

Bharat Heavy Electricals Limited
High Pressure Boiler Plant
Tiruchirappalli – 620 014. India
Civil Engineering Department (Factory)

TENDER DOCUMENT (PRICE BID)

Name of work : Replacement of Pumping main with HDPE Pipe between level crossing near RPS to Tank No 4 and CCDP main to FCB OHT.

Value of work : Rs. 25.73 Lakh

Tender Notice No. : 01 / 14-15

Tender Schedule No. : 02 / 14-15

Period of Contract : 6 (Six) Months

Issued to :

**BHARAT HEAVY ELECTRICALS LIMITED
TIRUCHIRAPPALLI – 620 014**

CIVIL ENGINEERING DEPARTMENT (FACTORY)

BHE: SM: C: F:P:02/67:

Dt.07.04.2014

To

The Tenderer

Dear Sirs,

Sub: **Replacement of Pumping main with HDPE Pipe between level crossing near RPS to Tank No 4 and CCDP main to FCB OHT**

Ref: 1. Tender Notice No. **01 /14-15**
2. Tender Schedule No. **02/14-15**

Please find enclosed / attached non-transferable tender document containing
i) Qualification bid consisting of Preamble, Specifications, General Conditions of Contract, Norms for Qualification and Qualification Performa ii) Price bid consisting of Bill of Quantities to offer your most competitive rates for all the items of Bill of Quantities attached in the Price Bid.

Tender for the work should be submitted in a sealed cover consisting of three inner sealed covers such as i) EMD cover ii) Qualification bid cover & iii) Price bid cover, all super scribing the name of work, tender schedule number etc.

- 1) **EMD cover shall contain requisite EMD in the form of DD.** Tenderers who had already remitted one time EMD should furnish the details of cash receipt No. _____ dt. _____, on the top of EMD cover. Tender without EMD / one time EMD reference will be summarily rejected and the qualification bid & price bid shall not be considered.

In case of tender documents downloaded from website, tender shall accompany the tender cost of Rs.750/- in the form of Demand Draft (separate) in addition to the EMD amount in the form of Demand Draft.

All Demand Draft shall be drawn in favour of **BHEL, Trichy** payable at Tiruchirappalli.

- 2) Qualification bid cover shall contain duly filled in qualification bid document signed by the tenderer in all the pages with documentary evidences for pre-qualification such as experience, value of work executed in the similar nature of work, etc. Any bid without proper documentary evidence for pre-qualification shall not be considered for further evaluation.

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- 3) The Price Bid cover shall contain price bid document duly filled in and signed by the tenderer in all the pages. **The tenderer has to quote most competitive rates for all the items in the Bill of Quantities from page No. 06 to 12 of Price Bid.**

The completed qualification bid and price bid along with requisite EMD of **Rs.60,000/-** for the work in the form of Demand Draft in favour of BHEL, Trichy shall reach the office of the undersigned on or before **06.05.14 at 10.00 hrs.** Tenderers who had already remitted one time EMD should furnish the details of cash receipt No. _____ dt. _____, on the top of EMD cover. EMD in any other form will not be accepted. The qualification bid will be opened on the **same day at 10.15 hrs.** In case of opening day falls on holiday or happened to be declared as a holiday, the receipt and opening of the tender shall automatically fall on the same timing of the next working day. Date and time of opening of the Price Bid shall be intimated only to the bidders those who have qualified after evaluation of the qualification bid. You / your authorized representative may participate in the tender opening with authorization letter.

The tenderers who is desirous of sending their tender documents by post or courier are advised to send the same well in advance so as to reach the **Office of the DY GEN MANAGER / CIVIL / FACTORY (Plg. & Design), Bldg. No. 53 Ground Floor, BHEL, Tiruchy – 620 014, Tamilnadu on or before 06.05.2014 at 10.00 hrs.**

The late tenders received after the tender submission / opening time will be summarily rejected and will not be considered for any reason.

Clarification if any, can be obtained contacting e-mail id kguna@bheltry.co.in/ 0431-2574529/2574650/2571718

Latest updates on the important dates, Amendments, Correspondences, Corrigenda, Clarifications, changes, Errata, Modifications, Revisions, etc to Tender Specifications will be hosted in BHEL webpage (www.bhel.com -->Tender Notifications □View Corrigendums) **and not in the newspapers.** Bidders to keep themselves updated with all such information. One set of tender documents shall be retained by the bidder for their reference.

Kindly acknowledge the receipt of the entire set of tender document

Yours faithfully
For and on behalf of
BHARAT HEAVY ELECTRICALS LIMITED,

DGM/ CIVIL / PLANNING (FACTORY)
BUILDING No. 53.



BHARAT HEAVY ELECTRICALS LIMITED
(A Government of India Undertaking)
Unit : TIRUVERUMBUR, BOILER PROJECT, P.O.
TIRUCHIRAPALLI - 620 014.

CIVIL ENGINEERING DEPARTMENT

NOTICE INVITING TENDER

01. Name of work: : **Replacement of Pumping main with HDPE Pipe between level crossing near RPS to Tank No 4 and CCDP main to FCB OHT.**
02. Estimated Cost : Rs. 25.73 Lakh
03. Earnest Money Deposit : Rs.60,000/-
04. Completion Time : SIX (6) Months
(From the date of commencement of the work which will be reckoned from the date of handing over to the Contractor)
05. Cost of Tender Document : **Rs.750/-**
(Rs. 825/- if required by post) including Sales Tax in DD form This amount will not be refunded under any circumstances.
06. Last Date for Receipt of Tenders : **10.00 Hrs. on 06.05.2014**
07. Date of Tender Opening : **10.15 Hrs. on 06.05.2014**
08. Maintenance Period :6 (Six Months from the date of actual completion of the entire work and Handing over to Bharat Heavy Electricals Limited)

Tender document contains **126** pages in Qualification Bid and **15** pages in Price Bid including Bill of Quantities, Drawing etc.

Issued to Messrs. / Thiru :

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SCHEDULE 'A'

LIST OF WORKS AND PRICES

NAME OF WORK:

Replacement of Pumping main with HDPE Pipe between level crossing near RPS to Tank No 4 and CCDP main to FCB OHT.

DETAILS & QUANTITIES of each item of work shown in the **BILL OF QUANTITIES** are only approximate and the same is attached as a separate excel file. They are given as a guide for the purpose of tendering only and are liable to variation and alteration of the Competent Authority. The work under each item as executed shall be measured and priced at the corresponding rate quoted by the contractor in the BILL OF QUANTITIES

Sl.No.	Description of work / supplied	Total amount of work / supplies (in figures and words)		Period of contract
		Rs.	Ps.	
1.	Replacement of Pumping main with HDPE Pipe between level crossing near RPS to Tank No 4 and CCDP main to FCB OHT.	25,73,000/-		SIX (6) MONTHS

BILL OF QUANTITIES

Sl. No.	Appx. Qty.	Description of work	TNBP No.	Rate (Both in Unit fig & Words)	Amount Rs. Ps.
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AS PER SEPARATE SHEETS ATTACHED CONTAINING 7 PAGES.

FROM Page No **06 to 12.**

NAME OF WORK: Replacement of Pumping main with HDPE Pipe between level crossing near RPS to Tank No 4 and CCDP main to FCB OHT.

Sl. No.	Quantity	Description of work	Rate (both in figures and in words)	Unit	Total Rs. P.
1	6500	Clearing jungle including uprooting of rank vegetation, grass, brushwood, trees and saplings of girth upto 30 cm measured at a height of 1 metre above ground level and removal of rubbish upto a distance of 50 metre.		Sqm	
2	35	Hire charges for engaging earth moving machinery (pockline) to attend to channeling works at river bed, pipe line burst works, cleaning the areas including uprooting thorny plants/heavy jungles/trees etc.of all heights and leveling the areas thereafter including all debris etc., all as per instructions of Engineer-in-charge. Rate includes hire, fuel, operation charges, to and fro charges for machinery, all labour and all other incidentals etc., complete.		Hr	
3	2700	Earthwork excavation (TRENCHES) in soils given below by mechanical means (Hydraulic excavator)/manual means and depositing the excavated earth at suitable places within the initial lead of 50 meter and initial lift of 1.5 meter for foundation in building works, roads, narrow drains, sewers, bridges, pipe lines etc., sectioning the subgrade to proper level and grade, watering and consolidating the subgrade to receive concrete bed, all as per standard specifications and instructions of Engineer-in-charge. All Kinds of Soil Except Rock.		Cum	
4	40	Earthwork excavation (TRENCHES) in soils given below by mechanical means (Hydraulic excavator)/manual means and depositing the excavated earth at suitable places within the initial lead of 50 meter and initial lift of 1.5 meter for foundation in building works, roads, narrow drains, sewers, bridges, pipe lines etc., sectioning the subgrade to proper level and grade, watering and consolidating the subgrade to receive concrete bed, all as per standard specifications and instructions of Engineer-in-charge. Ordinary Rock.		Cum	

Sl. No	Quantity	Description of work	Rate (both in figures and in words)	Unit	Total Rs. P.
5	20	Earthwork excavation (TRENCHES) in soils given below by mechanical means (Hydraulic excavator)/manual means and depositing the excavated earth at suitable places within the initial lead of 50 meter and initial lift of 1.5 meter for foundation in building works, roads, narrow drains, sewers, bridges, pipe lines etc., sectioning the subgrade to proper level and grade, watering and consolidating the subgrade to receive concrete bed, all as per standard specifications and instructions of Engineer-in-charge. Hard rock (blasting prohibited).		Cum	
6	15	Dismantling / removing / demolishing as the case may be of the following by manually/mechanical means and carefully stacking the serviceable materials at site of work or conveying and handing over the same at BHEL stores and disposal of unserviceable materials by transporting and dumping in the near by low level areas within a lead of 100 metres. All as per instructions of Engineer-in-charge. Brick Work in Cement mortar		Cum	
7	15	Dismantling / removing / demolishing as the case may be of the following by manually/mechanical means and carefully stacking the serviceable materials at site of work or conveying and handing over the same at BHEL stores and disposal of unserviceable materials by transporting and dumping in the near by low level areas within a lead of 100 metres. All as per instructions of Engineer-in-charge. Stone rubble masonry in cement mortar		Cum	
8	7	Dismantling / removing / demolishing as the case may be of the following by manually/mechanical means and carefully stacking the serviceable materials at site of work or conveying and handing over the same at BHEL stores and disposal of unserviceable materials by transporting and dumping in the near by low level areas within a lead of 100 metres. All as per instructions of Engineer-in-charge. Steel structures / steel works in built up sections including bolts, nuts, cutting rivets, welding, dismembering, preparation of DODL etc.		MT	

Sl. No	Quantity	Description of work	Rate (both in figures and in words)	Unit	Total Rs. P.
9	15	Dismantling / removing / demolishing as the case may be of the following by manually/mechanical means and carefully stacking the serviceable materials at site of work or conveying and handing over the same at BHEL stores and disposal of unserviceable materials by transporting and dumping in the near by low level areas within a lead of 100 metres. All as per instructions of Engineer-in-charge. Bituminous road.		Cum	
10	15	Dismantling / removing / demolishing as the case may be of the following by manually/mechanical means and carefully stacking the serviceable materials at site of work or conveying and handing over the same at BHEL stores and disposal of unserviceable materials by transporting and dumping in the near by low level areas within a lead of 100 metres. All as per instructions of Engineer-in-charge. WBM Road.		Cum	
11	15	Dismantling / removing / demolishing as the case may be of the following by manually/mechanical means and carefully stacking the serviceable materials at site of work or conveying and handing over the same at BHEL stores and disposal of unserviceable materials by transporting and dumping in the near by low level areas within a lead of 100 metres. All as per instructions of Engineer-in-charge. RCC or PCC (Using jack hammer for pockets / cable trenches / industrial heavy duty flooring).		Cum	
12	2760	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundation etc. in layers not exceeding 20 cm in depth, consolidating each deposited layer by ramming and watering, lead upto 50 m and lift up to 1.5 m etc. complete.		Cum	
13	275	Supply and filling with river sand in foundation, plinth, under floor etc. including watering, ramming, consolidating and dressing complete.		Cum	

Sl. No	Quantity	Description of work	Rate (both in figures and in words)	Unit	Total Rs. P.
14	7	Providing and laying in position plain cement concrete of specified grade including consolidation, curing etc. complete, all as per standard specifications. All works upto plinth level. Rate excludes cost of centring and shuttering. 1:4:8 with graded stone aggregate 40 mm nominal size		Cum	
15	15	Providing and laying in position specified grade of reinforced cement concrete including vibration charges, curing etc. complete but excluding cost of centring, shuttering, finishing and reinforcement. 1:2:4 with graded stone aggregate 20 mm nominal size - All works upto plinth level.		Cum	
16	3	Providing, hoisting and fixing upto floor five level precast reinforced cement concrete elements like slabs etc. of 25 to 150 mm thick in required sizes with mix 1:2:4 using 10 to 20 mm size hard broken granite stone jelly for cupboards, shelves etc. including setting in cement mortar 1:3, cost of centring, shuttering and finishing with neat cement punning on exposed surfaces but excluding the cost of reinforcement and fabrication charges.		Cum	
17	10	Random rubble masonry in foundation and basement in the mix given below including simultaneous flush pointing, all as per standard specifications in Cement Mortar 1:5.		Cum	
18	21	Brick work with F.P.S bricks (second class ground moulded chamber bricks) of class designation 50/75 in foundation and plinth in: Cement Mortar 1:5		Cum	
19	205	Plastering with cement mortar as per standard specifications. In Cement mortar 1:5, 12mm thick		Sqm	
20	1.50	Straightening, cutting, bending, placing in position of MS/CTD bars and binding with MS binding wires of 18/20 gauge etc. for reinforcement of RCC works. Rate includes cover blocks, cost of binding wire, conveyance of MS/CTD bars from BHEL stores to site of work, labour etc. complete. MS/CTD bars will be supplied by BHEL at Stores at free of cost		MT	

Sl. No	Quantity	Description of work	Rate (both in figures and in words)	Unit	Total Rs. P.
21	1900	Laying HDPE pipes of PE 100 with pressure rating of PN 10 with suitable fittings and specials such as tees, bends, reducers, caps etc., The quoted rate shall include cost of loading, transportation, unloading and lowering into trenches at site etc., complete but excludes jointing of fittings and specials with necessary flanges and fusion welding which will be paid separately. All as per standard specifications and instructions of Engineer-in-charge. The rate quoted excludes cost of pipes and specials which will be supplied by BHEL at free of cost from stock yard. Earth work and refilling will be paid under separate items. 355mm dia (OD)		RM	
22	1900	Jointing of HDPE pipes and specials such as tees, bends, reducers, caps etc., wherever required by fusion butt welding using automatic superior quality butt fusion welding machines, other tools and plants for holding arrangements during welding, to correct line, level, alignment, etc., complete. The rate also includes hire charges for the fusion butt welding machine, tools and plants required for jointing and Pressure testing as per standard norms. All as per technical specifications and instructions of Engineer-in-charge. 355 mm dia (OD)		RM	
23	10	Jointing HDPE pipe line with existing CI/HDPE pipelines to match both the existing and new pipe lines with suitable specials such as flanges, tees, bends, tapers etc., complete. Rate to include cost of supply of HDPE flanges of required sizes with standard holes confirming top relevant BIS and of approved brand as directed by the department and to match with CI pipes and specials like tees, bends, tapers etc., jointing materials like bolts, nuts, rubber insertions jointing with fusion welding wherever required but excluding cost of earth work excavation and refilling which will be paid separately under respective items. This item is applicable for all joints at junctions, crossings, bends and change in diameters. 355mm dia (OD)		Each	
24	8	Jointing HDPE pipe line with existing CI/HDPE pipelines to match both the existing and new pipe lines with suitable specials such as flanges, tees, bends, tapers etc., complete. Rate to include cost of supply of HDPE flanges of required sizes with standard holes confirming top relevant BIS and of approved brand as directed by the department and to match with CI pipes and specials like tees, bends, tapers etc., jointing materials like bolts, nuts, rubber insertions jointing with fusion welding wherever required but excluding cost of earth work excavation and refilling which will be paid separately under respective items. This item is applicable for all joints at junctions, crossings, bends and change in diameters. 250mm dia (OD)		Each	

Sl. No	Quantity	Description of work	Rate (both in figures and in words)	Unit	Total Rs. P.
25	3	Jointing HDPE pipe line with existing CI/HDPE pipelines to match both the existing and new pipe lines with suitable specials such as flanges, tees, bends, tapers etc., complete. Rate to include cost of supply of HDPE flanges of required sizes with standard holes confirming top relevant BIS and of approved brand as directed by the department and to match with CI pipes and specials like tees, bends, tapers etc., jointing materials like bolts, nuts, rubber insertions jointing with fusion welding wherever required but excluding cost of earth work excavation and refilling which will be paid separately under respective items. This item is applicable for all joints at junctions, crossings, bends and change in diameters. 250mm dia (OD)		Each	
26	20	Providing flanged joints to double flanged C.I pipes and specials including testing of joints, 3 mm thick rubber insertions, suitable bolts and nuts etc. complete. 200 / 250 mm dia pipe.		Each	
27	20	Providing flanged joints to double flanged C.I pipes and specials including testing of joints, 3 mm thick rubber insertions, suitable bolts and nuts etc. complete. 300 / 350 mm dia pipe.		Each	
28	20	Providing flanged joints to double flanged C.I pipes and specials including testing of joints, 3 mm thick rubber insertions, suitable bolts and nuts etc. complete. 450 / 500 mm dia pipe.		Each	
29	37	Supply RCC pipes (NP2 Class) of following sizes with collars at site of work, lowering to trench, laying to proper grade and alignment, joining the collars with stiff mixture of cement mortar 1 : 2, testing of joints etc., but excludes cost of cement which will be supplied by BHEL at stores at free of cost. 600 mm		RM	
30	135	Conveyance of earth, sand, gravel, rough stone, broken stone, brick bats (debris) etc. by contractor's own lorry including loading, leading, unloading, stacking or spreading, all as per instructions of Engineer-in-charge. Payment for conveyance of earth will be made based on pit measurement and for other items based on stack measurements. Beyond 1 Km but upto 2 Km.		Cum	

Sl. No	Quantity	Description of work	Rate (both in figures and in words)	Unit	Total Rs. P.
31	20	Providing lead caulked joints to C.I pipes and specials including testing of joints but excluding cost of pig lead. 200 / 250 mm dia pipe.		Each	
32	40	Providing lead caulked joints to C.I pipes and specials including testing of joints but excluding cost of pig lead. 300 / 350 mm dia pipe.		Each	
33	10	Providing lead caulked joints to C.I pipes and specials including testing of joints but excluding cost of pig lead. 400 / 450 mm dia pipe.		Each	
34	35	Labour charges for laying centrifugally C.I pipes (S&S or flanged pipes) in trenches to proper grade and alignment. Rate excludes cost of pipes.		MT	
35	22	Labour charges for laying C.I specials such as tees, bends, collars, tapers, caps etc. in trenches to proper alignment. Rate excludes cost of specials.		MT	
36	175	Bailing or pumping out water from trenches, foundations etc., at all depths wherever necessary as per standard specifications.		HP/Hr	
TOTAL					_____
SERVICE TAX@_____					_____
GRAND TOTAL					_____
RUPEES _____					in Words

NOTE:

- 1) Rate Quoted for Item Nos 22 to 25 shall include Cost for loading, leading, unloading HPPE/CI Specials from Stores/Stock yard to Site of Work.
- 2) Rate Quoted for Item Nos 34 & 35 shall include Cost for loading, leading, unloading specials from Stores/Stock yard to site of Work.

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SCHEDULE 'B'

1. The following materials will be issued FREE of cost to contractor at BHEL Stores / Stock yard.

Sl.No.	DESCRIPTION	PLACE OF ISSUE
1	Cement	BHEL STORES or Stock yard
2	M.S Rounds, C.T.D Bars & Structural Steel, rails and all railway materials	BHEL STORES or Stock yard
3	HDPE pipes & specials	BHEL STORES or Stock yard
4	Cast iron pipes & specials including pig lead for jointing	BHEL STORES or Stock yard

2. It will be the responsibility of the Contractor to submit his demands for the above stores in writing atleast seven days in advance of the actual requirement.
3. Issue of Stores is subject of the availability at the place of issue cited above, items of stores to be issued by BHEL which are not available at the time of indenting by the contractor may be supplied by BHEL after necessary procurement. The contractor shall not be entitled to any claim of compensation for delay in the supply of stores by BHEL under any circumstances.
4. The materials will be issued only during the working hours of the BHEL Stores Department (8.00 a.m. to 4.30 p.m.). Contractor shall have to transport them to the site of work at his own cost as soon as they are issued to him.
5. The steel materials if issued will be in random lengths and sizes as stocked by the BHEL and the cost of all cutting, conversion, substitution and fabrication as well as wastage shall have to be borne by the Contractor.
6. The contractor shall from time to time render proper account of all materials issued to him by BHEL. If he fails to do so, no further issue of materials will be made to him and he will be held responsible for any delay in the execution of the work which may occur on this account.
7. Where A.C. Sheets and accessories, Doors, Windows, Sanitary fittings, Special glasses or other items are issued free of cost to the contractor, the contractor will have to make good at his own cost any loss or damage to any part or whole of the items issued to him as above. All wastage within the premises limits as fixed by BHEL will be charged for at the prescribed issued rates of BHEL. Excess wastage will be charged for at punitive rates which will be 100% higher than the issue rates.
8. All surplus materials in good condition which are not returned to the BHEL Stores as also quantities of materials consumed in excess of the max. permissible limit as fixed by BHEL shall be charged for at punitive rates.

The decision of the Senior Engineer / Dy. Manager / Manager as to the extent to which materials have been rendered surplus or consumed in excess of the actual requirements shall be final and conclusive and binding on the contractor

SCHEDULE 'C'

ISSUE OF TOOLS AND PLANTS TO CONTRACTORS

Sl.No.	Qty.	Particulars	Details of BHEL Crew Supplied	Hire Charges Per unit Per Day	Place of Issue	Remarks
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.....Nil.....

a. Machineries shall not be operated over time without the written permission of the Sr. Engineer / Dy. Manager / Manager.

b. All Coolies, Watermen etc., required in addition to BHEL crew mentioned in column 4 above shall be arranged by the contractor at his own expense.

SCHEDULE 'D'

NOTE : All Drawings are to be signed by the Contractor as well as the officer entering into contract.

SL.No.	DRAWING NUMBER	DESCRIPTION
1	1-TP-CEG-01483	PROPOSED HDPE LINE IN HPBP -PHASE 1

The above drawing is enclosed in the Price Bid.

SCHEDULE 'E'

LEAD STATEMENT

Sl.No.	Name of Material	Name of Source	Lead Particulars both for Factory and Township
1	Cement	BHEL Stores	2 Kilometre
2	M.S Rounds, C.T.D Bars & Structural Steel, rails and all railway materials	BHEL Stores	2 Kilometre
3	HDPE pipes & specials	BHEL Stores	2 Kilometre
4	Cast iron pipes & specials including pig lead for jointing	BHEL Stores	2 Kilometre

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