



**OPEN TENDER ENQUIRY FOR D.M. PLANT FOR 1X 800 MW GSECL WANAKBORI
STPP UNIT 8**

Ref No. : PE/PG/WAN/E-4931/2015

Date: 06.10.2015

CORRIGENDUM/ ADDENDUM-6

Tender Enquiry no.: PE/PG/WAN/E-4931/2015
Date: 15.07.2015

Extended DUE DATE
12 Oct 2015
10:00 AM

1- Reply of Pre-Bid query is attached with this corrigendum.

2- Further, clause no. 18 of Enquiry terms & conditions may please be read as “Non-registered Vendors **who wish to apply** for registration in BHEL-PEM can apply through Online Registration Portal available at www.bhelpem.com → vendor section → Online Supplier Registration. All credentials and/or documents duly signed and stamped related to registration has to be uploaded on the website and submit the application for registration. One set of hard copy of the filled-up SRF downloaded from Online Registration Portal duly signed and stamped has to be submitted. Above shall be part of NIT.

All bidders are requested to visit BHEL websites www.bhel.com (Tender Notifications Section) OR www.bhelpem.com, all future corrigendum, addendums, amendments, if any, for this tender shall be hosted only on above websites.

**RAHUL
BHATNAGAR**

Digitally signed by RAHUL BHATNAGAR
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ELECTRICALS LIMITED, ou=SENIOR
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Please reply to:

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PGI-I

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REPLY OF PREBID CLARIFICATION

WANAKBORI DM PLANT

SL NO.	SECTION/CLAUSE/PAGE NO	STATEMENT OF THE REFERRED CLAUSE	CLARIFICATION REQUIRED	BHEL REPLIES
1)	SPECIFICATIONNO.:PE/TS/408/163/A001REV0/K9213R-EPC-SPC-001/10-13 of 681/126 of 681	TABLE-1-CLARIFIED WATER ANALYSIS (AS RECEIVED) TABLE-1-CLARIFIED WATER ANALYSIS TABLE-2-RAW WATER ANALYSIS ANNEXURE-1-CLARIFIED WATER ANALYSIS	Please note that in the tender document many water analysis is mentioned. We understand that Table-1-Clarified water analysis as mentioned in Pg-12 is the analysis to be considered for designing of DM plant. Please confirm our understanding.	FOLLOW TENDER TECHNICAL SPECIFICATION. IN PAGE NUMBER 654 OF 681 IT'S CLEARLY WRITTEN FOR CLARIFIED WATER ANALYSIS TO BE USED FOR DM PLANT.
2)	SPECIFICATION NO.: PE-TS-408-163-A001 VOLUME II-B SECTION –C1/4.0/ 30 of 681	PIPING 200 meter DM plant feed piping from Clarified water pump house where (DM Feed pumps are located) to DM plant. For details, please refer plot plan 200 meter DM water piping from DM plant to each DM Water storage tanks 200 meter DM water piping from common suction header of DM Water storage tanks to DM water regeneration pumps. 250 meter DM water recirculation piping from DM water regeneration pumps to each DM Water storage tanks. 800 meter piping from N.Pit to central monitoring basin 350 meter piping from Backwash sump to stilling chamber in Pretreatment plant area	Please clarify piping laying is above-ground or underground. If laying of piping is above ground than please confirm the scope of supports, If laying of piping is on ground than please confirm the scope of pedestal. If it is underground please confirm the scope of excavation, back filling and bedding etc.	All the pipes shall be run in underground.

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3)	SPECIFICATION NO.: PE-TS-408-163-A001 VOLUME II-B SECTION –C1/10.0/ 32 of 681 & SPECIFICATION NO.: PE-TS-410-163-A001 VOLUME II-B SECTION –C2-A/K9213R-EPC-SPC-001/2.41.00/Page 95 of 681	<p>EXCLUSIONS All civil works including foundation of equipment. However complete grouting for equipment, fixing and any concreting inside vessels and lining shall be in the scope of the bidder. Also civil works including operating / maintenance platforms and interconnection platforms (if any) with ladders / stairs & handrails, structural supports and hangers for pipes / cables / ducts, crane rails, all embedment's and inserts with lugs including anchor fasteners, bolts etc., dressing of foundations, grouting of pockets and underpinning of base plates for equipment / structures and fixing supports, filling and finishing of openings in walls,floors, cladding, roof and trenches shall be in bidder's scope. & SCOPE OF SUPPLY & SERVICES All Civil works shall be done by the bidder</p>	Please note that there is contradiction in the tender documents for the scope of civil works. We understand that the same is excluded from our scope of supply as per Exclusion as mentioned in Section:C1 of the tender document. Please confirm.	All civil works (including acid/alkali lining/tiling in Neutral Pit) is excluded from bidder scope.
4)	SPECIFICATION NO.: PE-TS-408-163-A001 VOLUME II-B SECTION –C1/31.0/ 73 of 681	<p>NEUTRALIZATION PIT Protection a) Internal: Acid and Alkali Proof Tiles / Lining</p>	We understand that all lining & painting for civil structures are excluded from bidder's scope of supply. Please clarify.	All civil works (including acid/alkali lining/tiling in Neutral Pit) is excluded from bidder scope.
5)	SPECIFICATION NO.: PE-TS-408-163-A001 VOLUME II-B SECTION –C1/33.0/ 75 of 681	<p>FILTER BACKWASH SUMP Material of Construction RCC. Type of Protection a) Internal Epoxy painted as per relevant sub section</p>	We understand that all lining & painting for civil structures are excluded from bidder's scope of supply. Please clarify.	All civil works (including acid/alkali lining/tiling in Neutral Pit) is excluded from bidder scope.

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6)	SPECIFICATION NO.: PE-TS-408-163-A001 VOLUME II-B SECTION –C1/33.0/ 75 of 681	FILTER BACKWASH SUMP Sludge Flushing Arrangement Required through high pressure water and nozzles to ensure no deposition / settling of sludge as per the Bid P&ID Water shall be taken from service water pump discharge header. Booster Pump if required, for producing high pressure water, shall be in Bidder's scope	Please note that We donot envisage the requirement of any booster pumps/ high pressure jet arrangement. Please clarify.	FOLLOW TENDER TECHNICAL SPECIFICATION.
7)	SPECIFICATION NO.: PE-TS-408-163-A001 VOLUME II-B SECTION –C1/4.0/ 79 of 681 & PE-DG-408-163-A001 & PE-DG-408-163-A002 & K9213R-EPC-SPC-001/163 of 681	DATASHEET OF PIPING & VALVES FOR BOTH DM PLANT AND POTABLE WATER TREATMENT PLANT & P&ID FOR DM PLANT & P&ID FOR POTABLE WATER TREATMENT PLANT & ANNEXURE-II SERVICES OF VARIOUS CATEGORIES OF VALVES	Please note that there is contradiction in the type of valves in tender datasheet, tender document & P&ID. We understand that the bidder can consider either butterfly valves or diaphragm valves for vessel frontals as per the tender datasheet. Please confirm our understanding.	FOLLOW TENDER TECHNICAL SPECIFICATION.
8)	SPECIFICATION NO.: PE-TS-408-163-A001 VOLUME II-B SECTION –C1/4.0/ 79 of 681 & K9213R-EPC-SPC-001/163 of 681	DATASHEET OF PIPING & VALVES FOR BOTH DM PLANT AND POTABLE WATER TREATMENT PLANT & ANNEXURE-I SPECIFICATION OF PIPES FOR DIFFERENT SERVICES	Please note that there is contradiction in the MOC of piping in tender datasheet, tender document & P&ID. We understand that the bidder has to consider the same as per the tender datasheet. Please confirm.	FOLLOW TENDER TECHNICAL SPECIFICATION.

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9)	SPECIFICATION NO.: PE-TS-408-163-A001 VOLUME II-B SECTION –C2-A/Vol-II-1 Sec V/1.00.00/169 of 681	LARGE DIAMETER LOW PRESSURE PIPING, VALVES AND FABRICATED TANKS The Large Diameter Piping to be fabricated and installed shall include the following pipe lines having sizes 450 mm NB and above: a) Circulating Water Piping b) Auxiliary Cooling Water Piping c) Raw Water Piping d) DM Closed Cooling Water Piping e) Cooling Tower Make-up Water Piping 1.02.00 The different steel storage tanks are : a) Demineralised Water make up tank. b) Potable Water Storage Tank. c) Service Water RCC Tank. d) Demineralised Water storage tanks e) Condensate Storage Tank f) Fire Water Storage Tanks	We understand that the following large diameter low pressure piping, valves & fabricated tanks are excluded from our scope of supply. Please clarify.	FOLLOW TENDER TECHNICAL SPECIFICATION.
10)	SPECIFICATION NO.: PE-TS-408-163-A001 VOLUME II-B SECTION –C2-A/Vol-II-J Sec III/1.00.00/193 of 681	MISCELLANEOUS HOIST	We understand that the same is not in our scope of supply. Please confirm our understanding.	FOLLOW TENDER TECHNICAL SPECIFICATION.
11)	SPECIFICATION NO.: PE-TS-408-163-A001 VOLUME II-B SECTION –C1	Scope of Supply & Services, Design Details	We understand that in case of contradiction in the tender document for the scope of supply & services & design details, the section C1 will prevail over the other sections of the tender document. Please confirm.	FOLLOW TENDER TECHNICAL SPECIFICATION. Refer sl no-1.6 in page 3 of 681.
12)	SECTION: C SUB SECTION : C&I/ Page 427 of 681	1) Bidder to consider I/Os for hardwired connectivity of selected parameters from Waste water Treatment plant.	Please mention I/Os to be Considered for selected Parameters. Please Note that Hardwired Cable For Connecting Between PLC to DCS Shall be in BHEL Scope, Kindly conform the same.	REFER TECHNICAL SPEC.AMMENDMENT AND CORRIGENDA.

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13)	PE-TS-408-163-A001/ Page 427 of 681	3) The communication between PLC and Main plant DCS shall be OPC compliant (Data Access 2.0) TCP/IP on Fibre Optic link. The communication link between PLC and Main plant DCS shall be redundant.	Bidder Understood that bidder has to provide provision for Linking with DCS, Any Other OFC Cable/Trays/Supports etc Between PLC & DCS shall be in BHEL/Client Scope. Kindly Conform the same.	CABLE TRAY IS IN BHEL SCOPE. FOR OTHER POINTS REFER TECHNICAL SPEC. AMMENDMENT AND CORRIGENDA.
14)	V2/F2/S-IV/1/1.01.00/ Page 401 of 681	Power and Control Cables shall cover the requirement of entire Plant including the switchyard. The cables shall be furnished in accordance with this specification and annexure.	As Per Electrical Scope Matrix, Bidder Didn't Envisage any power & control cables in our scope of supply, Kindly conform the same.	Bidder to keep the provision to connect PT plant PLC to the DM plant PLC via MODBUS / OPC link for monitoring and control of PT plant from DM plant operator's station. The necessary hardware/software at DM Plant PLC end and fibre optic cable shall be in DM Plant bidder's scope. The overall responsibility to establish this connectivity and operation of PT Plant from DM Plant Operator station shall be in DM Plant bidder's scope. This is as per specification.

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15)	V.IIE/S-V : 1/1.01.00/ Page 430 of 681	d) Coordination, integration and interface between various BOP control systems such as Water Pre-treatment plant, Demineralised Water plant, Coal Handling Plant, Ash Handling Plant, ETP etc. and the station DCS for centralized monitoring & selective operation.	Please Note That The Bidder is quoting only for DM Plant, interfacing with other BOP Plant not envisaged in Bidder Scope of supply, as locations for BOPs Not mentioned in the document. Kindly Confirm the same.	Confirmed.
16)	V.IIE/S-V : 5/2.02.00/ Page 433 of 681	PLC systems shall be time synchronized with the GPS Master Clock. Bidder shall arrange for the necessary ports and cable for the purpose as well.	Please Note that bidder will provided only provision for Ports at PLC End for Connecting to Master Clock, However cable Along with trays/Pipes & supports between PLC & DCS shall be in Bhel /Owners Scope Kindly Confirm the same.	The same shall be as per specification.
17)	V.IIE/S-VI : 47/5.13.01/ Page 488 of 681	Local Instrument Racks & Enclosure : a) Devices located in the field shall be grouped and installed in the enclosure (Open / Closed Rack) in Boiler and TG Building.	Bidder Understand that Racks & Enclosures are for Boiler & TG Building Only Not for PT Plant Kindly Confirm the same.	The necessary hardware/software including LIU (Light Interface unit) at PLC end shall be in Bidder's scope. Repeaters, if required for interfacing shall also be provided by the bidder. This is as per specification.
18)	General	Fiber Optic Cable Between PLC & DCS/Master Clock & Cable between Jbs and PLC	As Per PLC Configuration Drawing Bidder Scope ends at ether net port, BHEL Scope starts from Ethernet port .Kindly Conform same As per Electrical Scope Matrix cable between Jb & PLC Shall be in BHEL Scope. Kindly Conform the same	The necessary hardware/software including LIU (Light Interface unit) at PLC end shall be in Bidder's scope. Repeaters, if required for interfacing shall also be provided by the bidder. This is as per specification.