

ELECTRIFICATION OF 475 HOUSEHOLDS AT MONGATANE VILLAGE

SUMMARY

Item	Description	Amount		Total Price
		Materials	Labour	
A	Preliminaries & General	R -	R -	R -
B	Compliance with OHS Act	R -	R 287,500.00	R 287,500.00
C	Pegging out the works	R -	R -	R -
D	Digging Holes	R -	R -	R -
E	Plant poles	R -	R -	R -
F	Trenches	R -	R -	R -
G	HV Structures Three Phase	R -	R -	R -
H	MV Stays	R -	R -	R -
I	LV Structures	R -	R -	R -
J	LV Stays	R -	R -	R -
K	Service Boxes	R -	R -	R -
L	Stringing	R -	R -	R -
M	Transformer Installation	R -	R -	R -
N	LV Protection	R -	R -	R -
O	Installation Earthing	R -	R -	R -
P	Pole Numbering	R -	R -	R -
Q	Commissioning	R -	R -	R -
R	Other	R -	R -	R -
S	House Connections	R -	R -	R -
T	Excavate and plant poles	R -	R -	R -
U	Conductor	R -	R -	R -
V	'Street Lights And Spigots	R -	R -	R -
		R -		
SUB TOTAL A				R -
ADD CONTINGENCIES @ 10%				R -
SUB TOTAL B EXC. 15% VAT				R -
ADD 15% VAT				R -
TOTAL INC. 15% VAT				R -

COST PER CONNECTION ALL INCLUSIVE

R -

BILLS OF QUANTITIES FOR THE ELECTRIFICATION OF 475 HOUSEHOLDS AT MONGATANE VILLAGE										
Item	Description	Unit	MQty	MRate	LQty	LRate	Mtotal	Ltotal	Total	
A	Site Establishment & Safety									
1	Site Camp, store, personnel, rental, transport, notice board, etc.	Sum	1		1					
2	Payment of CLO @ R 6 500.00 Per Month	Prov. Sum	0	0.00	4	6,500.00	0.00	26,000.00	26,000.00	
3	Payment of Student @ R 5 500.00 Per Month	Prov. Sum	0	0.00	4	5,500.00	0.00	22,000.00	22,000.00	
4	Payment of PSC Members (6 members)	Prov. Sum	0	0.00	4	3,600.00	0.00	14,400.00	14,400.00	
5	Training	Prov. Sum	0	0.00	1	50,000.00	0.00	50,000.00	50,000.00	
6	Payment of UIF EPWP	Prov. Sum	0	0.00	1	40,000.00	0.00	40,000.00	40,000.00	
7	Payment of EPWP Workers	Prov. Sum	0	0.00	1	450,000.00	0.00	450,000.00	450,000.00	
SUB-TOTAL										
B	Compliance with OHS Act & Safety File and safety inspections and meetings.									
1	Supply of all items of Personal Protective Clothing/Equipment & ensure use thereof for full compliance (EPWP Workers)	Sum	0	0.00	1	125,000.00	0.00	125,000.00	125,000.00	
2	Supply and provision of Equipment for working at Heights & ensure use thereof for full compliance	Sum	0	0.00	1	25,000.00	0.00	25,000.00	25,000.00	
3	Barricading: Supply & install, including removal upon completion to ensure full compliance to legislation	Sum	0	0.00	1	17,500.00	0.00	17,500.00	17,500.00	
4	Related Training	Sum	0	0.00	1	25,000.00	0.00	25,000.00	25,000.00	
5	Occupational Health and Safety Administration	Sum	0	0.00	1	35,000.00	0.00	35,000.00	35,000.00	
6	Medical Surveillance	Sum	0	0.00	1	30,000.00	0.00	30,000.00	30,000.00	
7	Facilities and Equipment	Sum	0	0.00	1	12,500.00	0.00	12,500.00	12,500.00	
8	Safety Signage	Sum	0	0.00	1	17,500.00	0.00	17,500.00	17,500.00	
SUB-TOTAL										
							0.00	287,500.00	287,500.00	

C	Pegging out the works	Unit	MQty	MRate	LQty	LRate	Mtotal	Ltotal	Total
1	MV / LV Pegging as well as removed stand pegs.	km	0.00	0.00	41.00				
3	AS-Built drawing by an approved surveyor (Who did the pegging of the project)	km	0.00	0.00	41.00				
4	Bush Clearing and Tree Felling	m	0	0.00	750				
SUB-TOTAL									
D	Digging Holes	Unit	MQty	MRate	LQty	LRate	Mtotal	Ltotal	Total
1	Excavation for all LV stay holes (Rates apply for drilling or digging with backfilling per hole for all soil conditions)	e.a.	0	0.00	225				
2	Excavation for all MV stay holes (Rates apply for drilling or digging with backfilling per hole for all soil conditions)	e.a.	0	0.00	40				
1	Holes 7m (120-140mm) wooden Poles DIA TOP (Rates apply for drilling or digging with backfilling per hole for all soil conditions)	e.a.	0	0.00	575				
2	Holes 9m (140-160mm) wooden Poles DIA TOP (Rates apply for drilling or digging with backfilling per hole for all soil conditions)	e.a.	0	0.00	140				
3	Holes 11m (160-180mm) wooden Poles DIA TOP (Rates apply for drilling or digging with backfilling per hole for all soil conditions)	e.a.	0	0.00	110				
4	Holes 12m (180-200mm) wooden Poles DIA TOP (Rates apply for drilling or digging with backfilling per hole for all soil conditions)	e.a.	0	0.00	10				
SUB-TOTAL									
E	Plant poles	Unit	MQty	MRate	LQty	LRate	Mtotal	Ltotal	Total
1	7m Wood 120-140 mm tops	e.a.	575		575				
2	9m Wood 140-160 mm tops	e.a.	125		125				
3	9m Wood 180-200 mm tops	e.a.	15		15				
4	11m Wood 160-180mm tops	e.a.	75		75				
5	11m Wood 180-200mm tops	e.a.	35		35				
6	12m Wood 160-180mm tops	e.a.	10		10				
SUB-TOTAL									
	Excavate cable trenches for HV cable excavate in all types of soil conditions 1.2m deep. Includes backfilling - 1200mm x 450mm	m	0	-	0	-			

[illegible]

SUB-TOTAL									
H	IMV Stays	Unit	MQty	MRate	LQty	LRate	Mtotal	Ltotal	Total
1	1 Off conv anchor	e.a.	50		50				
2	1 Off flying stay	e.a.	10		10				
3	1 Off strut pole 12m	e.a.	10		10				
SUB-TOTAL									
I	LV Structures	Unit	MQty	MRate	LQty	LRate	Mtotal	Ltotal	Total
1	Int / susp (0-30 deg)	e.a.	185		185				
2	Intermediate service	e.a.	105		105				
3	Strain (0-60 deg)	e.a.	75		75				
4	Strain (60-90 deg)	e.a.	50		50				
5	Terminal	e.a.	35		35				
6	T-off from interm	e.a.	45		45				
7	T-off from strain	e.a.	20		20				
8	Cross int-int ass	e.a.	49		49				
9	Termination at TRFR	e.a.	11		11				
SUB-TOTAL									
J	LV Stays	Unit	MQty	MRate	LQty	LRate	Mtotal	Ltotal	Total
1	1 Off conv anchor	e.a.	225		225				
2	1 Off flying stay	e.a.	25		25				
3	1 Off strut pole 9m	e.a.	50		50				
SUB-TOTAL									
K	Service Boxes	Unit	MQty	MRate	LQty	LRate	Mtotal	Ltotal	Total
1	1 - 4 Way Split Meter box : 1 x 50 c1 5kA mob with 1.2m tails and surge arrestors (Eskom Spec)	e.a.	270		270				
SUB-TOTAL									

L	Stringing	Unit	MQty	MRate	LQty	LRate	Mtotal	Ltotal	Total
1	16mm sq Airdac CNE plus Pilot wires for street lights	m	0	-	0	-			
2	Fox conductor	m	7500		7500				
2a	2x eye nuts and 1 meter galvanised rod for each MV pole.	ea	0	0.00	0				
2b	Parallel earth bridge peaces. (35mm AL conductor (1.2m) and X2 pg clamps INCLUDED)	ea	0	0.00	0				
3	Mink conductor	m	0	0.00	0				
4	35 mm sq ABC 3-ph	m	500		500				
5	70 mm sq ABC 3-ph	m	38500		38500				
6	HV CONDUCTOR AIR JUNCTION WITH "T" FERRULES	e.a.	0	0.00	0				
SUB-TOTAL									
M	Transformer Installation And Accessories (nuts, bolts, clamps, and all cross arms and post or long rod insulators (use long rods for calculations), D-fuses, platform, surge arrestors)	Unit	MQty	MRate	LQty	LRate	Mtotal	Ltotal	Total
	Transformers: 22kV								
1	100kVA x 3 Ph - new	ea	6		6				
2	50kVA x 3 Ph - new	ea	2		2				
3	32kVA x 3 Ph - new	ea	3		3				
4	16kVA x 3 Ph - new	ea	0		0				
SUB-TOTAL									
N	LV Protection Morsdorf Type Fuses	Unit	MQty	MRate	LQty	LRate	Mtotal	Ltotal	Total
1	63A Dual phase (32 & 16kVA)	e.a.	3		3				
2	80A Three phase (50kVA)	e.a.	2		2				
3	160A three phase 100kVA	e.a.	6		6				
SUB-TOTAL									

O	Installation Earthing	Unit	MQty	MRate	LQty	LRate	Mtotal	Ltotal	Total
1	LV Earthing (10m tail/35mm AL rod with 3kg 35mm cu earthmat with 50/50 mixture conductive cement at every first and last pole from trf in 4mx20mm galvanised pipe)	e.a.	44		44				
2	MV Earthing (Type 1 crowfoot)10m tail/35mm AL rod from trf in 4mx20mm galvanised pipe to ground then crowfoot.	e.a.	11		11				
3	Bonding	e.a.	75		75				
SUB-TOTAL									
P	Pole Numbering	Unit	MQty	MRate	LQty	LRate	Mtotal	Ltotal	Total
1	MV pole number	e.a.	95		95				
2	LV pole number	e.a.	500		500				
SUB-TOTAL									
Q	Commissioning	Unit	MQty	MRate	LQty	LRate	Mtotal	Ltotal	Total
1	Test & commission trsf and MV equipment	e.a.	0	0.00	11		0.00		
							0.00		
R	Other	Unit	MQty	MRate	LQty	LRate	Mtotal	Ltotal	Total
1	Link assembly (On-load) three phase	ea	4		4				
2	Drop-out fuses three phase	ea	8		8				
3	Drop-out fuses dual phase	ea	3		3				
4	Dismantle Existing MV Line (3 Phase)	m	1000	-	1000				
5	32mm Round Steel Conduit for cables	m	0	-	0				
6	Recloser 22kV 400A 8KA with IRTU	ea	0	0.00	0				
7	Live work	Prov. Sum	4	35,000.00	4	7,500.00	140,000.00	30,000.00	170,000.00
SUB-TOTAL									
S	House Connections	Unit	MQty	MRate	LQty	LRate	Mtotal	Ltotal	Total
1	Underground connection including fixed 2m conduit pipe against house.	ea	0	0.00	0				
2	Overhead connection	ea	475		475				
3	Supply Readyboard, Split Meter 2 x 16A SKTS	ea	475		475				
5	DIN Rail Single Phase PLC Smart Split Meter with CIU 20A	ea	475		475				
6	Sealing of meters	ea	475		475				
7	COC certificates	ea	475		475				
10	INTERFACE: DC450 G3; PLC DC:230V COMPLETE WITH KIOSK	ea	11		11				

SUB-TOTAL

T	Cross-Arms, Excavate and plant poles	Unit	MQty	MRate	LQty	LRate	Mtotal	Ltotal	Total
1.A	3.5m Wood Cross-arm (140-160mm)	e.a.	15		15				
1.B	3.5m Steel Cross-arm Set	e.a.	0	0.00	0				
1.C	5m Wood 80-100 mm tops	e.a.	250		250				
2A	7m Wood 120-140 mm tops	e.a.	0	-	0	-			
3	Shackpole Dressing	e.a.	250		250				
SUB-TOTAL									
U	Conductor (Installation incl in service con rate)	Unit	MQty	MRate	LQty	LRate	Mtotal	Ltotal	Total
1	6mm sq Airdac CNE plus Pilot wires	m	24500		24500				
2	10mm sq Airdac CNE plus Pilot wires	m	0	-	0	-			
SUB-TOTAL									
V	Street Lights And Spigots	Unit	MQty	MRate	LQty	LRate	Mtotal	Ltotal	Total
1	70W HPS/T 4Y with Lamps	No	0	-	0	-			
2	150mm Spigots	m	0	-	0	-			
3	Piercing connectors for earth/live and neutral to ABC	No	0	-	0	-			
4	1.5mm PVC x 1.5m Long cable for connection	m	0	-	0	-			
SUB-TOTAL									