

Ref.: BHE/PW/PUR/WNT2-GEO/1507/Corrigendum-02

DT: 04/08/2015

To

ALL BIDDERS

Sub: Issue of Corrigendum-02 for Amendment to technical specifications of tender & extension of offer submission date.

Job: HYDROGRAPHIC SURVEY, GEOTECHNICAL INVESTIGATION AND DETAILED DATA COLLECTION FOR RIVER INTAKE WATER SYSTEM AND APPROACH BRIDGE FOR 1 X 800 MW STPP WANAKBORI (GUJARAT).

T.S.No: BHE/PW/PUR/WNT2-GEO/1507

Bidders to kindly take note of the following:

AA) ISSUE OF CLARIFICATION

Refer the attached table in Appendix-A for clarification to the queries of the bidder(s).

BB) AMENDMENT TO TECHNICAL SPECIFICATIONS:

In addition to 'AA' above, the following clauses that have been amended:

S.No	Clause no & Page No.	Description as per original technical specification Vol-I E	Now Amended as
1.0	Clause no. 6.01.00 of Volume-IE Technical Specifications Page No. 5 of 7 & 6 of 7-Para 2	The portion of the referred clause stating "In every cross section bed levels shall be taken at 10 m intervals" is hereby amended.	"Bed level shall be taken at every 10 m interval in the complete area marked in Annexure-I"
2.0	Clause no. 7.00.00 of Volume-IE Technical Specifications Page No. 6 of 7.	The portion of the referred clause stating "b) Bore Hole (Total 2 Nos) shall be drilled upto the depth of minimum 30m from river bed or upto 5 m in rock with continuous RQD of 50 % whichever is earlier" is hereby amended.	"b) Bore Hole (Total 2 Nos) shall be drilled upto the depth of 30m from river bed or upto 5 m in rock with continuous RQD of 50 % whichever is earlier."
3.0	Clause no. 7.00.00 of Volume-IE Technical Specifications Page No. 7 of 7.	The portion of the referred clause stating "a) Bore Hole (Total 2 Nos) shall be drilled upto the depth of minimum 20m from river bed/Existing ground level or upto 5 m in rock with continuous RQD of 50 % whichever is earlier" is hereby amended.	"a) Bore Hole (Total 2 Nos) shall be drilled upto the depth of 20m from river bed/Existing ground level or upto 5 m in rock with continuous RQD of 50 % whichever is earlier."

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CC) AMENDMENT TO GEO-TECHNICAL REPORT

In addition to the details mentioned in Clause no.9.0 "REPORT" of Volume-IE Technical Specifications (Page No. 39 of 50), Geotechnical Report in vendor's scope shall also include the following:-

- 1) Bore log, Field test results, Load test results in tabular form with supporting calculation.
- 2) Bore hole location plan.
- 3) Plot of SPT,N – value versus depth.
- 4) Consolidation test (as per cl. No k, 9.2 of PE-TS-999-603-002 PAGE 41 OF 50,Vol- IE.)
- 5) Scour depth, Net safe bearing capacity for shallow foundations, safe load carrying capacity of pile foundation.

DD) TOPOGRAPHICAL SURVEY

Scope of Topographical survey is detailed in the doc titled "Annexure-J-1507-Topographical Survey Tech Specification" issued as Annexure-1 to this corrigendum. Same shall form integral part of technical specifications to this tender.

EE) EXTENSION OF DUE DATE FOR OFFER SUBMISSION

The due date of offer submission has been extended to 11/08/2015, 15.00 HRS.
Technical Bid shall be opened on 11/08/2015 at 16.00 hrs.

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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-02" against NIT-23521 in BHEL web page (www.bhel.com→Tender Notifications → View Corrigendum).

Thanking you,

Yours faithfully,

AGM (Purchase)

Encl:- Document titled "Annexure-J-1507-Topographical Survey Tech Specification"

BHARAT HEAVY ELECTRICALS LIMITED
POWER SECTOR WESTERN REGION, Nagpur

APPENDIX-A

Sr.No	Reference /Clause No./Page No.	BIDDER'S QUERY	BHEL's REPLY
1)	<p>Clause 8.1.2 of Volume-IA Technical Bid Pg 37 of 48</p> <p>"Contractor's price/rates shall be exclusive of Service Tax and Cess at the prevailing Service Tax Rate (presently 12.36%) on the admitted bill value."</p>	<p>Current Service tax rate is 14.00 %</p>	<p>Service Tax shall be paid on prevailing rates.</p>
2)	<p>Clause 7.0.0. of Volume-IE Technical Specifications Pg no 6 of 59</p> <p>"Carrying out Geotechnical investigation at river bed.....proposed location of intake well.</p> <p>Geotechnical investigation shall be carried out as per specification No.PE-TS- 999-603-002."</p>	<p>To clarify, how many bore holes have to be done in the bank of the river and in the river bed. Water Depth of the river is also not mentioned anywhere in the contract document as well as in the drawing.</p>	<p>The Bore Hole for Intake Well & Pump house as well as for Approach bridge foundations shall be carried out in the river bed only. Bidder shall visit the site to assess ground conditions.</p>
3)	<p>Clause no.6.6 of Volume-IE Technical Specifications pg no.29 of 59</p> <p>"Trial pits : Trial pits shall be of 3m x 3m size so as to and lighting necessary for the period the pits remain open."</p>	<p>No. of trial pits are not mentioned in the technical specification.</p>	<p>The scope of Trial pits is "not applicable".</p>

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4)	<p>Clause 6.8 of Volume-IE Technical Specifications Pg no 32 of 59</p> <p>“Static Cone Penetration Test: Static cone penetration test shall be conducted to know..... penetration resistance shall be maintained.”</p>	<p>Specify whether Static Cone Penetration Test is to be done with pore water pressure measurement or not? Also numbers of Static Cone Penetration Test and termination criteria is not mentioned any where.</p>	<p>The Static Cone Penetration Test is “not applicable”.</p>
5)	<p>Clause No.6.15 of Volume-IE Technical Specifications Pg no.37 of 59</p> <p>“Cross Hole Shear Test: This test shall be generally carried outshall be recorded by multiple channel Seismograph.”</p>	<p>For conducting cross Hole test three boreholes are required but in tender document specifications it is not mentioned.</p>	<p>The Cross Hole Shear Test is “not applicable”.</p>
6)	<p>NA</p>	<p>Pressure-meter Test.</p> <p><u>Bidder's comment:</u> What is the frequency of the test to be conducted in the borehole?</p>	<p>The Pressure-meter Test.is “not applicable”.</p>
7)	<p>NA</p>	<p>To confirm the surveyed area is completely in water and do not require any topographic survey</p>	<p>The area of survey is as per Annexure -I of Technical Specification Volume-IE .Bidder shall visit the site to assess ground conditions.</p>
8)	<p>NA</p>	<p>In Geo Technical scope, to confirm all the following bore holes are completely in water:-</p> <ul style="list-style-type: none"> • 3 Nos disturbed sample collection(grab sampling). • 2 no bore holes at pump house. 	<p>The Bore Hole for Intake Well & Pump house as well as for Approach bridge foundations shall be carried out in the river bed only</p>

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		<ul style="list-style-type: none"> 2 no bore holes at bridge. 	
9)	NA	<p>The field test quantities and laboratory test quantities are not mentioned in the BOQ as well as in the tender document.</p> <hr/> <p>No quantities mentioned for the following. Provide the quantities as Bill of Quantities (BOQ). The details provided is for Lump sump without mentioning quantities:</p> <ul style="list-style-type: none"> Static Cone penetration test Dynamic cone penetration test Plate load test Cyclic plate load test Field California Bearing Ratio Test Electrical Resistivity Test Seismic Refraction Test Cross Hole Shear Test Pressure-meter Test Permeability Test <hr/> <p>To confirm whether any special test is required except bore hole.</p>	<p>The geotechnical investigation as called in Clause no.7.00.00 (of Volume-IE Technical Specifications) along with SPT & collection of UDS shall be carried out at site. After completion of Bore hole including SPT & UDS the following lab test shall also be performed of collected soil sample:-</p> <ol style="list-style-type: none"> Sieve Analysis LL & PL Specific Gravity Direct Shear Test UCS One Dimensional Consolidation Test NDD NMC. <p>Chemical test for soil : 2 nos. chemical test for water samples to determine the carbonate, sulphate, chloride and nitrate contents, pH value, turbidity, organic matter and other chemicals harmful to foundations materials etc all complete as per specification. Conducting laboratory test on rock samples to determine the following properties etc all complete as per specification.</p> <ol style="list-style-type: none"> Moisture Content, Porosity & Density - 5nos Specific Gravity- 2 nos Slake Durability Index- 2 nos Crushing Strength- 5 nos.
10)	NA	<p>Are we allowed to change the schedule of Rates and quantities format to provide the rates as per scope which would be considered depending on their requirement as some of the tests are not applicable for the bore holes in water.</p>	<p>Format for price bid issued by BHEL in Volume-II price bid specification cannot be changed.</p> <p>Price Bid submitted in any other format other than BHEL's format is liable to be rejected.</p>

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11)	NA	Approx depth of water at Intake Well location.	Bidder shall visit the site to assess ground conditions.
12)	NA	Approx no. of Reference and Bench Mark pillar with detail specification.	One Bench mark with two reference pillars.
13)	NA	Approx no. of Bore hole in water body and approx no. of Bore hole in land.	The Bore Hole for Intake Well & Pump house as well as for Approach bridge foundations shall be carried out in the river bed only. Bidder shall visit the site to assess ground conditions.
14)	NA	<p>There is a mismatch between Scope of Work for Geotechnical Investigation as mentioned in "APPENDIX-VIII - INDICATIVE LIST OF TEST TO BE CARRIED OUT" page no.43-47 of Technical Conditions of Contract (TCC) and "VOLUME- IE - Technical Specification for Hydrographic Survey, Geotechnical Investigation and Detailed Data Collection for River Intake Water System & Approach Bridge" (Page no. 6 of 7 & 7 of 7).</p> <p>To review and confirm If "APPENDIX-VIII - INDICATIVE LIST OF TEST TO BE CARRIED OUT" is applicable and required to execute. Also, to specify the quantity against individual items against Geotechnical part.</p>	APPENDIX-VIII of Technical Conditions of Contract (TCC) stands deleted & is not applicable.
15)	NA	To specify approx area to be surveyed, or confirm only area to be surveyed which was specifically marked in the drawing vide Annexure –I of Volume-IE Technical Specification.	As per Annexure –I of Volume-IE Technical Specification