Corrigendum - 2 dated 26/07/2024 to CPC Tender No. BHEL/CPC/LRA/BLR-PCP/25/020 for the work of "Erection, Commissioning and Trial Operation including application of lining, Insulation, supply and touch-up painting as and where required including Handling of materials at BHEL/ Client's Stores/ Storage Yard and transportation to site, and handing over of Boiler and its auxiliaries, Boiler integral piping, Structure for bunker, Pressure Part, Non Pressure Parts, Duct dampers and its support structure, Rotating Equipment's, Air Pre Heaters, ID/FD/PA fans, Mills, Power Cycle Piping (incl. MS, HRH, CRH etc.), HP Piping, LP Piping (in and around SG area), Deaerator, Refractory, Erection of Bunker and allied works, including supply & installation of items as per BOQ of following Packages at 2X800 MW NTPC LARA Stage II Project, Dist. Raigarh, CG:1. Package-A: Unit # 3 Boiler and Common System of 2X800 MW NTPC Lara Project. 2. Package-B: Unit # 4 Boiler of 2X800 MW NTPC Lara Project."

A) Time Extension: Clause No. 1.0 Salient Features of NIT in NOTICE INVITING TENDER is revised as below:

SI. No.	Clause No.	Existing in Tender	Extended vide Corrigendum - 1	Revised As
1	SI. No. v) DUE DATE & TIME OF OFFER SUBMISSION.	Date: 19/07/2024, Time: 10:00 Hrs	Date: 26/07/2024, Time: 10:00 Hrs	Date: 31/07/2024, Time: 10:00 Hrs
2	SI. No. vi) OPENING OF TENDER	Date: 19/07/2024, Time: 16:30 Hrs	Date: 26/07/2024, Time: 16:30 Hrs	Date: 31/07/2024, Time: 16:30 Hrs

B) Modification in Technical Conditions of Contract (TCC): TCC clause nos. 2.1, 2.5.4, 2.5.5, 2.6.1, 2.6.3, 2.6.5, 2.7.1, 2.7.3, 2.9.6, 2.9.8, 2.9.11, 2.9.15, 2.9.16, 2.9.19, 2.9.24, 2.9.29, 2.10.2, 2.10.5, 3.1.1.g, 3.2.1.a, 3.2.1.c, 3.3.1.a, 3.7.3.1.k, 3.8.1, 3.9.1, 3.9.6, 3.10, 3.11.1, 3.11.2, 3.11.7, 3.11.10, 3.11.11, 3.12.1, 3.12.2, 3.12.3, 4.2, 4.2 B, 4.3.7, 5.12. Note 4, 6.8, 6.10.6, 6.10.7, 6.10.8, 7.4.1, 9.0, 9.1, BOQ table 9.1 For Unit 3 & 4, 10.5, 10.5 note, 10.8.3, 10.8.9, 10.21, 12.2, 14.3.1, 14.3.2 & Chapter XXIII are revised and attached as Annexure – 1.

		Corrigendum - 2 dated 26/07/2024 to CPC Tende	Corrigendum - 2 dated 26/07/2024 to CPC Tender No. BHEL/CPC/LRA/BLR-PCP/25/020									
		ANNEXURE - 1: MODIFICATIONS IN TECHNICAL	L CONDITIONS OF CONTRACT (TCC)									
SI.	Clause No	Existing Clause of TCC	Revised Clause of TCC									
1 2	2.1 2.5.4	in and around SG area Furnishing all labour, materials, supervision, construction plans, equipment, supplies, transport, to and fro the site, fuel, electricity compressed air, water, transit and storage insurance and all other incidental items and temporary works not shown on specified but reasonably implied or necessary for the proper completion, maintenance and handing over the works in accordance with the stipulations laid down in the contract documents and additional stipulations as may be provide by the engineer during the course of works.										
3	2.5.5	Manpower hired/deployed by contractor for this project shall be monitored through online project monitoring system. All Personnel entering in to NTPC site premises for carrying out any work shall be tracked. Tracking devices shall be provided by BHEL on chargeable basis to contractor. BHEL will provide tags free of cost at first instance. In case of damage or missing of issued worker tag, Rs. 1000/- per tag will be charged for issuing new worker tag.	Manpower hired/deployed by contractor for this project shall be monitored through online project monitoring system. All Personnel entering in to NTPC site premises for carrying out any work shall be tracked. Tracking devices shall be provided by BHEL on first instance on free of cost basis to contractor limited 1000 number of manpower. In case of damage or missing of issued worker tag, Rs. 1000/- per tag will be charged for issuing new worker tag.									
4	2.6.1	and cladding) *Experienced Foreman / Supervisors - 08 heads *Planning & Billing Engineers - 02 head *Stores, Gate Pass - 01 head *Accounts & Administration - 01 head *Human Resourse officers - 01 head *Human Resourse officers - 01 head *Uaulity Control Engineer - OSr. Quality Control Engineer - 01 Head with minimum 10 Years' relevant experience in quality control of Boiler / piping OQA/QC Documentation Engineer with minimum 03 years' relevant experience in NDT (Level-2 in RT, UT, LPI/MPI) OQA/QC Documentation Engineer with minimum 03 years' relevant experience in QA/QC of boiler & piping - 01 no. *Safety Engineer - As per HSE Plan *Operator, Licensed Electrician, Mechanic - As per requirement *Experienced Helpers - lot for similar nature of work *Security Guards (Round The Clock) - As per requirement.	Project Manager – 01 Head with relevant experience in Industrial Building & Power Plant (Boiler & Piping) Works etc. *Asst. Project Managers – 04 heads, 01 PP+TP, Structure-1, NPP+Ducts-1, Pipiping-1 and on later stage 01 no. dedicated head for Insulatic and cladding) *Experienced Foreman / Supervisors – 08 heads *Planning & Billing Engineers – 02 head *Stores, Gate Pass – 01 head *Accounts & Administration – 01 head *Human Resourse officers – 01 head *Quality Control Engineer – 02 head with relevant experience in quality control of Boiler / piping oQuality Control Engineer – 01 Head with relevant experience in NDT (Level-2 in RT, UT, LPI/MPI) oQA/QC Documentation Engineer with relevant experience in QA/QC of boiler & piping – 01 no. *Safety Engineer – As per HSE Plan *Operator, Licensed Electrician, Mechanic - As per requirement *Experienced Helpers – lot for similar nature of work *Security Guards (Round the Clock) – As per requirement. Note: Above manpower requirement is tentative only. Contractor shall augment manpower to meet the project schedule/ milestones. Deployment of manpower shall be progressive to meet the project schedule. Relevant experience is subject to decision of BHEL site in-charge.									
5	2.6.3	Engineer/ supervisor for other functions like store & purchase, material management, planning, finance, administration etc. are to be provided as per site requirement and not considered in above list.	Engineer/ supervisor for other functions required for proper execution are to be provided as per site requirement and not considered in above list.									
6	2.6.5	In addition to above, a well experienced qualified engineer to be designated, as 'Project Co-coordinator', shall be deployed by the contractor Such engineer shall have adequate exposure on the job and shall remain fully involved in all planning activities, guidance etc. to contractor's own team during the complete execution period of contract.	VOID									
7	2.7.1	(knowledge of MS office) to whom works will be assigned in consultation and acceptance of BHEL for original contract and extended period	The Contractor will have to provide 02 nos. of supervisors / Engineers, acceptable to BHEL Site with sufficient computer knowledge (knowledge of MS office) to whom works will be assigned in consultation and acceptance of BHEL for original contract and extended period. BHEL may utilize this manpower in any area of work with in plant premises as per requirement. All statutory compliances, gate passes, food and accommodation of these manpower shall be arranged by contractor. Payment shall be made as per BOQ item no "Section C".									
8	2.7.3	On-board Graphics feature compatible with supplied OS, Minimum 8 GB RAM 2666 MHZ SDRAM upgradeable to 16 GB, 512 GB SSD M.2 Harc Drive or higher, 13" - 14" (both included) high definition anti-glare LED back lit Screen, OEM USB Optical Travel Mouse, Integrated High definition audio with integrated speakers and volume control (Hardware/Software). Single audio jack (single pin) for connecting ear phones and mic, Built-In HD Webcam with Built-In Microphone, integrated 100/1000 Mbps port, Integrated Wi-Fi 6, supporting industry standard IEEE 802.11ax + Bluetooth 5.0 or higher, Minimum 2xUSB 3.1 Ports, 1xType C, Stereo headphone/microphone combo jack, 1 x HDMI Port. 1 x HDMI Port. 1 A, Minimum 3-cell battery capable of providing 6 hours or more backup in standard business environment, ACPI Compliant, OEM AC Adaptor suitable for 230V supply, Should come pre-installed with Windows 11 Professional Edition or latest version with 64bit latest service	The bidder will have to provide Two (02) No. of Laptops (X-86 Architecture Based, 64-Bit Supported, Microprocessor with minimum 8 cores, On-board Graphics feature compatible with supplied OS, Minimum 8 GB RAM 2666 MHZ SDRAM upgradeable to 16 GB, 512 GB SSD M.2 Hard Drive or higher, 13" - 14" (both included) high definition anti-glare LED back lit Screen, OEM USB Optical Travel Mouse, Integrated High definition audio with integrated speakers and volume control (Hardware/Software). Single audio jack (single pin) for connecting ear phones and mic, Built-In HD Webcam with Built-In Microphone, integrated 100/1000 Mbps port, Integrated Wi-Fi 6, supporting industry standard IEEE 802.11ax + Bluetooth 5.0 or higher, Minimum 2xUSB 3.1 Ports, 1xType C, Stereo headphone/ microphone combo jack, 1x HDMI Port. 1 x RJ - 45, Minimum 3-cell battery capable of providing 6 hours or more backup in standard business environment, ACPI Compliant, OEM AC Adaptor suitable for 230V supply, Should come pre-installed with Windows 11 Professional Edition or latest version with 64bit latest service pack, OEM carry bag to be supplied with OS Certification from Microsoft and required software able to open/edit drawings & documents of BHEL like MS Office, AutoCAD, ADOBE PDF with one laser jet printer compatible for A4 and A3 size printing with power backup at places, as per instruction of BHEL, for original and extended contract period.									
9	2.9.6	It shall be specially noted that, the contractor may have to work round the clock (24x7) or may have to deploy additional manpower/resources to achieve the completion schedules / plans / targets during the entire course of erection and commissioning works which may involve considerable payment including overtime. Hence contractor's quoted rate shall take into consideration of all expenses that will be incurred for such arrangement of personnel including labours, engineers / supervisors, T&Ps etc.	to achieve the completion schedules / plans / targets during the entire course of erection and commissioning works, which may involve									

		Corrigendum - 2 dated 26/07/2024 to CPC Tender	No. BHEL/CPC/LRA/BLR-PCP/25/020
		ANNEXURE - 1: MODIFICATIONS IN TECHNICAL	. CONDITIONS OF CONTRACT (TCC)
SI. No.	Clause No	Existing Clause of TCC	Revised Clause of TCC
10	2.9.8	work is found to be defective in workmanship not conforming to drawings or other stipulations, the contractor shall dismantle and redo the	The work shall conform to dimensions and tolerances given in various drawings and quality manuals provided by BHEL. If any portion of work is found to be defective in workmanship not conforming to drawings or other stipulations, the contractor shall dismantle and redo the work duly replacing the defective materials at his cost, failing which the job will be carried out by BHEL by engaging other agencies / departmentally and recoveries will be affected from contractor's bill towards expenditure incurred including BHEL's overhead charges. (5%).
11	2.9.11	The storage yard is located within the plant boundary and outside plant boundary of the plant premises in multiple locations. All other materials have to be transported from storage yard to construction area by the contractor at his own cost, using own Pick & Carry Crane (Farrana), crane and trailer.	The storage yard is located within the plant boundary and outside plant boundary of the plant premises in multiple locations which shall be intimated during course of work. All other materials have to be transported from storage yard to construction area by the contractor at his own cost, using own Pick & Carry Crane (Farrana), crane and trailer.
12	2.9.15	contract, within 15 days from the date on which the requirement is mentioned in Contractor performance review (F-14) format. a.2 nos. Computer Operator (Experience in computer) b.2 nos. Service staffs. c.4 nos. Engineer/Supervisor (Minimum Qualification Engineering/Diploma) d.2 nos. Safety Engineer. The qualification is as per HSE plan. e.2 nos. Quality (QA/QC) Engineer (Minimum Graduate Experience in QA/QC)	Contractor has to deploy following manpower at site/BHEL PSER office, in addition to requirement mention else where in this contract, within 15 days from the date on which the requirement is mentioned in Contractor performance review (F-14) format. a.2 nos. Computer Operator (Experience in computer) b.2 nos. Service staffs. c.4 nos. Engineer/Supervisor (Minimum Qualification Engineering/Diploma) d.2 nos. Safety Engineer. The qualification is as per HSE plan. e.2 nos. Quality (QA/QC) Engineer (Minimum Graduate Experience in QA/QC) The deployed manpower shall report to BHEL and may be deployed at any location. BHEL shall make payment on pro rata monthly basis on actual deployment as per BOQ (considering 26 working days in a month). Payment shall be made as per BOQ item no "Section C". NOTE:- 1. Monthly unit rates are based on minimum wages as per NTPC (LARA) circular at the time of NIT multiplied by factor of 1.41. Monthly unit rates shall be revised as when it is changed/informed by NTPC. 2. Monthly unit rates per month shall be paid as per the minimum wages rate given in circular issued by NTPC (LARA) multiplied by factor of 1.41 (for statutory portion of monthly salary). 3. Since the rates against manpower services are variable according to periodic revision, therefore ORC and PVC as per GCC shall not be applicable for providing these manpower services are variable according to periodic revision, therefore ORC and PVC as per GCC shall not be applicable for providing these manpower services. Contractor has to deploy personals at site, within 15 days, from the date on which requirement is mentioned in Contractor performance review (F-14). In case the contractor does not deploy or delays deployment of above said manpower with reference to specific instructions from BHEL, BHEL will levy penalty of Rs. 500 per person per service day, for such delay. Payment during the absenteeism shall not be paid.
13	2.9.16	Furnishing all labour, materials, supervision, construction plans, equipment, supplies, transport, to and fro the site, fuel, electricity, compressed air, water, transit and storage insurance and all other incidental items and temporary works not shown on specified but reasonably implied or necessary for the proper completion, maintenance and handling over the works, except in accordance with the stipulations laid down in the contract documents and additional stipulations as may be provide by the engineer during the course of works.	VOID
14	2.9.19	Giving all notices, paying all fees, taxes etc., in accordance with the general conditions of contract, that is required for all works including temporary works.	Giving all notices, paying all fees, taxes, statutory clearances/, license (like T&P load test, etc.), etc., in accordance with the general conditions of contract, that is required for all works including temporary works.
15	2.9.24	Contractor shall set up suitable storage facilities. Contractor shall ensure the Storage of only those material at site which will be erected/Preassembled within 10 days OR as directed by BHEL Engineer. Any wastage due to lapse of storing shall be debited to contractor.	Contractor shall set up suitable guarded storage facilities. Contractor shall ensure the Storage of only those material at site which will be erected/Pre-assembled within 10 days OR as directed by BHEL Engineer. Any wastage due to lapse of storing shall be debited to contractor with 5% overhead.
16	2.9.29	Adequate water less/Bio urinals (at least 1 no. per 100 nos of manpower, in alternate levels/locations) shall be arranged by the contractor within quoted rates, at site of construction at different level and different areas with proper disposal arrangement.	Adequate water less/Bio urinals (at least 1 no. per 100 nos of manpower, at locations identified by BHEL site in-charge) shall be arranged by the contractor within quoted rates, at site of construction at different level and different areas with proper disposal arrangement.
17	2.10.2	steel), all gases (inert, welding, and cutting), soldering material, dye penetrants, radiography films. Other erection consumables such as tapes,	The contractor shall provide within finally accepted price / rates, all consumables like welding electrodes (including alloy steel and stainless steel), all gases (inert, welding, and cutting), soldering material, dye penetrants, radiography films. Other erection consumables such as tapes, jointing compound, grease, mobile oil, M-seal, Araldite, petrol, CTC / other cleaning agents, grinding and cutting wheels are to be provided by the contractor. Steel, H&S, packers, shims, wooden planks, scaffolding and pre-assembly materials (structural steel, concrete sleeper, concrete blocks etc.) hardware items etc. required for temporary works such as supports, scaffoldings, pre-assembly bed etc. can be issued from BHEL on returnable basis subject to availability with BHEL site store. In case of non-availability same has to be arranged by agency.
18	2.10.5	The contractor shall submit weekly / fortnightly / monthly statement report regarding consumption of all consumables for cost analysis purposes.	The contractor shall submit quarterly statement report regarding consumption of all consumables for cost analysis purposes.
19 20	3.1.1.g	Fencing of storage area, office, canteen etc of the bidder	Cordoning-off of storage area, office, canteen etc of the bidder
20	3.2.1.a	Single point source	Free of cost at Three point near the site at a distance of approx. 500 meter.
21	3.2.1.c	Duties and deposits including statutory clearances if applicable in Bidder Scope	Duties and deposits including statutory clearances if applicable in BHEL Scope
22	3.3.1.a 3.7.3.1.k	Making the water available at single point bidder scope Laying of racks for gantry crane if provided by BHEL or brought by the contractor /bidder himself.	Making the water available at single point BHEL scope Laying of tracks, erection, commissioning for gantry crane if provided by BHEL or brought by the contractor /bidder himself.
23			Lawy may or a decay or a country commissioning for game y crame in provided by DHEE OF DEOUGHE by the contractor / Diduct miniself.

	Corrigendum - 2 dated 26/07/2024 to CPC Tender No. BHEL/CPC/LRA/BLR-PCP/25/020										
		ANNEXURE - 1: MODIFICATIONS IN TECHNICAL	CONDITIONS OF CONTRACT (TCC)								
SI. No.	Clause No	Existing Clause of TCC	Revised Clause of TCC								
24	3.8.1	by other Civil /mechanical/ electrical contractors and the storage of plant machineries and materials. The existing land shall be shared by all erections agencies. BHEL shall provide free of charge limited open space for office, storage shed and laydown area as and where made	Availability of land within plant boundary is very limited and the contractor has to plan and use the existing land considering the use of land by other Civil /mechanical/ electrical contractors and the storage of plant machineries and materials. The existing land shall be shared by all erections agencies. BHEL shall provide free of charge limited open space for office, storage shed and laydown area as and where made available by Customer. It is the responsibility of the contractor to construct facilities such as sheds, fabrication/Preassembly yard, provide all utilities and dismantle and clear the site after completion of work or as and when required, as a part of his scope of work.								
25	3.9.1	developed as per attached drawing and in compliance of statutory requirements.	Labour colony is to be developed by bidder for all the labours required to be deployed for the works. All labour colony set-up is to be developed as per attached drawing and in compliance of statutory requirements. Modification, if any, shall be with consent of BHEL/Customer. Contractor shall construct/arrange Labour Hutment as per minimum specifications mentioned in the attached drawing, for which no separate payment shall be made by BHEL								
26	3.9.6	Providing and maintaining facilities for safety, welfare, drinking water and sanitation, hygiene, biennial health check-up etc. for construction workers at their workplaces as well as at labour & staff colonies.	Providing and maintaining facilities for safety, welfare, drinking water and sanitation, hygiene, half-yearly health check-up etc. for construction workers at their workplaces as well as at labour & staff colonies.								
27	3.10	Installation of necessary amenities- and temporary infrastructure for construction activities at Project site locations. Following are the minimum amenities to be provided by the bidder within the quoted price including removal/disposal of the same in environment friendly manner after its intended use/completion of scope of work: i.Canteen facility creation. ii.Drinking water facility. iii.Labour Bio toilets near work spot in sufficient nos. with regular cleaning & maintenance arrangement. iv.Labour colony should have all hygienic condition, dining hall, toilets, proper sewerage system, good drinking water arrangements. v.Regular fogging in the work place and labour colony to avoid mosquitoes. vi.Royalty challan (if applicable) and statutory documents shall be submitted along with RA Bills for processing of Bills.	Installation of necessary amenities- and temporary infrastructure for construction activities at Project site locations. Following are the minimum amenities to be provided by the bidder within the quoted price including removal/disposal of the same in environment friendly manner after its intended use/completion of scope of work: i. Labour rest sheds near work spot. ii.Canteen facility creation. iii.Drinking water facility. iii.Drinking water facility. iv.Labour Bio toilets near work spot in sufficient nos. with regular cleaning & maintenance arrangement. v.Labour colony should have all hygienic condition, dining hall, toilets, proper sewerage system, good drinking water arrangements. vi.Regular fogging in the work place and labour colony to avoid mosquitoes. vii.Royalty challan (if applicable) and statutory documents shall be submitted along with RA Bills for processing of Bills.								
28	3.11.1	Construction power (three phase, 415 V/ 440 V) will be provided near the site at a distance of approx. 500M. Further, distribution shall be arranged by the contractor at his own cost and services. If any other voltage level (other than normally available) is required, the same shall be arranged by the contractor from power supply as above. Contractor shall be responsible for fulfilment of all requirements including statutory requirements in this regard. The charges for the actual energy consumed by the bidder (Energy Charges Only) shall be recovered by the BHEL based on prevalent rate of DISCOM and type of connection used.	Construction power (three phase, 415 V/ 440 V) for construction purpose will be provided on free of cost basis. Further, distribution shall be arranged by the contractor at his own cost and services. Construction power (three phase, 415 V/ 440 V) for office, stores, canteen etc. within the site premises will be provided on chargeable basis near the site at a distance of approx. 500M. Further, distribution shall be arranged by the contractor at his own cost and services.								
29	3.11.2	protection devices and any other installation as specified by statutory authority/act.	Contractor shall deploy and install required energy meter (wherever applicable), cables, fuses, distribution boards, switchboards, bus bars, earthing arrangements, protection devices and any other installation as specified by statutory authority/act. Contractor shall provide at his own cost necessary calibrated energy meters (tamper proof, suitably housed in a weather proof box with lock & key arrangement) at point of power supply along with calibration certificate from authorized/ accredited agency for working out the power consumption. In case of recalibration required for any reason the necessary charges including replacement by calibrated meters is to be borne by the contractor. Contractor is advised to maintain the calibrated energy measuring instruments.								
30	3.11.7	his own arrangement like DG set etc. The contractor shall also take the approval/ permission of statutory authorities for his DG set	Contractor to note that till construction power is made available by BHEL (approx. within 2 months from start of work); contractor shall make his own arrangement like DG set etc. The contractor shall also take the approval/permission of statutory authorities for his DG set installation. The Contractor has to make his own arrangement for the same as required to carry out the job under the scope of work within the quoted rate. Nothing extra shall be paid on this account of DG set up and running for construction and office maintenance etc. Fuel (HSD) shall be paid at actuals till construction power is made available by BHEL during initial days. For outages of more than 2 hours (15 minutes tolerance), for the reasons not attributable to Contractor, fuel shall be reimbursed by BHEL at actuals for running of DG set exclusively for construction purpose only.								
31	3.11.10		The bidder will have to Procure & install General mobile illumination system during construction right from start of his work. This system will include temporary pole lighting, within the quoted price. The illumination should be such that minimum illumination requirement as specified by Indian standards for general illumination is maintained.								
32	3.11.11	Contractor is advised to maintain the calibrated energy measuring instruments and use their system as efficiently as possible to maintain the HT side input energy meter reading and LT side outgoing energy meter reading to sub-contractors as equal.	VOID								
33	3.12.1	Construction water shall be arranged by bidder. Bidder has to make arrangement of further distribution of water at his own cost. No extra payment shall be made under this account.	Construction water shall be arranged by BHEL. Bidder has to make arrangement of further distribution of water at his own cost. No extra payment shall be made under this account.								
34	3.12.2	The Contractor should make arrangements for storage of sufficient quantity of water required for work. The agency should also construct sumps (if required) of suitable size for storage of construction water as per their requirement for use in batching plant and construction purposes.	The Contractor should make arrangements for storage of sufficient quantity of water required for work.								

				Corrigendum - 2	dated 26/07/20	24 to CPC Tende	r No. Bl	HEL/CPC/LRA/BLR-PCP/25/020			
				ANNEXURE -	1: MODIFICATIO	NS IN TECHNICA	L COND	TIONS OF CONTRACT (TCC)			
SI. No.	Clause No		Existing	Clause of TCC					Revised Clause of TCC		
35	3.12.3		or to satisfy himself that the water drawn by him is fit for s not found fit for the said purposes.	construction / consumption	on and adequately trea	t such water at his cost	Contracto	or to satisfy himself that the water drawn by him is	fit for construction / consumption.		
36	4.2	Other T8	Ps:				Other T&	Ps:			
					MINIMUM QUANTITY					MINIMUM QUANTITY	
		SN	DESCRIPTION OF OTHER T&Ps	CAPACITY (MINIMUM)	AS PER EARLIER TCC	REMARKS	SN			AS PER EARLIER TCC	REMARKS
		2	Tyre mounted mobile crane Tyre mounted mobile crane	35/40/50 MT 18/20/23 MT	As per requirement As per requirement	As per requirement As per requirement	2	Tyre mounted mobile crane Tyre mounted mobile crane	35/40/50 MT 18/20/23 MT	02 no. 06 no.	As per requirement As per requirement
		3	Tyre mounted mobile crane Tyre mounted mobile crane	10/12/14 MT	As per requirement	As per requirement	3	Tyre mounted mobile crane	10/12/14 MT	02 no.	As per requirement
		4	Trailer with prime mover	20 MT	As per requirement	As per requirement	4	Trailer with prime mover	20 MT	02 no.	As per requirement
		5	Trailer with prime mover	40 MT	As per requirement	As per requirement	5	Trailer with prime mover	40 MT	01 no.	As per requirement
		6	Low bed trailer Low bed trailer with min 70-100 feet span	60 MT	As per requirement	As per requirement	6	Low bed trailer Low bed trailer with min 70-100	60 MT	As per requirement	As per requirement
		7		As per Requirment	01 no.	As per requirement	7	Backhoe Loader/JCB	As per Requirment	As per requirement	As per requirement
37	4.2 B	List of su	ggestive safety Equipments /PPEs to be included in List of mini	mum T&P:			List of sug	gestive safety Equipments /PPEs to be included in Lis	t of minimum T&P:	Min-100 Nos	
		1	Safety Net (Conforming IS 11057:1984) Safety Net (Net Size: 10m x 5m, Mesh Size: 25 mm, cord, Border/Tie Cord: 12mm diameter polypropyle 5175). Two meters length shall be provided at all fou	ne rope (tested as per IS:				Safety Net (Conforming IS 11057:1984) Safety Net (Net Size: 10m x 5m, Mesh Size: 2 cord, Border/Tie Cord: 12mm diameter polyr 5175). Two meters length shall be provided a	propylene rope (tested as per IS:		
			Fall Arrester 'Rope grab fall arrester' & anchora 14mm- 16 mm diameter, three strand twisted Polyan		Min. 200 nos. of Ro and Karbiner each,	pe Grab Fall arrester'		Fall Arrester 'Rope grab fall arrester' & anchorage line. Anchorage Line: Min. 100 is and Karbir 14mm- 16 mm diameter, three strand twisted Polyamide rope.			ppe Grab Fall arrester'
		2	Rope Grab fall arrester: Openable & Guided type line) conforming EN 353-2 & works on 14-16 mm of Material: Nickel Chrome plated Steel.		(on flexible Min. 90 nos. anchorage line, 30 metre amide rope. long each, 2 th 22 KN), 30 nos. anchorage line, 40 metre long each,			Rope Grab fall arrester: Openable & Guided line) conforming EN 353-2 & works on 14-1 Material: Nickel Chrome plated Steel.			age line, 30 metre long
			Connector: Karbiner conforming to EN 362 (Min material: Steel	imum Strength 22 KN)				Connector: Karbiner conforming to EN 36 material: Steel	2 (Minimum Strength 22 KN),	15 nos. anchorage li	ne, 40 metre long each,
			Retractable Fall arrestor Block (Range 6 Mtr to 15 M	tr)	Min. 200 Nos.			Deleted		ļ.	
		3	Horizontal life line Stainless Steel Wire rope of 8mm diameter. Minimu clips are required for clamping each wire rope to a ri bolt clips at each end).		long Min 90 nos. o	rope, each 40 metre f wire rope, each 25		Horizontal life line Stainless Steel Wire rope of 8mm diameter. I clips are required for clamping each wire rope bolt clips at each end).		long Min 45 nos. o	e rope, each 40 metre of wire rope, each 25
		4	Ladders on column The minimum design live load on metallic laconcentrated load of 100 kilo grams. All rungs shall fof 1.9 cm and minimum clear length of rungs shall distance between rungs shall not exceed 30.5 centic have maximum height of 9.0 metre. The ladder shall have proper fastenings for attach positive means such as bolt, weld or other type of fastenings.	nave a minimum diameter be 40.6 centimeters. The meters. Each ladder shall ing it to a column using	e metres	of ladders is 1200	4	Ladders on column The minimum design live load on meta concentrated load of 100 kilo grams. All rungs of 1.9 cm and minimum clear length of rung distance between rungs shall not exceed 30. have maximum height of 9.0 metre. The ladder shall have proper fastenings for positive means such as bolt, weld or other types.		fladders is 600 metres	
	4.3.7	accredite MMDs m	uring and Monitoring Devices (MMD) used for the work and agencies that are approved by BHEL or calibration tract obilised to site necessariliy be entred into BHELs 'Field Cali	ability is established upto bration Monitoring System'	National Test House/L (FCMS).	aboratory. Details of all	agencies				brated by the accredited
39	5.12. Note 4. Contractor shall make necessary arrangements like laying of special sleeper beds and steel plates (Plates for BHEL owned/ hired cranes shall be provided by the BHEL), assembly and dismantling of heavy attachment, boom, jib etc. for movement and operation of the crane. Contractor shall provide necessary manpower assistance for initial and final assembly & dismantling and for subsequent operations of boom extension and reduction during execution of work. Levelled & reasonably compacted area will be provided by BHEL/customer for the Further Consolidation of the ground with hard-crusting of Area required for movement of crane (including civil placing crane for operation shall be done by the ontractor, at his cost. Necessary plates required for marching operation shall be provided by the BHEL only for BHEL owned cranes.										

				Corrige	endum - 2	dated 26/07/20	24 to CPC Tende	r No. B	HEL/CPC/LRA/BLR-PCP/25/020					
				AN	NEXURE -	1: MODIFICATIO	NS IN TECHNICAL	L COND	ITIONS OF CONTRACT (TCC)					
SI. No.	Clause No		Existing	Clause of TCC	:					Revised Clause of T	сс			
40	based on the tentative schedule provided as above. The detailed L3 schedule shall be approved by BHEL and same shall be impler Bidder shall submit L3 schedule in MS Projects and excel to meet the agreed project schedule covering various mile stone activities at split up details such as mobilization, procurement of materials & erection activities. This schedule shall also clearly indicate the in						e shall be implemented tone activities and their y indicate the interface	HEL, The contractor shall submit and a detailed area/structure wise L3 schedule within 25 days from date of LOA, in consultation with BHEL, based on the tentative schedule provided as above. The detailed L3 schedule shall be approved by BHEL and same shall be implemented. Bidder shall heir submit L3 schedule in MS Projects and excel to meet the agreed project schedule covering various mile stone activities and their split up details face such as mobilization, procurement of materials & erection activities. This schedule shall also clearly indicate the interface facilities / inputs over applicable in each package. Bidders shall submit Resource deployment plan Area wise with detail program in line with above schedule in the form of Bar Chart/ MS project planner along with their offer.						
41	6.10.6	The contractor shall submit daily, weekly and monthly progress reports, manpower reports, materials reports, consumables (gases electrodes) report, cranes availability report and other reports as per Performa considered necessary by the Engineer. The periodicity of the reports will be decided by BHEL Engineer at site.						availabili	ractor shall submit quarterly progress reports, ma ty report and other reports as per Performa consi gineer at site.					
42	6.10.7		ractor shall submit weekly / fortnightly / monthly state	ment report r	egarding con	sumption of all consum	nables for cost analysis	The cont	ractor shall submit <mark>quarterly</mark> statement report rega	rding consumption	of all consumab	les for cost analysis pur	poses.	
43	6.10.8	The conti	ractor shall submit a report of any damage, shortage, discr	ailing in this regard.			ractor shall submit a report of any damage, shorta considered as no shortage of materials.	ge, discrepancy etc.	, every week de	etailing in this regard. N	on Submission of report			
44	7.4.1		Material reconciliation statement alongwith RA Bill.						re-conciliation statement duly approved by BHEL (
45	9.0	Summary	of Weight of BOQ for the scope of work mentioned in the t	ender: -		Dackage A Tentative	e Package B Tentative		of Weight of BOQ for the scope of work mentioned	in the tender: -		Dackage A Tentative	Package B Tentative	
		Sr. No	Descriptions			Weight (in MT)	Weight (in MT)	Sr. No	Descriptions			Weight (in MT)	Weight (in MT)	
		1A	Structure			25763.36	25763.36	1A	Structure			23763.36	23763.36	
		1B	Pressure parts			9908.79	9874.24	1B	Pressure parts			10043.82	10009.27	
		1C 1D	Non Pressure Parts Trim Piping			5720.81 897.51	5445.85 897.51	1C 1D	Non Pressure Parts Trim Piping			6707.37 897.51	6432.41 897.51	
		2A	Rotary machines			2014.9	2014.9	2A	Rotary machines			4378.98	4377.94	
		3A	Insulations Wool Matress			1889	1889	3A	Insulations Wool Matress			1889	1889	
		3B	Insulation -pourable and castable			270	270	3B	Insulation -pourable and castable			270	270	
		3C Insulation-iron parts				159.15	159.15	3C	Insulation-iron parts			159.15	159.15	
		3D	Insulation -Al cladding sheets		373.1	373.1	3D	Insulation -Al cladding sheets			373.1	373.1		
	7 7 8 7				1254	1255	5A	Power Cycle Piping P-91/92			1254	1255		
		5B	HP Piping Including P-11,P-12,P-22			1515.9	1229.4	5B	HP Piping Including P-11,P-12,P-22			1515.9	1229.4	
		5C 5E	LP Piping (incl CW Piping) Hangers/Pumps & Tanks			1549.35 1054.69	1549.35 1054.74	5C 5E	LP Piping (incl CW Piping) Hangers/Pumps & Tanks			1549.35 1054.69	1549.35 1054.74	
		5D	SS Piping			41.16	41.16	5D	SS Piping			41.16	41.16	
		-	TOTAL			52411.72	51816.76	1	TOTAL			53897.38	53301.38	
46	9.1	LP Piping i	n <mark>SG</mark> area					LP Piping	in BTG area					
47		t area, Gate	PGMA wise) weight for Unit 3 & 4 of BOQ for Boiler, Mill is & dampers, Rot. M/c, Insulation: -					in BTG are Other PG	ea, Gates & dampers, Rot. M/c, Insulation: - MAs details shall remain unaltered as mentioned in	Chapter IX of TCC				
		PGMA	DESCRIPTION	Weight as per earlier TCC (In Kg)	Unit	Items	Rate Schedule	PGMA	DESCRIPTION	Weight as per earlier TCC (In Kg)	Unit	Items	Rate Schedule	
		52341	L AH-HP PUMP WITH MOTOR	1.5	RPT APH	RM	2A	52341	L AH-HP PUMP WITH MOTOR	1,500	RPT APH	RM	2A	
		52011	LARG AH-ROTOR POST	53	RPT APH	RM	2A	52011	LARG AH-ROTOR POST	53,000	RPT APH	RM	2A	
		52010	LARG AH-ROTOR ASSY	1,330.00 7.5	RPT APH	RM RM	2A	52010	LARG AH-ROTOR ASSY	13,30,000 7,500	RPT APH RPT APH	RM RM	2A 2A	
		52012 52030	LARG AH-ROTORPINRACK LARG AH-ROTORHOUSING	7.5	RPT APH RPT APH	RM	2A 2A	52012 52030	LARG AH-ROTORPINRACK LARG AH-ROTORHOUSING	7,500	RPT APH	RM	2A 2A	
		52041	HOT END CONN PLATE	128.8	RPT APH	RM	2A	52041	HOT END CONN PLATE	1,28,800	RPT APH	RM	2A	
		52042	COLD END CONN PLATE	246.8	RPT APH	RM	2A	52042			RPT APH	RM	2A	
		52000	SPECIAL TOOLS/CONTRA	1.14	RPT APH	NB		52000	SPECIAL TOOLS/CONTRA	1,140	RPT APH	NB		
		52261	LARG AH-GUIDE BEARNG	7.95	RPT APH	RM	2A	52261	LARG AH-GUIDE BEARNG	7,950	RPT APH	RM	2A	
		52262	LARG AH-SUPRT BEARNG	22	RPT APH	RM	2A	52262	LARG AH-SUPRT BEARNG	22,000	RPT APH	RM	2A	
		52013	LARG AH-ROTORSEALS	18.5	RPT APH	RM						2A		
		52054	LARG AH-AXIAL SEAL	1.4	RPT APH	RM	2A	52054	LARG AH-AXIAL SEAL	1,400	RPT APH	RM	2A	
		52055 52100	LARG AH-BY PASS SEAL LARGE AH ROTOR DRIVE	1.73 14.5	RPT APH RPT APH	RM RM	2A 2A	52055 52100	LARG AH-BY PASS SEAL LARGE AH ROTOR DRIVE	1,730 14,500	RPT APH RPT APH	RM RM	2A 2A	
				RPT APH	RM	2A 2A	52100	LARG AH-AUX ROTDRIVE	10,500	RPT APH	RM	2A 2A		
		52600	LARGE AH ECI COMPONENETS	1.5	RPT APH	RM	2A	52600	LARGE AH ECI COMPONENETS	1,500	RPT APH	RM	2A	
		50510	STEAM COIL A P H	13	RPT APH	RM	2A	50510	STEAM COIL A P H	13,000	RPT APH	RM	2A	
1		52220	LARG AH-GENS DETAILS	3.2	RPT APH	RM	2A	52220	LARG AH-GENS DETAILS	3,200	RPT APH	RM	2A	
1		52271	OIL PIPING GUIDE BRG	0.54	RPT APH	RM	2A	52271	OIL PIPING GUIDE BRG	540	RPT APH	RM	2A	

ANNEXURE - 1: MODIFICATIONS IN TECHNICAL CONDITIONS OF CONTRACT (TCC)

Clause No		Existing	Clause of TC	cc					Revised Clause	of TCC		
	52272	OIL PIPING SUPRT BRG	0.52	RPT APH	RM	2A	52272	OIL PIPING SUPRT BRG	520	RPT APH	RM	2A
	52338	LARGE AH-MULTIMEDI CLNG DEV-CE	3.05	RPT APH	RM	2A	52338	LARGE AH-MULTIMEDI CLNG DEV-CE	3,050	RPT APH	RM	2A
	52339	LARGE AH-RETRACT CLNG DEV (HE)	2.5	RPT APH	RM	2A	52339	LARGE AH-RETRACT CLNG DEV (HE)	2,500	RPT APH	RM	2A
	52211	LARG AH-AIRSEAL PIPE	0.8	RPT APH	RM	2A	52211	LARG AH-AIRSEAL PIPE	800	RPT APH	RM	2A
	52274	LUB OIL CIRCULATION UNIT	1.12	RPT APH	RM	2A	52274	LUB OIL CIRCULATION UNIT	1,120	RPT APH	RM	2A
	52275	LARGE AIR HEATER-LUBRICANTS	1.55	RPT APH	RM	2A	52275	LARGE AIR HEATER-LUBRICANTS	1,550	RPT APH	RM	2A
	52301	WASH MANIFLD GAS INL	2.45	RPT APH	RM	2A	52301	WASH MANIFLD GAS INL	2,450	RPT APH	RM	2A
	52302	WASH MANIFLD GAS OUT	2.7	RPT APH	RM	2A	52302	WASH MANIFLD GAS OUT	2,700	RPT APH	RM	2A
	52988	LARG AH COMMISSIONING SPARE	0.5	RPT APH	NB	24	52988	LARG AH COMMISSIONING SPARE	500	RPT APH	NB	ZA
	55012	FD STAIR HAND RAIL	2	RPT FAN	RM	2A	55012	FD STAIR HAND RAIL	2,000	RPT FAN	RM	2A
	55012	FD FAN MOTOR CANOPY	1 5	RPT FAN	RM	2A	55012	FD FAN MOTOR CANOPY	1,500	RPT FAN	RM	2A
	55022	ID STAIR HAND RAIL	2	RPT FAN	RM	2A	55022	ID STAIR HAND RAIL	3,000	RPT FAN	RM	2A
	55029	ID FAN MOTOR CANOPY	2	RPT FAN	RM	2A	55029	ID FAN MOTOR CANOPY	3,000	RPT FAN	RM	2A
	55032	PA STAIR HAND RAIL	23	RPT FAN	RM	2A	55032	PA STAIR HAND RAIL	2.300	RPT FAN	RM	2A
			2.3						2,400		RM	
	55039	PA FAN MOTOR CANOPY		RPT FAN	RM	2A	55039	PA FAN MOTOR CANOPY		RPT FAN		2A
	55210	FD FAN LOS CANOPY	1.2	RPT FAN	RM	2A	55210	FD FAN LOS CANOPY	1,200	RPT FAN	RM	2A
	55220	ID FAN LOS CANOPY	1.2	RPT FAN	RM	2A	55220	ID FAN LOS CANOPY	1,200	RPT FAN	RM	2A
	55230	PA FAN LOS CANOPY	1.2	RPT FAN	RM	2A	55230	PA FAN LOS CANOPY	1,200	RPT FAN	RM	2A
	55728	ID FAN SUCTION BOX	21	RPT FAN	RM	2A	55728	ID FAN SUCTION BOX	21,000	RPT FAN	RM	2A
	55828	ID FAN DIFFUSER	18.8	RPT FAN	RM	2A	55828	ID FAN DIFFUSER	18,800	RPT FAN	RM	2A
	56072	SA STAIR HAND RAIL	1.2	RPT FAN	RM	2A	56072	SA STAIR HAND RAIL	1,200	RPT FAN	RM	2A
	55015	FD FAN COUPLING GUARD	0.06	RPT FAN	RM	2A	55015	FD FAN COUPLING GUARD	60	RPT FAN	RM	2A
	55420	ID SET INDN SHAFT	0.18	RPT FAN	RM	2A	55420	ID SET INDN SHAFT	180	RPT FAN	RM	2A
	55000	FAN TOOL FIXTURE	0.5	RPT FAN	NB		55000	FAN TOOL FIXTURE	500	RPT FAN	NB	
	55410	FD SET INDN SHAFT	0.13	RPT FAN	RM	2A	55410	FD SET INDN SHAFT	130	RPT FAN	RM	2A
	55510	FD FAN EXPN JOINTS	1.85	RPT FAN	RM	2A	55510	FD FAN EXPN JOINTS	1,850	RPT FAN	RM	2A
	55011	FAN FIX MATERIAL	0.95	RPT FAN	RM	2A	55011	FAN FIX MATERIAL	950	RPT FAN	RM	2A
	55021	ID FAN FIX MATERIAL	2	RPT FAN	RM	2A	55021	ID FAN FIX MATERIAL	2,000	RPT FAN	RM	2A
	55024	ID FAN C S AIR FAN	3	RPT FAN	RM	2A	55024	ID FAN C S AIR FAN	3,000	RPT FAN	RM	2A
	55031	PA FAN FIX MATERIAL	1	RPT FAN	RM	2A	55031	PA FAN FIX MATERIAL	1,000	RPT FAN	RM	2A
	55216	1 STG FD ROTOR	6.3	RPT FAN	RM	2A	55216	1 STG FD ROTOR	6,300	RPT FAN	RM	2A
	55516	1 STG FD HOUSING	16.5	RPT FAN	RM	2A	55516	1 STG FD HOUSING	16,500	RPT FAN	RM	2A
	55635	2 STG PA HOUSING	8.6	RPT FAN	RM	2A	55635	2 STG PA HOUSING	8.600	RPT FAN	RM	2A
	55816	FD FAN DIFFUSER	9	RPT FAN	RM	2A	55816	FD FAN DIFFUSER	9,000	RPT FAN	RM	2A
	55920	ID FAN LUBE OIL SYS	6.6	RPT FAN	RM	2A	55920	ID FAN LUBE OIL SYS	6,600	RPT FAN	RM	2A
	56077	SA FAN CI ITEMS	0.02	RPT FAN	RM	2A	56077	SA FAN CLITEMS	20	RPT FAN	RM	2A
	55091	FIRST FILL LUBRICANT	6.72	RPT FAN	RM	2A	55091	FIRST FILL LUBRICANT	6,720	RPT FAN	RM	2A
	55328	2 STG ID ROTOR	32.5	RPT FAN	RM	2A	55328	2 STG ID ROTOR	32,500	RPT FAN	RM	2A
	55335	2 STG PA ROTOR	7.5	RPT FAN	RM	2A	55335	2 STG PA ROTOR	7.500	RPT FAN	RM	2A
	55430	PA SET INDN SHAFT	0.16	RPT FAN	RM	2A	55430	PA SET INDN SHAFT	160	RPT FAN	RM	2A
	55628	2 STG ID HOUSING	47	RPT FAN	RM	2A	55628	2 STG ID HOUSING	47,000	RPT FAN	RM	2A
	55716	FD FAN SUCTION BOX	8.6	RPT FAN	RM	2A	55716	FD FAN SUCTION BOX	8,600	RPT FAN	RM	2A 2A
						_					_	
	55025	ID FAN CLITEMS	0.12	RPT FAN	RM	2A	55025	ID FAN CLITEMS	120	RPT FAN	RM	2A
	55027	ID FAN CLITEMS	0.05	RPT FAN	RM	2A	55027	ID FAN CI ITEMS	50	RPT FAN	RM	2A
	55035	PA FAN CPLNG GUARD	2.3	RPT FAN	RM	2A	55035	PA FAN CPLNG GUARD	100	RPT FAN	RM	2A
	55520	ID FAN EXPN JOINTS		RPT FAN	RM	2A	55520	ID FAN EXPN JOINTS	2,300	RPT FAN	RM	2A
	55530	PA FAN EXPN JOINTS	1.25	RPT FAN	RM	2A	55530	PA FAN EXPN JOINTS	1,250	RPT FAN	RM	2A
	55820	ID FAN COUPLING	5	RPT FAN	RM	2A	55820	ID FAN COUPLING	5,000	RPT FAN	RM	2A
	55830	PA FAN COUPLING	1.4	RPT FAN	RM	2A	55830	PA FAN COUPLING	1,400	RPT FAN	RM	2A
	55835	PA FAN DIFFUSER	5.5	RPT FAN	RM	2A	55835	PA FAN DIFFUSER	5,500	RPT FAN	RM	2A
	55919	FD FAN INSUL WOOL	15	RPT FAN	RM	2A	55919	FD FAN INSUL WOOL	15,000	RPT FAN	RM	2A
	55931	PA FAN SILENCER	58.1	RPT FAN	RM	2A	55931	PA FAN SILENCER	58,100	RPT FAN	RM	2A
	55939	PA FAN INSUL WOOL	10.5	RPT FAN	RM	2A	55939	PA FAN INSUL WOOL	10,500	RPT FAN	RM	2A
	56079	SA FAN MTR CANOPY	0.35	RPT FAN	RM	2A	56079	SA FAN MTR CANOPY	350	RPT FAN	RM	2A
	56670	RADIAL SEAL AIR FAN MOTOR	2.8	RPT FAN	RM	2A	56670	RADIAL SEAL AIR FAN MOTOR	2,800	RPT FAN	RM	2A
	55017	FD FAN CI ITEMS	0.04	RPT FAN	RM	2A	55017	FD FAN CI ITEMS	40	RPT FAN	RM	2A
	55037	PA FAN CI ITEMS	0.04	RPT FAN	RM	2A	55037	PA FAN CI ITEMS	40	RPT FAN	RM	2A
	55735	PA FAN SUCTION BOX	5.5	RPT FAN	RM	2A	55735	PA FAN SUCTION BOX	5,500	RPT FAN	RM	2A
	55810	FD FAN COUPLING	1.38	RPT FAN	RM	2A	55810	FD FAN COUPLING	1,380	RPT FAN	RM	2A
	55910	FD FAN LUBE OIL SYS	3	RPT FAN	RM	2A	55910	FD FAN LUBE OIL SYS	3,000	RPT FAN	RM	2A
	55911	FD FAN SILENCER	68	RPT FAN	RM	2A	55911	FD FAN SILENCER	68,000	RPT FAN	RM	2A
	55930	PA FAN LUBE OIL SYS	4.5	RPT FAN	RM	2A	55930	PA FAN LUBE OIL SYS	4,500	RPT FAN	RM	2A
	56075	SA FAN CPLNG GUARD	0.06	RPT FAN	RM	2A	56075	SA FAN CPLNG GUARD	60	RPT FAN	RM	2A
	56161	PENT HOUSE FAN	1.2	RPT FAN	RM	2A	56161	PENT HOUSE FAN	1,200	RPT FAN	RM	2A
	56173	SA FAN ROTOR	1.7	RPT FAN	RM	2A	56173	SA FAN ROTOR	1,700	RPT FAN	RM	2A

				Corrig	endum -	2 dated 26/0	7/2024 to CPC T	ender No. Bl	HEL/CPC/LRA/BLR-PCP/25/020				
				AN	NEXURE	- 1: MODIFIC	CATIONS IN TECH	NICAL COND	TIONS OF CONTRACT (TCC)				
SI. No.	Clause No		Exi	sting Clause of TC	c					Revised Clause	of TCC		
		56373	RADIAL SEAL AIR FAN BEARINGS	0.33	RPT FAN	RM	2A	56373	RADIAL SEAL AIR FAN BEARINGS	330	RPT FAN	RM	2A
		56473	RADIAL SEAL AIR FAN STATOR	7.6	RPT FAN	RM	2A	56473	RADIAL SEAL AIR FAN STATOR	7,600	RPT FAN	RM	2A
		56870	SEAL AIR FAN COUPLING(RADIAL)	0.04	RPT FAN	RM	2A	56870	SEAL AIR FAN COUPLING(RADIAL)	40	RPT FAN	RM	2A
		57S41	SEAL AIR PIPING-SCR	7	RPT GD	NPP	1C	57S41	SEAL AIR PIPING-SCR	7,000	RPT GD	NPP	1C
		57S77	ELECTRIC ACTUATR-SCR	6	RPT GD	NPP	1C	57\$77	ELECTRIC ACTUATR-SCR	6,000	RPT GD	NPP	1C
		57578	ELECTRIC ITEM-SCR GD	0.02	RPT GD	NPP	1C	57578	ELECTRIC ITEM-SCR GD	20	RPT GD	NPP	1C
		57591	BLOWER WITH MOTR-SCR	2	RPT GD	NPP	1C	57S91	BLOWER WITH MOTR-SCR	2,000	RPT GD	NPP	1C
		57S97	KGV CHECK VALV-SCR	2.2	RPT GD	NPP	1C	57S97	KGV CHECK VALV-SCR	2,200	RPT GD	NPP	1C
		57CX0	GATE-WITH CLADDING	35	RPT GD	NPP	1C	57CX0	GATE-WITH CLADDING	35,000 30,000	RPT GD	NPP	1C
		57141 57466	SEAL AIR PIPING PLATFORMS AND LADDERS	174.57	RPT GD	NPP NPP	1C 1C	57141 57466	SEAL AIR PIPING PLATFORMS AND LADDERS	1,74,570	RPT GD RPT GD	NPP NPP	1C 1C
		57497	KGV CHECK VALVE	8.9	RPT GD	NPP	1C	57497	KGV CHECK VALVE	8,900	RPT GD	NPP	1C
		57620	GATE-SCR BYPASS	98.6	RPT GD	NPP	1C	57620	GATE-SCR BYPASS	98.600	RPT GD	NPP	1C
		57491	BLOWER WITH MOTOR	15.8	RPT GD	NPP	10	57491	BLOWER WITH MOTOR	15.800	RPT GD	NPP	1C
		57010	GATE-FD FAN OUTLET	32.6	RPT GD	NPP	1C	57010	GATE-FD FAN OUTLET	32,600	RPT GD	NPP	1C
		57083	DAMPER-SA SCAPH BYPASS	24.2	RPT GD	NPP	10	57083	DAMPER-SA SCAPH BYPASS	24,200	RPT GD	NPP	1C
		57577	ELECT ACTUATOR FOR GATEDAMPER	55.6	RPT GD	NPP	1C	57577	ELECT ACTUATOR FOR GATEDAMPER	55,600	RPT GD	NPP	1C
		57578	ELECTRICAL ITEMS FOR GATEDAMP	0.06	RPT GD	NPP	1C	57578	ELECTRICAL ITEMS FOR GATEDAMP	60	RPT GD	NPP	1C
		57666	PLATFORMS AND LADDERS-SCR GD	13.2	RPT GD	NPP	1C	57666	PLATFORMS AND LADDERS-SCR GD	13,200	RPT GD	NPP	1C
		57110	GATE-PA FAN OUTLET	29	RPT GD	NPP	1C	57110	GATE-PA FAN OUTLET	29,000	RPT GD	NPP	1C
		57113	DAMPER-PA FAN OUTLET	16.7	RPT GD	NPP	1C	57113	DAMPER-PA FAN OUTLET	16,700	RPT GD	NPP	1C
		57160	GATE-COLD AIR TO MILLS	25.6	RPT GD	NPP	1C	57160	GATE-COLD AIR TO MILLS	25,600	RPT GD	NPP	1C
		57173	DAMPER-PA APH INLET	14.8	RPT GD	NPP	1C	57173	DAMPER-PA APH INLET	14,800	RPT GD	NPP	1C
		57270	GATE-HOT AIR TO MILLS	38.4	RPT GD	NPP	1C	57270	GATE-HOT AIR TO MILLS	38,400	RPT GD	NPP	1C
		57273	DAMPER-HOT AIR TO MILL	14.2	RPT GD	NPP	1C	57273	DAMPER-HOT AIR TO MILL	14,200	RPT GD	NPP	1C
		57430	FLUE GAS AH OUT GATE	87.4	RPT GD	NPP	1C	57430	FLUE GAS AH OUT GATE	87,400	RPT GD	NPP	1C
		57480	GATE-ID FAN INLET	74.5	RPT GD	NPP	1C	57480	GATE-ID FAN INLET	74,500	RPT GD	NPP	1C
		57490	GATE-ID FAN OUTLET	74.5	RPT GD	NPP	1C	57490	GATE-ID FAN OUTLET	74,500	RPT GD	NPP	1C
		57033	DAMPER-SA SCAPH INLET	20.3	RPT GD	NPP	1C	57033	DAMPER-SA SCAPH INLET	20,300	RPT GD	NPP	1C
		57063	DAMPER-SA SCAPH OUTLET	24.2	RPT GD	NPP NPP	1C	57063	DAMPER-SA SCAPH OUTLET	24,200	RPT GD RPT GD	NPP NPP	1C
		57143	DAMPER CA APIL OUT ST	8.5	RPT GD	NPP	1C	57143 57203	DAMPER-COLD AIR TO MILL DAMPER-SA APH OUTLET	8,500 35,000	RPT GD	NPP	1C 1C
		57203 57223	DAMPER-SA APH OUTLET DAMPER-PA APH OUTLET	35 18.7	RPT GD	NPP	1C 1C	57223	DAMPER-PA APH OUTLET	18,700	RPT GD	NPP	1C
		20-051	LONG RETRACTABLE SOO	97	Try	PP	1B	20-051	LONG RETRACTABLE SOO	97.000	Try	PP	1B
		20-051	WALL BOX NON PRESSUR	2	Try	PP	1B	20-051	WALL BOX NON PRESSUR	2,000	Try	PP	1B
		20-201	WALL DESLAGGER RW5E	30	Try	PP	1B	20-201	WALL DESLAGGER RW5E	30,000	Try	PP	1B
		20-204	WALL BOX NON PRESSUR	4	Try	PP	1B	20-204	WALL BOX NON PRESSUR	4.000	Try	PP	1B
		20-511	DA HEAD VALVE ASSY	-	Try	PP	1B	20-511	DA HEAD VALVE ASSY	100	Try	PP	1B
		20-794	WALL BOX NON 7RESSUR	-	Try	PP	1B	20-794	WALL BOX NON 7RESSUR	65	Try	PP	1B
		20-962	TEMP PROBE DUPLEX WI	2	Try	PP	1B	20-962	TEMP PROBE DUPLEX WI	2,000	Try	PP	1B
		34-xxx	Bunker Structure	2000000	Try	STR	1A	34-xxx	Bunker Structure	0	Try	STR	1A
	BOQ table 9.1 For Unit 3 & 4		150 93 MT					Deleted					
49	10.5	eee.Fire H	ydrant and Spary piping including QBD					Deleted					
50	10.5 note	Addl Note	to Clause no. 10.5					required f	or TG DMCW, SG ACW, TG ACW, SG DMC or the completion of the project in the BTG ar Engineer at site upto the respective equipment	ea shall be erected fro	m the terminal po	ints as mentioned in	the drawings or as decided
51	10.8.3	The contractor is strictly prohibited from using BHEL's regular components like angles, channels, beams, plates, pipe / tubes, and handrails etc. for any temporary supporting or approach platforms or scaffolding works or as bed for pre-assembly works. Contractor shall materials. The Contractor shall make all fixtures, temporary supports, steel structures required for jigs & fixtures, required for the work. Contractor shall make all fixtures, temporary supports, steel structures required for jigs & fixtures, required for the work. Contractor shall arrange necessary steel (angles, channels, beams, plates etc) for such without any cost implication on BHEL. In case of such misuse of BHEL materials, a sum as determined by BHEL engineer will be recovered from the contractor's bill. The decision of BHEL engineer is final and binding on the contractor. However, if available with BHEL (in form of scrap/good steel), vendor may be allowed to use on returnable basis on discretion of BHEL.											

		Corrigendum - 2 dated 26/07/2024 to CPC Tende	r No. BHEL/CPC/LRA/BLR-PCP/25/020								
	ANNEXURE - 1: MODIFICATIONS IN TECHNICAL CONDITIONS OF CONTRACT (TCC)										
SI		Existing Clause of TCC	Revised Clause of TCC								
52	10.8.9		10.8.9 All necessary certificates and licenses, permits & clearances to carry out this work from the respective IBR authorities/statutory/local authorities/ etc are to be arranged by the Contractor, if required, at his cost in time to ensure smooth progress of work and render all assistance, service required in this regard								
53	ekeeping/A rea										
54	12.2		Minor adjustment of foundation level, dressing and chipping of foundation surfaces and blue-matching (wherever required) for of all equipments as per BHEL Engineers instructions, should be done by the Contractor as part of the work. Contractor/BHEL shall prepare protocols before taking over the foundations. Dressing and chipping of foundations up-to +/- 30 mm for achieving proper levels will be within the scope of work/specification.								
55	14.3.1	Erection, alignment, welding, bolting, grouting and painting as applicable for fabricated structures (supplied form BHEL units) of Mill bunker structures, Coal bunkers, Transfer points, Trestles, Conveyor galleries etc.	Erection, alignment, welding, bolting, grouting and painting as applicable for fabricated structures (supplied form BHEL units) of Mill bunker structures, Coal bunkers etc.								
56	14.3.2	Supply and installation of items as per BOQ for Bunker structural works in Mill Bunker structures, Transfer points, Trestles, Galleries etc.	Supply and installation of items as per BOQ for Bunker structural works in Mill Bunker structures etc.								
57	Chapter XXIII	Bill of Quantities and % Weightage of Individual Items	Revised Chapter attached as Annexure - A								

Chapter-XXIII (Revised): Bill of Quantities and % Weightage of Individual Items Corrigendum - 2 dated 26/07/2024 to CPC Tender No. BHEL/CPC/LRA/BLR-PCP/25/020

Annexure - A

Package Description: Erection, commissioning & Trial Operation including application of lining, Insulation, supply & touch-up painting as and where required including Handling of materials at BHEL / Client's Stores / Storage Yard and transportation to site, and handing over of Boiler and its auxiliaries, Boiler integral piping, Structure for bunker, Pressure Part, Non Pressure Parts, Duct dampers and its support structure, Rotating Equipment's, Air Pre Heaters, ID/FD/PA fans, Mills, Power Cycle Piping (incl. MS, HRH, CRH etc.), HP Piping, LP Piping (in and around BTG area), Deaerator, Refractory, Erection of Bunker & allied works, including supply & installation of items as per BOQ of following Packages at 2X800 MW NTPC LARA Stage II Project, Dist. Raigarh, CG:

- 1. Package-A: Unit # 3 Boiler and Common System of 2X800 MW NTPC Lara Project.
- 2. **Package-B:** Unit # 4 Boiler of 2X800 MW NTPC Lara Project.

SECTION	DESCRIPTION OF PACKAGES / ITEM OF WORK (Package A)	Percentage weightage w.r.t Total Price				
A	E&C of Boiler & Auxiliaries	85.8270121%				
В	Erection of Bunker & Allied works	14.1729879%				
С	Execution/Mobilisation of special resources (PVC & ORC Shall Not be applicable on Section C)	Fixed Cost				
	Total Contract Value	A + B + C				

SN	Section A: Contract (Package A)	QTY	UOM	Weightage/ Factor "X"
1A	Structure	23,763.360	MT	0.373937223014
1B	Pressure parts	10,043.815	MT	0.191045626158
1C	Non-Pressure Parts	6,707.373	MT	0.106898520868
1D	Trim Piping	897.514	MT	0.030164050842
2A	Rotary machines	4,378.976	MT	0.048061195339
3A	Insulations Wool Matress	1,889.000	MT	0.027637140385
3B	Insulation -pourable and castable	270.000	MT	0.003996270472
3C	Insulation-iron parts	159.150	MT	0.002434932930
3D	Insulation -Al cladding sheets	373.100	MT	0.005951496887
5A	Power Cycle Piping P-91/92	1,254.000	MT	0.065814426656
5B	HP Piping Including P-11, P-12, P-22, CS	1,515.900	MT	0.062418389833
5C	LP Piping	1,549.353	MT	0.055296299603
5E	Hangers/Pumps & Tanks	1,054.687	MT	0.023236326766
5D	SS Piping	41.157	MT	0.003108100248
Sub To	tal of Boiler package	53,897	MT	

Chapter-XXIII (Revised): Bill of Quantities and % Weightage of Individual Items Corrigendum - 2 dated 26/07/2024 to CPC Tender No. BHEL/CPC/LRA/BLR-PCP/25/020

Section B: Erection of Bunker & Allied works (Package A)

	Section B: Bunker and Allied work	UOM	Qty	Weightage/ Factor "X"
1500	ROOFING / SIDE CLADDING: Roofing / side cladding work including all labour, material (unless otherwise specified in BOQ/contract specification), equipment, transportation, handling, scaffolding, laps, hooks, washers, corner pieces etc. at all level as per specification, drawings and as directed by engineer - in - charge.			
A1502	METAL DECK SHEET Type-I, fixing permanently color coated galvanised MS troughed metal sheet decking plate of approved colour over roof purlins for cast-in-situ roof slab as per relevant IS code and Grade as per specification. Bare metal thickness(BMT) of deck plate shall be minimum 0.8mm with minimum trough depth of 44mm (or as per design whiever is higher) of grade G250 as per AS1397/grade SS255 as per ASTM A653M/grade S250GD as per EN 10326 with zinc coating to class Z275 and shall serve as permanent shuttering to the roof slab 40mm - 100mm thick measured over crest of metal decking & shall have adequate strength to support weight of green concrete and imposed loads of min 100 kg/sqm (for two span condition) during construction between beams as per manufacturer's recommendations/ calculations/ test certificates for approval including fixing of plates to beams, side lapping, end lapping etc. all complete for below mentioned spans. The sheet shall be permanently coated with silicon modified polyster (SMP silicon content 30%-50%) paint or super polyster paint of minimum 20 micron DFT on exposed surface (facing operating floor) over primer coat of minimum 5 micron(nominal) and minum 10 micron (nominal) SMP or super polyester paint over primer coat of minum 5 micron (nominal) on other face. SMP and polyster paint system sahll be of idutrial finish of product type 4 of AS/NZ2728, including fixing of sheet to top flange of beam with drawn arc welding of			

	Section B: Bunker and Allied work	UOM	Qty	Weightage/ Factor "X"
	headed shear anchor studs @ 260mm c/c in the trough and stich screws between two adjacent sheets and sealing with epoxy sealant. The shear anchor studs shall confirm to type B studs specified in AWS D1.1/D1.1M or equivalent as shear connector of 16 mm dia & 65 mm length manufactured from cold drawn round steel bars confirming to ASTM A 29 of grade designation 1010 through 1020 of standard quality with either semi killed or killed welded by drawn arc stud welding through metal deck sheet.			
a	Span Upto 1800mm	MT	19	0.001681089384
B1502	METAL DECK SHEET Type-II, Fixing permanently color coated galvanised MS troughed metal sheet decking plate of approved colour over roof purlins for cast-in-situ roof slab as per relevant IS code and Grade as per specification. Bare metal thickness(BMT) of deck plate shall be minimum 0.8mm with minimum trough depth of 44 mm (or as per design whiever is higher) of grade G250 as per AS1397/grade SS255 as per ASTM A653M/grade S250GD as per EN 10326 with zinc coating to class Z275 and shall serve as permanent shuttering to the floor slab 150 mm thick measured over crest of metal decking & shall have adequate strength to support weight of green concrete and imposed loads of min 100 kg/sqm (for two span condition) during construction between beams as per manufacturer's recommendations/ calculations/ test certificates for approval including fixing of plates to beams, side lapping, end lapping etc. all complete for below mentioned spans. The sheet shall be permanently coated with silicon modified polyster (SMP silicon content 30%-50%) paint or super polyster paint of minimum 20 micron DFT on exposed surface (facing operating floor) over primer coat of minimum 5 micron(nominal) and minum 10 micron (nominal) SMP or super			

	Section B: Bunker and Allied work	UOM	Qty	Weightage/ Factor "X"
	polyester paint over primer coat of minum 5 micron (nominal) on other face. SMP and polyster paint system sahll be of idutrial finish of product type 4 of AS/NZ2728, including fixing of sheet to top flange of beam with drawn arc welding of headed shear anchor studs @ 260mm c/c in the trough and stich screws between two adjacent sheets and sealing with epoxy sealant. The shear anchor studs shall confirm to type B studs specified in AWS D1.1/D1.1M or equivalent as shear connector of 19 mm dia & 100 mm length manufactured from cold drawn round steel bars confirming to ASTM A 29 of grade designation 1010 through 1020 of standard quality with either semi killed or killed welded by drawn arc stud welding through metal deck sheet.			
a	Span Upto 1800mm	MT	18	0.001606271811
b	Span Exceeding 1800mm and upto 2500 mm	MT	9	0.000803135905
A1503	Providing and fixing shear anchor studs for fixing metal deck sheet to floor structural beams conforming to Type-B studs specified in AWS D1.1/D1.1M or equivalent as shear connector of 19mm diameter and 100mm length manufactured from cold drawn round steel barsconforming to the requirement of ASTM A 29, of grade designation 1010 through 1020, of standard quality with either semi-killed or killed, welded by Drawn Arc Stud Welding through metal deck sheet etc all complete as per specification.	QUIN TAL	9	0.001440036458
B1503	Providing and fixing shear anchor studs for fixing metal deck sheet to roof structural purlins conforming to Type-B studs specified in AWS D1.1/D1.1M or equivalent as shear connector of 16mm diameter and 65mm length manufactured from cold drawn round steel bars conforming to the requirement of ASTM A 29, of grade designation 1010 through 1020, of standard quality with either semi-killed or killed, welded by	QUIN TAL	7	0.000846097434

	Section B: Bunker and Allied work	UOM	Qty	Weightage/ Factor "X"
	Drawn Arc Stud Welding through metal deck sheet etc all complete as per specification.			
A1505	Fixing External/ Inner sheet of Permanent colour coated metal cladding / roofing with troughed M.S. sheets of minimum 0.5 mm bare metal thickness of min. grade G350 as per AS1397/grade SS340 class 4 or as per ASTM A792M/ grade S350 GD as per EN 10326 with zinc coating to class Z275 / aluminium zinc alloy coating to class AZ150 on both sides including fixing to supports / rails by concealed fixing system, corrosion resistant self tapping / self drilling type fasteners with suitable cap, flashing, etc. all complete over columns, beams, bracings etc. at all levels. The exposed face the sheet shall be permanently coated with silicon modified polyster (SMP silicon content 30%-50%) paint or super polyster paint of minimum 20 micron DFT on exposed surface over primer coat of minimum 5 micron and minum 10 micron SMP or super polyester paint over primer coat of minimum 5 micron on other face. SMP and polyster paint system sahll be of industrial finish of product type 4 of AS/NZ2728.	MT	17	0.001512398578
A1519	Fixing Factory made (Continous Line) prefabricated sandwiched Permanent colour coated metal cladding comprising top sheet as troughed (minimum depth of trough shall be 30 mm) permanently colour coated sheet & bottom sheet as plain permanently colour coated for covering of exposed metal/concrete / brick surfaces with insulation shall be of Polyurethane type of minimum 50mm thick (excluding trough). The polyurethane shall be Chlorofluorocarbon (CFC) free and self-extinguishing and shall conform to IS 12436: 1988. It shall have Modular Density 40 +/- 2 Kg/m3 and Thermal Conductivity @ 10 Deg.C 0.017 - 0.020 W/M 0k, Water absorption (% by vol) 3.1, Critical Oxygen Index 23 and Compressive Strength 1.2 Kg/sq.cm, sandwiched between the two sheets, each sheet	MT	24	0.002143594094

	Section B: Bunker and Allied work	UOM	Qty	Weightage/ Factor "X"
	shall be high strength tensile steel sheet 0.5mm bare metal thickness (minimum) of YS350 as per IS 15961 /grade G350 as per AS1397 / grade SS340 class 4 as per ASTM A792M / grade S350GD as per EN 10326 with zinc coating to class Z 275 / aluminium-zinc alloy coating to class AZ150 on both sides, both sheet shall be permanently coated with silicon modified polyster (SMP with silicon content of 30% to 50%) paint of minimum 20 micron DFT on exposed surface on 5 microns (min.) epoxy primer/phosphate primer coat and 10 micron (min.) SMP on 5 micron (min.) epoxy primer/phosphate primer on other face, SMP paint system shall be of industrial finish of product type 4 of AS/NZS 2728,troughed sheet shall be of approved profile, sectional properties, (suitable for the specified loading / deflection and purlins / runner spacing), colour and shade, at all levels, including all labour, materials, equipment, handling, transportation, special coated fastener conforming to corrosion resistant Class 3 of AS3566 and tested for 1000 hours salt spray test, fixing insulated sandwiched metal sheet with the structural members below for supporting the sheeting system, scaffolding, equipment, end and side laps, cutting of openings, preparation of working drawings, testing, etc., all complete, as per specifications. Sealant used for cladding shall be butyl based, two parts poly sulphide or equivalent approved, non stainless material and be flexible enough not to interface with fit of the sheets. Coated surface shall be provided with a protected guard film (polyethylene) of about 40 microns to avoid any damage to the coating during handling. Overlap shall be min. 100 mm or as specified by manufacturer.			
2300	STRUCTURAL WORKS: Structural steel works including all labour, material (unless otherwise specified in BOQ/contract specification), equipments unless otherwise specified,			

Section B: Bunker and Allied work			Qty	Weightage/ Factor "X"
	transportation, handling etc. at all level as per specification, drawings and as directed by engineer - in - charge.			
A2301	Site transportation from BHEL store and erection (field connections will be bolted type unless stated otherwise) of Medium and High Tensile structural steel (Grade designation E350 (unless stated otherwise) Quality B0 (Fully killed), conforming to IS 2062. Alignment, erection bolts & nuts (weight of erection bolts, nuts and welds not payable), assembly, rectification and correction of defective welding works, inspection and testing, erection scheme, protection against damage in transit, stability of structures, installation of temporary structures, setting column bases, surface preparation by means of manual or mechanical power tools as per IS:1477 part 1, touch-up painting, rectification, dismantling and removal of all temporary structures (weight of temporary structures not payable), return of surplus / waste steel member/materials to store etc all complete.	МТ	3906	0.349120869369
B2301	Site transportation from BHEL Store and erection (field connections will be bolted type unless stated otherwise) of Mild steel (Grade designation E250 (unless stated otherwise) Quality A/BR (Semi killed/killed) for Rolled section and B0 for plates (shall be tested for impact resistance at Room temperature), conforming to IS 2062. Alignment, erection bolts & nuts (weight of erection bolts, nuts and welds not payable), assembly, rectification and correction of defective welding works, production test plate, inspection and testing, erection scheme, protection against damage in transit, stability of structures, installation of temporary structures, setting column bases, surface preparation by means of manual or mechanical power tools as per IS:1477 part 1, touch-up painting, rectification, dismantling and removal of all temporary structures (weight of temporary structures not	МТ	1674	0.149623229730

	Section B: Bunker and Allied work	UOM	Qty	Weightage/ Factor "X"
	payable), return of surplus / waste steel materials to store etc all complete.			
C2301	Site Transportation from BHEL Store and erection of Medium and High Tensile structural steel (Grade designation E350 Quality B0 (Fully killed), conforming to IS 2062. Alignment, erection bolts & nuts (weight of erection bolts, nuts and welds not payable), assembly, rectification and correction of defective welding works, production test plate, inspection and testing, erection scheme, protection against damage in transit, stability of structures, installation of temporary structures, setting column bases, surface preparation by means of manual or mechanical power tools as per IS:1477 part 1, touch-up painting, rectification, dismantling and removal of all temporary structures (weight of temporary structures not payable), return of surplus / waste steel materials to store etc all complete.	MT	240	0.021451359101
D230 1	Site Transportation from BHEL Store and erection of Mild steel (Grade designation E250 Quality A/BR (Semi killed/killed) for rolled section and B0 for plates (shall be tested for impact resistance at Room temperature), conforming to IS 2062. Alignment, erection bolts & nuts (weight of erection bolts, nuts and welds not payable), assembly, rectification and correction of defective welding works, production test plate, inspection and testing, erection scheme, protection against damage in transit, stability of structures, installation of temporary structures, setting column bases, surface preparation by means of manual or mechanical power tools as per IS:1477 part 1, touch-up painting, rectification, dismantling and removal of all temporary structures (weight of temporary structures not payable), return of surplus / waste steel materials to store etc all complete.	MT	480	0.042902718202

Chapter-XXIII (Revised): Bill of Quantities and % Weightage of Individual Items Corrigendum - 2 dated 26/07/2024 to CPC Tender No. BHEL/CPC/LRA/BLR-PCP/25/020

	Section B: Bunker and Allied work	UOM	Qty	Weightage/ Factor "X"
2307	Supplying, fabrication, erection and alignment of factory made electroforged galvanised grating units with mild steel having minimum galvanisation conforming to IS:2062 in flooring, platforms, drain and trench covers, walk-ways, passages, staircases with edge binding strips and anti-skid nosing in treads etc. including fixing clamps, fittings, fixtures, all taxes, duties, packing, grinding, drilling, welding, edge preparation, etc. all complete.			
a	Minimum galvanisation of 610 g/sqm	MT	78	0.051159378234
2308	Supplying, fabrication, erection and alignment of factory made galvanised welded grating units(minimum 610 g/sqm galvanisation) with mild steel conforming to IS:2062 in flooring, platforms, drain and trench covers, walk-ways, passages, staircases with edge binding strips and anti-skid nosing in treads etc. fixing clamps, fittings, fixtures, all taxes, duties, packing, grinding, drilling, welding, edge preparation, etc. all complete.	MT	1	0.000268164844
2311	Providing and fixing in position of permanent mild steel bolts (class 4.6 as per IS: 1367 and grade `C' as per IS: 1363) and nuts, washers etc. up to and inclusive of 39 mm diameter and upto 300mm long for structural steel work etc all complete.	KG	558	0.000321604040
2312	Providing and fixing in positing of high strength structural bolts (of property class 8.8 and product grade `C' as per IS: 1367) and conforming to IS: 3757 and high strength structural hardened and tempered nuts (of property class `8' as per IS:1367) conforming to IS:6623 with hardened and tempered washers as per IS:6649 etc. up to and inclusive of 39 mm diameter and upto 300 mm long for structural steel work etc all complete.	KG	111600	0.093708763262
A2312	Providing and fixing in positing of high strength structural bolts (of property class 10.9 and product grade `C' as per IS: 1367) and conforming to IS: 3757 and high strength structural hardened	KG	111600	0.116198866445

BHEL-CPC (VOL-I-A- TECHNICAL BID SPECIFICATION)

E-Tender Specification No: BHEL/CPC/LRA/BLR-PCP/25/020

Chapter-XXIII (Revised): Bill of Quantities and % Weightage of Individual Items Corrigendum - 2 dated 26/07/2024 to CPC Tender No. BHEL/CPC/LRA/BLR-PCP/25/020

	Section B: Bunker and Allied work	UOM	Qty	Weightage/ Factor "X"
	and tempered nuts (of property class `8' as per IS:1367) conforming to IS:6623 with hardened and tempered washers as per IS:6649 etc. up to and inclusive of 39 mm diameter and upto 300 mm long for structural steel work etc all complete.			
2313	Dismantling of steel structure, lowering of material and carriage of the dismantled material up to field fabrication shop / projects storage including temporary dismantling, cutting, rewelding, supporting, and restoring to correct position all temporarily dismantled members, realighment of all adjacent connected members to their correct positions (weight of such adjacent members and temporarily dismantled members not payable), scafolding, staging, tools & tackles, gas cutting, welding, consumables etc all complete.	МТ	28	0.001189657702
2314	Addition to, alterations in and/or modifiction of "Erection Marks" including cutting of parts, gauging of welds, cutting, grinding, fabrication, welding, drilling holes, straightening, removal of bends, raising to the required level, painting, transportation, return of unutilised steel pieces to the project store, temporarily dismantling, cutting, re-welding, supporting and restoring to correct position of all the temporarily dismantled members, realignment of adjacent connected members (weight of such temporarily dismantled and adjacent members not payable) etc all complete for the following:			
a	In erected position	MT	28	0.003164685505
b	In fabrication yard	MT	28	0.002521119691
2315	Re-erection of dismantled fabricated structural steel members including carriage of modified "Erection Marks" from the field fabrication shop to erection site, lifting to required position, aligning in position, tack welding, final welding and touch up painting including temporary dismantling and reerection of temporarily dismantled members, cutting, rewelding, supporting and restoring to the	МТ	28	0.001824132071

BHEL-CPC (VOL-I-A- TECHNICAL BID SPECIFICATION)

	Section B: Bunker and Allied work	UOM	Qty	Weightage/ Factor "X"
	correct position of all temporarily dismnatled members, re-alignment of adjacent connected members (weight of such temporarily dismantled members and adjacent members not payable), scafolding, staging, tools & tackles, gas cutting, welding, consumables etc all complete.			
A2317	Supply, fabrication and erection of minimum 4 mm thick stainless steel liner conforming to ASTM A 240 S304 (Type 304); With Mill Finish Grade 2B (Cold rolled, Annealed & Pickled and Skin passed) on M.S. plate for inside surfaces of hopper & mouth of hopper of bunkers including fixing with stainless steel studs, bolting (including countersunk), welding with electrode classification E308L for welding of stainless steel to stainless steel and E309 for stainless steel to mild steel, fabrication detailed drawing etc.all complete. (The measurement for the item of stainless steel liner in hopper shall be based on the actual finished weight of SS liner over hopper)	MT	76	0.143220859848
A2318	Providing and fixing in position PTFE type sliding bearings of reputed manufacturer for required vertical load and end displacement/rotation as per approved construction draiwngs. PTFE bearing shall be sliding against highly polished stainless steel and the coefficient of friction between them shall be less than 0.06 at 55 kg/sq.cm. In order to prevent cold flow in PTFE surface it shall be rigidly bonded by a special high temperature resistance adhesive to the stainless steel substrata. The stainless steel surface that slides against the PTFE is mirror polished. The stainless steel shall be bonded to the top plate by special high strength adhesive. The thickness of stainless steel plate shall be between 1.0 mm to 1.5 mm.			
С	40 Tons	EACH	3	0.000365411709
d	50 Tons	EACH	3	0.000400022600

Section B: Bunker and Allied work			Qty	Weightage/ Factor "X"
е	60 Tons	EACH	2	0.000304293626
f	100 Tons	EACH	4	0.000686335058
A2319	Providing and fixing preformed flexible open ended bellow strap of neoprene of minimum thickness 2 mm and minimum width 200 mm under un-stretched condition with aluminium stripped edges as sealing below top of bunker and bottom of tripper floor to avoid the coal dust nuisance all complete.	RM	276	0.005525042925
2322	Supply, fabrication and fixing of GI pipe hand railing (900 mm high) of 32 mm/40 mm dia (Medium Grade) including transportation, loading/unloading, painting etc. all complete.	МТ	7	0.004673230446
2323	Conducting radiography test on welds wherever specified including equipments, measuring devices, gauges, test report etc. all complete.	RM	28	0.000825533840
2324	Conducting ultasonic test on welds wherever specified including equipments, measuring devices, gauges, test report etc. all complete.	RM	28	0.000150944425
2325	Conducting ultasonic test on steel plates as per ASTM-A435 or equivalent wherever specified including equipments, measuring devices, gauges, test report etc. all complete.	SQM	56	0.000140232240
2326	Conducting magnetic particle test on welds wherever specified including equipments, measuring devices, gauges, test report etc. all complete.	RM	28	0.000108373923
2327	Conducting dye penetration test on welds wherever specified by the engineer including provision of necessary equipments, measuring devices, gauges etc. all complete (over and above the work already specified in the specifications.)	RM	28	0.000112547502

Chapter-XXIII (Revised): Bill of Quantities and % Weightage of Individual Items Corrigendum-2 dated 26/07/2024 to CPC Tender No. BHEL/CPC/LRA/BLR-PCP/25/020

Section-C: Mobilisation of special resources (Package A)

Section C

		UOM	Qty.	Weightage / Factor "X"	UNIT RATE (Rs.) B	AMOUNT (Rs.) C = A * B
	Deployment of Requisit Manpower as mentioned below:					
1.0	Engineer / Supervisor	Manmonth	128	FIXED VALUE	50,000	64,00,000
2.0	Computer operator (Skilled)	Manmonth	64		26,908	17,22,140
3.0	Service Staff (Semi Skilled)	Manmonth	64		22,363	14,31,206
4.0	Safety officer (Skilled)	Manmonth	64		26,908	17,22,140
5.0	Quality Officer (Skilled)	Manmonth	64		26,908	17,22,140
	Execution/Mobilisation of special resources (PVC Shall Not be applicable on Section C)					1,29,97,627

Note: The quantity indicated in the BOQ is approximate only and is liable for variation. Payment will be as per actual quantity executed as certified by BHEL Engineer above Unit rate of individual items of BOQ.

Instructions to the bidders

Modality of Award:

- Step-1: Package A shall be awarded to L-1 Bidder, with acceptable L-1 rates to BHEL.
- Step-2: For the award of Packages B:
 Finalized L-1 rates shall be counter offered to the other bidders in the order of Price Competitiveness (i.e. L-2, L-3 and henceforth, except H-1 bidder). The bidder accepting the L1 rates shall be considered for awarding of Package B. The unit rates of Package A as derived from L-1 rates shall be applicable for unit rates of Package B and accordingly Total awarded value of Package B shall be calculated.
- In case, none of the bidders agrees to match the finalized L-1 rates for particular package, then BHEL, at its discretion, may consider award of that Package to L1 bidder or 'BHEL reserves the right not to award the particular package/s'.

Chapter-XXIII (Revised): Bill of Quantities and % Weightage of Individual Items Corrigendum - 2 dated 26/07/2024 to CPC Tender No. BHEL/CPC/LRA/BLR-PCP/25/020

- 1. Schedule of Rates and Quantities consist of the followings:
 - (i) Section-A: E&C of Boiler & Auxiliaries
 - (ii) Section-B: Bunker & allied works
 - (iii) Section-C: Mobilisation of special resources
- 2. <u>Bidders to quote Total Price for Section-A & Section-B of Package A</u> in Rupees in VOL-II-Price-Bid at BHEL E-procurement Portal. Any other entry elsewhere in the offer of the bidder shall be treated as Null and Void.
- 3. Prices for Section-C: Execution/Mobilisation of special resources are already fixed by BHEL.
- 4. Offer evaluation (L-1, L-2 status) of the bidders shall be done based on the Total Price of **Section-A+ Section-B** as quoted in the Volume II Price Bid.
- 5. Final awarded price shall be based on Total summation of prices of **Section-A + Section-B + Section C.**
- 6. Package B shall be awarded in line with modality of award as mentioned in TCC.
- 7. BHEL has pre-fixed the Weightage/Factor as detailed above in this chapter for deriving the Unit Rates.
 - By multiplying BHEL pre-fixed Weightages / Factor and the total prices derived in sl no. 2 above; Total Amount of individual items shall be derived.
 - Unit Rate/Item Rate shall be derived by dividing the total Amount of the individual items derived above and the total quantity of the individual items.
 - Unit Rate/Item Rate thus arrived shall be rounded off to two decimal places.
- 8. Based on the quantities of individual item and the item rates arrived, the total amount for individual items shall be derived. Total amount thus derived shall be rounded off to two decimal places.
- 9. Bidders to note that Package A & Package B is an item rate contract. Payment shall be made for the actual quantities of work executed at the unit rate arrived above.
- 10.LOA for each Package (A & B) shall be issued separately and each Package shall be considered as separate contract with separate contract period (as specified in Chapter-VI "Time Schedule" of TCC), separate start dates and separate contract value etc. All the records of the contracts viz Measurement of work, progress monitoring, monthly review, performance evaluation etc shall be maintained for both the contracts separately. Clause of GCC Viz SD, LD, ORC, PVC, Time Extension, Retention amount, guarantee period, Quantity variation, final bill etc shall be applicable for each individual package/contracts.
- **11.** For the convenience of bidders, BHEL has issued an excel sheet with all the requisite formulae as described above. **However, the referred excel sheet shall not form part of contract document. Further, this sheet should not be uploaded at the e-Portal.**

C) <u>Some of the Bidders had asked queries in the published tender specification. The clarifications issued by BHEL are furnished below</u>:

GCC, Clause No. 1.10 Upon acceptance of Tender, the successful Tenderer should deposit the 5% of the contract value as Security Deposit towards fulfilment of any obligations in terms of the provisions of the contract. "At least 50% of the required SD including the EMD, should be deposited in any form as prescribed before start of the work and balance 50% may be recovered from each Running Bills at the rate of 10% of the gross amount progressively, till the amount of Security Deposit is collected." REQUEST BHEL	Sl. No.	Reference clause of Tender Document	Existing Clause	Bidder's Query	BHEL's Response
IS PREVALENT IN MOST BHEL PROJECTS. Kindly Waiver- EMD We hereby request you to kindly waive the subject tender EMD With reference to the above we wish to bring to your kind notice about the EMD amount for the recent tenders floated by BHEL in all regions was waived off due to various reasons of BHEL. In this connection we once again request your good selves to kindly waive off the EMD of Rs.50,0000/- for the subjected package which will help us from the burden of high bank charges and commissions to some extent at this critical juncture. Kindly consider our request and waive off the EMD value accordingly. Request to waive of EMD.	1		successful Tenderer should deposit the 5% of the contract value as Security Deposit towards fulfilment of any obligations in terms of the provisions of the	EMD, should be deposited in any form as prescribed before start of the work and balance 50% may be recovered from each Running Bills at the rate of 10% of the gross amount progressively, till the amount of Security Deposit is collected." REQUEST BHEL TO INCLUDE THIS PROVISION IN THE CLAUSE AS IS PREVALENT IN MOST BHEL PROJECTS. Kindly Waiver- EMD We hereby request you to kindly waive the subject tender EMD With reference to the above we wish to bring to your kind notice about the EMD amount for the recent tenders floated by BHEL in all regions was waived off due to various reasons of BHEL. In this connection we once again request your good selves to kindly waive off the EMD of Rs.50,00,000/- for the subjected package which will help us from the burden of high bank charges and commissions to some extent at this critical juncture. Kindly consider our request and waive off the EMD value accordingly.	Tender Conditions shall prevail

SI. No.	Reference clause of Tender Document	Existing Clause	Bidder's Query	BHEL's Response
2	GCC, Clause No. 2.13.3	Secured Advance Against Material Brought to Site	BHEL MAY PLEASE ADD THE HIGHLIGHTED WORDS "The advance will be repaid from each succeeding Running bill(s) to the extent materials for which advance has been previously paid have been incorporated into the works. In any case, such advance payment shall be fully recovered maximum from 3-4 subsequent only those RA bills containing invoices of material purchased, whether the material is consumed in the work or not. (i.e. Invoices against Supply) In absence of sufficient value of RA bills containing invoices of materials purchased for making the required recovery, the Contractor shall deposit the balance amount. If the Contractor fails to deposit the total amount by the stipulated date, the recovery shall be made by encashing the Securities available with BHEL for the balance amount." WE REQUEST BHEL TO ALLOW INVOICES TO BE RAISED AGAINST SUPPLIED ITEMS ONCE THE ITEMS ARE DELIVERED TO SITE, IRRESPECTIVE OF WHEN THEY ARE INCORPORATED IN WORK AS APPROX. 500 MT MATERIAL IS THERE FOR SUPPLY AND REQUIRED THROUGHOUT THE WORKING PERIOD, AND THIS AMMENDMENT SHALL FACILITATE TIMELY AND SMOOTH LABOUR WAGE PAYMENT, T&P ARRANGEMENT ETC. THE ADVANCE CAN BE RECOVERED FROM THESE INVOICES. THIS IS PREVALENT IN SITES LIKE NALCO DAMANJODI ETC.	Tender Conditions shall prevail

Sl. No.	Reference clause of Tender Document	Existing Clause	Bidder's Query	BHEL's Response
3	TCC, Chapter - III, Clause No. 3.11	The charges for the actual energy consumed by the bidder (Energy Charges Only) shall be recovered by the BHEL based on prevalent rate of DISCOM and type of connection used.	THIS MAY BE PROVIDED FREE OF ANY CHARGES FOR CONSTRUCTION PURPOSES & FOR OFFICE, STORES, CANTEEN ETC, OF THE BIDDER WITHIN PROJECT PREMISES Electricity for Construction Purposes: Electricity shall be provided free of cost by BHEL and shall be provided before Start of Project. Kindly provide construction Electricity – as	Refer revised Clause no 3.2 and 3.11 as per SI. No. B above and attached Annexure – 1.
			free of Charge basis	
4	TCC, Chapter - III, Clause No. 3.12	Construction Water shall be arranged by Bidder	THIS MAY BE PROVIDED FREE OF ANY CHARGES FOR CONSTRUCTION PURPOSES & DRINKING WATER FOR OFFICE, STORES, CANTEEN ETC. OF THE BIDDER WITHIN PROJECT PREMISES Construction water shall be provided by BHEL at one point. Kindly provide construction water – as free of Charge basis	Refer revised Clause no 3.3 and 3.12 as per SI. No. B above and attached Annexure – 1.
5	TCC, Chapter - III, Clause No. 3.7.3.1 k	Laying of racks for gantry crane if provided by BHEL or brought by the contractor /bidder himself.	ASSUMING THIS IS LAYING OF TRACKS, FOR GANTRY CRANE, IF PROVIDED BY BHEL, SUPPLY OF TRACKS TO BE IN SCOPE OF BHEL	Refer revised Clause no 3.7.3.1 k as per Sl. No. B above and attached Annexure – 1.
6	TCC, Chapter - III, Clause No. 3.8.1	Land/Open Space	REQUEST TO EXCLUDE " ESTABLISH BATCHING PLANT"	Refer revised Clause no 3.8.1 as per Sl. No. B above and attached Annexure – 1.
7	TCC, Chapter - IV, Clause No. 4.1.7	Acid/Chemical cleaning pump Along with Motor and starter	ARRANGEMENT OF 3 NOS. ACID/CHEMICAL CLEANING PUMP ALONG WITH MOTOR & STARTER TO BE KEPT IN BHEL SCOPE.	Tender Conditions shall prevail
8	TCC, Chapter - IV, Clause No. 4.1.8	Acid Unloading pump for handling 31% concentration Hcl or 40% EDTA concentration ph 5.5 to 6.0/ 25% CONCENTRATED AMMONIA Along with Motor and starter	ARRANGEMENT OF 2 NOS. ACID UNLOADING PUMP WITH MOTOR & STARTER TO BE KEPT IN SCOPE OF BHEL	Tender Conditions shall prevail

Sl. No.	Reference clause of Tender Document	Existing Clause	Bidder's Query	BHEL's Response
9	TCC, Chapter - IV, Clause No. 4.2, SN 1 to 6	Other T&Ps	FOR SL.NO. 1 TO SL.NO. 6, REQUIRED MINIMUM QUANTITY AND DUARTION NEED TO BE MENTIONED FOR TYPRE MOUNTED/MOBILE CRANES/TRAILOR WITH MIN. 70-100 FEET SPAN. AMBIGUITY OF MINIMUM QUANTITY FOR MOBILISATION WILL BE LEFT TO ENGINEERS'/CUSTOMER'S INTERPRETATION & DEDUCTIONS ON NON-MOBILISATION. ALSO, IT IS VERY DIFFICULT TO ARRANGE RESOURCES & QUOTE IF MINIMUM QUANTITY IS NOT KNOWN.	Refer revised Clause no 4.2 as per Sl. No. B above and attached Annexure – 1.
10	TCC, Chapter - IV, Clause No. 4.2, SN 78	Hydraulic test/ pressurizing pump (Along with Suitable/ different ranges of calibrated Pr. gauges- Minimum 06 Nos.)	SUPPLY OF HYDRAULIC TEST PUMP MAY BE KEPT IN BHEL SCOPE AS SUCH HIGH CAPACITY PUMPS ARE HAVING LONG MFG.CYCLE TIME.	Refer Clause no 5.1 Boiler Hydraulic Pumps above 600 Kg/cm2 are kept under BHEL scope of works.
11	GCC, Clause No. 2.12.3.5	ORC-The maximum amount of ORC payable for the month shall be limited to Rs. 10,00,000/-(Rupees Ten Lakhs)	THIS DOES NOT COVER THE COSTS IN THE EXTENDED PERIOD. REQUEST TO DELETE THE UPPER LIMIT OF ORC OR RAISE MAXIMUM AMOUNT OF ORC PAYABLE FOR THE MONTH TO RS. 25,00,000 (RUPEES TWENTY-FIVE LACS).	Tender Conditions shall prevail
12	TCC, Chapter - III, Clause No. 3.11.7	Contractor to note that till construction power is made available by BHEL (approx. within 5 months from start of work); contractor shall make his own arrangement like DG set etc	REQUEST TO REMOVE THIS CLAUSE AS DG SET IS MEANT FOR BACK-UP POWER AS IN CLAUSE 3.11.8	Refer revised Clause no 3.11.7 as per Sl. No. B above and attached Annexure – 1.
13	TCC, Chapter - XIV, CL.NO. 14.1.4	Approach road in the vicinity of Boiler area only, to be maintain by Contractor.	1. THE BOILER AREA NEEDS TO BE DEFINED CLEARLY. MULTIPLE AGENCIES USE BOILER AREA VICINITY ROADS FOR PARALLEL CONSTRUCTION WORK ETC. 2. BHEL MAY ARRANGE TO MAKE APPROACH ROADS TO BOILER IN CASE OF DAMAGE TO ROADS DURING MONSOONS AS HEAVY REPAIR IS NOT	Tender Conditions shall prevail

Sl. No.	Reference clause of	Existing Clause	Bidder's Query	BHEL's Response
	Tender Document			
			POSSIBLE BY BOILER AGENCY. SAME WAS	
			DISCUSSED IN ASSOCIATE MEET AT BHEL-	
			NOIDA. COMPACTION BY BHEL ONLY "FOR	
			MOVEMENT OF BHEL CRANES" IS COVERED IN	
			CLAUSE 5.12 NOTE IN GCC PG.44 OF 262	
			WHICH IS NOT ENOUGH IN CASE OF SERIOUS	
			DAMAGE OF APPROACH ROADSLEADING TO	
			NON-MOVEMENT OF CRANES & HAMPERING	
			WORK DURING MONSOONS.	
14	TCC, CHAPTER - V,	The day-to-day and routine	IF BHEL CRANES UNDERGO MAJOR REPAIRS,	Tender Conditions shall prevail
	Clause No. 5.7	maintenance including	SPARES FOR SAME WILL BE PROVIDED BY BHEL,	
		replacement of spares for the	SHOULD ALSO BE MENTIONED. "BHEL SHALL	
		BHEL T&Ps will be carried out by	SUPPLY SPARE PARTS FREE OF CHARGES FOR	
		the contractor at his own cost.	NORMAL WEAR & TEAR" IS AMBIGUOUS.	
		However, BHEL shall supply spare	ALSO, ANY AND ALL REPAIRS OF BHEL CRANE	
		parts free of charges for normal wear and tear only.	SHOULD BE IN BHEL SCOPE.	
15	TCC, CHAPTER - IV,	Safety Nets, Tarpaulins, RFA etc.	REQUEST TO REMOVE FIRE RESISTANT	Refer revised Clause no 4.2 B as per Sl. No.
15	Clause 4.2. B	Safety Nets, Tarpaulits, NFA etc.	VARIANT AS SAME IS VERY COSTLY AND NOT	B above and attached Annexure – 1.
	Clause 4.2. B		PROVIDED AT CONSTRUCTION SITES. ALSO	b above and attached Annexure – 1.
			REQUEST BHEL TO SUPPLY ITEMS LIKE	
			RFA/ROPE GRAB/SAFETY NETS FREE OF	
			COST/COMPENSATE SEPARATELY AS	
			DISCUSSED IN ASSOCIATES MEET.	
			Fire Resistant Safety Net: Procurement of Fire-	
			Resistant Safety net shall be in BHEL Scope due	
			to its higher Cost.	
			Fall arrestor: Rope Grab fall arrester: Openable	
			& Guided type Fall Arrestor (on flexible line)	
			conforming EN 353-2 & works on 14-16 mm	
			diameter polyamide rope. material: Nickel	
			Chrome plated Steel shall be in the scope of	
			BHEL. At present we are providing	
			approximately 8000/- PPE to each worker	
			which includes safety shoes, helmet, jacket,	

Sl. No.	Reference clause of	Existing Clause	Bidder's Query	BHEL's Response
	Tender Document			
			safety belt etc and further if we provide fall	
			arrestor, it will increase our cost by 15000/-	
			which is very expensive and will not be	
			sustainable.	
			Horizontal life line: Stainless Steel Wire rope of	
			8mm diameter. Minimum six nos. of steel U-	
			bolt clips are required for clamping each wire	
			rope to a rigid support (03 nos. of U-bolt clips	
			at each end) shall be in the scope of BHEL. At	
			present we are using ungalvanized steel, so SS	
			Life line cost will be very high.	
16	TCC, CHAPTER - II,	Sealing compounds and GI wires	REQUEST SAME TO BE PROVIDED BY BHEL AND	Tender Conditions shall prevail
	Clause No. 2.10.12	for insulation mattress binding	NOT IN BIDDER'S SCOPE.	
		and Self drilling screws / Self		
		taping screws for sheeting works		
		shall be provided by the agency		
		within the quoted price/rates.		
17	TCC, Chapter -XXIII,	Coal Bunker	REQUEST TO REVIEW AND REDUCE THE	Tender Conditions shall prevail
	Section B		QUANTITY OF SUPPLY FROM BIDDER'S SCOPE.	
18	TCC, Chapter - VII,	Billing Break Up	ATLEAST 85% PAYMENT SHOULD BE PAYABLE	Tender Conditions shall prevail
	Clause No. 7.1		UPTO WELDING/NDT. ELSE THE RETENTION/SD	
			DEDUCTIONS MAKE THE MONTHLY INVOICE	
			VALUE UN-WORKABLE.	
19	TCC, Chapter - XXIII,	Manpower Rates	THE MANPOWER RATES FOR SUPPLY TO BHEL	Refer revised Clause no 2.9.15 as per Sl.
	Section C		IS EXTREMELY LOW AND NOT CONSISTENT TO	No. B above and attached Annexure – 1.
			THE MARKET VALUE. SAFETY OFFICER,	
			QUALITY OFFICER, ENGINEER AMOUNT OT BE	
			REVIEWED. SIMILARLY, DEDUCTION FOR	
			SAFETY OFFICER AGAINST NON-COMPLIANCE	
			IS RS. 70,000 PER MONTH AS PER HSE MANUAL	
			WHICH IS VERY HIGH.	
20	TCC, Chapter - II,	Tracking Device	THE COST OF TRACKING DEVICE SHOULD NOT	Refer revised Clause no 2.5.5 as per Sl. No.
	Clause No. 2.5.5		BE RECOVERED FROM BIDDER. ONLY TAGS	B above and attached Annexure – 1.
			AFTER A CERTAIN QUANTITY CAN BE	
			CHARGEABLE.	

Sl. No.	Reference clause of Tender Document	Existing Clause	Bidder's Query	BHEL's Response
			Tracking devices: Tracking Devices and Tags shall be provided by BHEL free of Cost.	
21	TCC, Chapter - IV, Clause No. 4.1, S.N. 5	Induction Heating Machine	REQUEST BHEL TO PROVIDE INDUCTION MACHINE FREE OF CHARGES.	Tender Conditions shall prevail
22	TCC, Chapter - III, Sl. No. 3.2.1	Electricity for construction purposes (for Site/Project works only) 3 Phase 415/440 V within project premises a) SINGLE POINT SOURCE-SCOPE-BHEL-YES, BIDDER - NIL REMARKS: Chargeable at prevailing tariff on project site at one point near the site at a distance of approx. 500 meter.	whether the construction power supply is free of cost or chargeable basis to vendor? if chargeable, what are the tariff and charges applicable-Please clarify.	Refer revised Clause no 3.2 and 3.11 as per Sl. No. B above and attached Annexure – 1.
23	TCC, Chapter - III, SI. No. 3.2.2	Electricity for office, stores, canteen etc. of the bidder (Chargeable) within project premisesa) SINGLE POINT SOURCE (chargeable) SCOPE-BHEL-YES, BIDDER-NILREMARKS: Chargeable at prevailing tariff on project site at one point near the site at a distance of approx. 500 meter.	whether the Electricity for office, stores, canteen etc. within project premises is free of cost or chargeable basis to vendor? if chargeable, what are the tariff and charges applicable-Please clarify.	Refer revised Clause no 3.2 and 3.11 as per SI. No. B above and attached Annexure – 1.
24	TCC, Clause No. 4.2 and 4.7		DG SET – Either 250 KVA - 02 Nos. or 1 Nos. 500KVA DG SET Shall be provided by Contractor	Agreed
25			PMI Machine: Procurement of PMI Machine shall be in BHEL Scope	Tender Condition shall prevail.
26			Variation in Weight: Variation in Weight (-/+) shall be compensated by BHEL	Tender Condition shall prevail.
27			SS Material: Rates for SS Material/Pipes shall be separately mentioned for quoting rates in BOQ.	Tender Condition shall prevail.

SI. No.	Reference clause of Tender Document	Existing Clause	Bidder's Query	BHEL's Response
28			Acid/Chemical cleaning pump/Tank and Acid Unloading Pump shall be in BHEL scope.	Tender Condition shall prevail.
29	TCC, Clause No. 14.1.4		Approach road in the vicinity of Boiler area only, to be maintain by Contractor. Proper backfilling and Compaction Shall be done by BHEL.	Tender Condition shall prevail.
30			GST: Payment of GST shall be released with RA Bill every month if there is delay in releasing GST Payment, same shall be deposited by contractor after the release of GST Payment by BHEL.	Tender Condition shall prevail.
31			EPF: BHEL Shall allow to deposit EPF to our Subvendor account.	Tender Condition shall prevail.
32			Land for Labour Colony shall be provided by BHEL within 5 Km from site.	Tender Condition shall prevail.
33			Temporary Lift: Temporary Lift shall be provided by BHEL as it is used by all the agencies who are working in Boiler, STG, Coal Bunker like Electrical agency, C&I, Ash Handling agency, Bunker etc.	Tender Condition shall prevail.
34	TCC, Clause No. 7.1.1.7 & 7.1.20.8		Payment Terms: 85% of payment shall be disbursed among the Preassembly, Erection, Alignment, Welding and NDT e.g: Payment for Hanger & supports wherever necessary for Non-Pressure Part shall be 5% instead of 15% and remaining % shall be disbursed among the Preassembly, Erection and Alignment -Please refer to 7.1.1.3 of TCC. Payment for Equipment Trial operation of Rotary machines (FANS) shall be included in Stage/Milestone (15% of PAYMENT) Payments instead of Pro rata Payment of 85% -Please refer to 7.1.1.7 of TCC Payment for APH Trial run shall be included in Stage/Milestone (15% of PAYMENT)	Tender Condition shall prevail.

SI. No.	Reference clause of Tender Document	Existing Clause	Bidder's Query	BHEL's Response
			Payments instead of Pro rata Payment of 85% - Please refer to 7.1.20.8 of TCC	
35			Milestone Payment: Milestone payment shall be released on the Readiness of Milestones because for trial run we need inputs from other agency.	Tender Condition shall prevail.
36			Mobilisation of Special Resources: Staff manpower supply to BHEL rates are very less. Referred to Section-C of Chapter 23 of TCC. Minimum rate for semi-skilled worker should be Rs. 29000/- instead of Rs.22000/	Refer revised Clause no 2.9.15 as per Sl. No. B above and attached Annexure – 1.
37			Insulation: Sealing compounds and GI wires for insulation mattress binding and Self drilling screws / Self taping screws for sheeting works shall be provided by BHEL free of cost.	Tender Condition shall prevail.
38			Cranes rent shall be paid instead of ORC during the extended period of Contract because ORC amount is very less as compared to actual rent of the cranes.	Tender Condition shall prevail.
39			BHEL Hired/Owned Cranes are to be provided with luffing jib for its full efficiency.	Tender Condition shall prevail.
40			Piping Rate: Pipes upto 2 inches shall be quoted in inch dia. instead of Tonnage.	Tender Condition shall prevail.
41			Item Rate shall be considered instead of weightage factor for price finalization	Tender Condition shall prevail.
42			Power Cycle Piping: hangers and support material shall be provided without any delay by BHEL, any delay in supply of same shall be treated as Extra Work due to enormous work involved for Scaffolding arrangements.	Tender Condition shall prevail.

SI. No.	Reference clause of Tender Document	Existing Clause	Bidder's Query	BHEL's Response
43			Area Lights and approach Road Lights shall be BHEL Scope	Refer Clause 3.4 of TCC
44			For any compressed schedule during the execution of project by BHEL, same shall be compensated suitably by BHEL to the Contractor.	Tender Condition shall prevail.
45			All supply items which are the permanent part of project shall be in BHEL Scope Please refer to Section-B of Chapter 23 of TCC. Like PTFE type sliding bearings, Supply, fabrication and fixing of GI pipe hand railing etc.	Tender Condition shall prevail.
46			Penalty for non-deployment of manpower shall not be more than actual quoted/Accepted rates e.g: Safety Engineer & Safety Supervisor.	Tender Condition shall prevail.
47			We need clarifications for RA-BILL for Safety whether payment for Safety Compliance will include in Contract value or it is over & above the contract value. Please Refer to Clause No. 5.2 of HSE Manual.	Amount against clause 5.2 of HSE Plan is inclusive in Contract amount.
48	TCC, Clause No. 2.7.1 and 2.9.15		As per clause No. 2.7.1 of TCC one Engineer and one Supervisor has to be provided by the contractor to BHEL. Further, clause 2.9.15 of TCC says that again 4 Engineers/Supervisors are to be provided by Contractor to BHEL. Please clarify that if manpower asked in clause 2.9.15 is inclusive of clause 2.7.1 or excluded. If not included, then BHEL shall increase the BOQ from 128 to 192.	Required of Computer operation as mentioned under clause no. 2.7 is included in requirement as mentioned in clause 2.9.15.
49	TCC, Chapter-IV, Clause No. 4.2. B	Safety Net (Conforming IS 11057:1984) Safety Net (Net Size: 10m x 5m, Mesh Size: 25 mm, Mesh Rope: 2mm double cord, Border/Tie Cord: 12mm diameter polypropylene rope (tested as per IS: 5175). Two meters length shall	Fire resistant safety net was never in bidder scope. So kindly input Fire resistance safety belt in BHEL Scope.	Refer revised Clause no 4.2 B as per Sl. No. B above and attached Annexure – 1.

Sl. No.	Reference clause of Tender Document	Existing Clause	Bidder's Query	BHEL's Response
		be provided at all four corners.		
		- Min-300 Nos/unit (Fire resistant)		
50		Horizontal life line Stainless Steel Wire rope of 8mm diameter. Minimum six nos. of steel U-bolt clips are required for clamping each wire rope to a rigid support (03 nos. of U-bolt clips at each end).	Stainless Steel Wire rope of 8mm for Lifeline never in Bidder scope. If its compulsory to SS wire, please put in BHEL Scope.	Refer revised Clause no 4.2 B as per SI. No. B above and attached Annexure – 1.
		- Min 40 nos. of wire rope, each 40 metre long Min 90 nos. of wire rope, each 25 metre long		
51		2. Fall Arrester 'Rope grab fall arrester' & anchorage line. Anchorage Line: 14mm- 16 mm diameter, three strand twisted Polyamide rope. Rope Grab fall arrester: Openable & Guided type Fall Arrestor (on flexible line) conforming EN 353-2 & works on 14-16 mm diameter polyamide rope. Material: Nickel Chrome plated Steel. Connector: Karbiner conforming to EN 362 (Minimum Strength 22 KN), material: Steel Retractable Fall arrestor Block (Range 6 Mtr to 15 Mtr) Min 200 nos. of Rope Grab Fall arrester' and Karbiner each, Min. 90 nos. anchorage line, - 30 metre long each, 30 nos. anchorage line, 40 metre long		Refer revised Clause no 4.2 B as per Sl. No. B above and attached Annexure – 1.

Sl. No.	Reference clause of Tender Document	Existing Clause	Bidder's Query	BHEL's Response
	Tender Document	each,		
		-Min. 200 Nos.		
52	TCC, Chapter-V	5.12 The consumables such as electrodes and filler wire (except as specified in shipping list), thermocouple, ceramic pads, annealing cable and insulation, induction coil etc. required for Induction Heating Machine (Provided by BHEL) has to be arranged by the contractor. - 3. Contractor shall provide the	Kindly remove Fuel for BHEL Provided cranes from bidders scope.	Tender Condition shall prevail.
		fuel for BHEL provided cranes		
53	TCC, Chapter-III	(Hired/owned) for his use. Labour colony is to be developed	Kindly remove the specification/drawing	Refer revised Clause no 3.9.1 as per Sl. No.
		by bidder for all the labours required to be deployed for the works. All labour colony set-up is to be developed as per attached drawing and in compliance of statutory requirements. Contractor shall construct/ arrange Labour Hutment as per minimum specifications	provided for Construction of Labour Colony.	B above and attached Annexure – 1.
		mentioned in the attached drawing, for which no separate payment shall be made by BHEL.		
54	TCC, Chapter-XXIII	Section-C: Mobilisation of special resources. 4.0 Safety officer (Skilled) Manmonth 64 FIXED VALUE 27,000 1,728,000/-	Kindly modify the monthly payment (UNIT RATE (Rs.) B) of Safety Officer as 50,000/	Refer revised Clause no 2.9.15 as per Sl. No. B above and attached Annexure – 1.

Sl. No.	Reference clause of Tender Document	Existing Clause	Bidder's Query	BHEL's Response
55	TCC, Chapter-VI	6.3. The schedule of important milestones is as follows:	All Milestone activities to be changed as readiness for milestone.	Tender Condition shall prevail.
56	TCC, Chapter-VII	7. Terms of payment The progressive payment for Erection and commissioning on accepted price of contract value will be released as per the break up given hereinafter: Payment Terms for both the Packages: Payment shall be regulated progressively as mentioned in Table 7.1 & 7.2 below: \ 7.1 Progressive Payment against monthly running bills will be made upto 85 % of the value of the erected Pro-rata as per SL no 7.1.1 to 7.1.20.8 of the following table.	Kindly consider/ release 85% of the payment till NDT.	Tender Condition shall prevail.
57	TCC, Chapter IX	PGMA - 39-141 - 185000 Kgs PGMA - 39-142 - 800000 Kgs PGMA - 39-150 - 93000 Kgs PGMA - 39-306 - 97100 Kgs	ESP Outlet Duct is not mentioned in the Tender. These Quantities are related to ESP Outlet Duct Structure. Please clarify	39-150-93000 Kgs Deleted. Balance shall remain in Scope of Work. Refer Sl. No. 48 of attached Annexure – 1.
58	TCC, Chapter-XXIII, Modality of Award	Modality of Award: Step-1: Package A shall be awarded to L-1 Bidder, with acceptable L-1 rates to BHEL. Step-2: For the award of Packages B: Finalized L-1 rates shall be counter offered to the other bidders in the order of Price Competitiveness (i.e. L-2, L-3 and henceforth). The bidder accepting the L1 rates shall be considered for awarding of Package B. The unit rates of Package A as derived	We request BHEL to revise the Modality of Award and provide a provision to award the both packages to a single agency who are interested to execute the comprehensive.	Tender Condition shall prevail.

Sl. No.	Reference clause of Tender Document	Existing Clause	Bidder's Query	BHEL's Response
		from L-1 rates shall be applicable for unit rates of Package B and accordingly Total awarded value of Package B shall be calculated. In case, none of the bidders agrees to match the finalized L-1 rates for particular package, then BHEL, at its discretion, may consider award of that Package to L1 bidder or 'BHEL reserves the right not to award		
59	TCC, Chapter-XXIII	the particular package/s'. Modality of Award: 4. Offer evaluation (L-1, L-2 status) of the bidders shall be done based on the Total Price of Section A+Section-B as quoted in the Volume-II Price Bid. 5. Final awarded price shall be based on Total summation of prices of Section-A + Section-B +Section C.	As per Sl.no. 4, bidder to quote for Sec. A+B, then please clarify if Fixed amount under Sec. C amount of Rs. 1,29,92,000/- will be additional to quoted amount under Sec. A+B. Please clarify.	Refer SI. No. 5 of Modality of Award: - Final awarded price shall be based on Total summation of prices of Section-A + Section-B + Section C
60	TCC, Chapter-II	2.3 BHEL at its discretion may include works in other area on similar nature limited to 15% of awarded contract value, which are not mentioned in above scope of works The item rates & contract conditions shall remain unchanged for such works.	We presume those works will be against existing awarded rate as per BOQ. In case any works beyond items where rate is not awarded, how will BHEL compensate in that case. Similarly what will be the case if the limit exceeds 15% of contract value.	Refer Clause 2.3 of TCC Chapter-II where it is clearly mentioned that BHEL at its discretion may include works in the other area of similar nature limited to only 15% of awarded contract value. The payment for such similar works will be as per the Rate Schedule Identified against each work which shall be awarded under the 15% limiting value.
61	TCC, Chapter-II	2.7 Supervisors / Engineer and Computer for exclusive use of BHEL: Sl.no. 2.7.1 to 2.7.5	As per TCC, bidder to provide Engineers & Laptop to BHEL till completion of works. As all existing projects of BHEL are under extreme	Refer revised Clause no 2.7 as per Sl. No. B above and attached Annexure – 1.

Sl. No.	Reference clause of Tender Document	Existing Clause	Bidder's Query	BHEL's Response
			delay. We suggest BHEL to consider the time period of retaining the Engineer/Laptop/Printer until completion of works as per tender (Chapter - 6. Time schedule; 6.3.1 – Completion of facilities- 32nd month)	
62	TCC, Chapter-II	2.9.15 Contractor has to deploy following manpower at site/BHEL PSER HQ Kolkata office, in addition to requirement mention else where in this contract, within 15 days from the date on which the requirement is mentioned in Contractor performance review. a. 2 nos. Computer Operator (Experience in computer) b. 2 nos. Service staffs. c. 4 nos. Engineer/Supervisor (Minimum Qualification Engineering/Diploma) d. 2 nos. Safety Engineer. The qualification is as per HSE plan. e. 2 nos. Quality (QA/QC) Engineer (Minimum Graduate Experience in QA/QC)	Is this requirement in addition to Sl.no.2.7. Please clarify.	Required of Computer operation as mentioned under clause no. 2.7 is included in requirement as mentioned in clause 2.9.15.
63	TCC, Chapter-II	Sl.no. 2.9.15 & BOQ Section-C sl.no.1 to 5 1.Engineer-Rs.50000/ 2.Computer operator-Rs.27000/ 3.Service Staff-Rs.22000/- 4.Safety officer-Rs.27000/ 5.Quality officer-Rs.27000/-	The value fixed is very low and this is not workable as the market salary of these highly qualified personnel's are high and at current situation these category of staff are rare and are in huge demand in market. We suggest BHEL to consider revision of the same as below; 1. Engineer- Rs.95,000/-2.Computer operator-Rs.55,000/-3.Service Staff-Rs.50,000/-4.Safety officer-Rs.95,000/-5.Quality officer-Rs.95,000/-	Refer revised Clause no 2.9.15 as per Sl. No. B above and attached Annexure – 1.

Sl. No.	Reference clause of Tender Document	Existing Clause	Bidder's Query	BHEL's Response
64	TCC, Chapter-II	2.10.12 Sealing compounds and GI wires for insulation mattress binding and Self drilling screws / Self taping screws for sheeting works shall be provided by the agency within the quoted price/rates.	We presume black Bituminous paint of required quantity shall be arranged by BHEL free of cost. Please clarify.	Refer Clause 19.5 & 19.6 of TCC
65	TCC, Chapter-II	Chapter-III: Facilities in the scope of Contractor/BHEL (Scope Matrix) 3.2.1 Electricity for construction purposes (for Site/Project works only) 3 Phase 415/440 V within project premises	Post completion of contract schedule (i.e 32nd month) we suggest Construction power to be made available on free of charge basis where delay in not attributable to contractor. nFor the information of BHEL, due to substantial delay in other BHEL Projects, bidders are incurring loss due to huge amount in fixed charges of electricity charges for extended period. This cost is additional to existing loss incurring to bidder in the delayed projects.	Refer revised Clause no 3.2 and 3.11 as per SI. No. B above and attached Annexure – 1.
66	TCC, Chapter-III	Chapter-III: Facilities in the scope of Contractor/BHEL (Scope Matrix) 3.9.3 Land for labor colony shall be arranged by Contractor at their own cost as per availability outside project area within 5Km,	This shall depend upon availability of land within 5kms at the locality.	Tender Conditions Shall Prevail
67	TCC, Chapter-IV	4.1 Major T&P SL.NO. 2. Crawler/Tyre mounted crane -75t-1no. Crane to be made available as per instruction from BHEL Site incharge. Tentative schedule: from Start of Boiler Erection till Synchronisation.	As one 75t crane is available for completion of Major completion of work. 75T crane as per Sl.no.2 to be considered upto Boiler drainable hydrotest (20th month of contract). For Sl.no.3; the terminology 'Major completion of work' shall be related to mechanical completion not to be combined with any milestone activities.	Tender Conditions Shall Prevail

SI. No.	Reference clause of Tender Document	Existing Clause	Bidder's Query	BHEL's Response
		And Sl.no.3		
68	TCC, Chapter-IV	4.3.1 All above T&Ps are to be deployed by contractor as and when required as per instruction of BHEL engineer. If works gets delayed due to non-availability of above T&Ps, BHEL reserves the right to deploy the same and recover the charges thereof from the contractor as per prevailing market rate/hiring rate/BHEL internal hiring rates + 5% overhead rates. and 4.3.16; 4.14	If contractor is unable to deploy cranes BHEL shall charge market rate +5% overhead. In this scenario, kindly propose if there is delay in provision of heavy cranes in scope of BHEL, what will be the charges payable by BHEL to contractor. For your information due to severe delay in provision of BHEL cranes in existing projects, we have incurred loss in billing & delay in completion of Project.	Tender Conditions Shall Prevail
69	TCC, Chapter-IV	4.12 Only TIG welding wires for CS, AS & SS welding will be supplied by BHEL free of cost for Boiler for applicable Pressure Parts	The quantity supplied by Manufacturing units are always short in supply. Thereby we suggest BHEL to supply based on actual consumption at site. This also can be cross checked with similar executed projects of BHEL.	Tender Conditions Shall Prevail
70	TCC, Chapter-VII	Payment Terms for both the Packages:Sl.no.7.1; Structures:7.1.1.4 completion of furnace alignment and fire ball checking	Please note that both terms are irrelevant to works being executed under 'structure', thereby suggest BHEL to remove the term payment under the same and add 4% under Placement in position.	Tender Conditions Shall Prevail
71	TCC, Chapter-VII	Under Structures: Sl.no.7.1.5.1,7.1.5.2, 7.1.5.3,7.1.5.4	There is no relevancy in holding 6% against NDT, we suggest to change the same to 1% and add balance 5% under Pressembly/ Placement in position	Tender Conditions Shall Prevail
72	TCC, Chapter-VII	Under Pressure parts: Sl.no.7.1.5.1,7.1.5.2, 7.1.5.3,7.1.5.4	There is no relevancy in holding 10% against NDT, we suggest to change the same to 2% and add balance 8% under Pressembly/ Placement in position. The allocation of 10% under placement in position is very low.	Tender Conditions Shall Prevail

Sl. No.	Reference clause of Tender Document	Existing Clause	Bidder's Query	BHEL's Response
73	TCC, Chapter-VII	7.3.1 BHEL supplied items 7.3.1.1.5 & 7.3.1.1.8	8% is allocated against NDT which is considerably high. Thereby we suggest BHEL to revise the terms as 2% against NDT and balance 6% to be added against placement in position.	Tender Conditions Shall Prevail
74	TCC, Chapter-XIV	14.3.1 Erection, alignment, welding, bolting, grouting and painting as applicable for fabrication structures (supplied form BHEL units) of Mill bunker structures, Coal bunkers, Transfer points, Trestles, Conveyor galleries etc. and 14.4	Please clearly specify scope of Transfer points, conveyor and galleries which will come under each package scope. Is erection of ESP control room in the listed scope, please clarify.	Refer revised Clause no 14.3.1 as per Sl. No. B above and attached Annexure – 1.
75	GCC	2.15.5 MAN-HOUR RATE FOR ELIGIBLE EXTRA WORKS Rs139/per man hour.	The Manpower hour rate is very low considering the current experience of works being executed at Project sites. Hence, we request to increase the rate upto 50% more.	Tender Conditions Shall Prevail

Note:

- 1) All other terms and conditions against this NIT shall remain unchanged.
- 2) This corrigendum is to be submitted duly signed and stamped along with the Techno-commercial bid (Part-I).

for BHARAT HEAVY ELECTRICALS LTD Sr. Manager/ SCT