

Annexure - X

A. Testing & Measuring Equipment

Sr. No.	Equipment	Quantity
1	Digital/ Motorized Insulation tester (500-5000V) with suitable probes (Preferred Make : Rishabh / WACO/ MECO)	1 / Sub-division
2	Digital/ Motorized earth resistance tester with suitable probes (Preferred Make : Rishabh / WACO/ MECO)	1/ Division
3	Multi-meter (Digital) (Preferred Make : Rishabh / WACO/ MECO)	1 / Sub-division
4	Set of flexible wires of suitable current rating and connector clips 16 sq.mm cu. Cable – 90 mts	1 / Sub-division
5	Digital Clamp On meters (Make : Rishabh / WACO/ MECO)	3 / Section
6	Oil BDV Tester set	1 / Sub Division
7	Series Double Test Lamp Set	2/FCC
8	Smart tools (Battery operated- Bosch Cordless impact wrench GDS 18 v-EC-250 1no.)	1 / Division
9	Line tester (1.1 kV)	1/ Lineman

B. Tools and Plants (T&P)

Sr. No	Tool/T&P	UoM	Proposed Min Qty	Remarks
1	FRP ladder (Make : Youngman or as per sample approval by TPCODL Safety Group)	No	i) 6m : 1/FCC	Safety
2			ii) 9m (2 fold): 1/vehicle.	Safety
3			ii) 12 m (3 fold): 1/Section	Safety
4	Bamboo ladder	No	i) 6 m: 1/Line man	Safety
5	Discharge Rod suitable with 15 m long 10 mm. sq. insulated Copper wire & 7.5 m operating stick. (Make : Esafe or as per sample approval by TPCODL Safety Group)	No. s	i) 10 mm sq. Cu wire : 6 per FCC	Safety
6			ii) 10 mm sq. cu wire : 6 per vehicle	Safety
7	Neon Tester (suitable for LT ,11 kV, 33 kV) with 7 mts insulated operating stick (Make : Taurus/HVTI or as per sample approval by TPCODL safety Group)	Ea	1/ vehicle	Safety
8	Shorting link with Crocodile clamp with set of 4 mts (1 mts each for R-Y-B-N-E) long flexible Copper wire 10 mm sq.	No.s	8 per FCC (2 sets) & 8 (2 sets) per vehicle.	
9	Portable earthing spikes (GI)	No.s	4 per FCC + 3 per vehicle	
10	Line tester (1.1 kV)	Ea	1/ Lineman	
11	Motorised Tree Cutter (Chainsaw - alongwith consumables such as fuel, engine oil, blades, chain etc)	No	1 per section	
12	Manual tree pruner (with 7.5 mts insulated operating handle)	No	5 per section	
13	Katuri	No	3 per FCC	
14	Double Chain Pulley block 5 Ton (with chain)	No	1 per section	
15	Wire Rope Sling Set (1 Ton, 2 Ton, 5 Ton) 6 M Length each	Ea	1 per Section	
16	Re chargeable LED Torch light 500W	Nos.	2 per FCC + 2 per vehicle	
17	Rain Coat	EA	1 Per Person	
18	Gum Boot	Pair	1 Per Person	
19	Screw Driver Set	Set	1 per L/M	
20	Hammer 500 gm	No	2 per FCC + 1 per Vehicle	
21	Insulated Plier (Combination pliers 150/160/170mm) (preferred Make- Taparia, Stanley)	No	1 per L/M	
22	Clip Plier	No	2 per FCC + 1 per Vehicle	
23	Nose Plier	No	2 per FCC + 1 per Vehicle	
24	Monkey Plier	No	2 per FCC + 1 per Vehicle	
25	Hacksaw frame with blades	No	2 per FCC + 1 per Vehicle	
26	Knife (Min. Length of Insulated Handle- 100mm)	No	1 per L/M	
27	Wire stripper	No	2 per FCC + 1 per Vehicle	
28	Box spanner Set	No	2 per FCC + 1 per Vehicle	
29	C headed spanners Set	Set	2 per FCC + 1 per Vehicle	
30	Ring Spanners Set	Set	2 per FCC + 1 per Vehicle	
31	Adjustable spanners	No	2 per FCC + 1 per Vehicle	
32	Ratchet set	Set	1 per section	
33	Industrial vacuum cleaner	No	1 per division	
34	Hot Air blower	No	1 per Sub division	
35	Crimping tool (hydraulic) suitable upto 630 mm sq. die	No	1 per section	
36	Pressure Torque wrench manual	No	1 per division	
37	Oxy-Acetelene Gas cutting Set	No	1 per division	
38	Hydraulic nut Cutter	No	1 per division	
39	Welding machine with rods	No	1 per division	
40	Bench Drill machine	No	1 per division	
41	Hand Drill machine	No	1 per section	
42	Hand grinder	No	1 per division	
43	Portable DG set 5KVA	No	1 per division	
44	Measuring tape 30 M	No	1 per section	
45	Hand operated oil pump	No	1 per section	

46	Tool box / Tool bag	No	1 per BSK + 2 per Vehicle	
47	Cable pulling winch, eye, socks, PVC rollers (4 no's) and tirsors	No	1 per Sub-division	
48	Pneumatic hammer	No	1 per division	
49	Hammer 5 Kg	No.	1 per section	
50	Level gauge	No	1 per Sub-division	
51	Heavy base Traffic Cone with Safety barricading tape	No	4 per FCC + 4 per Vehicle	
52	Nylon rope 8mm	m	15 m per L/M	
53	File Set 12" , 8", round , half round	No	2 per FCC + 1 per Vehicle	
54	Round file and half round file	No	2 per FCC + 1 per Vehicle	
55	Gaiti (Spade)	No	3 Per section	
56	Axe (Kuradhi)	No	1 per FCC	
57	Motorised Dewatering pump with Hose Pipe	No	1 per division	
58	Power cutter	No	1 per division	
59	First AID Kit (along with medicine)	Set	1 per FCC & 1 per vehicle.	
60	Allen Key set	Set	1 per section	
61	All sizes of GI washer, nut bolts of different sizes.	Kg	BA must maintain Regular stock of 5 Kg per section	
62	PVC insulation Tape 1.1 kV	Roll	BA must maintain Regular stock	
63	M seal Putty	Packet	BA must maintain Regular stock	
64	Cotton (dhoti) Clothes for cleaning	Mts	BA must maintain Regular stock	
65	Poly propylene rope 24 mm	Kg	40 kg/section	
66	Come-along clamp for AAAC/ACSR conductor Rabbit, Racoona, Dog, wolf conductor (Kamla Clamp)	No.s	2 per section	
67	Compressor machine with all dies suitable for jointing of Rabbit, Racoona, Dog, wolf conductor	No.s	1 per division	
68	RCCB/ELCB (30 mA) Mounted Extension Board (Capacity - 63 A, Industrial Plug Type) with MCCB & 25 mts of extension flexible wire	No.s	1 per Section	
69	Wire Cutter (for ACSR/AAA Conductor)	No. s	1 per sub division	
70	Grease / Lubricant oil	LS	BA to maintain regular stock	
71	Hand operated oil Can	Ea	1 per section	
72	Sand paper	LS	BA to maintain regular stock	
73	Steel Strapping Tool (For fixing Steel Strap & Buckles) & Cutter	Ea	1 per Section	
74	Paint brush	Nos.	BA must maintain Regular stock of 2 Nos.	
75	Paint - Yellow	ltr	5	
76	Paint - Black	ltr	3	
77	Visor for helmet	No	1 per L/M	
78	Tap kit with handle	Set	1 per Division	
79	Jet Draw Vice	No.s	1 per division	

Sr. No	Name of PPE	UoM	Standard	Remark
1	Safety shoe with composite Toe Cap (Black Colour)	Pair	IS 15298 Part 2	Every Employee
2	Safety Helmet Class E with adjustable chin strap colour codes : Orange- Lineman, Yellow- Helper, White-Supervisor, Green- Safety Officer	Ea	IS 2925-1984 EN 397-2012	Every Employee
3	Helmet Mounted Voltage Detector (Voltage Induction Sensor)	Ea	Preffered Make : Honeywell, type HHVSB11 or Make JARSH/ any other make suggested by TPCODL	Every lineman
4	Full body Safety Harness (Class P) with double lanyard, and Work Positioning Lanyard	Ea	IS 3521-2021	Every lineman
5	Electrical Insulated rubber hand gloves a. Class 00 (LT) b. Class 2 (HT) c. Class 00 (Long Sleeves - 780mm Length) (Make : Raychem , MN Rubber, Jayco, Rahul International or as per approval of TPCODL Safety Group)	Pair	IS 13774:2021	Each pair of Class 00, Class 2 for every Lineman C. Class 00 (Long Sleeves-780mm Length) Hand Gloves to be used while working on High Risk Poles
6	PU coated cotton gloves	Pair	IS 6694	Every LM + Helper
7	Arc flash face visor 8 Cal/cm2	Ea	ASTM F1506	Every lineman (during working live LT line)
8	Cotton Reflective Jacket Colour Orange-Lineman, and other ground staff- Green (No synthetic material will be accepted)	Ea	IS 15809	Every Employee
9	Safety Goggle (Transparent)	Ea	IS5983	For all employees during Tree Pruning Jobs
10	Welding/Gas Cutting PPE's (FR Apron, safety face sheild, Neck Hood, Hand Sleeve, Shoe Guard, Nose Mask & Welding hand Gloves)	Set		BA to ensure availability & complainece during all welding Jobs
11	Gum boot	Pair	IS 5557:2024	Every Employee
12	FR (Fire-Resistance 8CAL/cm square) jacket for chest protection - FR jacket to be of Full Sleeves and 100 % cotton material. The reflective tapes to be added/stitched to the FR Jacket. Colour Orange-Lineman, IS-15742. Utkal Industrial & Safety Product, Tara Lohia, APS Industrial Solution, Udyogi where fabric from Arvind Mills, Grasim, Moffatall, Viman, Raymond or Siyaram	EA	IS-15742	Each for every Lineman

Note: All safety PPE must be approved by TPCODL Safety Group