

ENERGY & POWER DEPARTMENT
GOVERNMENT OF SIKKIM
SCHEDULE OF RATES FOR 66 KV GRADE WORKS.

Sl.No.	Particulars	Unit	SR 2017
	<i>POWER TRANSFORMER</i>		
1	66/11 KV ; 5 MVA; 3- phase delta/star with onload tap changer oil filled transformer with accessories for protection and indication with first filling of oil complete with neutral C.T. and other Standard fittings.	Nos	111,77,884.62
2	66/11 KV ; 10 MVA; 3- phase delta/star with onload tap changer oil filled transformer with accessories for protection and indication with first filling of oil complete with neutral C.T. and other Standard fittings.		
	<i>CIRCUIT BREAKER</i>		
3	SF6, 800amps 72.5 KV, 13.1KA rated short circuit complete with operating mechanism and first filling of SF6 gas.	sets	14,33,642.22
4	Filling Kit for SF6 Gas	sets	75,899.00
	<i>CURRENT TRANSFORMER:</i>		
5	72.5 KV, 3 core current transformer having ratio 200-100/1+1+1 and of accuracy class and burden of 30 VA with first filling of oil and complete with terminal connectors.	nos	1,68,663.33
6	Current Transformer (NCT) 11 KV, 1 core current transformer having ratio 450-300 1A and of accuracy class PS and burden of 30 VA with first filling of oil and complete with terminal connectors (Suitable for 4000 mt altitude above MSL and +5°c to -20° c) as per IS 12802 for in excess of 100 m altitude for electrical equipment.	nos	15,000.00
	<i>POTENTIAL TRANSFORMER</i>		
7	66/√3 KV, 110/√3 V single phase voltage transformer of accuracy class 0.5 and burden of 200 VA with first filling of oil and complete with terminal connectors. (Suitable for 4000 mt altitude above MSL and +5°c to -20° c) as per IS 12802 for in excess of 100 m altitude for electrical equipment.	nos	1,51,797.60
	<i>ISOLATORS:</i>		
8	72.5 KV 800 amps Rated current 12.5 KA short time rating, triple pole, gang operated outdoor type with motor operated mechanism, terminal connectors, earthing connector with earthing blades.	sets	2,17,372.22
9	72.5 KV 800 amps Rated current 12.5 KA short time rating, triple pole, gang operated outdoor type with motor operated mechanism, terminal connectors, earthing connector without earthing blades.(Suitable for 4000 mt altitude above MSL and +5°c to -20° c).	sets	1,71,591.00
10	11 KV 600 amps Rated current 12.5 KA short time rating, triple pole, gang operated outdoor type with manual operated mechanism, terminal connectors, earthing connector with earthing blades.(Suitable for 4000 mt altitude above MSL and +5°c to -20° c).	sets	29,000.00
	<i>LIGHTNING ARRESTORS:</i>		
11	60 KV Lightning arrestor complete with insulating base and surge monitors & connector terminals connection.(Suitable for 4000 mt altitude above MSL and +5°c to -20° c).	nos	77,720.00
12	11 KV Station Type Lightning arrestor complete with insulating base and surge monitors & connector terminals connection.(Suitable for 4000 mt altitude above MSL and +5°c to -20° c).	nos	879.11
13	HSWG Copper Wire (6sqmm) for Earth Electrode from Lighting Arrestor to Earth Pit (Bare Conductor)	m	75.00
	<i>CONTROL & RELAY PANNELS:</i>		

14	66 KV simplex type control and relay panel for line with static 30/C + E/F; trip circuit supervision, master trip; Distance Protection relays digital recording and indicating instruments alarm; TTB, AC/DC failure indication; mimic, pannel illumination etc. Suitable for line feeder.	sets	7,66,666.66
15	66 KV simplex type control and relay panel for Transformer with static 30/C + E/F; trip circuit supervision, master trip relays digital recording and indicating instruments alarm; TTB, AC/DC failure indication; mimic, pannel illumination etc.with solid state Duo bias Transformer differential relay.	sets	8,43,333.33
	D.C. EQUIPMENTS.		
16	VRLA 110VDC,200 Ah Battery Bank and 110 V DC output Float cum Boost charging Battery Charger with 3 phase input voltage complete with indicating,measuring and protection equipments.	sets	3,08,954.08
17	110 Volts D.C. Dist Board Totally enclosed metal clad type complete with busbar, cable socket earthing equipments, fuses terminal block together with all supporting frame work & having sufficient space to accommodate M C C B/ M C B for one incoming & (8) eight outgoing circuits.	sets	1,13,443.84
	CONTROL CABLES:		
18	1.1 KV grade heavy duty PVC insulated sheathed copper conductor cable unarmored of following sizes:		
19	12 X 1.5 sq mm	Mtrs	310.00
20	4 X 2.5 sq. mm	Mtrs	172.29
21	2 X 2.5 sq. mm	Mtrs	150.00
22	2 X 1.5 sq. mm	Mtrs	132.00
23	4 X 4 sq. mm	Mtrs	217.00
24	25sqmm PVC Flexible Multistrand Copper Cable	Mtrs	290.00
25	35sqmm Weldng Cable Multistrand 66KV LA to Surge Counter	Mtrs	402.00
	SWITCHYARD STRUCTURES		
26	Structures shall include base plate, base plate, base plate, base deals, V bolts, fixing arrangement for insulators string foundation bolts with bolts, washers, spacers, gusset platter, stay bolts with standard nuts & stub templatler and all other accessories to complete the structure.	1 X 10MVA	2,03,820.00
	SUPPORTING STRUCTURE FOR 66 KV EQUIPMENT.		
27	Isolator.	kg	68.00
28	Current Transformer	MT	68.00
29	Voltage Transformer	MT	68.00
30	Lightning Arrestor	MT	68.00
31	Post Insulator for 11KV LA Structure	MT	68.00
32	Lightning Mast Tw	MT	68.00
33	Structure for 'N' CT	MT	68.00
	BUS BAR EQUIPMENT.		
34	Set of 66 KV tension insulators string comprising of 7 nos. 11KV ball and socket type Disc insulator having minimum breaking strength 90 KN including necessary hardware and fillings.	Sets	2,704.00
35	Post Insulator	Sets	2,414.00
36	103.4 sq mm DOG conductor for bus bar / 2" IPS Tube	Km	62,800.00
37	P.G. clamps	Nos.	182.15
38	LA pad	Nos.	736.22
39	Overhead shielding wire of size 7/3 15 mm of strength 100 kgf/meter (600 x 0.429).	Kg	43.00
40	Earthing lugs for overhead shielding wire.	Nos.	362.00
41	Earthing clamps of structure for overhead shielding wire.	Nos.	653.00

42	Earthing strain clamps for overhead shielding wire.	Nos.	1,176.00
43	DOG to 2" IPS Tube 'L' type connector	Nos.	633.00
44	2" Dog to P.T. Pad	Nos.	633.00
45	2" Dog to BPI connector	Nos.	633.00
46	DOG to DOG BPI connector	Nos.	599.00
47	2" Dog to straight connector to BPI Pad	Nos.	633.00
48	2" Dog to Isolator connector	Nos.	633.00
49	2" Dog to CT Connector	Nos.	633.00
50	Isolator to DOG Connector	Nos.	633.00
51	2" Dog to SF6 Connector	Nos.	633.00
52	DOG to DOG 'T' Clamps	Nos.	318.77
53	DOG tension clamp	Nos.	318.77
54	Post Insulator heavy duty 33KV	Sets	2,414.00
55	66 KV grade PVC sleeves	Mrt	222.00
56	2" Dog to Transformer Connector	Nos.	633.00
57	Dog Suspension Clamp	Nos.	318.77
	SUB-STATION EARTHING		
58	Earthing mat for sub-station with copper flat with 50x8 mm along with pipe earthing and raiser at specific distances as per standard specification	Job/kg	4,19,111.11
59	Direct stroke lightning protection with copper spoke, copper conductor strips and earthing complete.	Job/no	2,13,900.00
60	MS chequered plate, rubber mat etc required at sub station.	Job/kg	1,61,000.00
61	MISC. ITEMS:		
62	Copper Flat 50 x 6	Kg	731.00
63	GI Patti 25 x 6	Mrt	65.00
64	Wire Dressing Materials having Ferruls, Sockets, PVC Channel, Lugs, PVC Sleeves etc.	Nos	1,000.00

1 Above rates include supply,erection,testing,commissioning charge and contractor's profit.

2 Rate are exclusive of Taxes and Duties,Fright & Insurance etc.