भारत हेवी इलेक्ट्रिकल्स लिमिटेड
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Ref: BHE/PW/PUR/ SAKHM-GEO/1097/Corrigendum 01 Date 11/02/2013

To

ALL BIDDERS

Sub: Corrigendum -01 for Issue of Clarifications

Job: FOR CARRYING OUT TOPOGRAPHICAL SURVEY, SOIL INVESTIGATION WORKS AND WATER DIVING TESTS AT POWER EQUIPMENT FABRICATION PLANT OF BHEL AT SAKOLI, DIST. BHANDARA, MAHARASHTRA

Tender Specification Number: BHE/PW/PUR/ SAKHM-GEO/1097

Bidders to kindly take note of the following:

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AA) Clarification to the Queries of Bidder

Sl No.	Reference Clause	Bidder's query	BHEL's clarification
1	SEC C Sr. No. 2 of VOL-II-Price Bid Casing pipes erected in the bores. MS-B class 4 mm thick 150 mm dia @ depth of 65 m per bore	We presume, as per your specification, the pumping test will have to be conducted for all the five bore holes (As per item Sr. No.1, Section C). Again the length of the wells should be of 65m depth having the casing diameter 150mm throughout the full length with MS-B class 4 mm casing. If the diameter of the casing is to be made 150 mm, then the diameter of the bore hole should have to be 200 mm to leave sufficient room to fill with 4 mm round pebbles. Apart from that it is very much essential to have at least 150 mm inner diameter of the casing to accommodate a submersible pump of 4" dia., wires, safety ropes, column pipes etc. without any hindrance. If MS-B class 4 mm thick casing is to be put then outer diameter required to be more, accordingly. Drill holes shall be by DTH machines (non Coring) and no cores shall be extracted. Kindly confirm.	The purpose of the bore well drilling is mainly to find out the availability of water, water table and yield for the usage of construction purpose. Based on the quality and yield available, decision will be taken to go to full-fledged bore wells for potable water purpose in future. **Point wise reply given below:** **1.** Yes. Yield test is to be conducted for all the 5 bore wells. Suitable diameter of bore well to accommodate 150mm dia pipe is to be drilled. Pipe erection is to be done need based up to the required depth and not for full depth of 65m. **2**. Bore hole drilling is mainly done to find out the water availability for construction purpose. Pump out test is to be conducted for determining the yield of the well either by V notch or by any
2	SEC C Sr. No. 3 VOL-II-Price Bid Yield test for bores.	For conducting pump out test for yield test apart from the main bore hole there need to have 9(nine) auxiliary holes of 2" diameter to get the piezometric level prior to pumping and piezometric level during pumping to arrive at the drawdown of piezometric level and those piezometric holes will be on three concentric lines. The three concentric lines each placed at 120 degrees apart and each line contains 3 observation wells each of 2" dia. and 65m length and placed at 5 mtrs apart from main well and distance between each observation wells are also 5 mtrs. Filters placed in the main mother well and the observation wells were located in the same water bearing stratum. Elevations and the static water levels for all the holes were measured before beginning of the pumping test. Similar is the case with measurement of temperature. Therefore, for each main bore hole there need to have nine more bore holes of same length but smaller diameter which is to be accounted for. Drill holes shall be by DTH machines (non Coring) and no cores shall be extracted. Kindly confirm.	
3	SEC C Sr. No. 4 of VOL-II-Price Bid Drilling of bore wells by electrical	In one of the method known as geo-electric sounding, the positions of the electrodes are changed with respect to a fixed point known as sounding point. In such method the measured resistance values at the surface reflects the vertical distribution of resistivity values in a geological section. In search of ground water and for the solution of other geo-hydrological problems and engineering problems the resistivity	

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Sl No.	Reference Clause	Bidder's query	BHEL's clarification
	resistivity Geophysical method.	soundings are mainly used. In stratigraphic location of ground water, use is made of the fact that water bearing strata often differs in elasticity and electrical conductivity (or in other word apparent resistivity) from the other formations in the series. This Vertical Electrical Sounding (VES) is the most suitable method for ground water investigation in most of the geological occurrences. Since the apparent resistivity values at the surface reflect the vertical distribution of resistivity values in a geological section below a certain location, it is known as "vertical electrical drilling". With the help of VES the knowledge of the depth to the top of the water bearing strata below level and the thickness of the water saturated strata can be achieved prior to landing in to an execution of drilling a bore-hole blindly. By undertaking a number of VES operations over an area will lead us to make a best choice of the location for drilling a bore-hole over the best aquifer zone which will give comparatively a good yield Therefore, by the statement "drilling of bore wells by electrical resistivity geophysical method" do you want to mean aforesaid vertical electrical drilling or electrical well logging - kindly specify.	standard method to find out the bore well discharge. **3.** It is electrical well logging only with logging tool, to find out the water saturation, permeability and aquifer of the soil strata.

BB) Volume I C ' General Conditions of Contract'

Clause No 2.26, 2.27 and 2.28 at Page 30 of Volume I B 'General conditions of Contract' has been inadvertently missed out in the tender documents issued. Same is hereby issued as Annexure I to Corrigendum 01.

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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.

This letter is hosted as file titled "Corrigendum-01 (Clarification-1097)" against NIT-13581 in BHEL web page (www.bhel.com→Tender Notifications → View Corrigendum).

Thanking you,

Yours faithfully,

Engineer (Purchase)

Enclosure:

1. Annecure I- Page 30 of volume I B 'General Conditions of contract'

2.23	**REVERSE AUCTION**: BHEL reserves the right to go for Reverse Auction for Price Bid Opening by BHEL appointed service provider, instead of opening the submitted sealed price bid in the conventional way. The Business Rules for Reverse Auction shall be as per BHEL guidelines issued from time to time.
2.24	**SUSPENSION OF BUSINESS DEALINGS** BHEL reserves the right to take action against Contractors who either fail to perform or Tenderers/Contractor who indulge in malpractices, by suspending business dealings with them in line with BHEL guidelines issued from time to time.
2.25	**OTHER ISSUES**
2.25.1	Value of Non judicial Stamp Paper for Bank Guarantees and for Contract Agreement shall be not less than Rs 100/- unless otherwise required under relevant statutes.
2.25.2	In case of any conflict between the General Conditions of Contract and Special Conditions of Contract, provisions contained in the Special Conditions of Contract shall prevail.
2.25.3	Unless otherwise specified in NIT, offers from consortium/JVs shall not be considered.
2.25.4	BHEL may not insist for signing of Contract Agreements in respect of low value and short time period contracts like providing services for Hot water flushing, Chemical Cleaning, Transportation, etc