

# **TENDER SPECIFICATION**

**NO: BHE/PW/PUR/WNT2-PIL/1365**

**TEST PILING WORK FOR 1X 800 MW, UNIT-8**

**AT**

**WANAKBORI TPS, GUJRAT**

**VOLUME-II-PRICE BID SPECIFICATION**



**BHARAT HEAVY ELECTRICALS LIMITED**

**(A GOVERNMENT OF INDIA UNDERTAKING)**

**POWER SECTOR - WESTERN REGION**

**SHREEMOHINI COMPLEX**

**345, KINGSWAY - NAGPUR 440 001**

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EARNEST MONEY DEPOSIT: Please see Notice Inviting Tender.

LAST DATE FOR: Please see Notice Inviting Tender.

TENDER SUBMISSION:

THESE TENDER SPECIFICATION DOCUMENTS CONTAINING **VOLUME-I-Tech Bid**, **VOLUME- II-Price Bid** AND **VOLIME-IBCD Rev** ARE ISSUED TO:

M/s. ....

PLEASE NOTE:

THESE TENDER SPECS DOCUMENTS ARE NOT TRANSFERABLE.

For Bharat Heavy Electricals Limited

AGM (Purchase)

Place: Nagpur

Date:

**BHEL PSWR**  
**Vol-II-Price Bid Specifications**  
**T.S. NO: BHE/PW/PUR/WNT2-PIL/1365**

MOBILIZATION & DEMOBILIZATION OF ALL EQUIPMENTS, MEN AND MACHINERIES, MATERIALS, CARRYING OUT BORED CAST IN SITU TEST PILES AT SITE, CARRY OUT FIELD AND LAB TEST, PREPARATION AND SUBMISSION OF REPORTS COMPLETE IN ALL RESPECT AS PER SPECIFICATIONS OF TEST PILES AT 1X 800 MW WTPS, UNIT 8 WANAKBORI, GUJARAT.						
ST. NO	DESCRIPTION OF ITEM	UNIT	QUANTITY	Unit Rates in Figures (In Rs)	Unit Rates in Words (In Rs)	Total Amounts (In Rs)
<b>2500 PILING WORKS</b>						
2501	<b>Mobilisation of one set of hydraulic rotary piling rigs</b> and accessories capable of pile boring/drilling in all types of strata/installing various size of bored cast in situ RCC piles to project site and demobilisation of the same after completion of piling works etc all complete.		LS			
2502	<b>Mobilisation of two sets of conventional DMC/RMC piling rigs</b> and accessories capable of pile boring/drilling in all types of strata/installing various size of bored cast in situ RCC piles to project site and demobilisation of the same after completion of piling works etc all complete.		NA			
2503	Installation of <b>Bored cast-in-situ RCC vertical pile</b> as per IS 2911 (Part 1 Sec 2) with diameter and length as specified ( <b>length to be measured from pile cut-off level to the bottom of pile</b> ) using cement concrete grade M25 conforming to IS:456 with 20 mm nominal size stone aggregates with a minimum cement content of 400Kg per cum of concrete including providing all materials ( <b>but excluding reinforcement steel for which measurement/payment shall be made separately</b> ), boring/drilling in all types of soil, providing bentonite slurry and/or casing for stabilization of pile bore, flushing of pile bore, cleaning, providing plasticizer wherever required, breaking pile head to cut off level and exposing pile reinforcement for embedment in pile cap etc including empty boring from ground level to pile cutoff level etc all complete as per specification, drawing and as directed by the engineer-in-charge for the following.					
a	Pile with 450 mm diameter and 20 m length below cut off level	Each	NA			
Aa	Pile with 450 mm diameter and 13 m length below cut off level ( <b>Pile cut off level is 2 m from ground level</b> )	Each	9			
b	Pile with 500 mm diameter and 20 m length below cut off level	Each	NA			
d	Pile with 600 mm diameter and 20 m length below cut off level	Each	NA			
Ad	Pile with 600 mm diameter and 23 m length below cut off level ( <b>Pile Cut off level is 3 m from ground level</b> )	Each	16			

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<b>ST. NO</b>	<b>DESCRIPTION OF ITEM</b>	<b>UNIT</b>	<b>QUANTITY</b>	<b>Unit Rates in Figures (In Rs)</b>	<b>Unit Rates in Words (In Rs)</b>	<b>Total Amounts (In Rs)</b>
e	Pile with 760 mm diameter and 20 m length below cut off level ( <i>Pile Cut off level is 3 m from ground level</i> )	Each	13			
f	Pile with 900 mm diameter and 20 m length below cut off level	Each	NA			
2504	Extra over ST. No. 2503Aa for pile length more than the specified length of 13m below cut off level for the following.	Rm	18			
2505	Extra over ST. No. 2503Ad for pile length more than the specified length of 23m below cut off level for the following.	Rm	16			
2506	Extra over ST. No. 2503e for pile length more than the specified length of 20m below cut off level for the following.	Rm	26			
2507	<b>Rebate</b> on ST.No.2503Aa for pile length less than the specified length of 13m below cut off level for the following.	Rm	9			
2508	<b>Rebate</b> on ST.No.2503Ad for pile length less than the specified length of 23m below cut off level for the following.	Rm	16			
2509	<b>Rebate</b> on ST.No.2503e for pile length less than the specified length of 20m below cut off level for the following.	Rm	13			
2510	Extra over ST.No.2503 for boring/drilling in rock for a length not exceeding 3 times the diameter of pile, cleaning the pile hole, concreting etc all complete for the following.					
a	For 450 mm diameter pile	Rm	NA			
b	For 500 mm diameter pile	Rm	NA			
c	For 600 mm diameter pile	Rm	NA			
d	For 760 mm diameter pile	Rm	NA			
e	For 900 mm diameter pile	Rm	NA			
2511	Conducting initial load test upto a maximum test load of 2.5 times the safe load capacity on single pile as specified in accordance with IS 2911 (Part-4) including preparation of pile head for testing, necessary excavation, all arrangements of loading, unloading, test equipments/accessories, jacks, recording of results, labour, submission of test report <b>but excluding the cost of installation of pile (installation of pile shall be paid seperately)</b> etc all complete as per specification, drawing and as directed by engineer in-charge for the following.					
a	<b>For vertical compression test by cyclic load method</b>					
i	450 mm diameter pile	Each	3			
ii	500 mm diameter pile	Each	NA			

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<b>ST. NO</b>	<b>DESCRIPTION OF ITEM</b>	<b>UNIT</b>	<b>QUANTITY</b>	<b>Unit Rates in Figures (In Rs)</b>	<b>Unit Rates in Words (In Rs)</b>	<b>Total Amounts (In Rs)</b>
iii	600 mm diameter pile	Each	4			
iv	760 mm diameter pile	Each	3			
v	900 mm diameter pile	Each	NA			
b	<b>For lateral load test</b>					
i	450 mm diameter pile	Each	3			
ii	500 mm diameter pile	Each	NA			
iii	600 mm diameter pile	Each	4			
iv	760 mm diameter pile	Each	3			
v	900 mm diameter pile	Each	NA			
c	<b>For tension/uplift test</b>					
i	450 mm diameter pile	Each	3			
ii	500 mm diameter pile	Each	NA			
iii	600 mm diameter pile	Each	4			
iv	760 mm diameter pile	Each	3			
v	900 mm diameter pile	Each	NA			
2512	Conducting routine load test on single job pile as specified in accordance with IS 2911 (Part-4) including preparation of pile head for testing, necessary excavation, providing all arrangements of loading, unloading, test equipments/accessories, jacks, recording of results, labour, submission of test report etc but <b>excludng the cost of installation of job pile</b> complete as per specification, drawing and as directed by the engineer-in-charge for the following.					
a	<b>For vertical compression test by maintained load method</b>					
i	450 mm diameter pile	Each	NA			
ii	500 mm diameter pile	Each	NA			
iii	600 mm diameter pile	Each	NA			
iv	760 mm diameter pile	Each	NA			
v	900 mm diameter pile	Each	NA			
b	<b>For lateral load test</b>					

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<b>ST. NO</b>	<b>DESCRIPTION OF ITEM</b>	<b>UNIT</b>	<b>QUANTITY</b>	<b>Unit Rates in Figures (In Rs)</b>	<b>Unit Rates in Words (In Rs)</b>	<b>Total Amounts (In Rs)</b>
i	450 mm diameter pile	Each	<b>NA</b>			
ii	500 mm diameter pile	Each	<b>NA</b>			
iii	600 mm diameter pile	Each	<b>NA</b>			
iv	760 mm diameter pile	Each	<b>NA</b>			
v	900 mm diameter pile	Each	<b>NA</b>			
2513	Carrying out pile integrity test on 450mm/600mm/760mm diameter pile including all arrangements for test, equipments/accessories, materials, labour, submission of test report etc <b>but excluding the cost of installation of Test pile</b> all complete as per specification and as directed by the engineer-in-charge.	Each	<b>38</b>			
A2514	Conducting dynamic load tests on piles i.e. free lateral vibration test on a set of 2 piles, forced lateral vibration test on a set of 3 piles and forced vertical vibration test on one pile etc all complete in accordance with IS:9716 & IS:5249 including preparation of pile head for testing, necessary excavation, all arrangements of loading, unloading, test equipments/accessories, jacks, recording of results, labour, submission of test report but excluding the cost of installation of pile (installation of pile shall be paid separately) etc all complete as per specification, drawing and as directed by engineer-in-charge for the following.					
i	450 mm diameter pile	Each	<b>NA</b>			
ii	600 mm diameter pile	Each	<b>1</b>			
iii	760 mm diameter pile	Each	<b>1</b>			
A2516	<b>Taking delivery from BHEL stores/ store yard</b> , loading, transportation, unloading at site, straightening, cutting, bending, placing in position at any level, binding in position of steel reinforcements of <b>TMT steel of grade Fe-500D or 500EQR confirming to IS:1786</b> including cost of binding wire, labour, scaffolding, transportation to & from stores etc complete all as per specifications, drawings and as directed by Engineer. <b>(Reinforcement shall be provided by BHEL Free of cost)</b>	MT	<b>36</b>			
A2517 (a)	Extra Over St. No. 2503Aa for carrying out Extra Empty Boring below the Specified Pile Cut Off level as per St. No. 2503Aa, for 450 mm pile as per drawing.	RM	<b>27</b>			
A2517 (b)	Extra Over St. No. 2503Ad for carrying out Extra Empty Boring below the Specified Pile Cut Off Level as per St. No. 2503Ad, for 600 mm pile as per Drawing.	RM	<b>48</b>			

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ST. NO	DESCRIPTION OF ITEM	UNIT	QUANTITY	Unit Rates in Figures (In Rs)	Unit Rates in Words (In Rs)	Total Amounts (In Rs)
A2517 (c)	Extra Over St. No. 2503e for carrying out Extra Empty Boring below the Specified Pile Cut Off Level as per St. No. 2503e, for 760 mm pile as per Drawing.	RM	39			
<b>GRAND TOTAL (In Rs)</b>						

**GRAND TOTAL (In Rs) (In Words) Rupees .....**