

ELECTRIFICATION OF 415 HOUSEHOLDS AT STAAIKRAAL (STRYDKRAAL)

SUMMARY

Item	Description	Amount		Total Price
		Materials	Labour	
A	Preliminaries & General	R -	R -	R -
B	Compliance with OHS Act	R -	R 240,000.00	R 240,000.00
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 415 HOUSEHOLDS AT STAAIKRAAL (STRYDKRAAL)										
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	45,000.00	0.00	45,000.00	45,000.00	
6	Payment of UIF EPWP	Prov. Sum	0	0.00	1	35,000.00	0.00	35,000.00	35,000.00	
7	Payment of EPWP Workers	Prov. Sum	0	0.00	1	400,000.00	0.00	400,000.00	400,000.00	
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	105,000.00	0.00	105,000.00	105,000.00	
2	Supply and provision of Equipment for working at Heights & ensure use thereof for full compliance	Sum	0	0.00	1	20,000.00	0.00	20,000.00	20,000.00	
3	Barricading: Supply & install, including removal upon completion to ensure full compliance to legislation	Sum	0	0.00	1	15,000.00	0.00	15,000.00	15,000.00	
4	Related Training	Sum	0	0.00	1	20,000.00	0.00	20,000.00	20,000.00	
5	Occupational Health and Safety Administration	Sum	0	0.00	1	30,000.00	0.00	30,000.00	30,000.00	
6	Medical Surveillance	Sum	0	0.00	1	25,000.00	0.00	25,000.00	25,000.00	
7	Facilities and Equipment	Sum	0	0.00	1	10,000.00	0.00	10,000.00	10,000.00	
8	Safety Signage	Sum	0	0.00	1	15,000.00	0.00	15,000.00	15,000.00	
SUB-TOTAL							0.00	240,000.00	240,000.00	

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	17.50				
3	AS-Built drawing by an approved surveyor (Who did the pegging of the project)	km	0.00	0.00	17.50				
4	Bush Clearing and Tree Felling	m	0	0.00	500				
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	300				
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	85				
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	95				
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	7				
SUB-TOTAL									
E	Plant poles	Unit	MQty	MRate	LQty	LRate	Mtotal	Ltotal	Total
1	7m Wood 120-140 mm tops	e.a.	300		300				
2	9m Wood 140-160 mm tops	e.a.	85		85				
3	9m Wood 180-200 mm tops	e.a.	10		10				
4	11m Wood 160-180mm tops	e.a.	95		95				
5	11m Wood 180-200mm tops	e.a.	40		40				
6	12m Wood 160-180mm tops	e.a.	7		7				
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				

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SUB-TOTAL									
H	MV Stays	Unit	MQty	MRate	LQty	LRate	Mtotal	Ltotal	Total
1	1 Off conv anchor	e.a.	40		40				
2	1 Off flying stay	e.a.	7		7				
3	1 Off strut pole 12m	e.a.	5		5				
SUB-TOTAL									
I	LV Structures	Unit	MQty	MRate	LQty	LRate	Mtotal	Ltotal	Total
1	Int / susp (0-30 deg)	e.a.	130		130				
2	Intermediate service	e.a.	65		65				
3	Strain (0-60 deg)	e.a.	45		45				
4	Strain (60-90 deg)	e.a.	35		35				
5	Terminal	e.a.	30		30				
6	T-off from interm	e.a.	30		30				
7	T-off from strain	e.a.	15		15				
8	Cross int-int ass	e.a.	30		30				
9	Termination at TRFR	e.a.	7		7				
SUB-TOTAL									
J	LV Stays	Unit	MQty	MRate	LQty	LRate	Mtotal	Ltotal	Total
1	1 Off conv anchor	e.a.	185		185				
2	1 Off flying stay	e.a.	20		20				
3	1 Off strut pole 9m	e.a.	22		22				
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 mcb with 1.2m tails and surge arrestors (Eskom Spec)	e.a.	180		180				
SUB-TOTAL									

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	7000		7000				
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	12000		12000				
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	1		1				
3	32kVA x 3 Ph - new	ea	0	0.00	0	-			
4	16kVA x 3 Ph - new	ea	0	0.00	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.	0	-	0	-			
2	80A Three phase (50kVA)	e.a.	1		1				
3	160A three phase 100kVA	e.a.	6		6				
SUB-TOTAL									

O	Installation Earthing	Unit	MQty	MRate	LQty	LRate	Mtotal	Ltotal	Total
	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.	28		28				
1	MV Earthing (Type 1 crowfoot)10m tail/35mm AL rod from trf in 4mx20mm galvanised pipe to grond then crowfoot.	e.a.	7		7				
2									
3	Bonding	e.a.	45		45				
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	7				
R	Other	Unit	MQty	MRate	LQty	LRate	Mtotal	Ltotal	Total
1	Link assembly (On-load) three phase	ea	2		2				
2	Drop-out fuses three phase	ea	7		7				
3	Drop-out fuses dual phase	ea	0	-	0				
4	Dismantle Existing MV Line (3 Phase)	m	500	-	500				
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	2	35,000.00	2	7,500.00	70,000.00	15,000.00	85,000.00
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	415		415				
3	Supply Readyboard, Split Meter 2 x 16A SKTS	ea	415		415				
5	DIN Rail Single Phase PLC Smart Split Meter with CIU 20A	ea	415		415				
6	Sealing of meters	ea	415		415				
7	COC certificates	ea	415		415				
10	INTERFACE: DC450 G3; PLC DC:230V COMPLETE WITH KIOSK	ea	7		7				

SUB-TOTAL

Cross-Arms, Excavate and plant poles										
T			Unit	MQty	MRate	LQty	LRate	Mtotal	Ltotal	Total
1.A	3.5m Wood Cross-arm (140-160mm)		e.a.	9		9				
1.B	3.5m Steel Cross-arm Set		e.a.	0	0.00					
1.C	5m Wood 80-100 mm tops		e.a.	225		225				
2A	7m Wood 120-140 mm tops		e.a.	0	-	0	-			
3	Shackpole Dressing		e.a.	225		225				
SUB-TOTAL										
Conductor (Installation incl in service con rate)										
U			Unit	MQty	MRate	LQty	LRate	Mtotal	Ltotal	Total
1	6mm sq Airdac CNE plus Pilot wires		m	21000		21000				
2	10mm sq Airdac CNE plus Pilot wires		m	0	-	0	-			
SUB-TOTAL										
Street Lights And Spigots										
V			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										