

TECHNICAL CONDITIONS OF CONTRACT (TCC)
CHAPTER XI – Schedule of items Quantities and Factor for
Deriving Item Rate from the accepted Lumpsum Price

JOB: HANDLING AT SITE STORES/STORAGE YARD, TRANSPORTATION TO SITE OF WORK, COMPLETE ERECTION, CHECKING OF CALIBRATION, TESTING, ASSISTANCE FOR COMMISSIONING AND HANDING OVER OF HT/LT POWER TRANSFORMERS, ISOLATED PHASE BUS DUCT FOR GENERATOR TRANSFORMER, SEGREGATED PHASE BUS DUCT FOR STATION TRANSFORMER /UNIT AUX. TRANSFORMER, ELECTROSTATIC PRECIPITATOR, GENERATOR CONTROL & PROTECTION PANELS, 11KV/3.3KV/0.415KV SWITCHGEAR BOARDS /MCC, SOOT BLOWER SYSTEM, EXCITATION SYSTEM, 220 VOLT BATTERY SYSTEM AND ELECTRICAL HOIST AND ASSOCIATED EQUIPMENT'S & ASSOCIATED AUXILIARIES FOR BHUSAWAL TPS, UNIT-6, 1x660 MW, MAHAGENCO PROJECT.

E-Tender Specification Number: BHE/PW/PUR/BWT6-ELE/2465

PART B of Vol-II Price Bid: % weightage for amount of individual items of Schedule of quantity w.r.t. the total quoted price

SL. NO.	DESCRIPTION	UOM	Quantity	Weightage %
E2.4D	Removal & Transportation of Control/Power Cables/Cable Trays/Switchboard/Control Panel etc of Raw Water Pump House to suggested location as mentioned in TCC			
E2.4D.1	Removal & Transportation of Control/Power Cables/Cable Trays/Switchboard/Control Panel and associated items if Old Raw Water Pump House	Set	1	0.00328085489101
E3.0 Junction box/Push button station (local)				
E3.1	450I X 150D X 300H mm Junction Box	Nos.	30	0.00063809974546
E3.2	250L X 150D X 400H mm Junction Box	Nos.	75	0.00098604640647
E3.3	Start Stop Push Button Station 180X100X250 mm approx.	Nos.	323	0.00532134570918
E3.4	LOCAL CONTROL BOX FOR Plate type Heat Element (weight/box is 0.05MT)	No	108	0.00154560813448
SECTION-E4 : Miscellaneous Structural steel including frames for Panels/Racks/Instruments, supports for cable tray/pipes/tubes, Canopies etc.				
E4.1	Structural Steel fabrication & Installation (MS angle,Channel,Plate etc)	MT	50	0.02578276890079
SECTION-E5 : SWITCHGEARS / MCC /PCC				
SECTION-E5A : HT SWITCHGEAR (11/6.6 KV)				
E5A.1	11 KV Station Switchgear Board # 0BA. Each board shall have 11 panels. Approx.Overall dimension of each panel is approx.820(W)x2800(H)x2927(D) mm, , Each Panel weight is approximately 1.8 MT.	Set	1	0.00309444102985
E5A.2	11 KV StationSwitchgear Board # 0BB. Each board shall have 14 panels. Approx.Overall dimension of each panel is approx.820(W)x2800(H)x2927(D) mm, , Each Panel weight is approximately 1.8 MT.	Set	1	0.00393837949254
E5A.3	11 KV Station Switchgear Board # 0BC. Each board shall have 11 panels. Approx.Overall dimension of each panel is approx.820(W)x2800(H)x2927(D) mm, , Each Panel weight is approximately 1.8 MT.	Set	1	0.00309444102985
E5A.4	11 KV StationSwitchgear Board # 0BD. Each board shall have 13 panels. Approx.Overall dimension of each panel is approx.820(W)x2800(H)x2927(D) mm, , Each Panel weight is approximately 1.8 MT.	Set	1	0.00365706667164
E5A.5	11 KV Unit Switchgear Board # 6BA. Each board shall have 20 panels. Approx.Overall dimension of each panel is approx.820(W)x2800(H)x2927(D) mm, , Each Panel weight is approximately 1.8 MT.	Set	1	0.00562625641791
E5A.6	11 KV Unit Switchgear Board # 6BB. Each board shall have 21 panels. Approx.Overall dimension of each panel is approx.820(W)x2800(H)x2927(D) mm, , Each Panel weight is approximately 1.8 MT.	Set	1	0.00590756923881
E5A.7	3.3 KV Unit Aux. Switchgear Board # 6CA. Each board shall have 22 panels. Approx.Overall dimension of each panel is approx.820(W)x2800(H)x2927(D) mm, , Each Panel weight is approximately 1.8 MT.	Set	1	0.00568122384827
E5A.8	3.3 KV Station Aux. Switchgear Board # 0CA. Each board shall have 15 panels. Approx.Overall dimension of each panel is approx.820(W)x2800(H)x2927(D) mm, , Each Panel weight is approximately 1.8 MT.	Set	1	0.00387356171473
E5A.9	3.3 KV Station AHP Switchgear Board # 0CB. Each board shall have 26 panels. Approx.Overall dimension of each panel is approx.820(W)x2800(H)x2927(D) mm, , Each Panel weight is approximately 1.8 MT.	Set	1	0.00671417363887
E5A.10	3.3 KV Station CHP Switchgear Board # 0CC. Each board shall have 27 panels. Approx.Overall dimension of each panel is approx.820(W)x2800(H)x2927(D) mm, , Each Panel weight is approximately 1.8 MT.	Set	1	0.00697241108651
E5A.11	3.3 KV Fire Water Switchgear Board # 0CD. Each board shall have 15 panels. Approx.Overall dimension of each panel is approx.820(W)x2800(H)x2927(D) mm, , Each Panel weight is approximately 1.8 MT.	Set	1	0.00387356171473
E5A.12	3.3 KV FGD Switchgear Board #0CE. Each board shall have 15 panels. Approx.Overall dimension of each panel is approx.820(W)x2800(H)x2927(D) mm, , Each Panel weight is approximately 1.8 MT.	Set	1	0.00387356171473
E5A.13	11KV AHP Switchgear Board # 0BE. Each board shall have 17 panels. Approx.Overall dimension of each panel is approx.820(W)x2800(H)x2927(D) mm, .	Set	1	0.00478231795522
E5A.14	11KV CHP Switchgear Board # 0BF. Each board shall have 17 panels. Approx.Overall dimension of each panel is approx.820(W)x2800(H)x2927(D) mm,	Set	1	0.00478231795522
E5A.15	11KV Fire Water Switchgear Board # 0BG. Each board shall have 17 panels. Approx.Overall dimension of each panel is approx.820(W)x2800(H)x2927(D) mm.	Set	1	0.00478231795522
E5A.16	11 KV FGD Switchgear Board #0BH. Each board shall have 20 panels. Approx.Overall dimension of each panel is approx.820(W)x2800(H)x2927(D) mm.	Set	1	0.00562625641791
E5A.17	11/3.3 KV Earthing Truck , Approx.Overall dimension of each truck-700(W) X 1300(H) X 900(D),	Nos.	20	0.00519851613039

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SL. NO.	DESCRIPTION	UOM	Quantity	Weightage %
SECTION-E5B : LT SWITCHGEAR (415/220 V)/BOXES/POWER DISTRIBUTION BOX/MARSHALLING BOXES				
E5B.1	415 Volt LT Turbine Service PMCC, Double Front, MCC- 6DA.Approx Overall dimensions 13200(W)x1600(D)x2500(H) mm.	Set	1	0.00462701635299
E5B.2	415 Volt LT Turbine Valve MCC, Double Front, MCC 6KB.Approx Overall dimension 34000(W)x1000(D)x2500(H) mm,	Set	1	0.00725170062030
E5B.3	415 Volt LT Boiler PMCC, Double front, MCC # 6DB.Approx Over all dimension 18000(W)x1600(D)x2400(H), approx total WT 18.75 MT.	Set	1	0.00524464699423
E5B.4	415 Volt LT Boiler Valve and and Damper MCC, Double Front, MCC # 6HB.Approx Over all dimension 20400(W)x1000(D)x2500(H) mm,	Set	1	0.00373216730616
E5B.5	415 Volt Unit Service ACDB 6QA.Approx Overall dimensions 14750(W)x1000(D)x2500(H) mm,	Set	1	0.00422741512139
E5B.6	415 Volt Boiler Service ACDB 6HC.Approx Overall dimensions 19550(W)x1000(D)x2500(H) mm, .	Set	1	0.00473683349605
E5B.7	LT MCC FOR ESP .Approx Over all dimension 11000(W)x1600(D)x2400(H) mm, approx Weight 9.0 MT/Panel.	Set	6	0.02063383030186
E5B.8	415 Volt LT FGD PCC	Set	1	0.00402354176742
E5B.9	416 Volt LT FGD MCC	Set	1	0.00402354176742
E5B.10	FGD DCDB	Set	1	0.00445986078314
E5B.11	415V LIGHTING SWBD	Set	1	0.00422741512139
E5B.12	419 Volt LT MCC FOR ESP &ID Fan Area MCC # 8HD.Approx Over all dimension 7650(W)x1000(D)x2500(H) mm	Set	1	0.00294099670587
E5B.13	ESP ACP 1 to 6 Approx Over all dimension 14750(W)x1000(D)x2500(H) mm	Set	6	0.02018913960656
E5B.14	415 Volt Station Ventillation MCC Double front MCC # 6TA .Approx.Overall dimension 13050(W)x1000(D)x2500(H) mm,	Set	1	0.00322117043402
E5B.15	415 Volt Station Service PMCC (SWBD), Double front, SWBD # 0DA,.Approx.- Overall dimension 13600(W)x1600(D)x2500(H) mm,	Set	1	0.00496849931312
E5B.16	415 Volt ESP Air Conditioner & Ventilation Double front MCC # 6TB,. Approx Overall dimension 9350(W)x1000(D)x2500(H) mm,approx	Set	1	0.00175361947953
E5B.17	415V RAW WATER INTAKE P/H MCC # 8DK,. Approx Overall dimension 6250(W)x1000(D)x2500(H) mm	Set	1	0.00347227382411
E5B.18	220V RAW WATER & CW DCDB	Set	1	0.00258668679970
E5B.19	415V FILTERED WATER P/H PMCC MCC # 8DH,. Approx Overall dimension 14100(W)x1600(D)x2500(H) mm	Set	1	0.00385441472082
E5B.20	416 Volt ESP Air Washer MCC # 6SA.Approx Overall dimension 7950(W)x1000(D)x2500(H) mm,approx.	Set	1	0.00178005783828
E5B.21	415 Volt ETP SWBD # 0SE .Approx. Overall dimension 5950(W)x1000(D)x2500(H) mm	Set	1	0.00381161547755
E5B.22	416 Volt SEWAGE Treatment Plant MCC # 0SF .Approx. Overall dimension 5100(W)x1000(D)x2500(H) mm	Set	1	0.00178005783828
E5B.23	CPU MCC # 0SA .Approx. Overall dimension 7950(W)x1000(D)x2500(H) mm	Set	1	0.00351175285560
E5B.24	SCR AMMONIA UNLOADING MCC # 0SG.Approx. Overall dimension 5950(W)x1000(D)x2500(H) mm	Set	1	0.00178005783828
E5B.25	Welding Switchboard MCC	Set	1	0.00337908618111
E5B.26	415 Volt Fuel Oil P&H Double front MCC # 0DJ Approx. Over all dimensions 12100(W)x1000(D)x2500(H) mm	Set	1	0.00408717788095
E5B.27	415 Volt DM Plant SWBD, Double Front, MCC #0SB.Approx.Over all dimensions 5950(W)x1000(D)x2500(H) mm	Set	1	0.00389529966589
E5B.28	415 Volt DM Plant SWBD, Double Front, MCC #0DB.Approx.Over all dimensions 16650(W)x1600(D)x2500(H) mm	Set	1	0.00441000839082
E5B.29	415 Volt Pre Treatment Plant MCC, Double front, MCC # 0SD. Approx. Over all dimensions 13600(W)x1000(D)x2500(H) mm	Set	1	0.00388809866128
E5B.30	415 Volt Service Building MCC, Double front, MCC # 0DD. .Approx Over all dimensions 15200(W)x1000(D)x2500(H) mm	Set	1	0.00336485660109

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SL. NO.	DESCRIPTION	UOM	Quantity	Weightage %
E5B.31	415 Volt Fire Water/CLARIFIER PMCC, SWBD # ODE., Approx over all dimensions 14000(W)x1500(D)x2500(H) mm	Set	1	0.00385441472082
E5B.32	415 Volt Water System /AC Ventilation MCC # OTB., Approx over all dimensions 13900(W)x1000(D)x2500(H) mm	Set	1	0.00336485660109
E5B.33	415 Volt Air Conditioner Double front MCC # OTA .Approx.Overall dimension 12950(W)x1000(D)x2500(H) mm	Set	1	0.00422741512139
E5B.34	415 Volt Station Misc Service MCC, Double front, MCC # OQA.Approx. Over all dimension 8800(W)x1000(D)x2500(H)	Set	1	0.00178005783828
E5B.35	Unit Emergency Switchboard 6DG Approx. Over all dimension 17400(W)x1600(D)x2500(H),	Set	1	0.00492243689735
E5B.36	DG Main Switch Board SWBD Approx Overall Dimensions 4850(W)x1600(D)x2400(H) mm,approx	Set	1	0.00385871143350
E5B.37	415 Volt CW P/H PMCC, Double front, MCC # ODC.Approx Over all dimensions 14150(W)x1600(D)x2500(H) mm,	Set	1	0.00461467956124
E5B.38	415 Volt OZONIZATION & CW TREAT/CHLOR MCC, Double front, MCC # OSC.Approx. Over all dimension 12950(W)x1000(D)x2500(H) mm	Set	1	0.00507576295667
E5B.39	220 Volt DC Distribution Board # 8FA.Approx. Overall dimension 17700(W)x1000(D)x2400(H) mm	Set	1	0.00340239636405
E5B.40	Soot Blower Motor control Center, double front, Approx overall dimension 17250(L) x 2525(H) x 1000 (D) mm;	Set	1	0.00308559106886
E5B.41	Wall Mounted ACDB	Nos	30	0.00045641001251
E5B.42	Wall Mounted DCDB	Nos	30	0.00045641001251
SECTION-E5C : STARTER PANEL				
E5C.1	Electronic Control Panel, Overall Dimensions Approx. 600mm W X 550mm D X 2000mm, Approx. Weight of each panel 0.25 MT. ARECA Controller approx dimension 280x210x210 mm, rotary switches, etc along with cables and connectors, shall be supplied loose for mounting in the panel at site	Nos	108	0.02320008623607
E5C.2	RCU (DDM) PANEL overall dimension approx.600x550x2050 mm,approx weight 100 kg/panel	Set	1	0.00022248026307
E5C.3	Auxiliary Control Panel (double front, draw out type). Approx overall dimension 10200L X 1300D X 2400H, Approx weight of each panel is approx .9.5 MT and supplied in loose shipping sections.	No	6	0.02154309505932
E5C.4	IOS PANEL. Weight of panel 0.1 MT along with loose accessories such as IOS PC, Computer Furniture, Data Logger PC, Printer, LCD Monitor. PC termination box, peripheral cables etc.	Set	2	0.00062867110588
E5C.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	3	0.00079685645693
SECTION-E5D: DRY TYPE TRANSFORMER				
E5D.1	Unit /Service Transformer, 630 KVA Dry type, Dyn11& Dyn1, AN cooled ,3 phase 11 / 0.433 kV with off load tap switch , including all loose accessories of transformer etc. as described in tender specification.	Nos	3	0.00325920166192
E5D.2	Unit/Service Transformer, 1000 KVA Dry type, Dyn11, AN cooled ,3 phase 11 / 0.433 kV with off load tap switch , including all loose accessories of transformer etc. as described in tender specification. APPROX. WEIGHT.4.8 MT	Nos	4	0.00434560221590
E5D.3	Unit/Service Transformer, 1600 KVA Dry type, Dyn11, AN cooled ,3 phase 11 / 0.433 kV with off load tap switch , including all loose accessories of transformer etc. as described in tender specification. APPROX. WEIGHT.6.6 MT	Nos	4	0.00743933971015
E5D.4	Unit/Service Transformer, 2000 KVA Dry type, Dyn11, AN cooled ,3 phase 11 / 0.433 Kv with off load tap switch , including all loose accessories of transformer etc. as described in tender specification. APPROX. WEIGHT.7.2 MT	Nos	18	0.03627082173256
E5D.5	Unit/Service Transformer, 2500 KVA Dry type, Dyn11, AN cooled ,3 phase 11 / 0.433 kV with off load tap switch , including all loose accessories of transformer etc. as described in tender specification.	Nos	6	0.01119708642746
SECTION-E5E: PANELS				
E5E.1	Generator, Generator Transformer, UAT Transformer ,Control, protection & Metering panels (05 Panels). Approx dimension of each panel 2067x1000x1000(H).	Set	1	0.00197883986423
E5E.2	Station Transformer Control, protection & Metering panels (02 Nos). Approx dimension of each panel 2067x1000x1000(H).	Set	1	0.00087215181554
E5E.3	BTS Panel. Approx.Overall dimension of each panel approx.800(W)x2000(H)x800(D) mm.	No	6	0.00364027268970
E5E.4	LT Data Concentrator Package including:- Panel, HMI, Printer, Laptop, Communication cables. Approx. Dimension 800 mm (W)*2315mm (H)* 800mm(D) , .	No	1	0.00072820122179
E5E.5	HT Data Concentrator Package including:- Panel, HMI, Printer, Laptop, Communication cables. Approx. Dimension 800 mm (W)*2315mm (H)* 800mm(D) , .	No	5	0.00364100610893
E5E.6	DG Aux. DB, Approx. Dimension 4000(L)*1500(W)*2000(H) mm, Approx. Weight is 1 MT.	No.	1	0.00038887089997
SECTION-E5F: 220 VOLT DC BATTERY & BATTERY CHARGER SYSTEM				
E5F.1	220 Volt Lead acid DC Battery System, Each set comprises of 3 sets of battery bank. Each set comprises of 2X108 CELLS (2 sets for main plant & 1 set for raw water), with Lead-Acid plante High discharge type Battery system .DIMN OF EACH CELL 0.585 X 0.368 X 0.682 Mtrs includes (1) 220V Battery Charger aprox 600Amp(06 No.) Dimension of each charger 3.0 X 2.2 X 1.0 Mtrs and weight is 2.5 ton each charger. (2) 220V Battery fuse box (03 No.). Dimension is 1.0 X 0.5 X 1.0 Mtrs FOR EACH FUSE BOX and weight 0.25 ton. (3) 220V Battery discharge resistor Panel (02 No.). Dim. is 1.0 X 0.5 X 1.0 Mtrs FOR EACH PANEL & weight is 0.50 ton each.	Set	3	0.01655829724501

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SL. NO.	DESCRIPTION	UOM	Quantity	Weightage %
E5F.2	DC Charger Panel (Total 05 no) consist of 24V Lead Acid DC battery (03 Nos) for DG set- Erection, testing, commissioning, laying and termination of associated cabling along with AMF Panel, NGR Panel & other Local control panels	Set	5	0.00278414123291
SECTION-E5G : STATIC EXCITATION SYSTEM				
E.5G.1	Transportation from store / storage yard to erection site, Erection, Assembly, Testing & Commissioning of Static Excitation Equipments (excitation transformer, regulation, field flashing, thyristor, field breaker panels/cubicle along with copper bus bar/flexible connectors including internal wiring, and associated inter connecting cables etc) consist of DAVR panels (13 Panels) & accessories as per tender specification.	Set	1	0.00196406687769
SECTION-E5H : MISCELLANEOUS EQUIPMENT				
E5H.1	Ash Level Indicator comprising of level probe with extension lagging pipe, Electronic Unit, Interconnecting PTFE Cabling, Conduit, etc.	No	216	0.00821875910671
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, interconnected cables etc. for mounting on ESP outlet duct.	No	6	0.00242396490905
SECTION -E7 : BUS DUCTS				
SECTION -E7A: LT BUS DUCTS (NSPBD/ SPBD)				
E7A.1	415 Volt LT Bus Duct -Each duct length will be 10-30 Mtr , supplied in pieces and treated as one set along with Loose items like silicagel Breather pipe,GI Channel Supports and associated accessories.	No.	70	0.04195015139435
SECTION -E7B: (SPBD)				
E7B.1	11 kV, 2500 AMPS, SP Bus Duct from Unit Transformer (40 MVA -UT-6B) to 11 KV Unit Switchgear Board # 6BB. (Approx length 87.0 Mtr) and 11 kV, 2500 AMPS, SP Bus Duct from Switchgear Board OBC to 11 KV Station Switchgear Board # 6BB. (Approx length 11 m)	Set	1	0.00260942309965
E7B.2	11 kV, 3500 AMPS, SP Bus Duct from Station Transformer (100 MVA -ST-6B) LV2 to 11 KV Station Switchgear Board # OBD. (Approx length 66 m) and 3500 AMPS, SP Bus Duct from Station Transformer (100 MVA -ST-6B) LV1 to 11 KV Station Switchgear Board # OBD. (Approx length 90 m)	Set	1	0.00377622448602
E7B.3	11 kV, 3500 AMPS, SP Bus Duct from Station Transformer (ST-6A) LV2 to 11 KV Station Switchgear Board # OBB. (Approx length 63 m) and 3500 AMPS, SP Bus Duct from Station Transformer (ST-6A) LV1 to 11 KV Station Switchgear Board # OBA. (Approx length 82 m)	Set	1	0.00369308266276
E7B.4	11 kV, 3500 AMPS, SP Bus Duct from Switchgear Board OBB to 11 KV Station Switchgear Board # OBD. (Approx length 7.5 m) and 11 kV, 2500 AMPS, SP Bus Duct from Switchgear Board OBC to 11 KV Station Switchgear Board # OBA. (Approx length 15 m)	Set	1	0.00059911064748
E7B.5	3.3 kV, 2250 AMPS, SP Bus Duct from Unit Aux Trans. 6CAT-2 to 3.3 KV Station Switchgear Board # 6CA. (Approx length 58 m) and 3.3 kV SP Bus Duct from Unit Aux Trans. 6CAT-1 to 3.3KV Station Switchgear Board # 6CA. (Approx length 27 m)	Set	1	0.00226327513745
E7B.6	2500 Amps SP Bus Duct from Unit Transformer (40 MVA -UT-6A) to 11 KV Unit Switchgear Board # 6BA. (Approx length 48.0 Mtr) and switchboard OBA to switchboard 6BA (15 mtr)	Set	1	0.00167748627835
E7B.7	11 kV, 3500 AMPS, SP Bus Duct from Switchgear Board OBA to 11 KV Station Switchgear Board # OBC. (Approx length 15 m) and 3.3 kV SP Bus Duct from Unit Aux Trans. 6CAT-1 to 3.3KV Station Switchgear Board # 6CA. (Approx length 27 m)	Set	1	0.00111832418557
E7B.8	3.3 kV, 630 AMPS, SP Bus Duct from FGD Aux Trans. OCET01 to 3.3 KV FGD Switchgear Board # OCE. (Approx length 15 m) and 3.3 kV SP Bus Duct from FGD Aux Trans. OCET01 to 3.3KV FGD Switchgear Board # OCE. (Approx length 15 m)	Set	1	0.00039941130092
E7B.9	3.3 kV, 630 AMPS, SP Bus Duct from Fire Water Trans. OCDT01 to 3.3 KV Switchgear Board # OCD. (Approx length 15 m) and 3.3 kV SP Bus Duct from Fire Water Trans. OCDT02 to 3.3KV Switchgear Board # OCD. (Approx length 15 m)	Set	1	0.00039941130092
E7B.10	3.3 kV, 630 AMPS, SP Bus Duct from Stn Aux Trans. OCAT01 to 3.3 KV Switchgear Board # OCA. (Approx length 15 m) and 3.3 kV SP Bus Duct from Stn Aux Trans. OCAT01 to 3.3KV Switchgear Board # OCA. (Approx length 15 m)	Set	1	0.00039941130092
E7B.11	3.3 kV, 1600 AMPS, SP Bus Duct from CHP Trans. OCCT01 to 3.3 KV Switchgear Board # OCC. (Approx length 15 m) and 3.3 kV SP Bus Duct from CHP Trans. OCCT01 to 3.3KV Switchgear Board # OCC. (Approx length 15 m)	Set	1	0.00079882260184
E7B.12	3.3 kV, 1600 AMPS, SP Bus Duct from AHP Trans. OCBT01 to 3.3 KV Switchgear Board # OCB. (Approx length 15 m) and 3.3 kV SP Bus Duct from AHP Trans. OCCT01 to 3.3KV Switchgear Board # OCB. (Approx length 15 m)	Set	1	0.00079882260184
SECTION -E7C: BUS DUCTS (IPBD)				
E7C.1	Isolated Phase Bus Duct (24 KV) 25000/15000/1600 Amps (length approx 500mtrs) for interconnection of Generator, Generator Transformers, UT-1 and UT-2 along with all accessories & auxiliaries and Including erection ,commissioning of APU & Hot Air Blowing Equipment.	Set	1	0.05877259823759

TECHNICAL CONDITIONS OF CONTRACT (TCC)
CHAPTER XI – Schedule of items Quantities and Factor for
Deriving Item Rate from the accepted Lumpsum Price

JOB: HANDLING AT SITE STORES/STORAGE YARD, TRANSPORTATION TO SITE OF WORK, COMPLETE ERECTION, CHECKING OF CALIBRATION, TESTING, ASSISTANCE FOR COMMISSIONING AND HANDING OVER OF HT/LT POWER TRANSFORMERS, ISOLATED PHASE BUS DUCT FOR GENERATOR TRANSFORMER, SEGREGATED PHASE BUS DUCT FOR STATION TRANSFORMER /UNIT AUX. TRANSFORMER, ELECTROSTATIC PRECIPITATOR, GENERATOR CONTROL & PROTECTION PANELS, 11KV/3.3KV/0.415KV SWITCHGEAR BOARDS /MCC, SOOT BLOWER SYSTEM, EXCITATION SYSTEM, 220 VOLT BATTERY SYSTEM AND ELECTRICAL HOIST AND ASSOCIATED EQUIPMENT'S & ASSOCIATED AUXILIARIES FOR BHUSAWAL TPS, UNIT-6, 1x660 MW, MAHAGENCO PROJECT.

E-Tender Specification Number: BHE/PW/PUR/BWT6-ELE/2465

PART B of Vol-II Price Bid: % weightage for amount of individual items of Schedule of quantity w.r.t. the total quoted price

SL. NO.	DESCRIPTION	UOM	Quantity	Weightage %
SECTION- E8 :OIL FILLED TRANSFORMERS (GT,UT, UAT & ST)				
E8.1	1-Phase 275 MVA ONAN/ONAF/OFAF, 420/V3/21 kV ,Cooled YnD11 Generator Transformer including all accessories,piping, cabling etc. as described in Tender Specification Dimension 13000X7550X9800mm Weight: 295.6 T (Oil capacity 65.9KL)	Nos	4	0.15434791912841
E8.2	110 MVA, 3-phase 400/11.5/11.5 KV Station Transformer (ST) , OLTC , ONAN/ONAF/OFAF including all accessories, piping, cabling etc as described in tender specification. Also including Neutral Grounding Transformer (NGR) for each ST(Oil capacity 68.50KL)	Nos	2	0.05445061902636
E8.3	10 MVA, 3-phase 11KV/3.45 kV Unit Aux. Transformer (UAT) including all accessories, piping, cabling etc as described in tender specification. Also including one Neutral Grounding Transformer (NGR) for each Transformer.	Nos	2	0.00967442768133
E8.4	2 MVA, 3-phase 11KV/3.45 kV Aux. Transformer (UAT,SAT) including all accessories, piping, cabling etc as described in tender specification. Also including one Neutral Grounding Transformer (NGR) for each Transformer.	Nos	4	0.00598612683994
E8.5	6.3 MVA, 3-phase 11KV/3.45 kV CHP Transformer including all accessories, piping, cabling etc as described in tender specification. Also including one Neutral Grounding Transformer (NGR) for each Transformer.	Nos	2	0.01297937574190
E8.6	7.5 MVA, 3-phase 11KV/3.45 kV AHP Transformer including all accessories, piping, cabling etc as described in tender specification. Also including one Neutral Grounding Transformer (NGR) for each Transformer.	Nos	2	0.01320759765887
E8.7	1 MVA, 3-phase 11KV/3.45 kV Fire Water Transformer including all accessories, piping, cabling etc as described in tender specification. Also including one Neutral Grounding Transformer (NGR) for each Transformer.	Nos	2	0.00190182969595
E8.8	630 KVA, 3-phase 6.6KV/0.433 kV Raw Water Transformer including all accessories, piping, cabling etc as described in tender specification. Also including one Neutral Grounding Transformer (NGR) for each Transformer.	Nos	2	0.00190182969595
E8.9	40 MVA, 3-phase 21/11.5 kV Dyn1 Unit Transformer (UT) including all accessories, piping, cabling etc as described in tender specification. Also including Neutral Grounding Transformer (NGR) for each UT(Oil capacity 21.30KL)	Nos	2	0.02569893241513
E8.10	NAS Filtration & Particle Counting of Generator Transformers & Station Transformer(approx 410 KL oil)	Ltr	410000	0.02602049254870
SECTION-E 9 : ONLY TESTING & COMMISSIONING				
E9.1	Panel Heater for Hopper of ESP	Nos.	1728	0.01620453371866
E9.2	Heating elements for Support Insulator Heater, Shaft Insulator Heaters of ESP	Nos.	540	0.00570231849195
E9.3	High Voltage Rectifier Transformers (95 KV peak, 1200 mA) . Weight of each HVR 1.6MT.	Nos.	108	0.01534552214291
E9.4	Testing & Commissioning of Collecting, Emitting, GD Screen Motor	Nos.	228	0.00723189401304
E9.5	Testing and commissioning of 3.3 KV,6.6KV &11 KV HT motors including dryout.	Nos.	75	0.01006834591361
E9.6	Testing and commissioning of 415 V LT motors including dry out.	Nos.	366	0.01458215598286
E9.7	Generator System Testing	Nos.	2	0.01026436273047
E9.8	Testing & Commissioning of Soot Blower Control Panel, including mounting of mimic	Nos.	1	0.00032636524069
E9.9	Testing & Commissioning of Wall, Long Retractable, Air Heater Soot Blower	Nos.	154	0.00275830716132
E9.10	Testing & Commissioning of Furnace Temperature Probe (including Solenoids, Thermocouples, JB etc)	Nos.	2	0.00004102054493
E9.11	Thermostats including Calibration	Nos.	120	0.00099472865153
E9.12	Electrically (LT) Operated Valves, Dampers and Gates with Actuators, Limit Switches, etc. (Regulating & ON/OFF Type).	Nos.	673	0.02049243009044
E9.13	Electrical Operated Hoist at various area like ESP, Mill, IDF, PAF, FDF, Vacuum Pumps, BFP, CW & ACW area	Nos.	49	0.00377327363092
E9.14	1750 KVA, 3 phase, 415 V diesel generator set .Overall approx dimension: 11000(W) x 4000(H) x 3100(D) mm. Each Weight 40 MT	Set	2	0.00034635062111
E9.15	500 KVA, 3 phase, 415 V diesel generator set .Overall approx dimension: 7500(W) x 3750(H) x 2000(D) mm. Each Weight 16 MT	Set	1	0.00017317531056
E9.16	Testing and Commissioning of H2 Drier Panels.	Nos.	2	0.00024342604243
E10.0 Other items				
E10.1 Erection, Testing, commissioning of Gantry for ST & GT (SWITCHYARD INTERCONNECTION)				
E10.1.1	Installation of Galvanised Iron Structures (Lattice Type) for Towers, Beams / Gantry, Equipments Support structure etc complete including it's hardware	MT	61	0.00772870841280
E10.1.2	Erection Testing & Commissioning of 336kV, 1 Phase, Gapless type Metal Oxide Surge Arrester complete with surge counter, leakage current meter, insulating base, connecting cable/strip and terminal connectors. without support structure.	Nos.	9	0.00088693111129
E10.1.3	Erection Testing & Commissioning of 400kV, 1 Phase, 8kN, BPI (Solid core Bus Post insulator) with corona ring complete with terminal connectors without support structure.	Nos.	9	0.00045580577346
E10.1.4	Erection Testing & Commissioning of ACSR Bersimis / AAAC Morcuilla Conductor complete with Tee connectors for droppers, equipment terminal connections, PG clamps for Busbar jumpering, Twin/Quad bundle rigid/flexible spacers etc to complete	kM	0.5	0.00085874571415