

# TENDER DOCUMENT

TENDER SPECN No : BAP : ERN : RSP : SINTER : ESP : MECH :C : 237 DT 17.10.2013

NAME OF WORK :

**ERECTION AND COMMISSIONING WORKS (MECHANICAL)** FOR REPLACEMENT OF PROCESS ELECTROSTATIC PRECIPITATOR (ESP), INVOLVING HANDLING AT SITE STORES / STORAGE YARD, TRANSPORTATION TO SITE OF WORK, DISMANTLING OF EXISTING COMPONENTS, ERECTION, TESTING AND COMMISSIONING OF MECHANICAL COMPONENTS OF ESP, IN UNIT-1 & 2, SINTER PLANT – 1, ROURKELA STEEL PLANT, ROURKELA, ODISHA USING CONTRACTOR'S OWN TOOLS AND PLANTS, CRANES , CONSUMABLES, MANPOWER ETC.

## PART - II ( PRICE BID)



ERECTION SERVICES DEPARTMENT

**BHARAT HEAVY ELECTRICAL LTD**

BOILER AUXILIARIES PLANT

RANIPET - 632 406

## SCHEDULE OF RATES & QUANTITIES

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INSTRUCTIONS TO BIDDERS
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| <p>1. ALL THE ITEMS OF WORK INDICATED BELOW SHALL BE CARRIED OUT USING CONTRACTOR'S OWN TOOLS AND PLANTS, CRANES , TRAILORS, MACHINARIES, MAN POWER AND CONSUMABLES.</p>  |
| <p>2. THE ITEM OF WORKS INDICATED SHALL INCLUDE WORK INCLUDES HANDLING OF STRUCTURALS / COMPONENTS AT SITE STORES / STORAGE YARDS, TRANSPORTATION TO SITE OF ERECTION, HANDLING AT SITE OF ERECTION, ASSEMBLY, ERECTION, ALIGNING, WELDING, TESTING, ASSISTANCE IN COMMISSIONING ETC.</p> |
| <p>3. THE DISTANCE OF BHEL / CUSTOMER STORES / STORAGE YARD WITHIN THE PLANT TO SITE OF ERECTION IS IN A RADIUS OF ABOUT 1.0 KM. ALL THE ABOVE ESP MATERIALS &amp; COMPONENTS WILL BE SUPPLIED BY BHEL ON FREE ISSUE BASIS.</p>   |
| <p>4. ALL THE ITEMS OF WORK INDICATED IN THIS RATE SCHEDULE SHALL BE CARRIED OUT USING CONTRACTOR'S OWN TOOLS AND PLANTS, CRANES , TRAILORS, MACHINARIES, MAN POWER AND CONSUMABLES.</p>  |
| <p>5. HIRING OF THE HIGH CAPACITY CRANES OF REQUIRED CAPACITY AND QUANTITY FOR COMPLETION COMPLETION OF THE REPLACEMENT OF ESPs, WITHIN THE STIPULATED SHUTDOWN PERIOD, SHALL BE IN THE BIDDERS SCOPE.</p>  |
| <p>6. BIDDERS TO TO NOTE THAT EVALUATION OF BIDS WILL BE DONE ON THE TOTAL AMOUNT QUOTED ONLY.</p>  |
| <p>7. THE QUANTITIES INDICATED ARE ONLY APPROXIMATE AND ARE LIKELY TO VARY TO THE EXTENT OF +15% OR -15%..</p>  |
| <p>8. FOR DETAILS OF SCOPE OF WORK REFER THE TENDER SPECIFICATION.</p>  |
| <p>9. A COPY OF UNPRICED PRICE-BID SHALL BE SUBMITTED ALONG WITH THE PART-I (TECHNICAL BID) WITHOUT INDICATING ANY RATE OR AMOUNT. "QUOTED" / "NOT QUOTED" SHALL BE ENTERED IN THE UNPRICED PRICE BID. ONLY THE APPLICABLE SERVICE TAX SHALL BE INDICATED.</p>                            |

**SIGNATURE WITH SEAL OF BIDDER**

### SCHEDULE OF RATES & QUANTITIES

TENDER SPECN No : BAP : ERN : RSP : SINTER : ESP : MECH : C : 237 DT 17.10.2013

NOTE : REFER TO TENDER SPECIFICATION FOR DETAILED SCOPE OF WORK.

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S.No.	DESCRIPTION OF WORK	QUANTITY	UNIT	RATE / UNIT in Rs.	AMOUNT in Rs.
01	<b>DISMANTING OF EXISTING ESP.</b> THE ESP COMPONENTS / MATERIALS THAT ARE TO BE DISMANTLED INCLUDE, BUT NOT LIMITED TO, CASING WALL, INTERNALS LIKE COLLECTING & EMITTING ELECTRODES, RAPPING SYSTEM, GAS DISTRIBUTION SYSTEM, INLET & OUTLET FUNNELS, ISULATION, INLET & OUTLET DUCTS, UPPER COLUMNS, DUCT SUPPORT COLUMNS, ALL ELECTRICAL COMPONENTS LIKE CABLES, SWITCH GEAR PANELS ETC., OTHER STRUCTURES & EQUIPMENT TO THE EXTENT REQUIRED. THE WORK INCLUDES SHIFTING / TRANSPORTING THE DISMANTLED MATLS TO CUSTOMERS SCRAP / STORAGE YARD INSIDE THE PLANT PREMISES. APPROX . WEIGHT PER ESP IS 585 MT	2.00	LUMPSUM (PER ESP)		
02	<b>ERECTION OF ESP.</b> THE WORK INCLUDES HANDLING OF ESP STRUCTURES / ESPCOMPONENTS AT SITE STORES / STORAGE YARDS, TANSPORTAION TO SITE OF ERECTION, HANDLING AT SITE OF ERECTION, PREASSEMBLY, ERECTION, ALIGNING AND WELDING OF ALL MECHANICAL COMPONENTS AND STRUCTURES OF ESP INCLUDING, BUT NOT LIMITED TO, HVR TRANSFORMER AND GEARED MOTORS, EXPANSION JOINTS, ACCESS DOORS, GALLARIES, PLATFORMS, STAIRS, LADDERS,RAILINGS, ELECTRICAL HOISTS, GUILLOTINE GATES ETC. COMPLETE AND HOOK UP OF THE ENTIRE SYSTEM BY CONNECTING THE INLET/OUTLET DUCTS OF ESP AT UP STREAM AND STACK AT DOWN STREAM SPECIFICATIONS AND DRAWINGS OF BHEL INCLUDING TESTING AND COMMISIONING. THE WORK ALSO INCLUDES ANY WELDING OF PLATES / PATCH PLATES TO RECTIFY EXISTING HOPPERS.	975.00	M.T.		
03	<b>ERECTION OF DUST CONVEYOR SYSTEM.</b> THE WORK INCLUDES HANDLING AT SITE STORES / STORAGE YARDS, TANSPORTAION TO SITE OF ERECTION, HANDLING AT SITE OF ERECTION, PREASSEMBLY, ERECTION, ALIGNING AND WELDING OF ALL MECHANICAL COMPONENTS OF CHAIN CONVEYOR AND DCDA VALVES. THE WORK INCLUDES REQUIRED DISMANTLING FOR INTEGRATION, REALIGNMENT OF DRIVES AND REPAIR WORK AS INSTRUCTED BY BHEL IN THE EXISTING SYSTEM.	24.00	M.T.		

SIGNATURE OF BIDDER WITH SEAL

**SCHEDULE OF RATES & QUANTITIES**

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S.No.	DESCRIPTION OF WORK	QUANTITY	UNIT	RATE / UNIT in Rs.	AMOUNT in Rs.
04	<b>INSULATION WORKS FOR ESP</b> : ALL THE CONSUMABLES, MANPOWER, SCAFFOLDING ETC., INCLUDING SUPPLY & APPLICATION OF ANTI CORROSIVE PAINT AND BITUMINOUS SEALING COMPOUND ARE IN THE SCOPE OF CONTRACTOR. THE PAYMENT SHALL BE MADE BASED ON THE SURFACE AREA CALCULATED AS PER DRAWINGS. ALL INSULATION WOOL, RETAINERS, STUDS, BINDING WIRE, CLADDING SHEET AND SELF TAPPING SCREWS SHALL BE SUPPLIED BY BHEL FREE OF COST AT SITE STORES.				
04A.	<b>INSULATION WITH CLADDING</b> - TRANSPORTATION OF INSULATION MATERIALS FROM STORAGE YARD / SITE STORES ,WELDING OF RETAINERS , STUDS ETC OVER <b>ESP, DUCTS ETC.</b> , LAYING OF 75 MM THICK LIGHTLY RESIN BONDED MINERAL WOOL, FIXING OF RETAINERS, CASING SUPPORTS BINDING, SEWING ETC. CLADDING WITH ALUMINIUM SHEET OF 0.71 MM OVER THE LAID WOOL MATRESSES WITH SELF TAPPING SCREWS AND FINISHING.	6650.00	SQ.M.		
04.B.	<b>INSULATION WITHOUT CLADDING</b> - TRANSPORTATION OF INSULATION MATERIALS FROM STORAGE YARD / SITE STORES,WELDING OF RETAINERS, STUDS ETC OVER <b>ESP INNER ROOF</b> , LAYING OF 75 MM THICK LIGHTLY RESIN BONDED MINERAL WOOL, FIXING OF RETAINERS, BINDING, SEWING ETC. <b>NO CLADDING IS INVOLVED</b> . ALL INSULATION WOOL, RETAINERS, STUDS AND BINDING WIRE SHALL BE SUPPLIED BY BHEL FREE OF COST AT SITE STORES.	650.00	SQ.M.		
05	<b>PAINTING - SUPPLY AND APPLICATION</b> OF ONE COAT OF SUITABLE PRIMER OF RED OXIDE ZINC PHOSPHATE PRIMER PAINT CONFIRMING TO IS 12744 (MINIMUM DFT OF 25 MICRON) AND TWO COATS OF SYNTHETIC ENAMEL PAINT CONFIRMING TO IS2932 (MINIMUM DFT OF 50 MICRON) OF BHEL APPROVED SHADE AND MAKE ON EXPSOED STRUCTURES AND AREAS OF ESP AND FAN AFTER PROPER CLEANING USING WIRE BRUSH ETC. ALL THE CONSUMABLES , MANPOWER, SCAFFOLDING ETC. ARE IN THE SCOPE OF CONTRACTOR	150.00	MT		
<b>TOTAL</b>					
<b>SERVICE TAX - APPLICABLE</b>				RATE _____%	
<b>TOTAL AMOUNT INCLUDING SERVICE TAX</b>					

TOTAL AMOUNT IN WORDS :

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