

# TENDER DOCUMENT

**TENDER SPECIFICATION NO.: BAP:ERN:AGM:RTPS:ESP:MECH:C:216**

NAME OF WORK :

RECEIPT, UNLOADING, STACKING, HANDLING AT SITE STORES/STORAGE YARD, TRANSPORTATION TO SITE OF WORK, ERECTION (MECHANICAL), TESTING AND COMMISSIONING OF ELECTROSTATIC PRECIPITATOR AND ID FAN FOR 1X62.5 MW UNIT AT RTS-B, RAMAGUNDAM OF M/s APGENCO.

ISSUED TO : M/s (Parties as per approved list for Limited Tender)

## PART - II ( PRICE BID )



**ERECTION SERVICES DEPARTMENT**

**BHARAT HEAVY ELECTRICAL LTD**

BOILER AUXILIARIES PLANT

RANIPET - 632 406

## RATE SCHEDULE

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**NAME OF WORK :**

RECEIPT, UNLOADING, STACKING, HANDLING AT SITE STORES/STORAGE YARD, TRANSPORTAION TO SITE OF WORK, ERECTION (MECHANICAL), TESTING AND COMMISSIONING OF ELECTROSTATIC PRECIPITATOR AND ID FAN FOR 1X62.5 MW UNIT AT RTS-B, RAMAGUNDAM OF M/s APGENCO.

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SL. NO.	DESCRIPTION OF ITEM	QUANTITY	UNIT	RATE / UNIT		TOTAL AMOUNT	
				RS.	PS.	RS.	PS.
01	RECEIPT / TAKING DELIVERY / UNLOADING , VERIFICATION AND STACKING OF ALL MATERIALS FOR ESP AND ID FAN, LIKE STRUCTURALS ,DUCT & FAN COMPONENTS / STRUCTURES, DAMPERS, INTERNALS, INCLUDING ELECTRICAL ITEMS, PANELS, CABLES AND INSULATION MATERIALS ETC. AT BHEL / CUSTOMER'S STORES / STORAGE YARDS WITHIN THE CUSTOMER PLANT AS PER SPECIFICATIONS FROM LORRIES / TRAILORS / TRUCKS ETC. USING CONTRACTOR'S OWN MACHINERIES, CRANE , TOOLS AND PLANTS AND MAN POWER.	<b>1810.00</b>	<b>M.T.</b>				
02	LOADING OF COMPONENTS / MATERIALS, INCLUDING BHEL T & P, INTO TRUCKS / CARRIERS AT ERECTION SITE / STORAGE YARD FOR ONWARD TRANSPORTATION TO DESTINATIONS OTHER THAN RTS-B. THE CHARGES SHALL BE ALL INCLUSIVE MANPOWER AND CONSUMABLES, TOOLS & PLANTS, INLUDING SUITABLE CRANE ETC.	<b>40.00</b>	<b>MT</b>				
03	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 <b>ALL MECHANICAL COMPONENTS AND STRUCTURES OF ESP INCLUDING HVR TRANSFORMER AND GEARED MOTORS, DUCTS IN BETWEEN VARIOUS EQUIPMENTS, DAMPERS &amp; IT'S ACCESSORIES, GATES, EXPANSION JOINTS, ACCESS DOORS, GALLARIES, PLATFORMS, STAIRS, LADDERS,RAILINGS (INCLUDING THAT FOR ID FAN), EXPANSION JOINTS AT INLET AND OUTLET OF FANS, CHAIN PULLEY BLOCKS, HOISTS, STRUCTURE FOR HANDLING OF FAN / MOTOR ETC.</b> COMPLETE AND HOOK UP OF THE ENTIRE SYSTEM BY CONNECTING THE INLET/OUTLET DUCTS OF ESP AND ID FAN AT UP STREAM AND STACK AT DOWN STREAM SPECIFICATIONS AND DRAWINGS OF BHEL INCLUDING TESTING AND COMMISSIONING WITH CONTRACTOR'S OWN TOOLS AND PLANTS, <b>CRANES</b> , MACHINARIES, MAN POWER AND CONSUMABLES. HIRING OF 100MT/75MT CRANE FOR ERECTION IS INCLUDED IN THE SCOPE OF WORK.  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 & COMPONENTS WILL BE SUPPLIED BY BHEL ON FREE ISSUE BASIS.	<b>1476.00</b>	<b>M.T.</b>				

**MANAGER / ERECTION SERVICES**

**SIGNATURE OF THE TENDERER**

SL. NO.	DESCRIPTION OF ITEM	QUANTITY	UNIT	RATE / UNIT		TOTAL AMOUNT	
				RS.	PS.	RS.	PS.
04	HANDLING OF IDFAN COMPONENTS AT SITE STORES / STORAGE YARDS, TRANSPORTATION TO SITE OF ERECTION, HANDLING AT SITE OF ERECTION, ASSEMBLY, ERECTION, ALIGNING, WELDING ETC OF <b>ID FAN (TYPE - RADIAL FAN, DOUBLE SUCTION SIMPLY SUPPORTED) INCLUDING MOTOR, COUPLING AND MECHANICAL COMPONENTS AND ACCESSORIES</b> COMPRISING OF CASING, SUCTION CHAMBER WITH ACCESS DOORS, IMPELLER WITH SHAFT, ANTI FRICTION BEARINGS WITH PEDESTALS, LINERS FOR IMPELLER WHEREVER REQUIRED, SILENCER, FOUNDATION SOLE/ PACKER PLATES FOR FAN AND MOTOR, MATCHING COMPANION FLANGES, GASKETS, HARDWARE, RESISTANCE TEMPERATURE DETECTORS FOR FAN BEARINGS , COOLING WATER PIPELINES ETC. COMPLETE AND HOOK UP OF THE ENTIRE SYSTEM BY CONNECTING TO THE FAN INLET/OUTLET DUCTS AS PER SPECIFICATIONS AND DRAWINGS OF BHEL INCLUDING PRE - COMMISSIONING AND COMMISSIONING OF THE ID FAN TO THE ENTIRE SATISFACTION OF AND APPROVAL BY BHEL & CUSTOMER USING CONTRACTOR'S OWN TOOLS AND PLANTS, CRANES , MACHINARIES, MAN POWER AND CONSUMABLES.  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 FAN MATERIALS & COMPONENTS WILL BE SUPPLIED BY BHEL ON FREE ISSUE BASIS.	55.00	M.T.				
05	DISMANTING OF STRUCTURES, DUCTS ETC FOR HOOKING UP OF ESP AND ID FAN TO THE BOILER SYSTEM INCLUDING WEIGHMENT,SHIFTING/TRANSPORTING THE DISMANTLED MATLS TO CUSTOMERS SCRAP/STORAGE YARD INSIDE THE PLANT PREMISES USING CONTRACTOR'S OWN TOOLS AND PLANTS, CRANES, TRUCKS /TRAILORS, MACHINARIES, MAN POWER AND CONSUMABLES.	15.00	MT				
06	<b>INSULATION WORKS FOR ESP, DUCTS AND ID FAN :</b>						
06A.	TRANSPORTATION OF INSULATION MATERIALS FROM STORAGE YARD / SITE STORES ,WELDING OF RETAINERS , STUDS ETC OVER <b>ESP, ID FAN, DUCTS BETWEEN EQUIPMENT ETC., LAYING OF 50 / 60 / 100 MM THICK LIGHTLY RESIN BONDED MINERAL WOOL, FIXING OF RETAINERS, CASING SUPPORTS BINDING, SEWING ETC. CLADDING WITH ALUMINIUM / GI SHEET OF 0.71 MM/1.00MM THICK OVER THE LAID WOOL MATRESSES WITH SELF TAPPING SCREWS AND FINISHING.</b> ALL INSULATION WOOL, RETAINERS, STUDS, BINDING WIRE, CLADDING SHEET AND SELF TAPPING SCREWS SHALL BE SUPPLIED BY BHEL FREE OF COST AT SITE STORES. THE PAYMENT SHALL BE MADE BASED ON THE SURFACE AREA CALCULATED AS PER DRAWINGS. ALL THE CONSUMABLES, MANPOWER, SCAFFOLDING ETC. INCLUDING SUPPLY & APPLICATION OF ANTI CORROSIVE PAINT AND BITUMINOUS SEALING COMPOUND ARE IN THE SCOPE OF CONTRACTOR.	9200.00	SQ.M.				

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SL. NO.	DESCRIPTION OF ITEM	QUANTITY	UNIT	RATE / UNIT		TOTAL AMOUNT	
				RS.	PS.	RS.	PS.
06B.	TRANSPORTATION OF INSULATION MATERIALS FROM STORAGE YARD / SITE STORES,WELDING OF RETAINERS, STUDS ETC OVER <b>ESP INNER ROOF LAYING OF 50 / 60 MM THICK LIGHTLY RESIN BONDED MINERAL WOOL, FIXING OF RETAINERS, BINDING, SEWING ETC. NO CLADDING IS INVOLVED.</b> ALL INSULATION WOOL, RETAINERS, STUDS AND BINDING WIRE SHALL BE SUPPLIED BY BHEL FREE OF COST AT SITE STORES. THE PAYMENT SHALL BE MADE BASED ON THE SURFACE AREA CALCULATED AS PER DRAWINGS. ALL THE CONSUMABLES, MANPOWER, SCAFFOLDING ETC. ARE IN THE SCOPE OF CONTRACTOR.	<b>825.00</b>	SQ.M.				
07	SUPPLY AND APPLICATION OF ONE COAT OF SUITABLE PRIMER OF RED OXIDE ZINC CHROMATE PRIMER PAINT CONFIRMING TO IS2074 (MINIMUM DFT OF 25 MICRON) AND TWO COATS OF ENAMEL PAINT CONFIRMING TO IS2932 (MINIMUM DFT OF 50 MICRON) OF BHEL APPROVED SHADE AND MAKE ON EXPOED 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	<b>215.00</b>	MT				
08	<b>PROVIDING FOLLOWING MANPOWER SUPPLY ASSISTANCE.</b>						
08A.	ROUND THE CLOCK <b>WATCH &amp; WARD</b> FOR BHEL STORAGE YARD/ SITE OFFICE (18 months X 3 men)	<b>54.00</b>	MAN MONTH				
08B.	01 NO. CLERK WITH KNOWLEDGE OF COMPUTER OPERATION ALONG WITH SUPPLY AND OPERATION OF ONE NO.LATEST DESK TOP PERSONAL COMPUTER AND ONE LASERJET MULTIFUNCTION DEVICE WITH FAX CUM SCANNER CUM PRINTER FUNCTIONS FOR BHEL SITE OFFICE. ( INCLUDING LICENSED OS , SERVICES , MAINTENANCE OF THE COMPUTER SYSTEM AND SUPPLY AND REPLACEMENT OF SPARES & PRINTER CARTRIDGES AS REQUIRED.)	<b>18.00</b>	MAN MONTH				

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SL. NO.	DESCRIPTION OF ITEM	QUANTITY	UNIT	RATE / UNIT		TOTAL AMOUNT	
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08C.	01 NO. OFFICE BOY FOR BHEL SITE OFFICE.	18.00	MAN MONTH				
08D.	01 NO. CARETAKER CUM WATCHMAN FOR BHEL STAFF ACCOMODATION.	18.00	MAN MONTH				
08E.	01. NO. ENGINEER ( D.M.E QUALIFIED ) FOR SITE OFFICE OPERATIONS , MAINTAINING QUALITY CHECKS , RECORDS ETC.	15.00	MAN MONTH				
08F.	PROVIDING ONE NO. LATEST LAPTOP COMPUTER FOR BHEL SITE USE INCLUDING LICENSED OPERATING SYSTEM, SERVICING, MAINTENANCE, SUPPLY OF SPARES ETC. DURING THE PERIOD OF USE.	18.00	MONTH				
09	OVER RUN CHAGES PER MONTH, IF THE CONTRACT PERIOD EXTENDED BEYOND GRACE PERIOD FOR REASONS NOT ATTRIBUTABLE TO THE CONTRACTOR	3.00	MONTH				
<b>TOTAL VALUE OF WORK</b>							

TOTAL IN WORDS :

MANAGER / ERECTION SERVICES

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