

COST DATA SHEET - 47

Standard Requirement of Materials for providing LT Wiring for Distribution Transformer Centers of various capacities

LT Wiring for - 250/500 KVA			
Sl No	Material	Unit	Rate/Unit (in Rs)
1	Al Lead Wire - 240 Sqmm	Mtrs	194
2	Copper lugs - 240 Sqmm	Nos	207
3	PG Clamps - Rabbit to 240 Sqmm	Nos	357
4	Spacers for DTC Wiring	Nos	24
5	4 Pin Cross Arm with necessary Clamps,bolts & nuts etc complete (Galvanised)	Nos	399
6	Fish Plate with necessary Clamps,bolts & nuts etc complete (Galvanised)	Nos	188

LT Wiring for - 100 KVA			
Sl No	Material	Unit	Rate/Unit (in Rs)
1	Al Lead Wire - 120 Sqmm	Mtrs	106
2	Copper lugs - 120 Sqmm	Nos	86
3	PG Clamps - Rabbit to 120 Sqmm	Nos	238
4	Spacers for DTC Wiring	Nos	24
5	4 Pin Cross Arm with necessary Clamps,bolts & nuts etc complete (Galvanised)	Nos	399
6	Fish Plate with necessary Clamps,bolts & nuts etc complete (Galvanised)	Nos	188

LT Wiring for - 63 KVA			
Sl No	Material	Unit	Rate/Unit (in Rs)
1	Al Lead Wire - 95 Sqmm	Mtrs	81
2	Copper lugs - 95 Sqmm	Nos	79
3	PG Clamps - Rabbit to 95 Sqmm	Nos	122
4	Spacers for DTC Wiring	Nos	24
5	4 Pin Cross Arm with necessary Clamps,bolts & nuts etc complete (Galvanised)	Nos	399
	Fish Plate with necessary Clamps,bolts & nuts etc complete (Galvanised)	Nos	188

LT Wiring for - 25 KVA			
Sl No	Material	Unit	Rate/Unit (in Rs)
1	Al Lead Wire - 50 Sqmm	Mtrs	44
2	Copper lugs - 50 Sqmm	Nos	33
3	PG Clamps - Rabbit to 50 Sqmm	Nos	32
4	Spacers for DTC Wiring	Nos	24
5	4 Pin Cross Arm with necessary Clamps,bolts & nuts etc complete (Galvanised)	Nos	399

6	Fish Plate with necessary Clamps,bolts & nuts etc complete (Galvanised)	Nos	188
---	--	-----	-----

The size of the lead wire provisioned are as per Standard requirement depending on the Ampere rating of the transformer.

The Size of the cable mabe modified to suite field requirement where ever necessary.

COST DATA SHEET - 46

Estimate for carrying out 1 to 4 (ONE to FOUR) poles works in respect of Service Main Connection and E&I Works only

(Not applicable for any other type of work)

SL. No	Particulars	Unit	Qty	Consolidated Amount in Rs.
	PART-A (Materials)			
1	Material cost Estimate shall be prepared as per site requirement			
	PART-B (Labour)			
2	Consolidated labour charges for works 1 to 4 (ONE to FOUR) poles including excavation of pit, pole erection, fixing of cross arms, stringing of conductor, fixing of conductor accessories, fixing guy sets, fixing of anti climbing device, spiral earth electrode, danger board etc if any (Applicable for both HT & LT Line)	Nos	1	3750
		Nos	2	5000
		Nos	3	6250
		Nos	4	7500
			5 & Above	as per Common SR 2012-13

Note:-

- 1 **The labour charges includes all works such as digging of pits, Erection of Poles, Fixing of Cross Arms, Stringing of conductor, fixing of Conductore accessories, insulators, Fixing guy sets, Anti climbing device, spiral earth electrode and danger board etc complete**
- 2 **No other labour charges or any other charges towards special locality allowance LC Charges, additional labour charges, transportation charges etc., are payable.**
- 3 **Estimate shall not split to bring them into this category**
- 4 **Certificate has to be furnished by the section officer who prepares the estimate that the estimates are not split to claim the above labour charges**

COST DATA SHEET - 45

Estimate for Carrying Out 3 to 5 (THREE to FIVE) Poles Works in respect of Ganga Kalyana and Drinking Water Supply Works only

(Not applicaple for any other type of work)

SL. No	Paritculars	Unit	Qty	Consolidated Amount in Rs.	
	PART-A (Materials)				
1	Material cost Estimate shall be prepared as per site requirement				
	PART-B (Labour)				
2	Consolidated labour charges involving 3 to 5 (THREE to FIVE) pole works for Ganga Kalyana and Drinking Water supply works only.	Nos	1	12344	

Note:-

- 1 **The labour charges includes all works such as digging of pits, Errection of Poles, Fixing of Cross Arms, insulators, Stringing of wire, providing guy sets.**
- 2 **No other labour charges or any other charges towards special locality allowance LC Charges, additional labour charges, transportation charges etc., are payable.**
- 3 **Estimates coverig more than 3 pole works shall not split to bring them into this catageory.**
- 4 **Certificate has to be furnished by the section officer who prepares the estimate that the estimates are not split to claim the above labour charges**

COST DATA SHEET - 44

Estimate for Carrying Out 1 to 2 (One to Two) Poles Works in respect of Ganga Kalyana and Drinking Water Supply Works only

(Not applicable for any other type of work)

SL. No	Particulars	Unit	Qty	Consolidated Amount in Rs.
	PART-A (Materials)			
1	Material cost Estimate shall be prepared as per site requirement			
	PART-B (Labour)			
2	Consolidated labour charges involving 1 to 2 (ONE to TWO) pole works for Ganga Kalyana and Drinking Water supply works only.	Nos	1	7813

Note:-

- 1 **The labour charges includes all works such as digging of pits, Erection of Poles, Fixing of Cross Arms, insulators, Stringing of wire, providing guy sets.**
- 2 **No other labour charges or any other charges towards special locality allowance LC Charges, additional labour charges, transportation charges etc., are payable.**
- 3 **Estimates coverig more than 2 pole works shall not split to bring them into this catageory.**
- 4 **Certificate has to be furnished by the section officer who prepares the estimate that the estimates are not split to claim the above labour charges**

COST DATA SHEET - 43

For providing LT Capacitor to the Distribution Transformer

Sl. No	Materials	Unit	Qty	Material cost		Labour Cost	
				Rate	Amt	Rate	Amt
1	Fixing 3 kVAr, 3 Phase, LT Capacitor housed in a enclosure with necessary Fuses, wiring, mounting arrangement for 15/25kVA DTC (including connection to transformer, grounding etc., complete)	Set	1	525	525	338	338
2	Fixing 9 kVAr, 3 Phase, LT Capacitor housed in a enclosure with necessary Fuses, wiring, mounting arrangement for 63kVA DTC (including connection to transformer, grounding etc., complete)	Set	1	931	931	338	338
3	Fixing 18 kVAr, 3 Phase, LT Capacitor housed in a enclosure with necessary Fuses, wiring, mounting arrangement for 100kVA DTC (including connection to transformer, grounding etc., complete)	Set	1	1733	1733	398	398
4	Fixing 27 kVAr, 3 Phase, LT Capacitor housed in a enclosure with necessary Fuses, wiring, mounting arrangement for 250kVA DTC (including connection to transformer, grounding etc., complete)	Set	1	2758	2758	465	465
5	Fixing 54 kVAr, 3 Phase, LT Capacitor housed in a enclosure with necessary Fuses, wiring, mounting arrangement for 300/500 kVA DTC (including connection to transformer, grounding etc., complete)	Set	1	4883	4883	486	486
6	Wiring Materials for connecting the Capacitors to the Transformer (16 Sqmm Single Core PVC insulated sheathed aluminium wire, aluminium lugs, 2mm thick 40mm dia PVC pipe with Bend) and connecting the capacitor box to existing grounding	Set	1	200	200	0	0
	Total				Material + Labour	Material	Labour
	a) For 25KVA Transformer				1063	725	338
	b) For 63KVA Transformer				1469	1131	338
	c) For 100KVA Transformer				2331	1933	398
	d) For 250KVA Transformer				3423	7641	465
	e) For 300/500 KVA Transformer				5569	5083	486
1	While preparing estimates for turnkey / total turnkey projects please refer to Sl. No. To general guidelines vide a to page No. To						

COST DATA SHEET - 42

For Providing Electronic Trivector Meters with Associated CT's Metering Box etc., on LT Side of Distribution Transformer Center							
Sl. No	Materials	Unit	Qty	Material cost		Labour Cost	
				Rate	Amt	Rate	Amt
1	LT CT's Class - 1 Accuracy Ring Type Ratio 50/5 for 15/25kVA DTC	Nos	3	615	1845	56	168
2	LT CT's Class - 0.5 Accuracy Ring Type Ratio 100/5 for 50/63kVA DTC	Nos	3	454	1362	56	168
3	LT CT's Class - 0.5 Accuracy Ring Type Ratio 150/5 for 100kVA DTC	Nos	3	341	1023	56	168
4	LT CT's Class - 0.5 Accuracy Ring Type Ratio 400/5 for 250kVA DTC	Nos	3	400	1200	56	168
5	LT CT's Class - 0.5 Accuracy Ring Type Ratio 800/5 for 500 kVA DTC	Nos	3	450	1350	56	168
6	Electronic Trivector Meter 3 Phase, 4 Wire, Accuracy 0.5 CI	No	1	3000	3000	558	558
7	Weather Proof, Verming Proof LT Metering Box with clamping arrangement for mounting on the Transformer structure with necessary terminal strip and CT mounting arrangement for housing the ETV Meters and connecting to the existing ground.	No	1	4545	4545	288	288
Total Cost in Rs.				With Meter		Without Meter	
	a) 15/25kVA DTC			9390	1014	6390	456
	b) 63kVA DTC			8907	1014	5907	456
	c) 100kVA DTC			8568	1014	5568	456
	d) 250kVA DTC			8745	1014	5745	456
	e) 500kVA DTC			8895	1014	5895	456
1	While preparing estimates for turnkey/total turnkey projects please refer to Sl. No. To general guidelines vide a to page No. To						

COST DATA SHEET - 41

Providing Compact Pre-fabricated Packaged Sub-station 11kV/433V

Sl No	Particulars	Unit	Total Cost
1	Packaged Sub-station 11kV/433V consisting of 3 Way SF6/VCB insulated Compact RMU, Oil cooled type Copper Wound Transformer and LT section with one ACB as incoming and 7 Nos outgoing MCCB feeders and with enclosure made of electronically Galvanized sheet		
	(i) With 100kVA oil cooled Transformer	Set	1132904
	(ii) With 250kVA oil cooled Transformer	Set	1491923
	(iii) With 500kVA oil cooled Transformer	Set	1579163
	(iv) With 750kVA oil cooled Transformer	Set	1824000
	(v) With 990kVA oil cooled Transformer	Set	2280000
	(vi) With 100kVA Dry Type Transformer	Set	1182768
	(vii) With 250kVA Dry Type Transformer	Set	1611596
	(viii) With 500kVA Dry Type Transformer	Set	1997538
	(ix) With 750kVA Dry Type Transformer	Set	2507446
	(x) With 990kVA Dry Type Transformer	Set	2908949
2	Installing & fixing the compact pre-fabricated packaged sub-station 100/250/500/750/ 990 kVA transformer on the existing concrete plinth.(This does not include the cost of plinth, cable duct,laying & termination of cable etc. provision for the same shall be made		8467
1	While preparing estimates for turnkey/total turnkey projects please refer to Sl. No. To general guidelines vide a to page No. To		

COST DATA SHEET - 40

Installing RLMU for the Existing 100kVA Distribution Transformer Center

Sl No	Particulars	Unit	Qty	Material cost	
				Rate	Amt
1	Metallic Enclosure with Busbars	No	1	10752	10752
2	Programmable Logic Controllers with communication ports	No	1	19339	19339
3	GSM Modem	No	1	7642	7642
4	MCCB - 150 Amps for 100 kVA DTC	No	1	1700	1700
5	MCB 6 amps	No	1	210	210
6	Contactors - 160 Amps for 100 kVA DTC	No	2	5775	11550
7	Current Transformers 150/5 amps for 100 kVA DTC	No	3	341	1023
8	Energy Meter ETV type	No	1	3000	3000
9	Transformer wiring kit to Connect RLM Unit box to the transformer using PVC sheathed aluminium lead wire, Lugs etc.,	Kit	1	7322	7322
10	Miscellaneous materials	LS	LS	62	62
	Total Cost (Material)				62600
11	Labour Charges				
	a) Casual				2466
	b) Regular				493
12	Total Cost				65559
1)	While preparing estimates for turnkey / total tunkey projects please refer to Sl. No. of General Guidelines vide a to in Page No.				

COST DATA SHEET - 39**Installing RLMU for the Existing 63 kVA Distribution Transformer Center**

Sl No	Particulars	Unit	Qty	Material cost	
				Rate	Amt
1	Metallic Enclosure with Busbars	No	1	10752	10752
2	Programmable Logic Controllers with communication ports	No	1	19339	19339
3	GSM Modem	No	1	7642	7642
4	MCCB - 100 Amps for 63 kVA DTC	No	1	1500	1500
5	MCB 6 amps	No	1	210	210
6	Contactors - 100 Amps for 63 kVA DTC	No	2	3280	6560
7	Current Transformers 100/5 amps for 63 kVA DTC	No	3	454	1362
8	Energy Meter ETV type	No	1	3000	3000
9	Transformer wiring kit to Connect RLM Unit box to the transformer using PVC sheathed aluminium lead wire, Lugs etc.,	Kit	1	4612	4612
10	Miscellaneous materials	LS	LS	23	23
	Total Cost (Material)				55000
11	Labour Charges				
	a) Casual				2466
	b) Regular				493
	Total Cost				57959
1)	While preparing estimates for turnkey/total tunkey projects please refer to Sl. No. of General Guidelines vide a to in Page No.				

COST DATA SHEET - 38

Installing RLMU for the Existing 15/25kVA Distribution Transformer Center

Sl No	Particulars	Unit	Qty	Material cost	
				Rate	Amt
1	Metallic Enclosure with Busbars	No	1	10752	10752
2	Programmable Logic Controllers with communication ports	No	1	19339	19339
3	GSM Modem	No	1	7642	7642
4	MCCB - 40 Amps for 15/25 kVA DTC	No	1	1485	1485
5	MCB 6 amps	No	1	210	210
6	Contactors - 40 Amps for 15/25 kVA DTC	No	2	2010	4020
7	Current Transformers 50/5 amps for 15/25 kVA DTC	No	3	615	1845
8	Energy Meter ETV type	No	1	3000	3000
9	Transformer wiring kit to Connect RLM Unit box to the transformer using PVC sheathed aluminium lead wire, Lugs etc.,	Kit	1	2060	2060
10	Miscellaneous materials	LS	LS	147	147
	Total Cost of Material				50500
11	Labour Charges				
	a) Casual				2466
	b) Regular				493
	Total Cost				53459
Note:	(1) For 15 /25 kVA Transformer feeding to individual IP sets, use only one contactor & without MCCB .				
1)	While preparing estimates for turnkey / total tunkey projects please refer to Sl. No. of General Guidelines vide a to in Page No.				

COST DATA SHEET - 37

Running Single Circuit 1.1 kV 3 Phase 5 Wire Power Line on 9 Mtr Supports with Average Span of 40 Mtrs Using 3x95 + 1x16 + 1x70 Sqmm Aerial Bunched Cables (ABC)

SL. No	Particulars	Unit	Qty	Material cost		Labour Cost		
				Rate	Amt	Rate	Amt	
1	RCC Poles 9 Mtr long with 145 Kg WL	Nos	10	5941	59410	937	9370	
2	PSC Poles 9 Mtr long with 200 Kg WL	Nos	15	3278	49170	937	14055	
Note:	RCC Poles shall be used for dead ends, DP structure and PSC poles for intermediate supports and hence the quantity of RCC and PSC poles may be revised as per field condition.							
3	1.1kV Class 3 Phase Aerial Bunched Cable of size 3x95+1x16+1x70 Sqmm	kms	1.015	345902	351091	13441	13643	
4	Three Phase Distribution box for 6 Connections	Nos	20	1987	39740	476	9520	
5	Piercing connector suitable for 16 Sqmm - 95 Sqmm AB Cable - Service Connections	Nos	60	217	13020	68	4080	
6	Piercing connector suitable for 16 Sqmm - 95 Sqmm AB Cable - Street Light Connections	Nos	25	152	3800	48	1200	
7	Suspension Clamp Assembly including pole clamps	Sets	20	289	5780	102	2040	
8	Dead End Clamp/Anchor Clamp Assembly including brackets, pole clamps	Sets	16	145	2320	136	2176	
9	Universal Hook, Bolts & nuts	Nos	16	289	4624	102	1632	
10	T-connector KZ3 95	Nos	8	372	2976	115	920	
11	Cable Straight thru' joint kits suitable for 95 Sqmm	Sets	5	310	1550	170	850	
12	Pre-Insulated lugs-CPTAU for 95 Sqmm	Nos	8	372	2976	142	1136	
13	End cap for 50/70 Sqmm	Nos	50	19	950	4	200	
14	Guy Set Complete	Sets	8	855	6840	314	2512	
15	Concreting for Guy sets (without cement)	Sets	8	140	1120			
16	PVC Insulated wire 16/25 Sqmm	Mtrs	400	31.82	12728			
17	Spiral Earth Electrodes	Nos	25	238	5950	49	1225	
	Total Cost of Materials				564045			
18	Labour Charges							
	a) Casual						64559	
	b) Regular						12912	
	Total Cost/Km in Rs.					641515		
1	While preparing estimates for turnkey / total turnkey projects please refer to Sl. No. To general guidelines vide a to page No. To							

COST DATA SHEET - 36

Running Single Circuit 11kV, 3 Phase Power Line on 9 Mtr Supports with an Average Span of 30 Mtrs Using 3x95 Sqmm + 1x70 Sqmm Aerial Bunched Cables (ABC)

SL. No	Particulars	Unit	Qty	Material cost		Labour Cost	
				Rate	Amt	Rate	Amt
1	RCC Poles 9 Mtr long with 145 Kg WL	Nos	10	5941	59410	937	9370
2	PSC Poles 9 Mtr long with 200 Kg WL	Nos	24	3278	78672	937	22488
Note:	RCC Poles shall be used for dead ends, DP structure and PSC poles for intermediate supports and hence the quantity of RCC and PSC poles may be revised as per field condition.						
3	11kV Class 3 phase Aerial Bunched Cable 3x95 + 70 Sqmm	Kms	1.015	700820	711332	18076	18347
4	Cable Straight thru' joint kits suitable for 95 Sqmm	Nos	6	2963	17778	733	4396
5	T-Jointing Kits	Nos	6	3757	22542	916	5494
6	Termination Kits	Nos	6	1879	11274	620	3718
7	Suspension clamp assembly including pole clamps	Sets	30	289	8670	102	3060
8	Dead End Clamp/Anchor Clamp Assembly including brackets, pole clamps	Sets	12	145	1740	136	1632
9	End Caps	Nos	10	19	190	4	40
10	11kV Lightning Arrester, Metal Oxide 9kV, 5kA	Set (3Nos)	2	2283	4566	63	126
11	Guy Set Complete	Sets	6	855	5130	314	1884
12	Concreting for Guy sets (without cement)	Sets	6	140	840	0	0
13	Grounding connection for messenger wire	Nos	4	117	468	23	92
14	Anchor sleeve for messenger wire	Nos	4	22	88	4	16
15	Spiral Earth Electrodes	Nos	34	238	8092	39	1326
	Total Cost of Material				930792		
16	Labour Charges						
	a) Casual						71989.1
	b) Regular						14397.8
17	Total Cost/Km in Rs.				1017179		

While preparing estimates for turnkey / total turnkey projects please refer to Sl. No. To general guidelines vide a to page No. To

COST DATA SHEET-35

Providing Compact RMU 11kV Class SF6/VCB Type (1VL)

Sl. No	Materials	Unit	Rate	Schenider Make		ABB Make		Siemens Make		MEI		
				Qty	Amt	Qty	Amt	Qty	Amt	Qty	Amt	
1	RMU 1 VL, 350 MVA, 630Amps	No	310917	1	310917	1	310917	1	310917	1	310917	
2	Bed Conceting with CC 1:2:4 as per Labour Charges Item No.28.9	Cmt	4425	0.07	309.75	0.09	398.25	0.1	442.5	0.16	708	
3	Foundation with Reinforcement CC 1:2:4 as per Labour Charges Item No. 28.9	Cmt	4425	0.29	1283.25	0.36	1593	0.14	619.5	0	0	
4	Providing Reinforcement as per Labour Charges Item No. 28.1	Kgs	68.3	10	683	3.5	239.05	6	409.8	0	0	
5	Providing Plinth on the Stone Masonary as per Labour Charges Item No. 28.9	Cmt	4425	0	0	0	0	0	0	0.02	88.5	
6	Construction of Stone Masonary was per labour charges Item No. 28.11	Cmt	3776	0	0	0	0	0	0	0.14	528.64	
7	Supplying of Frame of MS Channel 100x50mm and MS angle 40x40x5mm welding etc., complete.	Kgs	50	12	600	12	600	12	600	12	600	
8	Rod type earthing with 40 mm Dia, 3 Mtrs long MS rod as per specification & drawing (enclosed)	No	2000	2	4000	2	4000	2	4000	2	4000	
9	Lettering the RMU with enamel paint and also writing single line diagram of each panel, caution Board, Danger Board etc., including cost of Paint, Brush etc.,	No	528	1	528	1	528	1	528	1	528	
Total cost of material.						318321		318275		317517		317370
Labour Charges												
1	Earth Excavation for R.M.U. Foundation depositing of earth on bank up to a lead of 50 mtrs and with a lift up to 1.5 mtrs	cmt	141	0.57	80.37	0.83	117.03	0.63	88.83	1.37	193.17	
2	Labour charges for Fixing foundation frame of MS channel 100X50mm and MS angle 40X40X5mm welding, fixing in concrete, aligning the RMU on foundation bed, assembly of units, connecting Bus Bars from panel to panel etc., complete.	No.	2510	1	2510	1	2510	1	2510	1	2510	
Labour Charges						2590.37		2627		2598.83		2703.17
	a) Casual				2590		2627		2599		2703	
	b) Regular				518		525		520		541	
Total cost						321429		321428		320635		320614
Note:-												
1	The measurements for Earth work and concreting works have been provision as per the dimensions of the equipments of makes which are in use at present in BESCO. Detail for the measurement are furnished in the data sheet furnished in Page No.											
2	While preparing estimates for turnkey / total turnkey projects please refer to Sl. No. To general guidelines vide a to page No. To											

COST DATA SHEET-34

Providing Compact RMU 11kV Class SF6/VCB Type (1OD)

Sl. No	Materials	Unit	Rate	Schenider Make		ABB Make		Siemens Make		MEI	
				Qty	Amt	Qty	Amt	Qty	Amt	Qty	Amt
1	RMU 1 OD , 350 MVA, 630Amps	No	266070	1	266070	1	266070	1	266070	1	266070
2	Bed Conceting with CC 1:2:4 as per Labour Charges Item No.28.9	Cmt	4425	0.07	309.75	0.09	398.25	0.1	442.5	0.16	708
3	Foundation with Reinforcement CC 1:2:4 as per Labour Charges Item No. 28.9	Cmt	4425	0.29	1283.3	0.36	1593	0.14	619.5	0	0
4	Providing Reinforcement as per Labour Charges Item No. 28.1	Kgs	68.3	10	683	3.5	239.05	6	409.8	0	0
5	Providing Plinth on the Stone Masonary as per Labour Charges Item No. 28.9	Cmt	4425	0	0	0	0	0	0	0.02	88.5
6	Construction of Stone Masonary was per labour charges Item No. 28.11	Cmt	3776	0	0	0	0	0	0	0.14	528.64
7	Supplying of Frame of MS Channel 100x50mm and MS angle 40x40x5mm welding etc., complete.	Kgs	50	12	600	12	600	12	600	12	600
8	Rod type earthing with 40 mm Dia, 3 Mtrs long MS rod as per specification & drawing (enclosed)	No	2000	2	4000	2	4000	2	4000	2	4000
9	Lettering the RMU with enamel paint and also writing single line diagram of each panel, caution Board, Danger Board etc., including cost of Paint, Brush etc.,	No	528	1	528	1	528	1	528	1	528
Total cost of material.					273474	273428	272670	272523			
Labour Charges											
1	Earth Excavation for R.M.U. Foundation depositing of earth on bank up to a lead of 50 mtrs and with a lift up to 1.5 mtrs	cmt	141	0.57	80.37	0.83	117.03	0.63	88.83	1.37	193.17
2	Labour charges for Fixing foundation frame of MS channel 100X50mm and MS angle 40X40X5mm welding, fixing in concrete, aligning the RMU on foundation bed, assembly of units, connecting Bus Bars from panel to panel etc., complete.	No.	2510	1	2510	1	2510	1	2510	1	2510
Labour Charges					2590.4	2627	2598.83	2703.17			
	a) Casual				2590		2627		2599		2703
	b) Regular				518		525		520		541
Total cost					276582	276581	275788	275767			
Note:-											
1	The measurements for Earth work and concreting works have been provision as per the dimensions of the equipments of makes which are in use at present in BESCO. Detail for the measurement are furnished in the data sheet furnished in Page No.										
2	While preparing estimates for turnkey / total turnkey projects please refere to Sl. No. To general guidelines vide a to page No. To										

COST DATA SHEET-33

Providing Compact RMU 11kV Class SF6/VCB Type (1 Incomer +1 Breaker +1 Outgoing)

Sl. No	Materials	Unit	Rate	Schenider Make		ABB Make		Siemens Make		MEI	
				Qty	Amt	Qty	Amt	Qty	Amt	Qty	Amt
1	RMU (3 Way), One Incomer + Two Breakers + One outgoing (2OD + 1VL), 350 MVA, 630Amps	No	739453	1	739453	1	739453	1	739453	1	739453
2	Bed Conceting with CC 1:2:4 as per Labour Charges Item No.28.9	Cmt	4425	0.08	354	0.28	1239	0.43	1902.75	0.48	2124
3	Foundation with Reinforcement CC 1:2:4 as per Labour Charges Item No. 28.9	Cmt	4425	0.36	1593	1.08	4779	0.42	1858.5	0	0
4	Providing Reinforcement as per Labour Charges Item No. 28.1	Kgs	68.3	30	2049	10	683	17	1161.1	0	0
5	Providing Plinth on the Stone Masonary as per Labour Charges Item No. 28.9	Cmt	4425	0	0	0	0	0	0	0.06	265.5
6	Construction of Stone Masonary was per labour charges Item No. 28.11	Cmt	3776	0	0	0	0	0	0	0.43	1623.68
7	Supplying of Frame of MS Channel 100x50mm and MS angle 40x40x5mm welding etc., complete.	Kgs	50	40	2000	40	2000	40	2000	40	2000
8	Rod type earthing with 40 mm Dia, 3 Mtrs long MS rod as per specification & drawing (enclosed)	No	2000	2	4000	2	4000	2	4000	2	4000
9	Lettering the RMU with enamel paint and also writing single line diagram of each panel, caution Board, Danger Board etc., including cost of Paint, Brush etc.,	No	528	1	528	1	528	1	528	1	528
Total cost of material.						749977		752682		750903	749994.2
Labour Charges											
1	Earth Excavation for RMU Foundation depositing of earth on bank up to a lead of 50 mtrs and with a lift up to 1.5 mtrs	cmt	141	0.72	101.52	2.5	352.5	2	282	4.35	613.35
2	Labour charges for Fixing foundation frame of MS channel 100X50mm and MS angle 40X40X5mm welding, fixing in concrete, aligning the RMU on foundation bed, assembly of units, connecting Bus Bars from panel to panel etc., complete.	No.	2510	3	7530	3	7530	3	7530	3	7530
Labour Charges						7631.5		7882.5		7812	8143.35
a) Casual						7632		7883		7812	8143
b) Regular						1526		1577		1562	1629
Total cost						759135		762141		760278	759766
Note:-											
1	The measurements for Earth work and concreting works have been provision as per the dimensions of the equipments of makes which are in use at present in BESCO. Detail for the measurement are furnished in the data sheet furnished in Page No.										
2	While preparing estimates for turnkey / total turnkey projects please refere to Sl. No. To general guidelines vide a to page No. To										

COST DATA SHEET-32

Providing Compact RMU 11kV Class SF6/VCB Type (1 Incomer + 2 Breaker + 1 Outgoing)

Sl. No	Materials	Unit	Rate	Schenider Make		ABB Make		Siemens Make		MEI	
				Qty	Amt	Qty	Amt	Qty	Amt	Qty	Amt
1	RMU (3 Way), One Incomer + Two Breakers + One out going (2OD + 2VL), 350 MVA, 630Amps	No	1050370	1	1050370	1	1050370	1	1050370	1	1050370
2	Bed Conceting with CC 1:2:4 as per Labour Charges Item No.28.9	Cmt	4425	0.15	663.75	0.37	1637.25	0.53	2345.25	0.64	2832
3	Foundation with Reinforcement CC 1:2:4 as per Labour Charges Item No. 28.9	Cmt	4425	0.65	2876.25	1.44	6372	0.56	2478	0	0
4	Providing Reinforcement as per Labour Charges Item No. 28.1	Kgs	68.3	40	2732	14	956.2	23	1570.9	0	0
5	Providing Plinth on the Stone Masonary as per Labour Charges Item No. 28.9	Cmt	4425	0	0	0	0	0	0	0.08	354
6	Construction of Stone Masonary was per labour charges Item No. 28.11	Cmt	3776	0	0	0	0	0	0	0.57	2152.32
7	Supplying of Frame of MS Channel 100x50mm and MS angle 40x40x5mm welding etc., complete.	Kgs	50	50	2500	50	2500	50	2500	50	2500
8	Rod type earthing with 40 mm Dia, 3 Mtrs long MS rod as per specification & drawing (enclosed)	No	2000	2	4000	2	4000	2	4000	2	4000
9	Lettering the RMU with enamel paint and also writing single line diagram of each panel, caution Board, Danger Board etc., including cost of Paint, Brush etc.,	No	528	1	528	1	528	1	528	1	528
Total cost of material.					1063670		1066363		1063792		1062736.3
Labour Charges											
1	Earth Excavation for RMU Foundation depositing of earth on bank up to a lead of 50 mtrs and with a lift up to 1.5 mtrs	cmt	141	1.29	181.89	3.33	469.53	2.63	370.83	5.72	806.52
2	Labour charges for Fixing foundation frame of MS channel 100x50mm and MS angle 40x40x5mm welding, fixing in concrete, aligning the RMU on foundation bed, assembly of units, connecting Bus Bars from panel to panel etc., complete.	No	2510	4	10040	4	10040	4	10040	4	10040
Labour Charges					10222		10510		10411		10847
a) Casual					10222		10510		10411		10847
b) Regular					2044		2102		2082		2169
Total cost					1075936		1078975		1076285		1075752
Note:-											
1	The measurements for Earth work and concreting works have been provision as per the dimensions of the equipments of makes which are in use at present in BESCO. Detail for the measurement are furnished in the data sheet furnished in Page No.										
2	While preparing estimates for turnkey / total turnkey projects please refere to Sl. No. To general guidelines vide a to page No. To										

COST DATA SHEET-31

Erection of 3 Phase, 11kV/433V, 250 kVA Single Pole Mounted Distribution Transformer on 11.0 Mtr Spun Pole With 3 GOS System

SI No	Materials	Unit	Qty	Material cost		Labour Cost	
				Rate	Amt	Rate	Amt
1	Spun pole 11.0 Mtr Long	No	1	15800	15800	2084	2084
2	Single Pole Transformer Structure Kit for 250kVA	Set	1	26496	26496	1799	1799
3	HT Single Top Support with bolts, nuts & washers	Sets	9	98	882	56	504
4	11kV Pin Insulator with pins	Nos	9	103	927	0	0
5	Rabbit ACSR Conductor for jumps	Mtrs	50	36.81	1841	0	0
6	Alkathene Tube 19mm Dia and in coils of 30 Mtrs	Coils	2	500	1000	0	0
7	Concreting materials for 11 Mtrs Spun Pole						
	a) Base concreting 1:4:8, 1000x1000x150mm	Each	1	596	596	0	0
	b) Pole concreting 1:2:4, 1000x1000x2500 mm	Each	1	9668	9668	0	0
	c) Coping 1:2:4 (as per actuals)	Each	1	906	906	0	0
8	GI Wire 10 SWG	Kgs	5	62.8	314	0	0
9	Guy Wire 7/10 SWG	Kgs	10	66.72	667	0	0
10	GI Pipe 100 mm Dia	Mtrs	10	1143	11430	0	0
11	PVC Pipe 150 mm Dia	Mtrs	20	291	5820	0	0
12	PVC Bend 150 mm Dia	Nos	8	200	1600	0	0
13	PVC Pipe 25mm Dia	Mtrs	40	27	1080	0	0
14	11kV/433V, 250kVA, 3 Phase, 50 Cys Distribution Transformer with oil	No	1	237696	237696	1208	1208
15	11kV Solid Core Type HG Fuse Unit	Set/3 Nos	1	871	871	375	375
16	11kV, 200Amps, Single Break GOS	Nos	3	7320	21960	563	1689
17	Earthing materials pipe type for grounding as per Drawing No. BESCO/GM/CP/15 & 34/Dt: 24.10.07.	Single Electrode with accessories	3	1355	4065	507	1521
18	a) LT Distribution Box for 250kVA with MCCB	No	1	16705	16705	403	403
	b) LT Wiring (From DTC to LT Line via Metering Box & LT Protection Kit) SINGLE CIRCUIT	No	1				
	i. Al Lead Wire - 240 Sqmm	Mtrs	45	194	8730	644	644
	ii. Copper lugs - 240 Sqmm	Nos	12	207	2484		
	iii. PG Clamps - Rabbit to 240 Sqmm	Nos	4	357	1428		
	iv. Spacers for DTC Wiring	Nos	8	24	192		
	v. Fish Plate with necessary Clamps, bolts & nuts etc complete (Galvanised)	Nos	2	188	376		
	c) LT Metering box with CTs and necessary wiring for housing ETV Meter (Please see CDS-42)	No	1	5895	5895	456	456
d) LT Electronic Tri-Vector Meter 5A, Class-0.5/1.0 accuracy	No	1	3000	3000	558	558	
19	11kV Lightning Arrester, Metal Oxide, 9kV, 5kA	Set/3 Nos	1	2283	2283	63	63
20	PVC Insulation Tape in rolls of 10 mtrs	Roll	3	10	30	0	0
21	Horizontal Cross Arms	nos	4	381	1524	72	288
22	MS Fish plate	Nos	9	59	531	18	158
23	Caution/Danger Board as per Drawing No. BESCO/GM/CP/40/Dt: 24.10.07	No	1	120	120	43	43
24	Anti Climbing Device (12mtrs/1Kg GI Barbed Wire) Lumpsum	Kg	2	73	146	20	40
	Total cost of Material				387063		
25	Labour Charges						
	a) Casual						11833
	b) Regular						2367
	Total Cost in Rs					401262	

COST DATA SHEET - 30

Erection of 3 Phase, 11kV/433V, 100kVA BEE 3 Star Rated Single Pole Mounted Transformer Centre on 9 Mtrs RCC Pole (Square Section)

Sl. No	Materials	Unit	Qty	Material cost		Labour Cost	
				Rate	Amt	Rate	Amt
1	9 Mtr long RCC pole (Square Section)	No	1	7210	7210	937	937
2	11kV Pin Insulators with pins	Nos	3	103	309	0	0
3	45kN Disc Insulator	Nos	3	300	900	0	0
4	Guy Set Complete	Set	1	855	855	251	251
5	Single pole TC set suitable for 100 kVA Transformer	Set	1	7050	7050	899	899
6	11kV/433V, 100kVA, 3 Phase, 50 Cys Distribution Transformer BEE-3 Star Rated with Oil	No	1	146408	146408	805	805
7	Earthing materials pipe type for grounding as per Drawing No. BESCOM/GM/CP/15 & 34/Dt: 24.10.07.	Nos	3	1355	4065	507	1521
8	Concreting materials for 9 mtr RCC Pole				0		
	a) Base concreting 1:4:8, 500x650x150 mm	Each	1	252	252	0	0
	b) Pole concreting 1:2:4, 500x500x1700	Each	1	2731	2731	0	0
	c) Coping 1:2:4 (as per actuals)	Each	1	403	403	0	0
9	Concreting materials for Guy sets (without cement)	No	1	140	140	0	0
10	GI Wire 8 SWG	Kgs	5	62.8	314	0	0
11	Guy Wire 7/10 SWG	Kgs	10	66.7	667	0	0
12	11kV Lightning Arester, Metal Oxide 9kV, 5kA	Set/3 Nos	1	2283	2283	63	63
13	a) LT Protection Kit	No	2	1679	3358	181	362
	b) LT Distribution Box for 100kVA with MCB	No	1	16705	16705	403	403
	c) LT Wiring (From DTC to LT Line Through Merering Box & LT Protection Kit/LT Distribution Box) SINGLE CIRCUIT	No	1				
	i. Al Lead Wire - 120 Sqmm	Mtrs	45	106	4770	503	503
	ii. Copper lugs - 120 Sqmm	Nos	12	86	1032		
	iii. PG Clamps - Rabbit to 120 Sqmm	Nos	4	238	952		
	iv. Spacers for DTC Wiring	Nos	8	24	192		
	v. Fish Plate with necessary Clamps, bolts & nuts etc complete (Galvanised)	Nos	2	188	376		
d) LT Metering box with CTs and necessary wiring for housing ETV Meter (Please see CDS-42)	No	1	5568	5568	456	456	
e) LT Electronic Tri-Vector Meter 5A, Class-0.5/1.0 accuracy	No	1	3000	3000	588	588	
14	11kV Solid Core Type HG Fuse Unit	Set/3 Nos	1	871	871	375	375
15	11kV, 200Amps, Single Break GOS	Nos	1	7320	7320	563	563
16	Caution/Danger Board as per Drawing No. BESCOM/GM/CP/40/ Dt: 24.10.07	No	1	120	120	43	43
17	Anti Climbing Device (12mtrs/1Kg GI Barbed Wire) Lumpsum	Kg	1	73	73	20	20
18	Total Material Cost						
	a) With LT Distribution Box				214566		
	b) With LT Protection Kit				201219		
19	Labour Charges						
	a) Casual			7427		7386	
	b) Regular			1485		1477	
	Total						
	Total Cost for Erection of a Single Pole Mounted 100kVA Transformer with LT Distribution Box in Rs				223479		
	Total Cost for Erection of a Single Pole Mounted 100kVA Transformer with LT Protection KIT in Rs				210082		

COST DATA SHEET - 29

Erection of 3 Phase, 11kV/433V, 63kVA BEE 3 Star Rated Single Pole Mounted Transformer Centre on 9 Mtrs RCC Pole (Square Section)

Sl. No	Materials	Unit	Qty	Material cost		Labour Cost	
				Rate	Amt	Rate	Amt
1	9 Mtr long RCC pole (Square Section)	No	1	7210	7210	937	937
2	11kV Pin Insulators with pins	Nos	3	103	309	0	0
3	45kN Disc Insulator	Nos	3	300	900	0	0
4	Guy Set Complete	Set	1	855	855	314	314
5	Single pole TC set suitable for 63 kVA Transformer	Set	1	4703	4703	899	899
6	11kV/433V, 63kVA, 3 Phase, 50 Cys Distribution Transformer BEE-3 Star Rated with Oil	No	1	109635	109635	603	603
7	Earthing materials pipe type for grounding as per Drawing No. BESCOM/GM/CP/15 & 34/ Dt: 24.10.07	Single Electrode with accessories	3	1355	4065	507	1521
8	Concreting materials for 9 mtr RCC Pole						
	a) Base concreting 1:4:8, 650x650x150 mm	Each	1	252	252	0	0
	b) Pole concreting 1:2:4, 500x500x1650	Each	1	2731	2731	0	0
	c) Coping 1:2:4 (as per actuals)	Each	1	403	403	0	0
9	Concreting materials for Guy sets (without cement)	No	1	140	140	0	0
10	GI Wire 8 SWG	Kgs	5	62.8	314	0	0
11	Guy Wire 7/ 10 SWG	Kgs	10	66.7	667	0	0
12	11kV Lightning Arestor, Metal Oxide 9kV, 5kA	Set/3 Nos	1	2283	2283	63	63
13	a) LT Protection Kit for 63 kVA	Nos	2	1679	3358	181	362
	b) LT Wiring (From DTC to LT Line Through Merering Box & LT Protection Kit) SINGLE CIRCUIT	No	1				
	i. Al Lead Wire - 95 Sqmm	Mtrs	40	81	3240	503	503
	ii. Copper lugs - 95 Sqmm	Nos	4	79	316		
	iii. PG Clamps - Rabbit to 95 Sqmm	Nos	4	122	488		
	iv. Spacers for DTC Wiring	Nos	8	24	192		
	v. Fish Plate with necessary Clamps,bolts & nuts etc complete (Galvanised)	Nos	2	188	376		
	c) LT Metering box with CTs and necessary wiring for housing ETV Meter (Please see CDS-42)	No	1	5907	5907	456	456
d) LT Electronic Tri-Vector Meter 5A, Class-0.5/1.0 accuracy	No	1	3000	3000	588	588	
14	11kV Solid Core Type HG Fuse Unit	Set/3 Nos	1	871	871	375	375
15	11kV, 200Amps, Single Break GOS	Nos	1	7320	7320	563	563
16	Caution/Danger Board as per Drawing No. BESCOM/GM/CP/40/ Dt: 24.10.07	No	1	120	120	43	43
17	Anti Climbing Device (12mtrs/ 1Kg GI Barbed Wire) Lumpsum	Kg	1	70	70	20	20
18	Total material cost				159725		
19	Labour Charges						
	a) Casual						7247
	b) Regular						1449
Total cost for Erection of a Single Pole Mounted 63kVA Transformer in Rs					168422		

COST DATA SHEET - 28

Erection of 3 Phase, 11kV/433V, 25kVA BEE 3 Star Rated Single Pole Mounted Transformer Centre on 9 Mtrs RCC Pole (Square Section)

Sl. No	Materials	Unit	Qty	Material cost		Labour Cost		
				Rate	Amt	Rate	Amt	
1	9 Mtr long RCC pole (Square Section)	No	1	7210	7210	937	937	
2	11kV Pin Insulators with pins	Nos	3	103	309	0	0	
3	45kN Disc Insulator	Nos	3	300	900	0	0	
4	Guy Set Complete	Set	1	855	855	314	314	
5	Single pole TC set suitable for 25 kVA Transformer	Set	1	4703	4703	899	899	
5	11kV/433V, 25kVA, 3 Phase, 50 Cys Distribution Transformer BEE-3 Star Rated with Oil	No	1	64455	64455	603	603	
7	Earthing materials pipe type for grounding as per Drawing No. BESCO/CP/15 & 34/ Dt: 24.10.07	Single Electrode with accessories	3	1355	4065	507	1521	
8	Concreting materials for 9 mtr RCC Pole							
	a) Base concreting 1:4:8, 650x650x150 mm	Each	1	252	252	0	0	
	b) Pole concreting 1:2:4, 500x500x1650	Each	1	2731	2731	0	0	
	c) Coping 1:2:4 (as per actuals)	Each	1	403	403	0	0	
9	Concreting materials for Guy sets (without cement)	No	1	140	140	0	0	
10	GI Wire 8 SWG	Kgs	5	62.8	314	0	0	
11	Guy Wire 7/10 SWG	Kgs	10	66.7	667	0	0	
12	11kV Lightning Arester, Metal Oxide 9kV, 5kA	Set/3 Nos	1	2283	2283	63	63	
13	a) LT Protection Kit for 25 kVA	No	1	1679	1679	181	181	
	b) LT Wiring (From DTC to LT Line Through Metering Box & LT Protection Kit) SINGLE CIRCUIT	No	1					
	i. Al Lead Wire - 50 Sqmm	Mtrs	25	44	1100	503	503	
	ii. Copper lugs - 50 Sqmm	Nos	4	34	136			
	iii. PG Clamps - Rabbit to 50 Sqmm	Nos	4	64	256			
	iv. Spacers for DTC Wiring	Nos	8	24	192			
	v. Fish Plate with necessary Clamps, bolts & nuts etc complete (Galvanised)	Nos	2	188	376			
	c) LT Metering box with CTs and necessary wiring for housing ETV Meter (Please see CDS-42)	No	1	6390	6390	456	456	
d) LT Electronic Tri-Vector Meter 5A, Class-0.5/1.0 accuracy	No	1	3000	3000	558	558		
14	11kV Solid Core Type HG Fuse Unit	Set/3 Nos	1	871	871	375	375	
15	11kV, 200Amps, Single Break GOS	Nos	1	7320	7320	563	563	
16	Caution/Danger Board as per Drawing No. BESCO/CP/40/ Dt: 24.10.07	No	1	120	120	43	43	
17	Anti Climbing Device (12mtrs/1Kg GI Barbed Wire) Lumpsum	Kg	1	70	70	20	20	
18	Total Material Cost				110797			
	Labour Charges							
	a) Casual						7036	
	b) Regular						1407	
	Total cost for erection of a single pole mounted 25kVA Transformer in Rs					119240		

COST DATA SHEET - 27

Erection of 3 Phase, 11kV/433V, 250kVA Distribution Transformer Centre Using DPTS

Sl.No	Particulars	Unit	Qty	250 KVA			
				Material cost		Labour Cost	
				Rate	Amt	Rate	Amt
1	Part-A: TRANSFORMER						
	a) 9 Mtr RCC DP Transformer Structure (Using 9 Mtr RCC Poles)	No	1	26482	26482	3749	2999
	b) 8 Mtr RCC DP Transformer Structure (Using 8 Mtr RCC Poles)	No	1	26482	26482	3377	2703
2	11kV Pin Insulators	Sets	3	103	309	0	0
3	45kN Disc Insulators	Sets	3	300	900	0	0
4	Guy Set Complete	Nos	4	855	3420	314	1256
5	11kV/433V, 250kVA, 3 Phase, 50 Cys Distribution Transformer with oil	No	1	237696	237696	1208	1208
6	Earthing materials pipe type for grounding as per Drawing No. BESCO/GM/CP/15 & 34/ Dt: 24.10.07	Single Electrode with accessories	3	1355	4065	507	1521
7	Caution/Danger Board as per Drawing No. BESCO/GM/CP/40/ Dt: 24.10.07	No	1	120	120	43	43
8	Anti Climbing Device (12mtrs/1Kg GI Barbed Wire) Lumpsum	Kgs	2	73	146	20	40
9	Concreting for Guy sets without cement	Nos	4	140	560	0	0
10	GI Wire 8 SWG	Kgs	5	62.8	314	0	0
11	Guy wire 7/10 SWG	Kgs	10	66.72	667	0	0
	Total using 9 mtr Poles				274679		7067
	Total using 8 mtr Poles				274679		6771
12	Labour Charges						
	i) using 9 mtr Poles						
	a) Casual						7067
	b) Regular						1413
	ii) using 8 mtr poles						
	a) Casual						6771
	b) Regular						1354
13	Total for Part-A						
	i) Using 9 mtr Poles				283160		
	ii) using 8 mtr poles				282804		

	Part-B:						
14	11kV Lightning Arester, Metal Oxide 9kV, 5kA	Set of 3 Nos	1	2283	2283	63	63
15	Labour Charges						
	a) Casual						63
	b) Regular						13
16	Total for Part-B				2359		
	Part-C: SWITCH GEAR						
17	a) LT Distribution box for 250kVA with MCCB	No	1	16705	16705	403	403
	b) LT Wiring (From DTC to LT Line via Metering Box & LT Protection Kit) SINGLE CIRCUIT	No	1				
	i. Al Lead Wire - 240 Sqmm	Mtrs	45	194	8730	644	644
	ii. Copper lugs - 240 Sqmm	Nos	12	207	2484		
	iii. PG Clamps - Rabbit to 240 Sqmm	Nos	4	357	1428		
	iv. Spacers for DTC Wiring	Nos	8	24	192		
	v. Fish Plate with necessary Clamps,bolts & nuts etc complete (Galvanised)	Nos	2	188	376		
	c) LT Metering box with CTs and necessary wiring for housing ETV Meter (Please see CDS-42)	No	1	5895	5895	456	456
d) LT Electronic Tri-Vector Meter 5A, Class-0.5/1.0 accuracy	Nos.	1	3000	3000	558	558	
18	11kV Solid Core Type HG Fuse Unit	Set/ 3 nos	1	832	832	375	375
19	11kV, 200Amps, Single Break GOS	No	1	7320	7320	563	563
	Total Cost (Material)				46962		
20	Labour Charges						
	a) Casual						2999
	b) Regular						600
21	Total for Part-C				50561		
22	Total (A+B+C)						
	1) Using 9 mtr Poles				336079		
	Labour Charges:						
	a) Casual						10129
	b) Regular						2026
	2) Using 8 mtr Poles				335724		
	Labour Charges:						
	a) Casual						9833
	b) Regular						1967

Note: Provision for actual quantity of additional materials viz 45kN Disc Insulator, 11 kV Pin Insulators ACSR/AAA Conductor, Transparent Alkathine Tube, PG Clamps and Terminal Connectors etc. Whenever required may be made in the estimate separately for

1 While preparing estimates for turnkey / total turnkey projects please refer to Sl. No. of General Guidelines vide a to in Page No.

COST DATA SHEET -26

Erection of 3 Phase, 11kV/433 V, 100kVA BEE – 3 Star Rated Distribution Transformer Centre Using DPTS

Sl No	Particulars	Unit	Qty	100 KVA			
				Material cost		Labour Cost	
				Rate	Amt	Rate	Amt
1	Part-A: TRANSFORMER						
	a) 9 Mtr RCC DP Transformer Structure (Using 9 Mtr RCC Poles)	No	1	26482	26482	3749	3749
	b) 8 Mtr RCC DP Transformer Structure (Using 8 Mtr RCC Poles)	No	1	23248	23248	3377	3377
2	11kV Pin Insulators	Sets	3	103	309	0	0
3	45kN Disc Insulators	Sets	3	300	900	0	0
4	Guy Set Complete	Nos	4	855	3420	314	1256
5	11kV/433V, 100kVA, 3 Phase 50 Cys Distribution Transformer BEE - 3 Star Rated with Oil	No	1	146408	146408	805	805
6	Earthing materials pipe type for grounding as per Drawing No. BESCO/GM/CP/15 & 34/ Dt: 24.10.07	Single Electrode with accessories	3	1355	4065	507	1521
7	Caution/Danger Board as per Drawing No. BESCO/GM/CP/40/ Dt: 24.10.07	No	1	120	120	43	43
8	Anti Climbing Device (12mtrs/1Kg GI Barbed Wire) Lumpsum	Kgs	2	73	146	20	40
9	Concreting for Guy sets without cement	Nos	4	140	560	0	0
10	GI Wire 8 SWG	Kgs	5	62.8	314	0	0
11	Guy wire 7/10 SWG	Kgs	10	66.72	667	0	0
	Total using 9 mtr Poles				183391		7414
	Total using 8 mtr Poles				180157		7042
12	Labour Charges						
	I) using 9 mtr Poles						
	a) Casual						7414
	b) Regular						1483
	ii) using 8 mtr poles						
	a) Casual						7042
	b) Regular						1408
13	Total for Part-A						
	I) Using 9 mtr Poles				192288		
	ii) using 8 mtr poles				188608		
	Part-B:						
14	11kV Lightning Arrester, Metal Oxide 9kV, 5kA	Set of 3 Nos	1	2283	2283	63	63
15	Labour Charges						
	a) Casual						63
	b) Regular						13
16	Total for Part-B				2359		
	Part-C: SWITCH GEAR						

	a) LT Protection Kit	Nos	2	1679	3358	181	362
	b) LT Distribution box for 100 kVA with MCB	No	1	16705	16705	403	403
	c) LT Wiring (From DTC to LT Line Through Metering Box & LT Protection Kit/LT Distribution Box) SINGLE CIRCUIT	No	1				
17	i. Al Lead Wire - 120 Sqmm	Mtrs	45	106	4770	503	503
	ii. Copper lugs - 120 Sqmm	Nos	12	86	1032		
	iii. PG Clamps - Rabbit to 120 Sqmm	Nos	4	238	952		
	iv. Spacers for DTC Wiring	Nos	8	24	192		
	v. Fish Plate with necessary Clamps,bolts & nuts etc complete (Galvanised)	Nos	2	188	376		
	d) LT Metering box with CTs and necessary wiring for housing ETV Meter (Please see CDS-42)	No	1	5568	5568	456	456
	e) LT Electronic Tri-Vector Meter 5A, Class-0.5/1.0 accuracy	Nos	1	3000	3000	588	588
18	11kV Solid Core Type HG Fuse Unit	Set/3 Nos	1	871	871	375	375
19	11kV, 200Amps, Single Break GOS	No	1	7320	7320	563	563
				With LT Protection kit	With Distribution Box		
	Total Cost (Material)			27439		40786	
20	Labour Charges						
	a) Casual			2847		2888	
	b) Regular			569		578	
21	Total for Part-C			30855		44252	
22	Total (A+B+C)						
	1) Using 9 mtr Poles			225502		238898	
	Labour Charges:						
	a) Casual			10324		10365	
	b) Regular			2065		2073	
	2) Using 8 mtr Poles			221822		235218	
	Labour Charges:						
	a) Casual			9952		9993	
	b) Regular			1990		1999	
Note: Provision for actual quantity of additional materials viz 45kN Disc Insulator, 11kV Pin Insulators ACSR/AAA Conductor, Transparent Alkathine Tube, PG Clamps and Terminal Connectors etc. Whenever required may be made in the estimate separately for							

COST DATA SHEET -25

Erection of 3 Phase, 11kV/433V, 63KVA BEE - 3 Star Rated Distribution Transformer Centre Using DPTS

Sl No	Particulars	Unit	Qty	63 KVA			
				Material Cost		Labour Cost	
				Rate	Amt	Rate	Amt
1	Part-A: TRANSFORMER						
	a) 9 Mtr RCC DP Transformer Structure (Using 9 Mtr RCC Poles)	No	1	24312	24312	3641	3641
	b) 8 Mtr RCC DP Transformer Structure (Using 8 Mtr RCC Poles)	No	1	20898	20898	3150	3150
2	11kV Pin Insulators	Sets	3	103	309	0	0
3	45kN Disc Insulators	Sets	3	300	900	0	0
4	Guy Set Complete	Nos	4	855	3420	314	1256
5	11kV/433V, 63kVA, 3 Phase, 50 Cys Distribution Transformer BEE - 3 Star Rated with Oil	No	1	109635	109635	603	603
6	Earthing materials pipe type for grounding as per Drawing No. BESCO/GM/CP/15 & 34/ Dt: 24.10.07	Single Electrode with accessories	3	1355	4065	507	1521
7	Caution/Danger Board as per Drawing No. BESCO/GM/CP/40/ Dt: 24.10.07	No	1	120	120	43	43
8	Anti Climbing Device (12mtrs/1Kg GI Barbed Wire) Lumpsum	Kgs	2	73	146	20	40
9	Concreting for Guy sets without cement	Nos	4	140	560	0	0
10	GI Wire 8 SWG	Kgs	5	62.8	314	0	0
11	Guy wire 7/10 SWG	Kgs	10	66.72	667	0	0
	Total using 9 mtr Poles				144448		7104
	Total using 8 mtr Poles				141034		6613
12	Labour Charges						
	i) using 9 mtr Poles						
	a) Casual						7104
	b) Regular						1421
	ii) using 8 mtr Poles						
	a) Casual						6613
	b) Regular						1323
13	Total for Part-A						
	i) Using 9 mtr Poles				152973		
	ii) using 8 mtr Poles				148970		
	Part-B:						
14	11kV Lightning Arrester, Metal Oxide 9kV, 5kA	Set of 3 Nos	1	2283	2283	63	63
15	Labour Charges						
	a) Casual						63
	b) Regular						13
16	Total for Part-B				2359		
	Part-C: SWITCH GEAR						

	a) LT Protection Kit for 63 kVA	Nos	2	1679	3358	181	362
	b) LT Wiring (From DTC to LT Line Through Metering Box & LT Protection Kit) SINGLE CIRCUIT	No	1				
17	i. Al Lead Wire - 95 Sqmm	Mtrs	40	81	3240	503	503
	ii. Copper Lugs - 95 Sqmm	Nos	4	79	316		
	iii. PG Clamps - Rabbit to 95 Sqmm	Nos	4	122	488		
	iv. Spacers for DTC Wiring	Nos	8	24	192		
	v. Fish Plate with necessary Clamps, bolts & nuts etc complete (Galvanised)	Nos	2	188	376		
	c) LT Metering box with CTs and necessary wiring for housing ETV Meter (Please see CDS-42)	No	1	5907	5907	456	456
	d) LT Electronic Tri-Vector Meter 5A, Class-0.5/1.0 accuracy	No	1	3000	3000	588	588
18	11kV Solid Core Type HG Fuse Unit	Set/ 3 nos	1	871	871	375	375
19	11kV, 200Amps, Single Break GOS	No	1	7320	7320	563	563
	Total Cost (Material) for Part-C				25068		
20	Labour Charges						
	a) Casual						2847
	b) Regular						569
21	Total for Part-C				28484		
22	Total (A+B+C)						
	1) Using 9 mtr Poles				183816		
	Labour Charges:						
	a) Casual						10014
	b) Regular						2003
	2) Using 8 mtr Poles				179813		
	Labour Charges:						
	a) Casual						9523
	b) Regular						1905
Note: Provision for actual quantity of additional materials viz 45kN Disc Insulator, 11kV Pin Insulators ACSR/AAA Conductor, Transparent Alkathine Tube, PG Clamps and Terminal Connectors etc. Whenever required may be made in the estimate separately for							

COST DATA SHEET - 24

Erection of 3 Phase, 11kV/433V, 25kVA BEE – 3 Star Rated Distribution Transformer Centre Using DPTS							
Sl No	Particulars	Unit	Qty	25 KVA			
				Material Cost		Labour Cost	
				Rate	Amt	Rate	Amt
1	Part-A: TRANSFORMER						
	a) 9 Mtr RCC DP Transformer Structure (Using 9 Mtr RCC Poles)	No	1	24132	24132	3641	3641
	b) 8 Mtr RCC DP Transformer Structure (Using 8 Mtr RCC Poles)	No	1	20898	20898	3150	3150
2	11kV Pin Insulators	Sets	3	103	309	0	0
3	45kN Disc Insulators	Sets	3	300	900	0	0
4	Guy Set Complete	Nos	4	855	3420	314	1256
5	11kV/433V, 25KVA, 3 Phase, 50 Cys Distribution Transformer BEE-3 Star Rated with Oil	No	1	64455	64455	603	603
6	Earthing materials pipe type for grounding as per Drawing No. BESCO/GM/CP/15 & 34/ Dt: 24.10.07	Single Electrode with accessories	3	1355	4065	507	1521
7	Caution/Danger Board as per Drawing No. BESCO/GM/CP/40/ Dt: 24.10.07	No	1	120	120	43	43
8	Anti Climbing Device (12mtrs/1Kg GI Barbed Wire) Lumpsum	Kgs	2	73	146	20	40
9	Concreting for Guy sets without cement	Nos	4	140	560	0	0
10	GI Wire 8 SWG	Kgs	5	62.8	314	0	0
11	Guy wire 7/10 SWG	Kgs	10	66.72	667	0	0
	Total using 9 mtr Poles				99088		7104
	Total using 8 mtr Poles				95854		6613
12	Labour Charges						
	i) using 9 mtr Poles						
	a) Casual						7104
	b) Regular						1421
	ii) using 8 mtr Poles						
	a) Casual						6613
	b) Regular						1323
13	Total for Part-A						
	i) Using 9 mtr Poles				107613		
	ii) using 8 mtr Poles				103790		
	Part-B:						
14	11kV Lightning Arrester, Metal oxide, 9kV, 5kA	Set of 3 Nos	1	2283	2283	63	63
15	Labour Charges						
	a) Casual						63
	b) Regular						13
16	Total for Part-B				2359		

Part-C: SWITCH GEAR							
	a) LT Protection Kit for 25 kVA	No	1	1679	1679	181	181
	b) LT Wiring (From DTC to LT Line Through Metering Box & LT Protection Kit) SINGLE CIRCUIT	No	1				
17	i. Al Lead Wire - 50 Sqmm	Mtrs	25	44	1100	503	503
	ii. Copper Lugs - 50 Sqmm	Nos	4	34	136		
	iii. PG Clamps - Rabbit to 50 Sqmm	Nos	4	64	256		
	iv. Spacers for DTC Wiring	Nos	8	24	192		
	v. Fish Plate with necessary Clamps,bolts & nuts etc complete (Galvanised)	Nos	2	188	376		
	c) LT Metering box with CTs and necessary wiring for housing ETV Meter (Please see CDS-42)	No	1	6390	6390	456	456
	d) LT Electronic Tri-Vector Meter 5A, Class-0.5/1.0 accuracy	No	1	3000	3000	558	558
18	11kV Solid Core Type HG Fuse Unit	Set/3 Nos	1	871	871	375	375
19	11kV, 200Amps, Single Break GOS	No	1	7320	7320	563	563
	Total Cost (Material) for Part-C				21320		
20	Labour Charges						
	a) Casual						2636
	b) Regular						527
21	Total for Part-C				24483		
22	Total (A+B+C)						
	1) Using 9 mtr Poles				134455		
	Labour Charges:						
	a) Casual						9803
	b) Regular						1961
	2) Using 8 mtr Poles				130632		
	Labour Charges:						
	a) Casual						9312
	b) Regular						1862
Note: Provision for actual quantity of additional materials viz 45kN Disc Insulator, 11kV Pin Insulators ACSR/AAA Conductor, Transparent Alkathine Tube, PG Clamps and Terminal Connectors etc. Whenever required may be made in the estimate separately for							