 8 (3 OF 10)	We understand that open space for fabrication yard or any other construction related activities will be also provided by BHEL / Owner within the plant premises near the cooling towers' location within the plant premises..	Please follow tender documents.
15	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.
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.
17	Tender Notice_4 (Tender Notice_15 / Annexure to SCC)	3.11	5 of 8 (7 of 10)	Please furnish the rates at which construction power shall be provided by BHEL to contractor.	Already mentioned in the SCC.
18	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.
19	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.
20	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. In case of delays for reasons not solely attributable to the bidder / contractor, L3 schedule shall be revised and PVC needs to be calculated and paid based on revised L3 schedule. Please confirm. In case of negative price variation, payable amount to be restricted to ZERO. Please confirm. Price Adjustment Formula for Supply and Mandatory Spares should not be limited to Plastic, Steel, Electrical Equipment and Labour components only. Bidder / Contractor should be allowed to furnish the list along with assigned co-efficients for items on which PVC should be applicable. It is understood that "If the works are executed in an x month, then indices pertaining to that particular x month shall be considered (subscript 1) for calculation irrespective of the month the work has to be completed as per L3 schedule.	Tender documents are clear. Please follow tender documents.
21	Tender Notice_6	3	1 of 9	Contractor should be entitled to compensations in case of delay in supply of free issue materials/ non-supply of materials by BHEL. This compensation shall apply for both time and price.	Please follow tender documents.
22	Tender Notice_6	3.4.2	4 of 9	Rolling Margin has to be recorded jointly as per IS Code provisions, which shall be applied later in reconciliation purposes.	Please follow tender documents.
23	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.

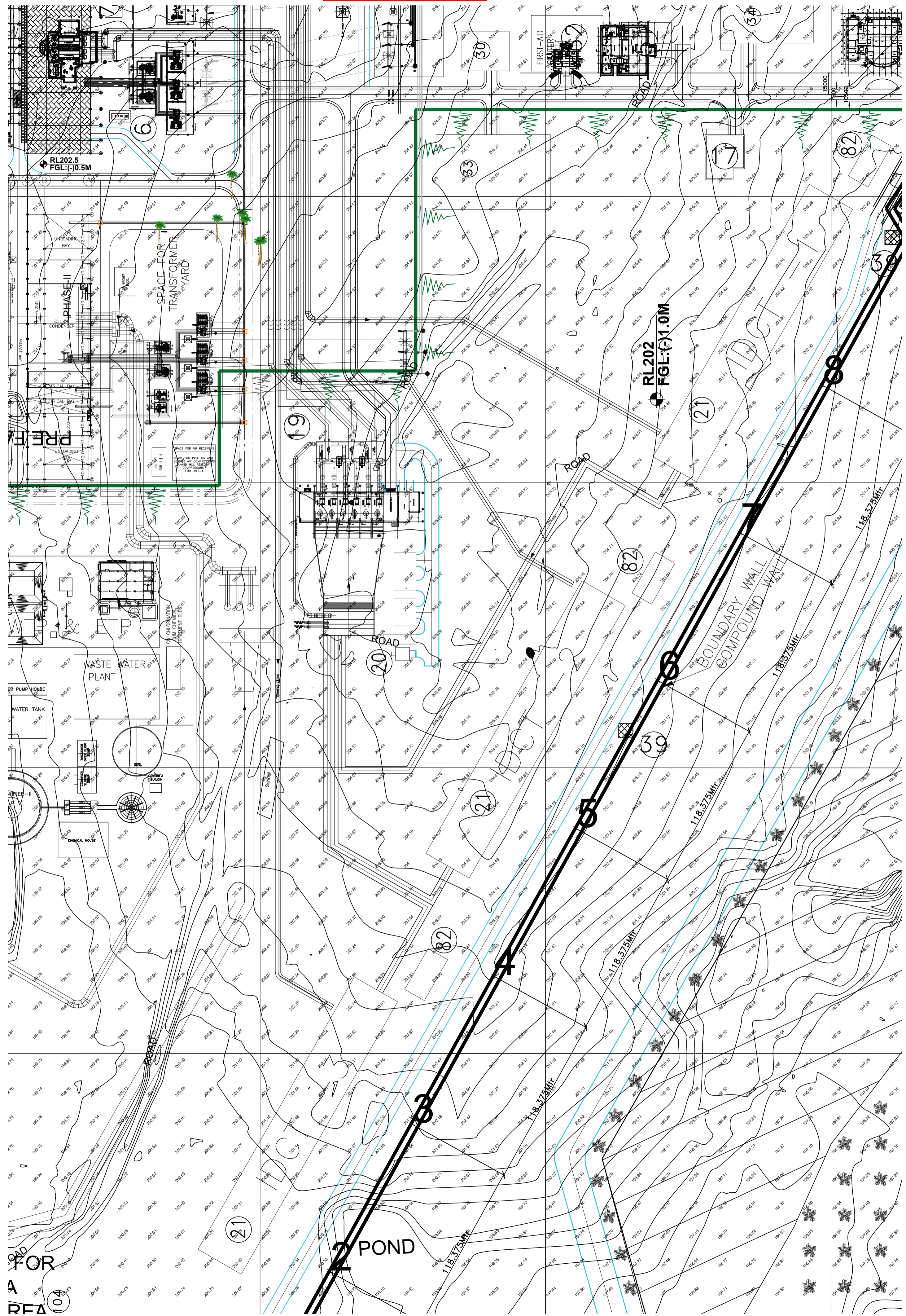
Sl No	Reference			Queries Cooling Towers dated 24-09-2024	Response from BHEL
	Section	Chapter / Cl. No	Page No.		
24	Tender Notice_15	3.1.1.a & b & 3.8.1	3 of 10 6 of 10	Contractor objects to the phrase "as per availability within project premises". BHEL to ensure availability within the premises and within 100-150 meters from the site location.	Please follow tender documents.
25	Tender Notice_15	3.11.3	8 of 10	Bidder shall be deploying DG set as per requirement at site with no extra cost. However, running charges of the DG in the event of non-availability of power (provided by BHEL) for more than continuous 8 hours in any instance shall be reimbursed by BHEL.	Please follow tender documents.
26	General Conditions of Contract	ITB General Instructions Cl. 1.6	10 of 89	BHEL shall have to enter into a formal Contract Agreement (maybe framework only) once the PO is issued.	Please follow tender documents.
27	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 are some gaps in NIT provisions. However, NIT shall prevail.	Tender documents are clear. Please follow tender documents.
28	General Conditions of Contract	GCC Cl. 9.6.5	32 of 86	As mentioned in Query No 37 below, there is a significant gap from physical IDCT work completion and the conducting of Commissioning/Trial Run/PG Test/Handing Over etc. Hence, Retention money should be released immediately after mechanical completion of each IDCT, if BHEL is unable to provide fronts/inputs for Commissioning/Trial Run/PG Test/Handing Over etc. within 30 days from physical work completion by Contractor.	Please follow tender documents.
29	General Conditions of Contract	GCC Cl. 9.10	33 of 89	We request BHEL to amend this stipulation. An interest @ SBI PLR + 2% admin. Charges should be made applicable for all delayed payments.	Tender documents are clear. Please follow tender documents.
30	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.
31	General Conditions of Contract	GCC Cl. 11.3	33 of 89	Guarantee period shall start from completion of physical works (excluding commissioning, trial run, PG Test and handing over) by Contractor. Refer Point No. 10 above for bases of this deviation request. Further, "whichever is later" is to be changed to "whichever is earlier" as the Handing over of the project is designed to be delayed by several months as explained in Point No. 10 above.	Tender documents are clear. Please follow tender documents.
32	General Conditions of Contract	GCC Cl. 12.0	34 of 89	The guarantee period shall be 12 months from the date of handing over of cooling tower or 18 months from the date of last major despatch of cooling tower components, whichever is earlier. PG test will depend upon the ideal test conditions viz., plant load etc. which is beyond cooling tower contractor's control, hence guarantee period cannot be linked to PG test of cooling tower. Please confirm.	Tender documents are clear. Please follow tender documents.
33	General Conditions of Contract	GCC Cl. 12.1	34 of 89	Guarantee period shall start from completion of physical works (excluding commissioning, trial run, PG Test and handing over) by Contractor. Refer Point No. 10 above for bases of this deviation request.	Tender documents are clear. Please follow tender documents.
34	General Conditions of Contract	GCC Cl. 44.i	51 of 89	ORC Charges capping to be increased to at least 7.5% of the contract value limited to 15 lacs per month as Contractor will be deploying resources for 3 IDCTs together and also there will be substantial T&P mobilizations in the project. Current cap of 1% of contract value limited to Rs. 1,00,000/- per month is insufficient and doesn't appear practical.	Tender documents are clear. Please follow tender documents.
35	General Conditions of Contract	GCC Cl. 45	51 of 89	We understand that the Annexure named "PRICE ADJUSTMENT-PVC payment terms and conditions" (Tendernotice_13) is the only document for PVC calculations as per NIT. In addition 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.
36	General Conditions of Contract	GCC BOP - GCTC / Clause No 33.2	46 of 89	Arbitration should be by joint arbitration procedure as per Arbitration & Conciliation Act, 1996 and as amended thereafter. The arbitration shall be conducted by a tribunal of three arbitrators, each party shall appoint one arbitrator, and the two arbitrators so appointed shall appoint the third arbitrator who shall act as the presiding arbitrator. If the two arbitrators fail to agree on the name of the presiding arbitrator, then appointment shall be made as per the provisions of Section 11 of the Arbitration & Conciliation Act, 1996 read with all its subsequent amendments up-to-date. Please confirm	Tender documents are clear. Please follow tender documents.

SI No	Reference			Queries Cooling Towers dated 24-09-2024	Response from BHEL
	Section	Chapter / Cl. No	Page No.		
37	Technical Specification No. PE-TS-511-165-W001 (Implementation Schedule) ; Notice Inviting Tender (Delivery Schedule)	7.00.00 ; 21	Tender Notice_19 / Page 5 of 372 ; Tender Notice_11 / Page 1 of 9	<p>From the given unit-wise implementation schedule it is quite evident that there are significant gaps between the delivery schedule given to Bidder in NIT for achieving mechanical completion of each cooling tower and the unit-wise project implementation schedules provided in the technical specification.</p> <p>Moreover, looking at the expected size of each IDCT and considering that they are entirely of RCC construction, the specified delivery schedules are too tight and practically very difficult to comply with.</p> <p>Based on above understanding we request BHEL to increase the provided tower-wise delivery schedules by at least 6 months per IDCT. Kindly confirm.</p>	Tender documents are clear. Please follow tender documents.
38	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.
39	Technical Specification No. PE-TS-511-165-W001	Detailed Scope	7 of 372	Kindly confirm that dismantling of underground as well as over-ground facilities, if any, within our scope limit is in BHEL's scope. Also please confirm cooling tower site will be handed over to bidder / contractor graded to FGL (= RL 202.0 M or 203.0 M, as actual).	Regarding dismantling, Bidder's understanding is correct. It is confirmed that graded level as RL 202.0 in cooling tower area shall be handed over to bidder.
40	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.
41	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.
42	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.
43	Technical Specification No. PE-TS-511-165-W001	Volume: II-IA / Section-IV / Clause No 8.00.00	15 of 40	<p>Thermal performance of cooling towers shall be guaranteed as per provision of CTI test code ATC-105. Performance curves shall be prepared as per CTI test code ATC-105 only.</p> <p>Also please confirm that 0.3°C tolerance will be allowed in the test result towards instrument inaccuracies.</p>	Please follow specification.
44	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.
45	Technical Specification No. PE-TS-511-165-W001	Volume: II-IA / Section-IV / Annexure-I	33 of 40	As mentioned in Clause No 16.2 of Detailed Scope on Page 8 of 373 of this document, regarding vibration measuring instruments Bidder has to include only vibration pad for mounting BHEL supplied VMS sensors / probes. Hence supplying separate vibration cut-out switch should not be applicable.	Bidder's understanding is correct.
46	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.
47	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.
48	Technical Specification No. PE-TS-511-165-W001	Volume: II-IA / Section-IV / Annexure-I	34 of 40	<p>Illumination system shall be provided on cooling towers' fan deck and stairways only. Please confirm.</p> <p>No separate illumination is required for hot water duct location. If separate illumination system is required near the butterfly valve of hot water riser including peripheral road lighting same should be arranged by BHEL. Please confirm.</p>	Please follow specification.

Sl No	Reference			Queries Cooling Towers dated 24-09-2024	Response from BHEL
	Section	Chapter / Cl. No	Page No.		
49	Technical Specification No. PE-TS-511-165-W001	Volume: II-IA / Section-IV / Annexure-I	34 of 40	We understand Electrical building to accommodate panels and accessories is outside Bidder's scope.	Specification is clear. Please follow electrical part of specification.
50	Technical Specification No. PE-TS-511-165-W001	Technical Data - Part A (Mechanical) / SI No 1.2	Tender Notice_19 / 56 of 372	Performance test of IDCTs shall be carried out as per provisions of CTI test code ATC-105.	Please follow specification.
51	Technical Specification No. PE-TS-511-165-W001	Technical Data - Part A (Mechanical) / SI No 2.16	Tender Notice_19 / 57 of 372	We have noted the maximum CW pumping head permissible is 14.0 MWC w.r.t. FGL. However, minimum elevation of top of water level in hot water distribution duct w.r.t. FGL should be as per bidder's internal design complying to guranteed pumping head requirement based on specified design conditions. Please confirm.	Please follow specification.
52	Technical Specification No. PE-TS-511-165-W001	Technical Data - Part A (Mechanical) / SI No 2.2.3	Tender Notice_19 / 57 of 372	As mentioned on Page 28 of 40 of Annexure-I of Technical Specification (Book 1 of 2), maximum cooling tower length is 280 M. However, as per this line, maximum permissible cooling tower plan length at 'FGL' is 200 M. Kindly clarify the correct permissible length per IDCT.	Maximum permissible cooling tower plan length is 220 M. Amendment shall be issued separately in this regard.
53	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.
54	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.
55	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.
56	Technical Specification No. PE-TS-511-165-W001	Volume: II-F / Section-II / Annexure-A/ Clause No 2.0	15 of 15 (Tender Notice_19 / 118 of 372)	The mentioned Auxiliary Power Supply details need to be re-checked. Motors below & including 160 KW must be covered under LT Supply / 415 V, 3 Phase, 50 Hz supply.	Please follow specification.
57	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
58	Technical Specification No. PE-TS-511-165-W001	Volume: II-G2 / Part-A / Section-II / Clause No. 2.01.00	1 of 13 (Tender Notice_19 / 43 of 429)	It is noticed that there is a level difference of about 3.0 m-4.0 m between the natural ground level (for IDCTs based on details as per BH-17, BH-18 & BH-19 specified in the Geotechnical investigation report) & Finished ground level (RL 202.0 M or RL 203.0 m, as actual). Our understanding is that grading upto FGL will be done by BHEL & handed over to the Bidder / Contractor.	Bidder understanding is correct.
59	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

SI No	Reference			Queries Cooling Towers dated 24-09-2024	Response from BHEL
	Section	Chapter / Cl. No	Page No.		
60	Technical Specification No. PE-TS-511-165-W001	Volume: II-G1 / Section-I / Clause Nos. 4.34.00 - 1 f (ii)	96 of 105 (Tender Notice_18 / 426 of 429)	Our understanding is that the mentioned dedicated 2-storied RCC switchgear building is not in Bidder's scope of PCTL. Please confirm.	Bidder understanding is correct.
61	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
62	Technical Specification No. PE-TS-511-165-W001	Section - III	Page 18 (Tender Notice_20 / 57 of 404)	As per this clause FGL for IDCT area is RL 203.00 M. However, as per Technical Data - Part A (Mechanical) / SI No 2.26, FGL = RL 202.0 M. Please confirm the correct FGL for each IDCT. Also please confirm that IDCTs sites will be handed over to us by BHEL graded to FGL.	FGL for IDCT area is RL 202.0
63	Technical Specification No. PE-TS-511-165-W001	General	--	Kindly furnish the complete plant layout & contour drawing for our study.	Please refer specification for plant layout. Contour drawing is attached along with the replies.

IDCT CONTOUR



BANK GUARANTEE FOR EMD

Bank Guarantee No: _____

Date: _____

To,

Name & Addresses of The Beneficiary

Dear Sirs,

Beneficiary: Noida Account no. - 39922687394 IFSC Code- SBIN0017313 Branch- CAG II New Delhi (BHEL PEM Noida) (hereinafter referred to as Beneficiary / Government) Date: [Insert date of issue of BG](To be insert by issuing bank) Bank Guarantee No.: [Insert guarantee number].....(To be insert by issuing bank)..... Bank Guarantee Amount:(BG Amount)..... Bid / RA No.:(GeM Bid No.)..... EMD Applicant / Bidder:NAME AND ADDRESS OF THE VENDOR / CONTRACTOR / SUPPLIER..... Guarantor: [Insert name and address of the issuing Bank](To be insert by issuing bank).....

Whereas Applicant / Bidder is willing to submit its bid against above referred Bid / RA by the Beneficiary on behalf of President of India/Governor of State/Chairman, CMD, Secretary, Commissioner etc. of Central/State PSUs/Departments for the supply of Goods and / or Services and as per Bid / RA conditions, Applicant is required to submit a Bank Guarantee as EMD.

At the request of the Applicant, we as Guarantor under this Guarantee, hereby irrevocably and unconditionally undertake to forthwith and immediately pay to the Employer without any demur, merely on your first demand any sum or sums of INR (BG AMOUNT IN FIGURES AND WORDS).....(in words Indian Rupees.....) without any reservation, protest, and recourse and without the beneficiary needing to prove or demonstrate reasons for its such demand.

Any such demand made on the Bank shall be conclusive as regards the amount due and payable by the Bank under this guarantee. However, our liability under this guarantee shall be restricted to an amount not exceeding INR(BG AMOUNT IN FIGURES AND WORDS).....

We undertake to pay to the Employer any money so demanded notwithstanding any dispute or disputes raised by the Vendor/Contractor/Supplier 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.

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 up to and including.....(*BG AMOUNT IN FIGURES AND WORDS*)..... and 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(*DATE OF EXPIRY OF CLAIM PERIOD*)..... we shall be discharged from all liabilities under this Guarantee.

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:

- a) The liability of the Bank under this Guarantee shall not exceed..... (*BG AMOUNT IN FIGURES AND WORDS*).....
- b) This Guarantee shall be valid up to
- c) Unless the Bank is served a written claim or demand on or before ____ (*DATE OF EXPIRY OF CLAIM PERIOD*)_____ all rights under this guarantee shall be forfeited and the Bank shall be relieved and discharged from all liabilities under this guarantee irrespective of whether or not the original bank guarantee is returned to the Bank

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.....