

TENDER SPECIFICATION

NO: BHE/PW/PUR/PDVT-ELE/1187

FOR HANDLING AT SITE STORES/STORAGE YARD, TRANSPORTATION TO SITE OF WORK, COMPLETE ERECTION, CHECKING OF CALIBRATION, TESTING, COMMISSIONING AND HANDING OVER OF CABLING, TRANSFORMER, DAVR, SOOT BLOWER SYSTEM, VARIABLE FREQUENCY DRIVES FOR ID, FANS, BUS DUCTS, SWITCHGEAR, EARTHING AND ASSOCIATED EQUIPMENTS FOR ELECTRICAL PACKAGE OF 2X250 MW LIGNITE BASED BHAVNAGAR THERMAL POWER PLANT.

AT

BHAVNAGAR ENERGY COMPANY LIMITED
DISTRICT- BHAVNAGAR, GUJRAT

VOLUME -II – PRICE BID-1187



BHARAT HEAVY ELECTRICALS LIMITED

(A GOVERNMENT OF INDIA UNDERTAKING)

POWER SECTOR - WESTERN REGION

SHREEMOHINI COMPLEX

345, KINGSWAY - NAGPUR 440 001

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**BHAVNAGAR ENERGY COMPANY LIMITED
DISTRICT- BHAVNAGAR, GUJRAT**

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-01 ARE ISSUED TO:

M/s.

PLEASE NOTE:

THESE TENDER SPECS DOCUMENTS ARE NOT TRANSFERABLE.

For Bharat Heavy Electricals Limited

AGM (Purchase)

Place: Nagpur

Date:

RATE SCHEDULE FOR BHAVNAGAR, 2x250 MW, ELECTRICAL SYSTEMS							
Sl.no	Description of items	UOM	Quantity	Unit Rates in Figures (In Rs)	Unit Rates in Words (In Rs)	Total Amounts (In Rs)	APPLICABLE for Terms of Payment
SECTION-E1: CABLE TRAYS AND ACCESSORIES							I.1
E1.1	Ladder type 600 (W) x120(H) mm	Mtrs.	45550				
E1.2	Ladder type 450(W) x 140 (H) mm	Mtrs.	5300				
E1.3	Ladder type 300(W) x 140 (H) mm	Mtrs.	12150				
E1.4	Ladder type 150(W) x 140 (H) mm	Mtrs.	5800				
E1.5	Perforated type 300 (W) x120(H) mm	Mtrs.	500				
E1.6	Perforated type 300 (W) x120(H) mm	Mtrs.	1000				
E1.7	Perforated type 50 (W) x120(H) mm	Mtrs.	500				
SECTION-E2A : LT POWER CABLES (XLPE Armoured/unarmoured)							I.2
E2A.1	3.5C X 300sqmm Aluminium	Mtrs.	1960				
E2A.2	3.5C X 240sqmm Aluminium	Mtrs.	10000				
E2A.3	3.5C X 120sqmm Aluminium	Mtrs.	8000				
E2A.4	3.5C X 50sqmm Aluminium	Mtrs.	14000				
E2A.5	3.5C X 25sqmm Aluminium	Mtrs.	35000				
E2A.6	3C X 35sqmm Aluminium	Mtrs.	2300				
E2A.7	3C X 16 sqmm Aluminium	Mtrs.	860				
E2A.8	3C X 10 sqmm Aluminium	Mtrs.	31860				

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E2A.9	2C X 120sqmm Aluminium	Mtrs.	50480				
E2A.10	2C X 25sqmm Aluminium	Mtrs.	2000				
E2A.11	1C X 630sqmm Aluminium	Mtrs.	27000				
E2A.12	1C X 400sqmm Aluminium	Mtrs.	9000				
E2A.13	1C X 185sqmm Aluminium	Mtrs.	2000				
E2A.14	1C X 120sqmm Aluminium	Mtrs.	3000				
E2A.15	1C X 70sqmm Aluminium	Mtrs.	2000				
E2A.16	1C X 35sqmm Aluminium	Mtrs.	12000				
E2A.17	1C X 10sqmm Aluminium	Mtrs.	2000				
E2A.18	3C X 2.5sqmm Copper	Mtrs.	148900				
E2A.19	3C X 0.5 SQMM Copper	Mtrs.	3100				
E2A.20	2C X 2.5sqmm Copper	Mtrs.	104020				
E2A.21	2C X 6sqmm Copper	Mtrs.	36000				
E2A.22	1C X 400sqmm Copper	Mtrs.	4000				
SECTION-E2B : LT CONTROL CABLES (Generally Unarmoured/Armoured, Screened/Unscreened)							I.2
E2B.1	12C ,1.5 sqmm Copper,	Mtrs.	2000				
E2B.2	10C,1.5 sqmm Copper ,	Mtrs.	22900				

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E2B.3	7C,1.5 sqmm Copper ,	Mtrs.	32960				
E2B.4	4C ,1.5 sqmm Copper	Mtrs.	22400				
SECTION-E2C : HT POWER CABLES (Generally Unarmoured/Armoured, Earthed/Unearthed)							I.2
E2C.1	3CX185 sqmm Aluminium,	Mtrs.	18000				
E2C.2	1CX630 sqmm Aluminium,	Mtrs.	2000				
E2C.3	1CX300 sqmm Aluminium,	Mtrs.	3500				
E2C.4	1CX400 sqmm Aluminium,	Mtrs.	4000				
SECTION-E3 : JUCTION BOXES AND PUSH BUTTON							I.3
E3.1	Junction Boxes 450(L)x150(D)x300(H) mm approx.	Nos.	40				
E3.2	Start Stop Push Button Station Approx. Dimension 180(L)x100(D)x250(H)mm	Nos.	136				
E3.3	Junction box for Hopper Heater ,Support& Shaft insulator Heater Approx. Dimension 450(L)x150(D)x300(H) mm approx.	Nos.	104				
E3.4	Junction box for Hopper Thermostat, Ali-High & Low, Hopper Heater feedback, Opacity Monitor. Approx. Dimension 250(L)x150(D)x400(H) mm approx.	Nos.	108				
SECTION-E4 : STRUCTURAL STEEL							I.4
E.4.1	Structural Steel fabrication & installation (MS angle, Channel, Plate etc)	MT	360				
SECTION-E5 A:SWITCHGEARS / MCC /PCC							I.5

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E5A.1	6.6 kV Station Switchgear Board # 1CA. Each Board shall have 28 panels and supplied in loose shipping sections. Approx.Overall dimension of Board is 22960(L)x820(W)x2695(H) mm, approx. weight 1500 kg per panel.	set	1				
E5A.2	6.6 kV Station Switchgear Board # 1CB. Each Board shall have 27 panels and supplied in loose shipping sections. Approx.Overall dimension of Board is 22140(L)x820(W)x2695(H) mm, approx. weight 1500 kg per panel.	set	1				
E5A.3	6.6 kV Station Switchgear Board # 2CA. Each Board shall have 28 panels and supplied in loose shipping sections. Approx.Overall dimension of Board is 22960(L)x820(W)x2692(H) mm, approx. weight 1500 kg per panel.	set	1				
E5A.4	6.6 kV Station Switchgear Board # 2CB. Each Board shall have 27 panels and supplied in loose shipping sections. Approx.Overall dimension of each panel 22140(L)x820(W)x2695(H) mm, approx. weight 1500 kg per panel.	set	1				
E5A.5	6.6 kV Station Switchgear Board # OCA Board shall have 9 panels and supplied in loose shipping sections.Overall Approx.dimension of Board is 7380(L)x820(W)x2695(H) mm, approx. weight 1500 kg per panel.	set	1				
E5A.6	6.6 kV Station Switchgear Board # OCB Board shall have 10 panels and supplied in loose shipping sections. Overall Approx.dimension of Board is 8200(L)x820(W)x2695(H) mm, approx. weight 1500 kg per panel.	set	1				
E5A.7	6.6 kV Station Switchgear Board # OCC Board shall have 9 panels and supplied in loose shipping sections.Overall Approx.Dimension of Board is 7380(L)x820(W)x2695(H) mm, approx. weight 1500 kg per panel.	set	1				
E5A.8	6.6 kV Station Switchgear Board # OCD Board shall have panels and supplied in loose shipping sections. Overall Approx.Dimension of Board 8200(L)x820(W)x2695(H) mm, approx. weight 1500 kg per panel.	set	1				
E5A.9	Earthing Truck (Feeder & Busbar) , Approx.Overall dimension of each truck-750(W) X 1500(H) X 950(D), & approx. weight. 0.5 MT/Truck.	Nos.	5				

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E5A.10	Soot Blower Motor control Center, double front, Approx overall dimension 12800(L)x2375(H)x1000(W) mm, Approx weight 13MT. shall be supplied in eight to ten loose shipping sections	Nos	2				
E5A.11	LT main Switch Board, double front, Approx overall dimension 9400(L)x2400(H)x1400(W) mm, approx WT 10.0T, shall be supplied in eight to ten loose shipping sections	Nos	4				
E5A.12	Auxiliary Control Panel, Approx Overall Dimension 8150(L)x1300(W)x2450(H) mm, approx Weight of each panel 10 MT and supplied in loose shipping sections	Nos	4				
E5A.13	Unit Service Switchgear#1DA(4000A) consist of 20 Panels Approx Overall Dimension 16300(L)x1400/1000(D)x2400(H) mm, approx Weight of panel 14.7 MT and supplied in loose shipping sections	Set	1				
E5A.14	Unit Service Switchgear#2DA(4000A) consist of 20 Panels Approx Overall Dimension 15850(L)x1400/1000(D)x2400(H) mm, approx Weight of panel 14.7 MT and supplied in loose shipping sections	Set	1				
E5A.15	Normal Emergency MCC#1EA(2000A) consist of 11 Panels Approx Overall Dimension 9800(L)x1400/1000(D)x2400(H) mm, approx Weight of panel 8.95 MT and supplied in loose shipping sections	Set	1				
E5A.16	Normal Emergency MCC#2EA(1600A) consist of 11 Panels Approx Overall Dimension 9800(L)x1400/1000(D)x2400(H) mm, approx Weight of panel 8.35 MT and supplied in loose shipping sections	Set	1				
E5A.17	Boiler MCC#1HA(1600A) consist of 17 Panels Approx Overall Dimension 14100(L)x1400/1000(D)x2400(H) mm, approx Weight of panel 13.5 MT and supplied in loose shipping sections	Set	1				
E5A.18	Boiler MCC#2HA(1600A) consist of 17 Panels Approx Overall Dimension 14100(L)x1400(D)x2400(H) mm, approx Weight of panel 13.5 MT and supplied in loose shipping sections.	Set	1				
E5A.19	Boiler Valve/Damper MCC#1HB(250A) consist of 34 Panels Approx Overall Dimension 28450(L)x1000(D)x2400(H) mm, approx Weight of panel 25.5 MT and supplied in loose shipping sections	Set	1				

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E5A.20	Boiler Valve/Damper MCC#2HB(250A) consist of 34 Panels. Approx. Overall Dimension 28450(L)X1000(D)X2400(H) mm, approx Weight of panel 25.5 MT and supplied in loose shipping sections	Set	1				
E5A.21	Turbine MCC#1KA(1000A) consist of 6 Panels Approx Overall Dimension 10450(L)X1000(D)X2400(H) mm, approx Weight of panel 9.3 MT and supplied in loose shipping sections	Set	1				
E5A.22	Turbine MCC#2KA(1000A) consist of 13 Panels. Approx. Overall Dimension 10450(L)X1000(D)X2400(H) mm, approx Weight of panel 9.3 MT and supplied in loose shipping sections	Set	1				
E5A.23	Turbine valve MCC#1KB(250A) consist of 33 Panels. Approx. Overall Dimension 27650(L)X1000(D)X2400(H) mm, approx Weight of panel 24.7 MT and supplied in loose shipping sections	Set	1				
E5A.24	Turbine valve MCC#2KB(250A) consist of 33 Panels .Approx. Overall Dimension 27650(L)X1000(D)X2400(H) mm, approx Weight of panel 24.7 MT and supplied in loose shipping sections	Set	1				
E5A.25	220V DCDB#1FA(1250A) consist of 7 Panels Approx Overall Dimension 4850(L)x900(D)X2400(H) mm, approx Weight of panel 4.5 MT and supplied in loose shipping sections	Set	1				
E5A.26	220V DCDB#2FA(630A)(1250A) consist of 7 Panels. Approx. Overall Dimension 4850(L)x900(D)X2400(H) mm, approx Weight of panel 4.5 MT and supplied in loose shipping sections	Set	1				
E5A.27	Station Service Switchgear#ODA(3000A) consist of 22 Panels. Approx. Overall Dimension 14850(L)x1400/1000(D)X2400(H) mm, approx Weight of panel 15.15 MT and supplied in loose shipping sections	Set	1				
E5A.28	FOPH MCC#OSA(630A) consist of 9 Panels. Approx. Overall Dimension 7200(L)x1000(D)X2400(H) mm, approx Weight of panel 6.75 MT and supplied in loose shipping sections	Set	1				
E5A.29	Station 220V DCDB #OFA(1250A) consist of 9 Panels. Approx. Overall Dimension 6100(L)x900(D)X2400(H) mm, approx Weight of panel 5.2 MT and supplied in loose shipping sections	Set	1				
E5A.30	240V AC Fuse DBs(Wall Mounted)(63A)	Nos.	10				

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E5A.31	220V DC Fuse DBs(Wall Mounted(63A)	Nos.	10				
E5A.32	415V TPN AC Fuse DBs (Wall Mounted)	Nos.	5				
SECTION-E5 B : STARTER PANEL/BOXES/POWER DISTRIBUTION BOX/MARSHALLING BOXES/NGR/NGT							1.5
E5B.1	Electronic Control Panel, Overall Dimensions Approx.600(L)X550(W)X2000(H)mm, Approx.Weight of each panel 0.25MT.	Nos	64				
E5B.2	RAPPER CONTROL PANEL Overall dimension approx.1000(L) X 500(W) X 2050(H) mm, approx.Weight of each panel 0.30 MT. 32 Nos. RAPCON Electronic modules for each panel (along with cables connectors) size 280 x 210 x 210 mm shall be supplied loose for mounting in the panel at site.	Nos	4				
E5B.3	IOS PANEL overall dimension approx.1000(L)x500(W)x2050(H) mm,approx. Weight of panel 0.3 MT along with loose accessories such as IOS PC, Computer Furniture, Data Logger PC, Printer -4 Nos. PC termination box, peripheral cables etc.	Nos	2				
E5B.4	STATCON PANEL Overall Dimension Approx.1000(L)x500(W)x2050(H) mm,approx. Weight of panel 0.3 MT STATCON CONTROLLER for each panel (along with cables connectors) size approx. 280 x 210 x 210 mm shall be supplied loose for mounting in the panel at site.	Nos	4				
E5B.5	DC motor starter panels, etc (DC JOP, DC EOP, Seal oil panel), including resistance boxes. Approx weight 0.5 MT and approx. dimension 1000x800x2200 mm each.	Nos	6				
SECTION-E5C: PANELS							1.5
E5C.1	Generator, Generator Transformer, UAT Transformer,SAT Transformer- Control ,protection & Metering panels. Approx dimension of each panel 1000(L)x1000(W)x2300(H), approx weight 600kg per panel.	set	2				

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E5C.2	BTS Panel. Approx.Overall dimension of each panel - 800(W)x2355(H)x800(D) mm, weight of each panel is approximately 0.5 MT.	Nos.	4				
E5C.3	Local Motor Starters	Nos.	150				
E5C.4	Lignite Feeder(Drag Link) Extraction Feeder VFD Panel(12 VFDs),Approx. Overall Dimension 6000x800x2100mm, Weight per panel 5MT	Nos.	2				
E5C.5	Lignite Feeder(Drag Link) Transport Feeder VFD Panel(4 VFDs),Approx. Overall Dimension 2400x800x2100mm, Weight per panel 2MT	Nos.	2				
E5C.6	LimeStone VFD Feeder Panel(for 4VFDs) Approx. Overall Dimension 2400x800x2100mm,Weight per Panel 2MT.	Nos.	2				
SECTION-E5D: DRY TYPE TRANSFORMER							
E5D.1	Transportation from stores/ storage yard to Erection site , Assembly, Testing & Assistance for Commissioning of 2500 KVA , 3 Phase 6.6 kV/ 0.433 KV Dry Type Transformer including all accessories,NGR,cabling etc as described in tender specification,	Set	4				
E5D.2	Transportation from stores/ storage yard to Erection site , Assembly, Testing & Assistance for Commissioning of 2000 KVA , 3 Phase 6.6 kV/ 0.433 KV Dry Type Transformer including all accessories,NGR,cabling etc as described in tender specification,	Set	2				
E5D.3	Transportation from stores/ storage yard to Erection site , Assembly, Testing & Assistance for Commissioning of 1600 KVA , 3 Phase 6.6 kV/ 0.433 KV Dry Type Transformer including all accessories,NGR,cabling etc as described in tender specification,	Set	8				
SECTION-E5E: BATTERIES /BATTERY CHARGER							1.5
E5E.1	450A,220V DC Float Charger	Set	3				
E5E.2	450A,220V DC Float Cum Boost Charger	Set	3				
SECTION-E5F : DIGITAL AUTOMATIC VOLTAGE REGULATOR FOR BRUSHLESS EXCITAION SYSTEM							1.5

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E.5F.1	Transportation from store / storage yard to erection site , Erection, Assembly, Testing & Commissioning of Digital Excitation Equipments / System , System consist of DAVR panels & accessories as per tender specification.	Set	2				
SECTION-E5G : VARIABLE FREQUENCY DRIVE SYSTEM FOR ID FANS							I.5
E5G.1	Transportation from stores / storage yards to erection site , erection , assembly , testing & commissioning of VARIABLE FREQUENCY DRIVE of ID FANS consist of Load Converter Inverter Panels,Adapter Panels,Control Panels. Reactors ,Transformers, Vacuum Breakers, flexible coupling and associated accessories, as per tender specification.	Set	4				
SECTION-E5H : MISCELLANEOUS EQUIPMENT							I.5
E5H.1	Ash Level Indicator comprising of level probe with extension lagging pipe, Electronic Unit, Interconnecting Cabling, Conduit, etc.	Nos	128				
E5H.2	Opacity Monitor Consisting of Transmitter & Receiver, Electronic Unit, Air Blower unit, Weather Proof housings, Junction boxes, flexible hoses, mounting flanges with pipe for Transmitter, Receiver & Air blower, interconnec-ted cables etc. for mounting on ESP outlet duct.	Nos	4				
SECTION-E 6 : EQUIPMENT EARTHING MATERIALS							I.6
E6.1	65 x 10 mm GI earthing flat	Mtrs.	1175				
E6.2	50 x 10 mm GI earthing flat	Mtrs.	1650				
E6.3	50 x 6 mm GI earthing flat	Mtrs.	24120				
E6.4	30 X 5 mm GI earthing flat	Mtrs.	6800				

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E6.5	25 X 6 mm GI earthing flat	Mtrs.	1250				
E6.6	25 X 3 mm GI earthing flat	Mtrs.	4700				
E6.7	GI earthing wire Diameter 3.15mm or 8 SWG	Mtrs.	20300				
E6.8	20mm dia, 1-meter long GS rod for vertical air termination	Nos.	90				
E6.9	Test link with 150x50x6 thick Hot dip galvanised GS flat with box.	Nos.	90				
E6.10	Flexible braided Copper conductor of 600mm length(cross section 300sqmm) with tinned copper clamp connected by U-bolt for fence gate earthing.	Nos.	50				
E6.11	Hot dipped galvanised, heavy duty GI Pipe 3750mm length 100mm NB, 5.4mm thickness	Nos.	55				
E6.12	40mm Dia MS rod(below ground earthing)	Nos.	14700				
E6.13	14SWG GI wire	Mtrs.	242000				
SECTION -E7A: LT BUS DUCTS							I.7
E.7A.1	415 Volt, 4000A, 50Hz LT Bus Duct. Approx. length of each set of bus duct -2 Meter, Dimension 1200x1100x1000, Weight 140 Kg/Mtrs approx. Loose items like silicagel Breather pipe, GI Channel Supports and associated accessories.	Set	4				
E.7A.2	415 Volt, 3000A, 50Hz LT Bus Duct. Approx. length of each set of bus duct -2 Meter, Dimension 1200x1100x1000, Weight 140 Kg/Mtrs approx. Loose items like silicagel Breather pipe, GI Channel Supports and associated accessories.	Set	2				

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E.7A.3	415 Volt,2500A,50Hz LT Bus Duct.Approx.length of each set of bus duct -2 Meter,Dimension 1200x1100x1000,Weight 130Kg/Mtrs approx.Loose items like silicagel Breather pipe,GI Channel Supports and associated accessories.	Set	8				
SECTION -E7B: HT BUS DUCTS (SPBD)							1.7
E7B.1	6.6 kV, 2500 AMPS, SP Bus Duct from Unit Auxiliary Transformer to Unit Switchgear Board # 1CA.(Approx length 95 mtrs)	Set	1				
E7B.2	6.6 kV, 2500 AMPS, SP Bus Duct from Unit Auxiliary Transformer to Unit Switchgear Board # 1CB.(Approx length 90 mtrs)	Set	1				
E7B.3	6.6 kV, 2500 AMPS, SP Bus Duct from Station Transformer to Station Switchgear Board # 0CA.(Approx length 140 mtrs)	Set	1				
E7B.4	6.6 kV, 2500 AMPS, SP Bus Duct from Station Transformer to Station Switchgear Board # 0CB.(Approx length 136 mtrs)	Set	1				
E7B.5	6.6 kV, 2500 AMPS, SP Bus Duct from Unit Auxiliary Transformer-2 to Unit Switchgear Board # 2CA(Approx. length 103mtrs.)	Set	1				
E7B.6	6.6 kV, 2500 AMPS, SP Bus Duct from Unit Auxiliary Transformer-2 to Unit Switchgear Board # 2CB(Approx. length 88mtrs)	Set	1				
E7B.7	6.6 kV, 2500 AMPS, SP Bus Duct from Station Auxiliary Transformer-2 to Station Switchgear Board # OCC(Approx. length 135mtrs)	Set	1				
E7B.8	6.6 kV, 2500 AMPS, SP Bus Duct from Station Auxiliary Transformer-2 to Station Switchgear Board # OCD(Approx. length 127mtrs)	Set	1				
E7B.9	6.6 kV, 2500 AMPS, Tie SP Bus Duct from Unit Switchgear Board # 1CA and Station Switchgear Board #OCA to Unit Switchgear Board#2CA and Station Switchgear Board#OCC.(Approx length-4mtrs)	Set	2				

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E7B.10	6.6 kV, 2500 AMPS, Tie SP Bus Duct from Unit Switchgear Board # 1CB and Station Switchgear Board #OCB to Unit Switchgear Board#2CB and Station Switchgear Board#OCD.Approx length 4mtrs).	Set	2				
SECTION -E7C :HT BUS DUCTS							1.7
E7C.1	Isolated Phase Bus Duct (16.5 KV) for interconnection of Generator, Generator Circuit Breaker, Generator Transformers, UAT ,SAT,along with all accessories & auxiliaries as described in the Tender Specification.	set	2				
SECTION- E8 :OIL FILLED TRANSFORMERS(GT,SAT,UAT)							1.8
E8.1A	3-phase 315 MVA, 16.5/230 KV, ONAN/ONAF/OFAF, Cooled Generator Transformer (UNIT#1) . including all accessories, piping, cabling etc. as described in Tender Specification except transportation and placement of GT Unit-1	Nos.	1				
E8.1B	3-phase 315 MVA, 16.5/230 KV, ONAN/ONAF/OFAF, Cooled Generator Transformer (UNIT#2) . Including transportation, placement, all accessories, piping, cabling etc. as described in Tender Specification	Nos.	1				
E8.2	50 MVA, 3-phase 16.5/6.9 -6.9kV Unit Auxiliary Transformer (UAT) including all accessories, piping, cabling etc as described in tender specification. Also including two nos. Neutral Grounding Transformer (NGR) for each UAT.	Nos.	4				
E8.3	50 MVA, 3-phase 16.5/6.9-6.9 kV Station AuxiliaryTransformer (SAT) , OLTC , ONAN/ONAF including all accessories, piping, cabling etc as described in tender specification. Also including two nos Neutral Grounding Transformer (NGR) for each ST.	Nos.	4				
SECTION-E 9 : ONLY TESTING & COMMISSIONING							1.9
E9.1	Heating elements for Hopper Heater(panel type) of ESP	Nos.	1536				

RATE SCHEDULE FOR BHAVNAGAR, 2x250 MW, ELECTRICAL SYSTEMS							
Sl.no	Description of items	UOM	Quantity	Unit Rates in Figures (In Rs)	Unit Rates in Words (In Rs)	Total Amounts (In Rs)	APPLICABLE for Terms of Payment
E9.2	Heating elements for Support Insulator Heater, Shaft Insulator Heaters of ESP	Nos.	320				
E9.3	High Voltage Rectifier Transformers (95 KV peak, 1200 mA) including oil filtration.	Nos.	64				
E9.4	Testing & Commissioning of Collecting, Emitting, GD Screen Motor	Nos.	136				
E9.5	Testing and commissioning of 6.6 & 11KV HT motors, including dryout.	Nos.	24				
E9.6	Testing and commissioning of 415 V LT motors including dry out.	Nos.	566				
E9.7	Generator system testing	Set	2				
E9.8	Testing and Commissioning of soot blower control panel, including mounting of mimic ,	Nos.	2				
E9.9	Testing & Commissioning of Wall, Long Retractable, Air Heater Soot Blower	Nos.	148				
E9.10	Testing & Commissioning of Furnace temperature probe (including solenoids, thermocouple, etc)	Nos.	2				
E9.11	Thermostats including Calibration.	Nos.	312				
E9.12	Electrically (LT) Operated Valves, Dampers and Gates with Actuators, Limit Switches etc. (Regulating & ON/OFF Type).	Nos.	500				
SECTION-E 10 : Other Items		NIL	NIL	0		0	
SECTION-E 10A : HT Termination kit							L.10

RATE SCHEDULE FOR BHAVNAGAR, 2x250 MW, ELECTRICAL SYSTEMS							
Sl.no	Description of items	UOM	Quantity	Unit Rates in Figures (In Rs)	Unit Rates in Words (In Rs)	Total Amounts (In Rs)	APPLICABLE for Terms of Payment
E10A.1	6.35/11KV 3Cx185 sqmm armoured	Nos.	146				
E10A.2	6.35/11KV 1Cx630 sqmm armoured	Nos.	66				
E10A.3	6.35/11KV 1Cx300 sqmm armoured	Nos.	50				
E10A.4	3.3KV 1Cx400 sqmm unarmoured	Nos.	210				
SECTION-E 10B Application of Fire Sealing materials							I.10
E10B.1	FSS-Type B Floor Openings Below Panels(Floor Thickness 190MM Approx.)	Sqm	500				
E10B.2	FSS-Type B Floor Openings (Floor Thickness 190MM Approx.)	Sqm	250				
E10B.3	FSS- Type B Wall Openings(Wall Thickness 250mm Approx.)	Sqm	200				
E10B.4	Coating Material on Cables(Laid on 600mm/450mm/300mm/150mm wide trays) to be coated	Sqm	400				
SECTION-E 10C : Straight through Jointing kits							I.10
E10C.1	6.35/11KV 3Cx185 sqmm armoured	Nos.	4				
TOTAL AMOUNT IN FIGURES: Rs.							
Grand Total in Words Rs.....							