

TECHNICAL CONDITIONS OF CONTRACT (TCC)

CHAPTER XI-2469

BILL OF QUANTITY AND % WEIGHTAGES FOR ITEM RATES W.R.T TOTAL LUMPSUM PRICE

**Scope Of Work: CABLING PACKAGE FOR BHUSAVAL TPS, UNIT-6, 1x660 MW,
MAHAGENCO PROJECT**

SL. NO.	DESCRIPTION	UOM	FINAL Quantity	Factor Components
E1.1	GALVANISED CABLE TRAYS COMPLETE WITH COVER, COUPLER PLATES, FASTENERS, CLAMPS AND FIXING HARDWARE, PRE-FABRICATED CABLE RACKS, METAL CHANNEL FLEXIBLE BOTTABLE CABLE SUPPORT SYSTEM			
E1.1.1	Ladder type Cable Tray 2.0 mm Thick 600(W)	Mtr	27280	0.047936983938504800
E1.1.2	Ladder type Cable Tray 2.0 mm Thick 450(W)	Mtr	3960	0.009095201986715510
E1.1.3	Ladder type Cable Tray 2.0 mm Thick 300(W)	Mtr	9927	0.018240467681639500
E1.1.4	Ladder type Cable Tray 2.0 mm Thick 150(W)	Mtr	7740	0.011337731433884700
E1.1.5	Perforated type Cable Tray 2.0 mm Thick 600(W)	Mtr	17728	0.042401347865580000
E1.1.6	Perforated type Cable Tray 2.0 mm Thick 450(W)	Mtr	1800	0.003016060634084610
E1.1.7	Perforated type Cable Tray 2.0 mm Thick 300(W)	Mtr	5580	0.011067808058461900
E1.1.8	Perforated type Cable Tray 2.0 mm Thick 150(W)	Mtr	1350	0.002170121964409930
E1.1.9	Perforated type Cable Tray 2.0 mm Thick 100(W)	Mtr	1350	0.001845081859803150
E1.1.10	Perforated type 50(W)	Mtr	1350	0.002004402034934820
E1.2	SECTION-E1A: FLEXIBLE CABLE TRAY SUPPORT AND ACCESSORIES for ESP			
E1.2.1	Single Channel (in standard length of 6meter per piece)	Mtr	1890	0.004937215432678130
E1.2.2	Double Channel (in standard length of 6meter per piece)	Mtr	2524.5	0.006838993600702510
E1.3	SECTION E1B: CANTILEVER ARM (EACH COMPLETE WITH, 2 NOS.-M12 HEX. BOLT & WASHER, 2 NOS.-M12 SPRING NUTS, 2 NOS.-M6 PAN HEAD SCREWS & WASHER, 2 NOS.-M6 SPRING NUTS). For ESP			
E1.3.1	650mm long trays	Mtr	1296	0.001995345521058690
E1.3.2	350mm long trays	Mtr	918	0.000920951743422883
E1.3.3	500mm long trays	Mtr	459	0.000668759535277467
E1.3.4	200mm long trays	Mtr	1148	0.000653500220651425
E1.4	SECTION E1C: CLAMPS & FITTINGS (COMPLETE WITH REQUIRED HARDWARE I.E. SPRING NUTS / WASHERS, trestle bracket, ETC. AS REQUIRED FOR COMPLETE INSTALLATION) for ESP			
E1.4.1	Base plate for single channel.	No	6440	0.004557681672617320
E1.4.2	Base plate for double channel.	No	4239	0.003310604022732510
E1.4.3	90degree angle fitting (LA1/HL1)	No	2066	0.001361077350508360
E1.4.4	Clamp CC1	No	6210	0.002424964730027000
E1.4.5	Clamp CC2	No	446	0.000184837664883852
E2	CABLE LAYING, GLANDING, FERRULING, CLAMPING & DRESSING OF HT POWER CABLES			
E2.1	11/11 KV, ALUMINIUM CONDUCTOR, ARMOURED/UN-ARMOURED XLPE,FRLS CABLE			
E2.1.1	1CX630 Sq.mm Power Cable	Mtr	2250	0.002721025754605130
E2.1.2	1CX500 Sq.mm Power Cable	Mtr	22400	0.020190217412320300

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E2.1.4	3CX240 Sq.mm Power Cable	Mtr	25600	0.022505766782810200
E2.1.5	1CX300 SQ MM Power Cable	Mtr	10800	0.006870743442026640
E2.2	6.6/6.6 KV, ALUMINIUM CONDUCTOR, ARMOURED/UN-ARMOURED XLPE,FRLS CABLE			
E2.2.1	3CX240 Sq.MM Power Cable	Mtr	1800	0.002180713420925630
E2.3	3.3/3.3 KV, ALUMINIUM CONDUCTOR, ARMOURED/UN-ARMOURED XLPE, FRLS CABLE			
E2.3.2	3CX240 Sq.MM Power Cable	Mtr	8100	0.005131599220229840
E2.4	CABLE LAYING, GLANDING, TERMINATION, FERRULING, CLAMPING & DRESSING OF LT POWER & CONTROL CABLES			
E2.4A	LT XLPE ARMOURED/UN-ARMOURED ALUMINIUM/COPPER CONDUCTOR FRLS CABLE			
E2.4A.1	1C x 35 SQMM AL.CABLE	Mtr	900	0.000413915526028815
E2.4A.2	1 C x120 SQMM AL CABLE	Mtr	4500	0.002609655347102010
E2.4A.3	1C x 400 SQMM AL.CABLE	Mtr	42300	0.018652988220481000
E2.4A.4	1 C x 630 SQMM AL CABLE	Mtr	42160	0.021872061837727100
E2.4A.5	2C x 6 SQMM AL CABLE	Mtr	250	0.000107929092237598
E2.4A.6	2C x 10 SQMM AL CABLE	Mtr	10	0.000002567932834640
E2.4A.7	2C x 16 SQMM AL CABLE	Mtr	4500	0.001607162300774410
E2.4A.8	2C x 25 SQMM AL CABLE	Mtr	9000	0.002594285957948600
E2.4A.9	2C x 50 SQMM AL CABLE	Mtr	2700	0.001174641595196800
E2.4A.10	2C x 95 SQMM AL CABLE	Mtr	1800	0.000822844900226044
E2.4A.11	2C x 120 SQMM AL CABLE	Mtr	55600	0.032230649543446200
E2.4A.12	3C x 10 SQMM AL CABLE	Mtr	10	0.000002940549817600
E2.4A.13	3C x 16 SQMM AL CABLE	Mtr	77200	0.027133488978087900
E2.4A.14	3C x 25 SQMM AL CABLE	Mtr	32800	0.012532824275180800
E2.4A.15	3C x 35 SQMM AL CABLE	Mtr	3150	0.001292537067465230
E2.4A.16	3C X 50 sqmm AL CABLE	Mtr	18400	0.008705841231169090
E2.4A.17	3C x 95 SQMM AL CABLE	Mtr	16200	0.009072298160230170
E2.4A.18	3C X 150 sqmm AL CABLE	Mtr	6300	0.004153896408155400
E2.4A.19	3C X 240 sqmm AL CABLE	Mtr	14400	0.010085220164265100
E2.4A.20	3C X 300 sqmm AL CABLE	Mtr	1800	0.001579650746763320
E2.4A.21	3C X 630 sqmm AL CABLE	Mtr	9	0.000005923690300362
E2.4A.22	3.5C x 25 SQMM AL CABLE	Mtr	14400	0.008299833150247510
E2.4A.24	3.5C x 95 SQMM AL CABLE	Mtr	6300	0.003431776305895750
E2.4A.25	3.5C x 185 SQMM AL CABLE	Mtr	4500	0.004140037408032530
E2.4A.26	3.5C x 300 SQMM AL CABLE	Mtr	4500	0.004572734950548720
E2.4A.27	4C x 10 SQMM AL CABLE	Mtr	10	0.000002912669200046
E2.4A.28	4C x 16 SQMM AL CABLE	Mtr	3600	0.001089605642838330
E2.4A.29	2C x 2.5 SQMM COPPER ARMOURED XLPE FRLS CABLE	Mtr	182400	0.045099446717115800

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MAHAGENCO PROJECT**

SL. NO.	DESCRIPTION	UOM	FINAL Quantity	Factor Components
E2.4A.30	3C x 2.5 SQMM COPPER ARMOURED XLPE FRLS CABLE	Mtr	260000	0.064286492030976400
E2.4A.31	1CX16 SQ MM CU CABLE	Mtr	900	0.000448440670317475
E2.4A.32	1CX35 SQ MM CU CABLE	Mtr	900	0.000524201243552575
E2.4A.33	1CX70 SQ MM CU CABLE	Mtr	900	0.000492482467794941
E2.4A.34	2CX6 SQ MM CU CABLE	Mtr	7200	0.002582471433332800
E2.4B	ARMOURED/UN-ARMOURED (Cu) PVC CONTROL CABLE			
E2.4B.1	5C X 2.5 SQMM Copper PVC FRLS Control Cable	Mtr	28000	0.007095135895667440
E2.4B.2	7C X 2.5 SQMM Copper PVC FRLS Control Cable	Mtr	4500	0.001329995546762470
E2.4B.3	9C X 2.5 SQMM Copper PVC FRLS Control Cable	Mtr	80000	0.026373945448605700
E2.4B.4	12C X 1.5 SQMM Copper PVC FRLS Control Cable	Mtr	10	0.000002422105097225
E2.4B.5	12C X 2.5 SQMM Copper PVC FRLS Control Cable	Mtr	44000	0.015348822266596300
E2.4B.6	14C X 1.5 SQMM Copper PVC FRLS Control Cable	Mtr	9900	0.002846343893694940
E2.4B.7	5C X 1.5 SQMM Copper PVC FRLS Control Cable	Mtr	11700	0.002839967519545720
E2.4B.8	5C X 4 SQMM Copper PVC FRLS Control Cable	Mtr	13500	0.004903701472349810
E2.4B.9	10C X 2.5 SQMM Copper PVC FRLS Control Cable	Mtr	43600	0.011543460133640800
E2.4B.10	3C x 1.5 SQMM Copper PVC FRLS Control Cable	Mtr	10	0.000002209686219719
E2.4B.11	3C x 2.5 SQMM Copper PVC FRLS Control Cable	Mtr	41200	0.008728053835466390
E2.4B.12	4C x 2.5 SQMM Cu	Mtr	10	0.000002594646172142
E2.4B.13	4C x 1.5 SQMM Cu Screened Cable for ESP	Mtr	31600	0.008199081903967730
E2.4B.14	2CX2.5 Sq MM	Mtr	2000	0.000564953461945876
E2.4C	EPR INSULATED FIRE SURVIVAL CABLES (ARMOURED)			
E2.4C.1	3CX2.5 SQMM (Cu)	Mtr	1350	0.000333795247083916
E2.4C.2	5CX2.5 SQMM(Cu)	Mtr	5400	0.001483534431484070
E2.4C.3	2CX 95 SQMM(Cu)	Mtr	5400	0.003263775749264960
E2.4C.4	1C X630 SQMM(Cu)	Mtr	8100	0.006453374776955710
E2.4C.5	1C X300 SQMM(Cu)	Mtr	1800	0.000847569671320745
E2.4C.6	3CX50 SQMM(Cu)	Mtr	900	0.000672086053051117
E2.4C.7	3C X95 SQMM(Cu)	Mtr	900	0.001212677008766150
E2.4C.8	3C X185 SQMM(Cu)	Mtr	900	0.001328538296851410
E2.4C.9	2C X6 SQMM(Cu)	Mtr	2700	0.001165634196166060
E2.4C.10	2C X10 SQMM(Cu)	Mtr	2700	0.001331377053895960
E2.4C.11	2C X25 SQMM(Cu)	Mtr	900	0.000812411712479373
E2.4C.12	2C X50 SQMM(Cu)	Mtr	900	0.001236278692903390
E2.5	CABLE TERMINATION KITS & JOINING KITS			
E2.5A	End Termination Kits for 11/11 kV, XLPE insulated, Armoured, Aluminium cable with lugs			
E2.5A.1	1CX630 Sq.MM	No	100	0.004687030636901510
E2.5A.2	1CX500 Sq.MM	No	200	0.009374061273803030
E2.5A.3	1CX300 Sq.MM	No	100	0.004214970196311330
E2.5A.4	3CX240 Sq.MM	No	100	0.004519446191863500
E2.5B	End Termination Kits for 6.6/6.6 & 3.3/3.3 kV, XLPE insulated, Armoured, Aluminium cable with lugs			
E2.5B.1	3C X 240 sqmm (6.6kV)	No	12	0.000494201092579914
E2.5B.2	3C X 240 sqmm (3.3kV)	No	200	0.007363047933346840

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SL. NO.	DESCRIPTION	UOM	FINAL Quantity	Factor Components
E2.5C	Straight Through Jointing Kits for 11 kV, XLPE insulated, Armoured, Aluminium cable with lugs			
E2.5C.1	1C-630 Sq. mm (indoor type)	No	20	0.001272047729324980
E2.5C.2	3C-240 Sq. mm (indoor type)	No	40	0.002276509803785980
E2.5C.3	1C-500 Sq. mm (indoor type)	No	40	0.002676073823146180
E2.5D	Straight Through Jointing Kits for 3.3 kV, XLPE insulated, Armoured, Aluminium cable with lugs			
E2.5D.1	3C X240 SQ. MM	No	20	0.001003912617264150
E3.0 Junction box/Push button station (local)				
E3.1	450I X 150D X 300H mm Junction Box	Nos.	7	0.000107250844404708
E3.2	250L X 150D X400H mm Junction Box	Nos.	5	0.000063450682104818
E3.3	Start Stop Push Button Station 180X100X250 mm approx.	Nos.	600	0.007090558134528990
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	368	0.127238554585153000
E6A.0	Above/Below Ground Earthing / Lightning protection strips, Earthing pits			
E6A.1	8 SWG GS/3.15 dia GI WIRE	Mtr	15000	0.001556361136460660
E6A.3	75 X 10 mm GS Flats	Mtr	27165	0.123078410779248000
E6A.4	GS FLAT 65x8 mm	Mtr	15	0.000029784161565487
E6A.5	70 X 10 mm GS Flats	Mtr	5850	0.014410839071154700
E6A.6	50X 6 mm GS Flats	Mtr	7062	0.009161228637642570
E6A.7	25 X 6 mm GS Flats	Mtr	7628	0.007524007048390290
E6A.8	35 X 6 mm GS Flats	Mtr	1818	0.003272921946108260
E6A.9	20 mm dia. 1 meter long Vertical Air Termination GS rod.	No	250	0.001312421373387790

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SL. NO.	DESCRIPTION	UOM	FINAL Quantity	Factor Components
E6A.10	100 NB Galvanised MS Heavy Duty (Perforated) 3 M Long CI Pipe with removable funnel and wire mesh (for earth pits).	No	125	0.009479773104622630
E6A.11	Test link with 150 x 50 x 6 mm GS flat with Box	No	200	0.000782241216779595
E6A.12	Flexible braided Cu. Conductor of approx 600 mm with tinned cu, clamp connected by U-bolt for fence gate earthing.	No	50	0.000036564973586923
E6A.13	Hot Dipped Galvanised MS Sheet(14SWG)	Mtr	500	0.000472042113573894
E10.0	Other items			
E10.1	TREFOIL CLAMPS (COMPLETE WITH FIXING HARDWARES)			
E10.1.1	11/11 kV , 6.6/6.6 KV, 3.3/3.3 GRADE ALUMINIUM CONDUCTOR, XLPE INSULATED, ARMoured / UNARMoured CABLES AS PER CABLE OD			
E10.1.1.1	TREFOIL CLAMP CABLE OD (30.1 – 35MM)	No	400	0.001065946961881150
E10.1.1.2	TREFOIL CLAMP CABLE OD (35.1 – 40MM)	No	2000	0.005329734809405740
E10.1.1.3	TREFOIL CLAMP CABLE OD (40.1 – 45MM)	No	3500	0.009327035916460040
E10.1.1.4	TREFOIL CLAMP CABLE OD (50.1 – 55MM)	No	1000	0.002664867404702870
TOTAL PRICE (Rs.)				1.000000000