

Calculation of Estimates for SITC of Streetlight Systems

Sr. No.	Item Description	Unit	Rate (Rs./ Unit)			12 m Width	15 m Width	18 m Width	18 m Width	24 m Width
			Supply	E.T.C.	Total					
1	Luminaire					40 W	120 W	120 W	75 W	75 W
2	Arrangement					Side	Side	Side	Central	Central
3	Pole Type					GI Octagonal	GI Octagonal	GI Octagonal	GI Octagonal	GI Octagonal
4	Span					25 m	30 m	30 m	30 m	30 m
5	Bracket					Single	Single	Single	Double	Double
6	Connected Load					0.84 kW	2.16 kW	2.16 kW	2.70 kW	2.70 kW
7	Qty. of Luminaires					21 Nos.	18 Nos.	18 Nos.	36 Nos.	36 Nos.
8	Road Length					500 m	500 m	500 m	500 m	500 m
9	CCMS/ FP					1 Nos.	1 Nos.	1 Nos.	1 Nos.	1 Nos.
10	Qty. of Poles					21 Nos.	18 Nos.	18 Nos.	18 Nos.	18 Nos.
11	Pole Size					7.00 m	10.00 m	10.00 m	9.00 m	9.00 m
12	Bracket Arm Height					0.00 m	0.00 m	0.16 m	0.00 m	0.00 m
13	Bracket Arm Length					1.50 m	2.00 m	2.00 m	2.00 m	2.00 m
14	Tilt Angle					15°	15°	15°	10°	10°
15	Mounting Height					7.70 m	10.84 m	11.00 m	9.65 m	9.65 m
16	Cable Calculation					660 m	640 m	640 m	640 m	640 m

1	SETC of GI Pipe Pole 6 m Long	Nos.	4,200.00	170.00	4,370.00	-	-	-	-	-
2	SETC of Octagonal Pole 6 m Long, 3 mm thickness	Nos.	9,310.00	310.00	9,620.00	-	-	-	-	-
3	SETC of Octagonal Pole 7 m Long, 3 mm thickness	Nos.	10,740.00	310.00	11,050.00	21	-	-	-	-
4	SETC of Octagonal Pole 8 m Long, 3 mm thickness	Nos.	13,010.00	410.00	13,420.00	-	-	-	-	-
5	SETC of Octagonal Pole 9 m Long, 3 mm thickness	Nos.	14,700.00	410.00	15,110.00	-	-	-	18	18
6	SETC of Octagonal Pole 10 m Long, 3 mm thickness	Nos.	15,950.00	510.00	16,460.00	-	18	18	-	-
7	SETC of Octagonal Pole 11 m Long, 3 mm thickness	Nos.	22,910.00	610.00	23,520.00	-	-	-	-	-
8	SETC of Octagonal Pole 12 m Long, 3 mm thickness	Nos.	25,700.00	660.00	26,360.00	-	-	-	-	-
9	SETC of Bracket single arm 0.5 m	Nos.	860.00	50.00	910.00	-	-	-	-	-
10	SETC of Bracket Double arm 0.5 m	Nos.	1,190.00	120.00	1,310.00	-	-	-	-	-
11	SETC of Bracket Triple arm 0.5 m	Nos.	1,510.00	160.00	1,670.00	-	-	-	-	-
12	SETC of Bracket single arm 1.0 m	Nos.	1,130.00	130.00	1,260.00	-	-	-	-	-
13	SETC of Bracket Double arm 1.0 m	Nos.	1,710.00	170.00	1,880.00	-	-	-	-	-
14	SETC of Bracket Triple arm 1.0 m	Nos.	2,310.00	400.00	2,710.00	-	-	-	-	-
15	SETC of Bracket Single arm 1.5 m	Nos.	1,430.00	160.00	1,590.00	21	-	-	-	-
16	SETC of Bracket double arm 1.5 m	Nos.	2,310.00	180.00	2,490.00	-	-	-	-	-
17	SETC of Bracket Triple arm 1.5 m	Nos.	3,200.00	430.00	3,630.00	-	-	-	-	-
18	SETC of Bracket single arm 2.0 m	Nos.	1,810.00	220.00	2,030.00	-	18	18	-	-

19	SETC of Bracket double arm 2.0 m	Nos.	3,020.00	370.00	3,390.00	-	-	-	18	18
20	SETC of Bracket Triple arm 2.0 m	Nos.	4,240.00	470.00	4,710.00	-	-	-	-	-
21	Providing & Constructing 1:4:8 CC foundation of 6 m long GI Pipe post	Nos.	700.00	250.00	950.00	-	-	-	-	-
22	Providing & Constructing 1:4:8 CC foundation of 6 m long GI Pole	Nos.	3,500.00	1,000.00	4,500.00	-	-	-	-	-
23	Providing & Constructing 1:4:8 CC foundation of 7 m long GI Pole	Nos.	3,600.00	1,000.00	4,600.00	21	-	-	-	-
24	Providing & Constructing 1:4:8 CC foundation of 8 m long GI Pole	Nos.	3,700.00	1,100.00	4,800.00	-	-	-	-	-
25	Providing & Constructing 1:4:8 CC foundation of 9 m long GI Pole	Nos.	4,000.00	1,100.00	5,100.00	-	-	-	18	18
26	Providing & Constructing 1:4:8 CC foundation of 10 m long GI Pole	Nos.	5,000.00	1,200.00	6,200.00	-	18	18	-	-
27	Providing & Constructing 1:4:8 CC foundation of 11 m long GI Pole	Nos.	5,000.00	1,300.00	6,300.00	-	-	-	-	-
28	Providing & Constructing 1:4:8 CC foundation of 12 m long GI Pole	Nos.	5,200.00	1,300.00	6,500.00	-	-	-	-	-
29	Supply and laying of GI "B" grade pipe for cable guard/ road crossing with making of Zari for 40 mm Ø	m	260.00	40.00	300.00	100	-	-	-	-
30	Supply and laying of GI "B" grade pipe for cable guard/ road crossing with making of Zari for 50 mm Ø	m	350.00	40.00	390.00	-	100	100	100	100
31	Cable end termination for 4 x 6 sq mm (Single Cable)	Nos.	80.00	50.00	130.00	-	-	-	-	-
32	Cable end termination for 4 x 10 sq mm (Single Cable)	Nos.	90.00	60.00	150.00	42	-	-	-	-
33	Cable end termination for 4 x 16 sq mm (Single Cable)	Nos.	100.00	80.00	180.00	-	36	36	36	36
34	Cable end termination for 4 x 25 sq mm (Single Cable)	Nos.	140.00	100.00	240.00	-	-	-	-	-
35	SETC of 1.1 kV grade XLPE insulated Al conductor armoured cable 4 x 6 sq mm	m	90.00	10.00	100.00	-	-	-	-	-
36	SETC of 1.1 kV grade XLPE insulated Al conductor armoured cable 4 x 10 sq mm	m	118.00	12.00	130.00	660	-	-	-	-
37	SETC of 1.1 kV grade XLPE insulated Al conductor armoured cable 4 x 16 sq mm	m	135.00	15.00	150.00	-	640	640	640	640
38	SETC of 1.1 kV grade XLPE insulated Al conductor armoured cable 4 x 25 sq mm	m	180.00	20.00	200.00	-	-	-	-	-
39	Laying of cable with excavation of trench having depth of 75 cms and refilling with clay and covering with 50 mm Ø ID DWC pipe to be laid in Soft soil/ Kachcha Road	m	90.00	70.00	160.00	110	-	-	-	-
40	Laying of cable with excavation of trench having depth of 75 cms and refilling with clay and covering with 50 mm Ø ID DWC pipe to be laid in Hard Murrum/ Asphalt Road	m	90.00	100.00	190.00	420	-	-	-	-
41	Laying of cable with excavation of trench having depth of 75 cms and refilling with clay and covering with 63 mm Ø ID DWC pipe to be laid in Soft soil/ Kachcha Road	m	120.00	70.00	190.00	-	110	110	110	110
42	Laying of cable with excavation of trench having depth of 75 cms and refilling with clay and covering with 63 mm Ø ID DWC pipe to be laid in Hard Murrum/ Asphalt Road	m	120.00	100.00	220.00	-	420	420	420	420
43	Supply & erecting PVC/ XLPE insulated ISI marked unarmoured copper cable 1.1 kV grade 3 x 1.5 sq mm	m	50.00	5.00	55.00	155	195	200	350	350
44	Supply & erecting PVC/ XLPE insulated ISI marked unarmoured copper cable 1.1 kV grade 3 x 2.5 sq mm	m	80.00	5.00	85.00	-	-	-	-	-
45	1/ 2 A SP MCB	Nos.	150.00	10.00	160.00	21	18	18	36	36
46	S.E.T.C. of LED Streetlight Luminaires complete with all accessories for Road having width of 12 m (Side Arrangement) ≈ 14 W	Nos.	1,610.00	160.00	1,770.00	-	-	-	-	-

47	S.E.T.C. of LED Streetlight Luminaires complete with all accessories for Road having width of 12 m (Side Arrangement) ≈ 40 W	Nos.	2,720.00	160.00	2,880.00	21	-	-	-	-
48	S.E.T.C. of LED Streetlight Luminaires complete with all accessories for Road having width of 15 m (Side Arrangement) ≈ 120 W	Nos.	7,320.00	210.00	7,530.00	-	18	-	-	-
49	S.E.T.C. of LED Streetlight Luminaires complete with all accessories for Road having width of 18 m (Side Arrangement) ≈ 120 W	Nos.	7,320.00	210.00	7,530.00	-	-	18	-	-
50	S.E.T.C. of LED Streetlight Luminaires complete with all accessories for Road having width of 18 m (Central Arrangement) ≈ 75 W	Nos.	5,100.00	210.00	5,310.00	-	-	-	36	-
51	S.E.T.C. of LED Streetlight Luminaires complete with all accessories for Road having width of 24 m (Central Arrangement) ≈ 75 W	Nos.	5,100.00	210.00	5,310.00	-	-	-	-	36
52	S.E.T.C. of LED Streetlight Luminaires complete with all accessories for Road having width of 30 m (Central Arrangement) ≈ 210 W	Nos.	12,600.00	210.00	12,810.00	-	-	-	-	-
53	S.E.T.C. of LED Streetlight Luminaires complete with all accessories for Road having width of 30 m (Central Arrangement) ≈ 210 W	Nos.	12,600.00	210.00	12,810.00	-	-	-	-	-
54	SETC of CCMS with GI Box {Capacity 6 kW, 1 Ø} & foundation	Nos.	48,000.00	2,000.00	50,000.00	1	-	-	-	-
55	SETC of CCMS with GI Box {Capacity 9 kW, 3 Ø} & foundation	Nos.	57,000.00	3,000.00	60,000.00	-	1	1	1	1
56	Painting the number and words for (streetlight pole numbering and back ground of colour as per Zone Code) inventory Identification with good quality of enamelled paint up to 20 characters + 50 mm Height	Nos.	35.00	25.00	60.00	21	18	18	18	18
57	Pipe type Earthing having 150 cms long and 2.5 cms. Ø GI pipe with coupling and buch buried in specially prepared earth pit complete with necessary 25 x 3 mm size GI earthing strip using salt and charcoal/ coke as required for pipe type earthing	Nos.	670.00	230.00	900.00	23	20	20	20	20
ᳵᳵ	Capital Cost per km	ᳵᳵ	ᳵᳵ	ᳵᳵ	ᳵᳵ	725,865.00	927,425.00	927,700.00	974,830.00	974,830.00
						4,530,650.00				