

Ref: BHE/PW/PUR/TLRPT- MPH-CHP-AHP-STR/2911/Corg 01

Dt: 23/02/2024

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ALL BIDDERS

Sub: Corrigendum-01: Clarification and additional Payment Break Up in Chapter-VII

Job: Package Description: Erection, Alignment, Bolting/Welding, Roofing & Cladding Work, supply of all Material (As per TCC and BOQ), Consumables, labour, tools and plants, Supply and application of touchup painting as and wherever required including Handling of Materials at BHEL / Client's Stores / Storage yard and transportation of

- Package-A:** Erection of Power House Unit 1 & 2 (incl CCR) structure and other mics. buildings including supply & installation of items as per BOQ at 2X660 MW NTPC Talcher Odisha.
- Package-B:** Erection of Ash Handling Plant structure, FGD Structure, Tank fabrication & installation and other mics. building Structure including supply & installation of items as per BOQ at 2X660 MW NTPC Talcher Odisha.
- Package-C:** Erection of Coal Handling Plant structure and other mics. building Structure including supply & installation of items as per BOQ at 2X660 MW NTPC Talcher Odisha.

Tender Specification Number: BHE/PW/PUR/TLRPT- MPH-CHP-AHP-STR/2911

NIC Tender ID: 2024_BHEL_32699_1

Bidders to kindly take note of the following:

AA) Bidders to take note of the following clarification:

Sl. no	Reference clause of Tender Document	Existing provision	Bidder's query	BHEL's Reply
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Sl. no	Reference clause of Tender Document	Existing provision	Bidder's query	BHEL's Reply
1	a) of 2.3 TCC	Fixing of BOI Items as mentioned in BOQ such as fixing of Deck sheet and cladding etc. as per specification.	There is no line item provided in the BOQ for Deck Sheet and Cladding sheet. Please clarify that application of Sheeting is part of Scope or not.	Fixing of Deck Sheet and Cladding Sheet is part of scope.
2	TCC – BOQ	Design, Fabrication and erection of tank including surface preparation painting etc. (Fixing of all equipment's on Tank shall be covered under A2301) Details mentioned in TCC.	We understand Design drawings will be provided by BHEL and bidder has to do the detail engineering i.e., Fabrication Drawings- Please confirm.	Fabrication and E&C drawing shall be provided by BHEL
3	A 2301 (a)	Fabrication, Taking delivery of steel from BHEL stores / store yard, loading, transportation, unloading, fabrication	There is no specific information regarding Land for Fabrication in the Tender document. We understand Land for Fabrication will be provided by BHEL within the plant premises. Please Confirm.	Agreed
4	BOQ – Item No - B1502	METAL DECK SHEET	Kindly provide the quantity in Sq. Mtrs considering standard practice instead of MT.	Tender Conditions shall prevail.
5	BOQ – Item No - A1505	Fixing External/ Inner sheet of Permanent colour coated metal cladding 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	Kindly provide the quantity in Sq. Mtrs considering standard practice instead of MT.	Tender Conditions shall prevail.

Sl. no	Reference clause of Tender Document	Existing provision	Bidder's query	BHEL's Reply
6	BOQ – Item no 1511	Fixing insulation of resin bonded mineral wool of 50 mm nominal thickness conforming to IS 8183 having a density of 32 kg/cum glass wool or 48 kg/cum for rock wool, for cladding/under deck insulation including application of glue and tying with lacing wire, for glass/rock wool as per manufacturer's recommendations	Kindly provide the quantity in Cu Mtr considering standard practice instead of MT.	Tender Conditions shall prevail.
7	BOQ – Item No- A1519	Fixing Factory made (Continuous 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).	Kindly provide the quantity in Sq. Mtrs considering standard practice instead of MT.	Tender Conditions shall prevail.
8	BOQ – Item No -A1520	Fixing permanently at all heights and elevations, troughed sheets over roof purlins/beams/side runners etc for roofing and side cladding (internal & external) including all labour, material, equipment, transportation, handling, scaffolding, laps, hooks, washers, corner pieces etc. at any level as per specification, drawings and as directed by engineer - in - charge.	Kindly provide the quantity in Sq. Mtr considering standard practice instead of MT.	Tender Conditions shall prevail.
9	BOQ item No - A2320	Fabrication and fixing of stainless steel pipe (polished) hand railing conforming to SS 304 of 32 mm/40 mm/ 50mm / 60mm NB dia including polishing, decorative posts, Newel post, mid rail, kick rail, toe guard, accessories, fasteners, transportation, loading/unloading etc. all complete.	Since quantum of Fabrication is very less, we request to descope fabrication from the bidder scope and request to supply the fabricated items.	Tender Conditions shall prevail.

Sl. no	Reference clause of Tender Document	Existing provision	Bidder's query	BHEL's Reply
10	BOQ item No - 2321	Fabrication and fixing of MS pipe hand railing of 32 mm/40 mm dia including transportation, loading/unloading, painting etc. all complete as per specification. Payments terms - a) on receipt of materials at site - 65%; b) Erection & fixing - 35%;	Since quantum of Fabrication is very less, we request to descope fabrication from the bidder scope and request to supply the fabricated items.	Tender Conditions shall prevail.
11	BOQ item No - 2322	Fabrication and fixing of GI pipe hand railing (900 mm high) of 32 mm/40 mm dia (Medium Grade) including galvanisation @ 610 gm/sqm over blast cleaned steel surfaces etc all complete. item includes transportation, loading/unloading, suitable paint etc	Since quantum of Fabrication is very less, we request to descope fabrication from the bidder scope and request to supply the fabricated items.	Tender Conditions shall prevail.
12	TCC - BOQ	Design, Fabrication and erection of tank including surface preparation painting etc. (Fixing of all equipment's on Tank shall be covered under A2301) Details mentioned in TCC.	Kindly provide the separate line item for Surface Preparation and Painting and also request to confirm about the involvement of liners if any in the inside portion of the tanks.	Please refer Annexure-1 for terms of payment Refer Page no 160/170 for 2 nd part
13		Section A.1 Erection/Installation of items mentioned hereunder (Supply under BHEL Scope)	The total quantity including Structural steel including Sheeting, Gratings is 60,188 and the Total quantity of Site fabrication is 2000 MT. We understand Erection of Site fabricated steel is not covered in the Section A.1 of BOQ. If it is covered in Section A.1, kindly indicate the quantity in a separate line item.	Erection of fabricated items in Section A.3 is covered in section A.1

Sl. no	Reference clause of Tender Document	Existing provision	Bidder's query	BHEL's Reply
14	NIT Clause No- 13	Base date shall be calendar month of the "date start of Work duly certified by BHEL engineer" for each package	We request to consider base date as "last date of submission of tender"	Tender condition shall prevail.
15	GCC-2.15.5	MAN-HOUR RATE FOR ELIGIBLE EXTRA WORKS: Single composite average labour man-hour rate, including overtime if any, supervision, use of tools and tackles and other site expenses and incidentals, consumables for carrying out any major rework/ repairs/ rectification/ modification/ fabrication as certified by site as may arise during the course of erection, testing, commissioning or extra works arising out of transit, storage and erection damages, payment, if found due will be at Rs 139/- per man hour	As per the Annexure – 9 Talcher Minimum wages, the average payment for only Manpower for normal working hours itself is Rs. 240.15 excluding tools and Tackles. Requesting to modify the rate considering the Circular issued by NTPC Limited against Talcher Thermal Power Station.	Tender condition shall prevail.
16	GCC- 2.17	Price Variation Compensation	PVC percentage component (K) is considered for this package and calculated as per percentage of "Mechanical Packages" under Clause No. 2.17 Price Variation Compensation – Please confirm.	Agreed
17	4.2 Other tools & Tackles	Calibrated Power driven HSFG bolt tightening machines – 20 Nos	Considering the quantum of Work the number of machines mentioned are very high. Hence requesting to revise the quantity or specify as per site requirement.	Tender condition shall prevail.

Sl. no	Reference clause of Tender Document	Existing provision	Bidder's query	BHEL's Reply
18	4.2 Other tools & Tackles	Torque tightening machine – 12 Nos	Considering the quantum of Work the number of machines mentioned are very high. Hence requesting to revise the quantity or specify as per site requirement.	Tender condition shall prevail.
19	BOQ item No - 2312a	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 and nut 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.	In one of the similar natured project awarded by BHEL which is under execution, the quantity of the bolts has increased more than 200 % of the awarded quantity and also the weightage for item is also not as per the prevailing rate in the market. Hence requesting to review the same and modify the weightage and quantity accordingly. The Weightage provided for the items is not even meeting the actual purchase cost. Requesting to revise the same considering the market rates. Please confirm under which percentage component PVC will be compensated for this item. i.e., Civil Package A or B or C.	Tender condition shall prevail.
19	BOQ item No - 2312a	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 and tempered nuts (of property class `8' as per IS:1367) conforming to IS:6623 with hardened and tempered washers and nut 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.	In one of the similar natured project awarded by BHEL which is under execution, the quantity of the bolts has increased more than 200% of the awarded quantity and also the weightage for item is also not as per the prevailing rate in the market. Hence requesting to review the same and modify the weightage and provide the accurate quantity. The Weightage provided for the items is not even meeting the actual purchase cost. Requesting to revise the same considering the	Tender condition shall prevail.

Sl. no	Reference clause of Tender Document	Existing provision	Bidder's query	BHEL's Reply																														
			market rates. Please confirm under which percentage component PVC will be compensated for this item. i.e., Civil Package A or B or C.																															
20	Clause No – 7 Terms of Payment	<u>Package -A, B & C</u>																																
		<table><tr><th>S no</th><th>Description</th><th>Percentage</th></tr><tr><td>7.1.1</td><td>On pre-assembly wherever applicable (if not applicable, this portion shall be clubbed with placement in position)</td><td>15%</td></tr><tr><td>7.1.2</td><td>Placement in position</td><td>35%</td></tr><tr><td>7.1.3</td><td>Alignment with Grouting (wherever applicable)</td><td>20%</td></tr><tr><td>7.1.4</td><td>Welding / bolting / fixing</td><td>15%</td></tr><tr><td>7.1.5</td><td>Readiness of floors for concrete pouring as applicable (if not applicable, then this portion to be paid along with welding/bolting / fixing)</td><td>5%</td></tr></table>	S no	Description	Percentage	7.1.1	On pre-assembly wherever applicable (if not applicable, this portion shall be clubbed with placement in position)	15%	7.1.2	Placement in position	35%	7.1.3	Alignment with Grouting (wherever applicable)	20%	7.1.4	Welding / bolting / fixing	15%	7.1.5	Readiness of floors for concrete pouring as applicable (if not applicable, then this portion to be paid along with welding/bolting / fixing)	5%	<u>Package -A, B & C</u> Major cost in the bidder price is for Man Power only. Holding the payment of 10% towards milestone and 5% retention will impact our cash flow and also the progress. Considering the requirement of the resources and to meeting the actual expenses during the course of execution, we propose the following payment terms. <table><tr><th>S no</th><th>Description</th><th>Percentage</th></tr><tr><td>7.1.1</td><td>On pre-assembly wherever applicable (if not applicable, this portion shall be clubbed with placement in position)</td><td>15%</td></tr><tr><td>7.1.2</td><td>Placement in position</td><td>30%</td></tr><tr><td>7.1.3</td><td>Alignment with Grouting (wherever applicable) Welding / bolting / fixing</td><td>40%</td></tr></table>		S no	Description	Percentage	7.1.1	On pre-assembly wherever applicable (if not applicable, this portion shall be clubbed with placement in position)	15%	7.1.2	Placement in position	30%	7.1.3	Alignment with Grouting (wherever applicable) Welding / bolting / fixing	40%
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Sl. no	Reference clause of Tender Document	Existing provision			Bidder's query			BHEL's Reply
		7.1.6	Total	90%	7.1.5	Final Bolt Tightening	15%	
		Further 10 % payment on pro-rata basis shall be released on achievement of the following stage / milestones events for the tonnage erected.						
		S no	Description	Percentage				
		7.1.7	READINESS of structure with side cladding in AB row. Payment shall be released on (bay wise) pro rata Basis.	5%				
		7.1.8	Area cleaning, temporary structures cutting/removal and return of scrap	2%				
		7.1.9	Punch List points/pending points liquidation	2%				
		7.1.4	Material Reconciliation	1%				
		7.1.6	Total	10%	7.1.6	Total	100 %	
					The above breakup is well accepted in other regions of BHEL.			
21	Terms of Payment	Tank Fabrication Cum Installation			We haven't found the payment terms for this item. Hence kindly provide the Terms of payment Fabrication cum installation of Tanks.			Refer Annexure-1 for Payment terms

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Sl. no	Reference clause of Tender Document	Existing provision	Bidder's query	BHEL's Reply
22	Terms of Payment	Structure Fabrication	We haven't found the payment terms for this item. Kindly provide the Terms of payment for Structure Fabrication.	Refer Annexure-1 for payment terms
23	Section A3- Structure Fabrication	Structure Fabrication – 2000 MT	Kindly specify the items that has to be fabricated under this line item along with the quantity bifurcation.	This is a contingency arrangement to expedite the site activities
24	Section A.1 item no 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.	Under this item the quantity of Bolts is mentioned as 1263.9 MT, whereas under Section B.1 item no 2312a the quantity mentioned as 126392.9 KG i.e., 126.392 MT. Kindly confirm the quantity to be supplied and quantity to be installed by Contractor.	For Section A.1, Supply is in BHEL Scope and for B.1, Supply is in contractor's scope. Installation is in contractor's scope.
25	Section A.1 item no 2312	Providing and fixing in positing of high strength structural bolts (of property class 10.8 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 and Nut 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.	Under this item the quantity of Bolts is mentioned as 597.4 MT, whereas under Section B.1 item no A2312a the quantity mentioned as 59739.3 KG i.e., 59.739 MT. Kindly confirm the quantity to be supplied and quantity to be installed by Contractor.	For Section A.1, Supply is in BHEL Scope and for B.1, Supply is in contractor's scope. Installation is in contractor's scope.

Sl. no	Reference clause of Tender Document	Existing provision	Bidder's query	BHEL's Reply
26		BOQ for Package -A, B & C	<p>Unit Rates for the activities will differ considering the area, quantum, difficulties and criticality which is a standard norm. The tender has been called for Erection of Power House, CHP and AHP structures. Though there are few challenges still Power house structures erection is bit comfortable compared with other two packages and there is no interface issue with the other agencies. But for CHP and AHP there is an Interface issues and the setup has to keep on changing from one location to other and also Start of work also differs. Keeping the same in view request to provide the Separate BOQ for Individual package with separate weightage.</p> <p>Weightage for structural items in CHP & AHP shall be incorporated considering the Criticality, Height, Fronts availability and Stretch.</p>	Tender conditions shall prevail.

Sl. no	Reference clause of Tender Document	Existing provision	Bidder's query	BHEL's Reply
27	Section -B Other BOQ Items	Providing engineering consultancy services for Architectural design & drawings of CCR (Central control room in powerhouse building) in harmony with the overall plant and presented in the form of presentation drawings, including 3-D perspective rendered views, panoramic views, walkthrough, with color schemes, lighting design, as per specification including preparation of integrated services drawings in co-ordination with electrical, HVAC & fire systems etc. and taking approval on drawings from BHEL/customer (All complete).Perspective colored views shall be submitted in Hard Copy in Laminated A-1 Size (Two Numbers) as required in the desired format. Structural design & drawing, of buildings & foundations are in scope of BHEL and not included in scope of bidder. The scope of bidder shall include coordination with respect to HVAC, electrical & firefighting systems & space requirements for electrical facilities in consultation with BHEL/ customer. Engineering services of acoustic design, interior architecture, PA system, planning for firefighting system as per inputs provided by BHEL, external & internal finishes, plumbing & sanitation, water supply system, false ceiling, internal partitions, reception, glazing, etc. are also included in this item. Any addition/changes in design as per customer requirement during detailed engineering stage, no extra payment is admissible. All design and drawings shall be submitted in soft and hard copies along with 3-D model and shall be PDS/PDMS compliant for	Since this is a specialized job and BHEL will award this type of works to specialized agencies, hence requesting to descope the same from Bidder scope.	Tender conditions shall prevail.

Sl. no	Reference clause of Tender Document	Existing provision	Bidder's query	BHEL's Reply
		transfer to complete plant PDS/ PDMS model. Bidder shall also provide BOQ & specification of finishing items in a generalized fashion in consultation with BHEL Civil design wing, during detailed engineering stage for further sub-contracting of finishing works.		
28	Section A.3 of TCC	Fabrication of items mentioned hereunder (Supply under BHEL Scope)	Kindly provide the separate line item for Surface Preparation, Supply and Application of Paints along with the separate payment terms.	Refer Annexure 1 for Payment terms

BB) Annexure 1 to Corrigendum 01 for Payment Terms: Sr no-7.7, 7.8 & 7.9 is added is payment terms (Chapter-VII of Vol-1-TCC)

7.7 Terms of Payment for DM & CST Tank , Fire Water Tank

Sl. No.	Description	Percentage
7.7.1	Cutting ,Rolling & Bending of Plates	10.00%
7.7.2	Fitup, Placement	20.00%
7.7.3	Alignment and Welding	25.00%
7.7.4	NDT as per Field Quality plan	5.00%
7.7.5	Nozzle, Staircase & Handralings, accessories , fittings etc.	5.00%
7.7.6	Vaccum Box test/ Soap solution test -bottiom plate & roof plate	5.00%
7.7.7	Water Fill test	5.00%
7.7.8	Surface Preparation for painting (SA 2 1/2) & Painting inside & Outside as per General arrangement drawings	10.00%
7.7.9	Handling over	5.00%
Total		90.00%

Further 10 % payment on pro-rata basis shall be released on achievement of the following stage / milestones events for the tonnage Erected

Sl. No.	Description	Percentage
7.7.10	Readiness for commissioning	5.00%
7.7.11	Material reconciliation	3.00%
7.7.12	Punch point clearance	2.00%

		10.00%
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7.8

Terms of Payment for balance Tanks

Sl. No.	Description	Percentage
7.8.1	Cutting ,Rolling & Bending of Plates	10.00%
7.8.2	Fitup, Placement	20.00%
7.8.3	Alignment and Welding	25.00%
7.8.4	NDT as per Field Quality plan	5.00%
7.8.5	Nozzle, Staircase & Handralings, accessories , fittings etc	5.00%
7.8.6	Vaccum Box test/ Soap solution test -bottiom plate & roof plate	5.00%
7.8.7	Water Fill test	5.00%
7.8.8	Surface Preparation for painting (SA 2 1/2) for handing over to rubber lining agency & Outside painting as per General arrangement drawings	10.00%
7.8.9	Handling over	5.00%
Total		90.00%

Further 10 % payment on pro-rata basis shall be released on achievement of the following stage / milestones events for the tonnage Erected

7.8.10	Readiness for commissioning	5.00%
7.8.11	Material reconciliation	3.00%
7.8.12	Punch point clearance	2.00%
Total		10.00%

7.9

Terms of Payment for Fabrication

Sl. No.	Description	Percentage
7.9.1	Pre-Assembly/ Fit-up	30%
7.9.2	Alignment	25%
7.9.3	Welding	25%
7.9.4	NDT	5%
7.9.5	Shot blast Cleaning & Painting	5%
Total		90%

Further 10 % payment on pro-rata basis shall be released on achievement of the following stage / milestones events for the tonnage erected

7.9.6	Area cleaning, temporary structures cutting/removal and return of scrap	4%
7.9.7	Punch List points/pending points liquidation	3%
7.9.8	Material Reconciliation	3%
Total		10%

All other Terms and conditions of the Tender Specification shall remain unaltered unless expressly amended by BHEL in writing.

Bidders are requested to submit as a part of Technical Bid, a copy of this corrigendum duly countersigned by the authorized signatory and stamped with the Official seal as a token of Bidder's unqualified acceptance of this corrigendum/ digitally signed.



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BIDDERS WHO HAVE ALREADY SUBMITTED THEIR OFFERS PRIOR TO ISSUANCE OF THIS CORRIGENDUM IN E-TENDER PORTAL ARE REQUIRED TO RE-SUBMIT THEIR OFFER AFTER TAKING COGNIZANCE OF THIS CORRIGENDUM.

Thanking you,
Yours Sincerely,

(Purchase)