

## Summary Page

### Umzimvubu LM Electrification 2023/24 SoW - Ntlangano village (102HH)

Bill No.	Description	Material	Labour	Total
1	Preliminaries and General			
2	Overhead Support and Excavations			
3	MV Overhead System			
4	MV Equipment and Switchgear			
5	LV Overhead System			
6	House Service Connections			
7	Big Five Material (TRFRs, Meters, Conductors, Poles & X-Arms)			
<b>8</b>	<b>TOTAL EXCL VAT</b>			
<b>9</b>	<b>VAT</b>			
<b>10</b>	<b>TOTAL INCL VAT</b>			

Bill No:1	PRELIMINARY AND GENERAL		UNIT	QTY	Rate	Total
ITEM No.	DRW No.	DESCRIPTION				
<b>A</b>	<b>FIXED CHARGE ITEMS</b>					
A.1	<b>Site Establishment:</b>	The Contractor shall establish the site camp and maintain throughout the construction period and allow for removal of such upon completion of Works. <b>The Eskom Representative reserves the right to negotiate the rates for rental arrangements.</b>				
A.1.1.		Office and Meeting Room complete as per P&G's Guideline	Sum	100%		
A.1.2.		Stores	Sum	100%		
A.1.3.		Sanitation	Sum	100%		
A.1.4.		Electricity	Sum	100%		
A.1.5.		Supply and Install Diamond mesh fencing at 1.8 meters high	m	400		
A.1.6.		Supply and Install Diamond mesh Lockable Gate 1.8m high x 3.6m wide	each	1		
A.2.	<b>Sign Board Labour</b>					
A.2.1		Contractor shall erect on site, maintain throughout the construction duration	each	1		
A.3.	<b>Sample Board and Stubby Line</b>					
A.3.1		Construct a sample board and stubby line as per the drawings and specification stated in the latest revision of MVL-EI-048 published by Eskom Standards Implementation Department.	Sum	100%		
A.4.	<b>Health and Safety measures (In terms of 34-333)</b>	Safety & Health, Environmental				
A.4.1		Compliance with OH&S Act & Construction Regulations.	Sum	100%		
A.5.	<b>As Built</b>					
A.5.1		The Contractor shall maintain and update an as-built drawings as per detailed specifications	No charge			
A.6.	<b>Construction Plan</b>					
A.6.1.		Contractors must allow for the preparation of a detailed programme reflecting the outage dates.	No charge			
A.7.	<b>Materials Management</b>					
A.7.1		The Contractor shall make allowance to receive at Eskom stores, transport to site, offload and stack the free-issue materials supplied to the contractor.	Sum	100%		
A.7.2		Once authorised by the Client, the unused materials shall be loaded, off-loaded, stacked and returned to the Eskom Store from where it originated.	Sum	100%		
A.8.	<b>Contractual requirements</b>	Comply, maintain all insurance and statutory contributions, etc.				
A.8.1		Allowance to Comply, maintain all insurance and statutory contributions, etc. <b>(Actual cost will be paid at the end of the project)</b>	Sum	1		
A.9.	<b>Compliance with EPWP Requirements</b>					
A.9.1		Completion and submission of the Expanded Public Works Programme report	No charge			
<b>SUB-TOTAL</b>						

Bill No:1	PRELIMINARY AND GENERAL			UNIT	QTY	Rate	Total
ITEM No.	DRW No.	DESCRIPTION					
<b>B. TIME RELATED ITEMS</b>							
B.1	Site Establishment						
B.1.1.		Maintain Site Office and Meeting Room, Site Storage complete as per P&G's guideline		Weeks	24		
B.1.2.		Water		Weeks	24		
B.1.3.		Sanitation (service)		Weeks	24		
B.1.4.		Electricity (Eskom/Munic supply)		Weeks	24		
B.1.5.		Electricity (Generator)		days	24		
B.2	Accommodation	accommodation allowance is for the contractors staff excluding the casual labourers which are assumed to be residing in the area where the works are executed.					
B.2.1.		Staff Accommodation allowance		Weeks	24		
B.3	Security						
B.3.1.		Security on site - 24 Hour Unarmed Security (Must be registered with the appropriate body)		Weeks	24		
B.4	Tools and Equipment						
B.4.1		Tools and equipment (Provision made for only rental of Specialized Tools) - Only actual cost will be compensated		Weeks	24		
B.5.	Labour	The Contractor need to submit Weekly Time Sheets for all hourly compensation claims and a Daily attendance register for CLO compensation claims					
B.5.1.		Supervisor		hourly	960		
B.5.2.		Contracts Manager		hourly	960		
B.5.3.		Driver		hourly	960		
B.5.4.		Clerk		hourly	960		
B.5.5.		Storeman <i>(Storeman is required to reconcile and quantify All material on site including Eskom supplied material using the correct material return to stores forms. The Storeman shall adhere to the implementation and maintenance plan for Materials Management System for the duration of the contract.)</i>		hourly	960		
B.5.6.		Community Liaison Officer		Monthly	7		
B.5.7.		Safety Officer and Safety Rep		hourly	960		
B.6.	Transport	Transport of resources to and from site will be done in terms of OHS Act (T). The cost to the Contractor to provide safe transport for his employees should be in terms of the Construction Regulations Clause 21 (2) (a) and (i) & adhere to Eskom Life Saving rules. The transport rates includes for both the fixed and running cost components. Tracker records to be provided as proof of km's travelled.					
B.6.1		LDV 4X2		km	0		
B.6.2		LDV 4X4		km	4500		
B.6.3		Mini-bus 13 Seater		km			
B.6.4		Mini-bus 23 Seater		km			
B.6.5		2-4 Ton Truck		km			
B.6.6		8 Ton Truck		km			
B.6.7		8 Ton Truck with Crane		km	3500		
B.6.8		22 Ton Truck (To be only used with the approval of the Eskom Agent)		km			
<b>SUB-TOTAL</b>	<b>Sub Total B</b>	TIME RELATED ITEMS					
	<b>Sub Total A</b>	FIXED CHARGE ITEMS					
<b>TOTAL</b>	<b>Grand Total</b>						

BILL NO: 2	OVERHEAD SUPPORT & EXCAVATIONS			Ntlangano Village 102HH	SCOPE SPECIFIC				TOTAL	
NO.	D-D-T	DESCRIPTION	UNIT	Qty	Total Qty	Labour Rate	Material	Grand Total	Labour	Material
EXCAVATIONS & TRENCHING		Excavate, backfill and compact as per Eskom standard and import backfill soil where required as per Eskom standard for holes and trenches for poles, stays, struts, flying stays and earth electrodes. All material will be measured elsewhere.								
1.1		Excavation, backfilling & compacting of a hole 1m for 5 meter pole in soil type compacted.								
1.1.1		Class 2 pickable soil per hole	Ea		0					
1.1.2		Hard rock - Compressor	Ea	71	71					
1.1.3		Hard rock - Rock Drilling Machine	Ea		0					
1.2		Excavation, backfilling and compacting of a hole 1,3 meter (7 meter pole) in soil type.								
1.2.1		Class 2 pickable soil per hole (including the hand removable of rock and boulders)	Ea		0					
1.2.2		Hard rock - Compressor	Ea	31	31					
1.2.3		Hard rock - Rock Drilling Machine	Ea		0					
1.3		Excavation, backfilling and compacting of a hole 1,5 meter (9 meter pole) in soil type.			0					
1.3.1		Class 2 pickable soil per hole (including the hand removable of rock and boulders)	Ea		0					
1.3.2		Hard rock - Compressor	Ea	113	113					
1.3.3		Hard rock - Rock Drilling Machine	Ea		0					
1.4		Excavation, backfilling and compacting of a hole 1,7 meters (10 meter pole) in soil type.								
1.4.1.		Class 2 pickable soil per hole (including the hand removable of rock and boulders)	Ea		0					
1.4.2.		Hard rock - Compressor	Ea	0	0					
1.4.3.		Hard rock - Rock Drilling Machine	Ea		0					
1.5		Excavation, backfilling and compacting of a hole 1,8 meters (11 meter pole) in soil type.								
1.5.1.		Class 2 pickable soil per hole (including the hand removable of rock and boulders)	Ea		0					
1.5.2.		Hard rock - Compressor	Ea		0					
1.5.3.		Hard rock - Rock Drilling Machine	Ea	101	101					
1.6		Excavation, backfilling and compacting of a hole 2,0 meters (12 meter pole) in soil type.								
1.6.1.		Class 2 pickable soil per hole (including the hand removable of rock and boulders)	Ea		0					
1.6.2.		Hard rock - Compressor	Ea		0					
1.6.3.		Hard rock - Rock Drilling Machine	Ea	0	0					
1.7		Excavation, backfilling and compacting of a hole 2.2 meter (13 meter pole) in soil type.								
1.7.1		Class 2 pickable soil per hole (including the hand removable of rock and boulders)	Ea		0					
1.7.2		Hard rock - Compressor	Ea		0					
1.7.3		Hard rock - Rock Drilling Machine	Ea	0	0					
1.8		Excavation, backfilling and compacting of a hole 2.2m (14 meter pole) in soil type.								
1.8.1		Class 2 pickable soil per hole (including the hand removable of rock and boulders)	Ea		0					
1.8.2		Hard rock - Compressor	Ea		0					
1.8.3		Hard rock - Rock Drilling Machine	Ea	0	0					
1.9		Excavation, backfilling and compacting of a hole 2.2m (16 meter pole) in soil type.								
1.9.1		Class 2 pickable soil per hole (including the hand removable of rock and boulders)	Ea		0					
1.9.2		Hard rock - Compressor	Ea		0					
1.9.3		Hard rock - Rock Drilling Machine	Ea		0					
1.10		Excavation, backfilling and compacting of a hole 2.4m (18 meter pole) in soil type.								
1.10.1		Class 2 pickable soil per hole (including the hand removable of rock and boulders)	Ea		0					
1.10.2		Hard rock - Compressor	Ea		0					
1.10.3		Hard rock - Rock Drilling Machine	Ea		0					
1.11	0350	Excavation, backfilling and compacting of a hole 1,3 meters (LV stay hole) (rod diameter 12mm) in soil type.								
1.11.1		Class 2 pickable soil per hole (including the hand removable of rock and boulders)	Ea		0					
1.11.2		Hard rock - Compressor	Ea	89	89					
1.11.3		Hard rock - Rock Drilling Machine	Ea		0					
1.12	0350	Excavation, backfilling and compacting of a hole 1,8 meters (MV stay hole) (rod diameters 20mm) in soil type - Depth 1.45 meters								
1.12.1		Class 2 pickable soil per hole (including the hand removable of rock and boulders)	Ea		0					
1.12.2		Hard rock - Compressor	Ea		0					
1.12.3		Hard rock - Rock Drilling Machine	Ea	72	72					
1.13	0342	Excavation, backfilling & compacting of a MV 0.5m deep strut hole in soil type								
1.13.1		Class 2 pickable soil per hole (including the hand removable of rock and boulders)	Ea		0					
1.13.2		Hard rock - Compressor	Ea	2	2					
1.13.3		Hard rock - Rock Drilling Machine	Ea		0					
1.14	0342	Excavation, backfilling & compacting of a LV strut hole 0.5 deep meters in soil type								
1.14.1		Class 2 pickable soil per hole (including the hand removable of rock and boulders)	Ea		0					
1.14.2		Hard rock - Compressor	Ea	15	15					
1.14.3		Hard rock - Rock Drilling Machine	Ea		0					
1.15		Excavation, backfilling & compacting of wood pole using Mechanical boring/Rock Drill or Jack Hammer								

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	NO.	D-D-T	DESCRIPTION	UNIT	Qty	Total Qty	Labour Rate	Material	Grand Total	Labour	Material
EXCAVATIONS & TRENCHING		Excavate, backfill and compact as per Eskom standard and import backfill soil where required as per Eskom standard for holes and trenches for poles, stays, struts, flying stays and earth electrodes. All material will be measured elsewhere.									
1.15.1		Rock drilling (Irrespective of depth of hole, each hole to be verified by Eskom's Clerk of Works as per Supplier's invoice+10% handling) and labour required	Ea		0						
1.15.2		Excavate using a mechanical boring (Auger) device (Irrespective of depth of hole, each hole to be verified by Eskom's Clerk of Works as per Supplier's invoice+10% handling) and labour required	Ea		0						
1.15.3		Excavate using a jack hammer and compressor (Irrespective of depth of hole, each hole to be verified by Eskom's Clerk of Works as per Supplier's invoice+10% handling)	Ea		0						
1.16		<b>MV &amp; LV Earthing trenching including excavation, backfilling and compaction</b>									
1.16.1		Class 2 per trench (500 mm deep)	m3	0	0						
1.16.2		Blasting (Irrespective of depth of hole, each hard rock hole to be verified by Eskom's Clerk of Works as per Supplier's invoice+10% handling) and labour required	Ea	0	0						
1.16.3		Rock drilling (Irrespective of depth of hole, each hole to be verified by Eskom's Clerk of Works as per Supplier's invoice+10% handling) and labour required	Ea		0						
1.16.4		Excavate using a mechanical boring (Auger) device (Irrespective of depth of hole, each hole to be verified by Eskom's Clerk of Works as per Supplier's invoice+10% handling) and labour required	Ea		0						
1.16.5		Excavate using a jack hammer and compressor (Irrespective of depth of hole, each hole to be verified by Eskom's Clerk of Works as per Supplier's invoice+10% handling)	Ea		0						
1.16.6		Supply of imported soil (Class 1) - To be verified by Clerk of Works ( subject to supplier's invoice+10% handling)	m3		0						
WOOD POLE PLANTING		Excavations and compaction are measured elsewhere. Structure, Flying stay and strut poles are included in this section. Poles are Eskom free issue material. Pole top diameter ranges from 140mm to 220mm									
1.17		<b>Planting By hand</b>									
1.17.1	0058	POLE,WOOD 5.0 X 80-100 TOP DIA	Ea	71	71						
1.17.2	0050	POLE,WOOD 7.0X100-120 TOP DIA	Ea		0						
1.17.3	0050	POLE,WOOD 7.0X120-139 TOP DIA	Ea	31	31						
1.17.4	0055	POLE:140-159MM TOP DIA X LG 9 M;WOOD	Ea		0						
1.17.5	0055	POLE:160-179MM TOP DIA X LG 9 M;WOOD	Ea	109	109						
1.17.6	0055	POLE:180-199MM TOP DIA X LG 9 M;WOOD	Ea	4	4						
1.17.7	0052	POLE,WOOD 10.0m x 160-179	Ea		0						
1.17.8	0052	POLE,WOOD 10.0m x 180-199	Ea		0						
1.17.9	0052	POLE,WOOD 10.0m x 200-219	Ea		0						
1.17.10	0051	POLE:140-159MM TOP DIA X LG 11M ;WOOD	Ea		0						
1.17.11	0051	POLE:160-179MM TOP DIA X LG 11M ;WOOD	Ea	66	66						
	0051	POLE:160-179MM TOP DIA X LG 11M ;WOOD (LV Struts)	Ea	15	15						
1.17.12	0051	POLE:180-199MM TOP DIA X LG 11M ;WOOD	Ea	35	35						
1.17.13	0051	POLE:200-219MM TOP DIA X LG 11M ;WOOD	Ea		0						
1.17.14	0053	POLE:160-179MM TOP DIA LG 12 M;WOOD	Ea	0	0						
1.17.15	0053	POLE:180-199MM TOP DIA X LG 12 M;WOOD	Ea	0	0						
	0054	POLE:180-199MM TOP DIA X LG 12 M;WOOD (MV Struts)	Ea	2	2						
1.17.16	0053	POLE:200-219MM TOP DIA X LG 12 M;WOOD	Ea	0	0						
1.17.17	0053	POLE:PINE:160MM TOP DIA X LG 12 M;WOOD	Ea		0						
1.17.18	0056	POLE,WOOD 13.0 x 160-179	Ea		0						
1.17.19	0056	POLE,WOOD 13.0 x 180-199	Ea		0						
1.17.20	0056	POLE,WOOD 13.0 x 200-219	Ea		0						
1.17.21	0056	POLE,WOOD 14.0 x 160-179	Ea		0						
1.17.22	0056	POLE,WOOD 14.0 x 180-199	Ea		0						
1.17.23	0056	POLE,WOOD 14.0 x 200-219	Ea		0						
1.17.24	0056	POLE,WOOD 15.0 x 160-179	Ea		0						
1.17.25	0056	POLE,WOOD 15.0 x 180-199	Ea		0						
1.17.26	0056	POLE,WOOD 15.0 x 200-219	Ea		0						

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	NO.	D-D-T	DESCRIPTION	UNIT	Qty	Total Qty	Labour Rate	Material	Grand Total	Labour	Material
EXCAVATIONS & TRENCHING		Excavate, backfill and compact as per Eskom standard and import backfill soil where required as per Eskom standard for holes and trenches for poles, stays, struts, flying stays and earth electrodes. All material will be measured elsewhere.									
STAYS AND STRUTS		Supply and install stays, flying stays, struts. Accessories include staywire, stayrods, stay plates, soil anchors, stay insulators, guy grips stay mounting brackets, mounting hardware, anti climbing devices, stayguards and danger labels. Poles and excavations are measured elsewhere. The installation and erection of strut poles are measured here									
1.19		Installing Stay and strut assemblies									
1.19.1	0341 (Sh 1 of 5)	STAY ASSEMBLY (LV - 35kN) WOOD	Ea	87	87						
1.19.2	0341 (Sh 2 of 5)	STAY ASSEMBLY (MV - 97kN) WOOD POLES (LV STA	Ea	68	68						
1.19.3	0341 (Sh 3 of 5)	STAY ASSEMBLY (MV - 97kN) WOOD	Ea		0						
1.19.4	0341 (Sh 4 of 5)	MV HEAVY / HV LINES CONDUCTOR STAY ASSEMBLY (MV - 115kN) WOOD	Ea		0						
1.19.5	0341 (Sh 5 of 5)	STAY ASSEMBLY WOOD STAY GUARD APPLICIATION (IF REQUIRED)	Ea		0						
1.19.6	0342 (Sh 1 of 3)	STRUT ASSEMBLY FLAT 45 DEG. BRACKET 7m, 9m AND 11m POLES	Ea	15	15						
1.19.7	0342 (Sh 2 of 3)	STRUT ASSEMBLY SWIVEL BRACKET 11m, 12m AND 13m, 14,15 WOOD POLES	Ea	2	2						
1.19.8	0342 (Sh 3 of 3)	STRUT ASSEMBLY WOOD H - POLE FOR -11m , 12m and 13m,14,15 poles	Ea		0						
1.19.9	0343	LV- OVERHEAD FLYING STAY ARRANGEMENT (9m)	Ea	2	2						
1.19.10	0344	MV - OVERHEAD FLYING STAY ARRANGEMENT (11m)	Ea	4	4						
1.19.11	0344	HIP STAY FROM WOOD POLE FOUNDATION AND AS	Ea		0						
1.19.12	0357 (Sh 1 of 3)	LV/MV-ROCK ANCHOR INSTALLATION (EXPANDABLE SHELL & RESIN TYPE)	Ea	0	0						
1.19.13	0357 (Sh 2 of 3)	LV/MV-ROCK ANCHOR INSTALLATION (2 EYED ROD AND PIN TYPE)	Ea		0						
1.19.14	0357 (Sh 3 of 3)	MV- SOFT ROCK ANCHOR INSTALLATION	Ea		0						
<b>Totals</b>						Carried to Summary Page					

BILL NO: 3	MV OVERHEAD SYSTEM			Ntlangano Village 102HH	SCOPE SPECIFIC				TOTAL	
NO.	D-D-T	DESCRIPTION	UNIT	Qty	Total Qty	Labour Rate	Material	Grand Total	Labour	Material
MV CONDUCTOR		Install Eskom issued marked conductor. Material quantity to allow for 5% sag in addition to actual conductor length quantity. Installation includes handling, stringing and final sagging.								
2.1.1	3136	MV Bare ACSR Squirrel Ungreased	m							
2.1.2	3136	MV Bare ACSR Magpie Ungreased	m							
2.1.3	3136	MV Bare AAC Acacia Greased	m							
2.1.4	3136	MV Bare ACSR Fox Ungreased	m	18188	18188					
2.1.5	3136	MV Bare ACSR Fox Greased	m							
MV STRUCTURES		Supply and erect MV support structures as per Eskom DDT 0400, 1300, 1700, 1800 drawings and OU specific SI Engineering instructions. Auxiliary equipment such as bonding, BIL downwire, jumpers, jumper terminations, pole and xarm mounting and mounting hardware, conductor attachment hardware and insulators to be included. Poles are measured elsewhere, crossarms are included. Stay, strut material measured elsewhere. Pole, stay and strut excavations are measured elsewhere. Where road crossing structures are to be used the line hardware needs to be changed to include : For intermediate a suitable fullwrap road crossing tie and for a strain structure a 3bolt suitable pistol grip. Other relevant road crossing hardware to be included where required. Road crossings to be inserted in BOQ where required and marked with 'RX' as part of the description. MV intermediate structures that fall within high lightning zones in the OU shall have a spark gap device installed on its BIL downwire. Refer DDT3134. All other intermediate structures will have a normal BIL.								
2.2.75	1340B	Phase / phase – Delta/2.5M Wooden X-arm –Strain - 0° Deviation	Ea	0	0					
2.2.76	1340B	Phase / phase – Delta/2.5M Wooden X-arm –Strain - 0° Deviation Rx	Ea	0						
2.2.79	1343	Phase / phase – Delta/2.5M Wooden X-arm –Strain - 0° Deviation	Ea	0	0					
2.2.80	1343	Phase / phase – Delta/2.5M Wooden X-arm –Strain - 0° Deviation - Rx	Ea	0						
2.2.81	1344	Phase / phase – Delta/2.5M Wooden X-arm –Strain - Medium (1-60°) Deviation	Ea	0	0					
2.2.82	1344	Phase / phase – Delta/2.5M Wooden X-arm –Strain - Medium (1-60°) Deviation - Rx	Ea	0						
2.2.83	1346	Phase / phase – Delta/2.5M Steel X-arm – Strain - Terminal	Ea	0	0					
2.2.84	1346	Phase / phase – Delta/2.5M Steel X-arm – Strain - Terminal	Ea	0						
2.2.147	1740B	3 Phase - Delta / 2,5m Wood X-arm – Intermediate - 0° Deviation	Ea	41	41					
2.2.148	1740B	3 Phase - Delta / 2,5m Wood X-arm – Intermediate - 0° Deviation -RX	Ea	10	10					
2.2.151	1743	3 Phase - Delta / 2,5m Wood X-arm - Strain – 0° Deviation	Ea	10	10					
2.2.152	1743	3 Phase - Delta / 2,5m Wood X-arm - Strain – 0° Deviation - RX	Ea	3	3					
2.2.153	1744	3 Phase - Delta / 2,5m Wood X-arm - Strain – Medium(1°-60°) Deviation	Ea	11	11					
2.2.154	1744	3 Phase - Delta / 2,5m Wood X-arm - Strain – Medium(1°-60°) Deviation -RX	Ea	5	5					
2.2.159	1746	3 Phase - Delta / 2,5m Wood X-arm - Strain – Terminal	Ea	15	15					
2.2.160	1746	3 Phase - Delta / 2,5m Wood X-arm - Strain – Terminal -RX	Ea	2	2					
2.2.161	1747	3 Phase - Delta / 2 x 2,5m Wood X-arm - Strain - 0° Deviation	Ea	0	0					
2.2.162	1747	3 Phase - Delta / 2 x 2,5m Wood X-arm - Strain - 0° Deviation -RX	Ea	0						
2.2.197	1773	3 Phase - H-Pole / 4,5m Wood X-arm - Strain - 0° Deviation	Ea							
2.2.198	1773	3 Phase - H-Pole / 4,5m Wood X-arm - Strain - 0° Deviation- RX	Ea							
2.2.199	1774	3 Phase - H-Pole / 4,5m Wood X-arm - Strain - Medium(1°-60°) Deviation	Ea	0	0					
2.2.200	1774	3 Phase - H-Pole / 4,5m Wood X-arm - Strain - Medium(1°-60°) Deviation -RX	Ea	0	0					
2.2.209	1783	3 Phase – Trips – Strain - 0° Deviation (Front view)	Ea	0	0					
2.2.210	1783	3 Phase – Trips – Strain - 0° Deviation (Front view) -RX	Ea	0	0					
2.2.211	1784	3 Phase – Trips – Strain - Large(1°-90°) Deviation (Front view)	Ea	0	0					
2.2.212	1784	3 Phase – Trips – Strain - Large(1°-90°) Deviation (Front view) -RX	Ea	0	0					
2.2.251	1800	3 Phase Take-off – Vertical 450mm Spacing	Ea	0	0					
2.2.252	1800	3 Phase Take-off – Vertical 450mm Spacing Rx	Ea	0	0					
2.2.257	1804	3 Phase Take-off - 2,5m Wooden X-arm	Ea	13	13					
2.2.258	1804	3 Phase Take-off - 2,5m Wooden X-arm-RX	Ea	3	3					
	1810	Phase / phase Take-off – Vertical (600mm spacing)	Ea	0						
2.2.273	1814	Phase / phase Take-off - 2,5m Wooden X-arm	Ea	0	0					
2.2.274	1814	Phase / phase Take-off - 2,5m Wooden X-arm-RX	Ea	0						
2.2.284	1848	S-link	Ea	7	7					
2.2.285	(OU Specific Drawing No)	Erect goal posts, supply and erect temporary structures and traffic signs and regulate traffic during construction for all <b>road crossings/railways crossings</b> . (This includes any loss of production during road crossings and ensuring that access is maintained to roads and properties as well as any fees by Prov. Traffic Dept)	Ea							

BILL NO: 3	MV OVERHEAD SYSTEM			Ntlangano Village 102HH	SCOPE SPECIFIC				TOTAL	
NO.	D-D-T	DESCRIPTION	UNIT	Qty	Total Qty	Labour Rate	Material	Grand Total	Labour	Material
MV CONDUCTOR		Install Eskom issued marked conductor. Material quantity to allow for 5% loss in addition to actual conductor length quantity.								
MISCELLANEOUS		Allow for the following end items to be applied as per relevant Eskom instructions/bulletins/procedures and standards where not already allowed for in structure package. Note the cross arms below are applicable for existing structures only.								
2.3.1	3053	Bird flapper,EBM Squirrel to Kingbird D3053	Ea	0	0					
2.3.2	3175	Damper,vibrat spiral 8.29-11.71 D3175	Ea	0	0					
2.3.3	3175	Damper,vibrat spiral 11.72-14.30 D3175	Ea							
2.3.4	3073	Joint, M/Span Mink/Pine I/C D3073	Ea							
2.3.5	3073	Joint, M/Span Hare/Oak I/C D3073	Ea							
2.3.6	3073	Joint, M/Span Fox /35 I/C D3073	Ea	0	0					
2.3.7	3228	Joint, Full Ten Auto Hare/Oak D3228	Ea							
2.3.8	3228	Joint, Full Ten Auto 5.82 TO 8.64mm D3228	Ea							
2.3.9	3228	Joint, Full Ten Auto Mink/Pine D3228	Ea							
2.3.10	0061	X/ARM,WOOD:160-179 MM;LG 2.5 M;WOOD	Ea							
2.3.11	0061	X/ARM,WOOD:120-139 22MM HOLES;LG 2.5 M PREDRILL	Ea							
2.3.12	0061	X/ARM,WOOD:140-159 22MM HOLES;LG 2.5 M PREDRILL	Ea	128	128					
2.3.13	0061	X/ARM,WOOD:160-179 22MM HOLES;LG 2.5 M PREDRILL	Ea							
2.3.14	0063	XARM,WOOD 3.5x140-159 TOP DIA	Ea							
2.3.15	0064	XARM,WOOD 3.5x160-179 TOP DIA	Ea							
2.3.16	0064	XARM,WOOD 4.5x160-179 TOP DIA	Ea	4	4					
2.3.17	3071	XARM,STEEL STRAIN FOX 100x65x1700 LG	Ea							
2.3.18	3072	XARM,STEEL STRN MINK+HAR125x75x1700LG	Ea							
2.3.19	3072	XARM,STEEL STRN CHCK-K/BRD 150x75x1700	Ea							
2.3.20	7028	XARM,WOOD 6.0x160-179 TOP DIA	Ea	0	0					
2.3.21	7028	XARM,POLE/XARM WD 8.0x160-179 T/DIA	Ea							
2.3.22	7028	Set: Device warning-Aircraft warning 8.87-13.55;2	set							
2.3.23	7028	Set: Device warning -Aircraft warning 7.35-14.16;2	set							
2.3.24	7028	Set: Device warning-Aircraft warning 18.13-23.88;2	set							
2.3.25	3049	Aluminium pole tag 25x150mm with pole number	Ea	97	97					
2.3.26		Pegging of MV Poles	Ea	97	97					
		<b>TOTAL</b>				Carried to Summary Page				



BILL NO: 5	LV OVERHEAD SYSTEM			Ntlangano Village 102HH	SCOPE SPECIFIC				TOTAL	
NO.	D-D-T	DESCRIPTION	UNIT	Qty	Total Qty	Labour Rate	Material	Grand Total	Labour	Material
LV CONDUCTOR		Install Eskom issued specified conductor. Material quantity to allow for 5% sag in addition to actual conductor length quantity. Installation includes handling, stringing and final sagging.								
4.1		<b>A. Stringing</b>								
4.1.1	3089	FERRULE,CRIMP AL 25SQ INSULATED	Ea							
4.1.2	3089	JOINT,MSPN SET 3x35+35SQ B/N ABC	Ea							
4.1.3	3089	JOINT,MSPN SET 3x70+50SQ B/N ABC	Ea							
4.1.4	3089	JOINT,MSPN SET 2x35+35SQ B/N ABC	Ea							
4.1.5	3089	JOINT,MSPN SET 1x35+35SQ B/N ABC	Ea							
4.1.6	3089	JOINT,MSPN SET 3x35+54.6SQ INSNEUT	Ea							
4.1.7	3089	JOINT,MSPN SET 3x70+54.6SQ INSNEUT	Ea							
4.1.8	3141	COND,Aerial Bundle 2C XLPE 35SQ NEUT	m	1006	1906					
4.1.9	3141	COND,ABC 2C XLPE 35SQ INS NEUT	m							
4.1.10	3141	COND,Aerial Bundle 3C XLPE 35SQ NEUT	m	5785	5785					
4.1.11	3141	COND,ABC 3C XLPE 35SQ INS NEUT	m							
4.1.12	3141	COND,Aerial Bundle 4C XLPE 35SQ NEUT	m	0	0					
4.1.13	3141	COND,ABC 4C XLPE 35SQ INS NEUT	m							
4.1.14	3141	COND,Aerial Bundle 5C XLPE 35SQ INS NEUT	m							
4.1.15	3141	COND,ABC 5C XLPE 35SQ INS NEUT	m							
4.1.16	3141	COND,Aerial Bundle 2C XLPE 70SQ NEUT	m							
4.1.17	3141	COND,Open Wire Fox(ACSR)	m							
4.1.18	3141	COND,Aerial Bundle 3C XLPE 70SQ NEUT	m							
4.1.19	3141	COND,ABC 3C XLPE 70SQ INS NEUT	m							
4.1.20	3141	COND,Aerial Bundle 4C XLPE 70SQ NEUT	m							
4.1.21	3141	COND,ABC 4C XLPE 70SQ INS NEUT	m	200	200					
4.1.22	3141	COND,Aerial Bundle 5C XLPE 70SQ INS NEUT	m							
4.1.23	3141	COND,ABC 5C XLPE 70SQ INS NEUT	m							
4.1.23A	3136	AAAC 035 CONDUCTOR	m							
LV STRUCTURES		Supply and erect LV support structures as per Eskom DDT 0900. Auxiliary equipment such as strain clamps, suspension clamps, cable ties, Connectors (IPC's & PG Clamps), LV shackle insulators, binding wires, D brackets, dead end pre-forms, threaded rods, pigtail bolts, eyenuts, terminations to be included.Pole, stay and strut material and excavations are measured elsewhere.								
4.2		<b>A. List of three-phase Bare Wire wood pole</b>								
LV STRUCTURES		Supply and erect LV support structures as per Eskom DDT 1100(only use insulated neutral ABC). Auxiliary equipment such as strain clamps, suspension clamps, cable ties, IPC's , end caps, LV shackle insulators, binding wires, D brackets, dead end preforms, threaded rods, pigtail bolts, eyenuts, terminations to be included.Pole, stay and strut material and excavations are measured elsewhere.								
4.5.		<b>A. List of single-phase ABC wood pole</b>								
4.5.1	1153	LV 1 phase insulated/bare neutral ABC Suspension Assembly (0°-30°)	Ea	16	16					
4.5.2	1154	LV 1 phase insulated/bare neutral ABC Terminal Assembly	Ea	27	27					
4.5.3	1155	LV 1 phase insulated/bare neutral ABC Terminal Assembly	Ea	2	2					
4.5.4	1156	LV 1 phase insulated/bare neutral LV 2 phase bare neutral	Ea	2	2					
4.5.5	1157	LV 1 phase insulated/bare neutral ABC T from Intermediate	Ea	6	6					
4.5.6	1158	LV 1 phase insulated/bare neutral ABC Cross Intermediate Suspension Assembly	Ea	0	0					
4.5.7	1159	LV 1 phase insulated/bare neutral ABC T from Strain	Ea	7	7					
4.5.8	1160	LV 1 phase insulated/bare neutral ABC X Intermediate-Strain Assembly	Ea	0	0					
4.6.		<b>B. List of Dual - phase ABC wood pole</b>								
4.6.1	1145	LV 2 phase insulated/bare neutral ABC Suspension Assembly (0°-30°)	Ea	55	55					
4.6.2	1146	LV 2 phase insulated/bare neutral LABC Terminal Assembly	Ea	34	34					
4.6.3	1147	LV 2 phase insulated/bare neutral ABC Strain Assembly (0° - 60°)	Ea	22	22					
4.6.4	1148	LV 2 phase insulated/bare neutral ABC Strain Assembly (60° - 90°)	Ea	13	13					
4.6.5	1149	LV 2 phase insulated/bare neutral ABC T from Intermediate	Ea	3	3					
4.6.6	1150	LV 2 phase insulated/bare neutral ABC Intermediate Suspension Assembly	Ea	0	0					
4.6.7	1151	LV 2 phase insulated/bare neutral ABC T from Strain	Ea	3	3					
4.6.8	1152	LV 2 phase insulated/bare neutral ABC X Intermediate-Strain Assembly	Ea	0	0					

BILL NO: 5	LV OVERHEAD SYSTEM			Ntlangano Village 102HH	SCOPE SPECIFIC				TOTAL	
NO.	D-D-T	DESCRIPTION	UNIT	Qty	Total Qty	Labour Rate	Material	Grand Total	Labour	Material
LOW VOLTAGE FUSE UNITS		Supply and install LV fuse units as per Eskom 0300 series assembly drawings. Accessories inclusive of fuse bracket and mounting hardware, fuse holders and appropriate labels. The LV NH00 fuse rating shall be as per the design.								
4.8.										
4.8.1	0309	Three phase trf and LV fuse holder connection - ABC conductor- 40A NH00	Set							
4.8.2	0309	Three phase trf and LV fuse holder connection - ABC conductor- 63A NH00	Set							
4.8.3	0309	Three phase trf and LV fuse holder connection - ABC conductor- 80A NH00	Set							
4.8.4	0309	Three phase trf and LV fuse holder connection - ABC conductor- 125A NH00	Set							
4.8.5	0309	Three phase trf and LV fuse holder connection - ABC conductor- 160A NH00	Set							
4.8.6	0309	Dual phase trf and LV fuse holder connection - ABC conductor- 40A NH00	Set							
4.8.7	0309	Dual phase trf and LV fuse holder connection - ABC conductor- 63A NH00	Set							
4.8.8	0309	Dual phase trf and LV fuse holder connection - ABC conductor- 80A NH00	Set	22	22					
4.8.9	0309	Dual phase trf and LV fuse holder connection - ABC conductor- 125A NH00	Set		0					
4.8.10	0309	Dual phase trf and LV fuse holder connection - ABC conductor- 160A NH00	Set	0	0					
4.8.11	0309	Single phase trf and LV fuse holder connection - ABC conductor- 40A NH00	Set							
4.8.12	0309	Single phase trf and LV fuse holder connection - ABC conductor- 63A NH00	Set							
4.8.13	0309	Single phase trf and LV fuse holder connection - ABC conductor- 80A NH00	Set							
4.8.14	0309	Single phase trf and LV fuse holder connection - ABC conductor- 125A NH00	Set							
4.8.15	0309	Single phase trf and LV fuse holder connection - ABC conductor- 160A NH00	Set							
Conventional and Split meter LV POLE MOUNTED SERVICE BOXES		Install on a wooden and/or concrete pole a pole mounted distribution box as specified complete with pole mounting brackets (including sealing), cable ties, PG clamps, miniature circuit breaker(s), neutral, phase and earth bars, insulated copper tails for connecting to LV ABC, insulation piercing connectors and factory installed cable openings. Included shall be the stainless steel strapping, buckles and terminations of the tails onto the LV ABC. Eskom D-T standards as amended will apply.								
4.9.										
4.9.1	3055	BOX,POLE TOP DIST 4-WAY 50A D3055	Ea							
4.9.2	3055	BOX,POLE TOP DIST 8-WAY 50A D3055	Ea							
4.9.3	3055	BOX,POLE TOP DIST 4-WAY 120A D3055	Ea							
4.9.4	3055	BOX,POLE TOP DIST 2-WAY 50A D3055	Ea							
4.9.5	3055	BOX,POLE TOP SPLIT METER 2-WAY 50A D3055	Ea	86	86					
4.9.6	3055	BOX,POLE TOP SPLIT METER 4-WAY 50A D3055	Ea	1	1					
4.9.7	3055	BOX,POLE TOP SPLIT METER 2-WAY 120A D3055	Ea		0					
4.9.8	3055	BOX,POLE TOP SPLIT METER 8-WAY 50A D3055	Ea		0					
4.9.9	6050	PADLOCK, ST GEN MASTER SR ORANGE	Ea	87	87					
LV TESTING		Allowance shall be made for the testing of each LV distributor on accordance with the project specification. Included shall be the provision of test certificates and all documentation as required.								
4.10.										
4.10.1		LV Test.	Ea	87	87					
MISCELLANEOUS		Allow for the following end items to be applied as per relevant Eskom instructions/bulletins/procedures and standards where not already allowed for in structure package								
4.11.										
4.11.1		POLE TOP BOX PHASING LABELS	Ea	87	87					
4.11.2	3049	ALUMINIUM POLE TAG 25x150MM WITH POLE NUMBER	Ea	163	163					
4.11.3		PEGGING OF LV POLES	Ea	107	107					
4.11.4		DANGER LABELS	Ea	38	38					
4.11.5		FEEDER LABELS	Ea	10	10					
4.11.6		FUSE LABELS	Ea	10	10					
4.11.7		22kV SWITCH LABEL	Ea	11	11					
4.11.8		TRFR LABELS	Ea	10	10					
Totals										



UMZIMVUBU ELECTRIFICATION 2023/24 - Ntlangano					
Big 5 Materials - Final Quantities - Ntlangano Village (102HH)					
SAP NO	SAP NO	DESCRIPTION	Total QTY	UNIT PRICE	TOTAL PRICE
1	164566	POLE, WOOD 11,0m x 160-179 TOP DIA.	Ea	81	
2	164567	POLE, WOOD 11,0m x 180-199 TOP DIA.	Ea	35	
3	0164570	POLE, WOOD 12,0m x 160-179 TOP DIA.	Ea	0	
4	0164572	POLE, WOOD 12,0m x 180-199 TOP DIA.	Ea	2	
5	0164560	POLE, WOOD 9.0m x 140-159 TOP DIA.	Ea	0	
6	0164561	POLE, WOOD 9.0m x 160-179 TOP DIA.	Ea	109	
7	0164589	POLE, WOOD 9.0m x 180-199 TOP DIA	Ea	4	
8	0164563	POLE, WOOD 10,0m x 180-199 TOP DIA.	Ea	0	
9	0164528	POLE, WOOD 7.0m x 100-120 TOP DIA.	Ea	31	
10	0164531	POLE, WOOD 5.0m x 80-100 TOP DIA.	Ea	71	
11	0164546	XARM, WOOD 140-159mm LG 2.5m	Ea	128	
12	0164551	XARM, WOOD 3.5m x 140-159 TOP DIA.	Ea	0	
13	0164556	XARM, WOOD 4.5m x 140-159 TOP DIA	Ea	4	
14	0183978	XARM, WOOD 6.0m x 160-179 TOP DIA	Ea	0	
15	0171272	COND,ABC 3C XLPE 35SQ INS NEUT	m	5785	
16	171299	COND,ABC 2C XLPE 35SQ INS NEUT	m	1906	
17	215205	COND,ABC 4C XLPE 70SQ INS NEUT	m	200	
18	403027	ACSR Fox CONDUCTOR (D-DT 3136) Ungreased Conductor	m	18188	
19	0632881	CABLE 1KV 2C 6mm SQ CU CONCENTRIC [Combined Neutral Earth]	m	4169	
20	0175078	TFR 16kVA 22kV/240/-240V COASTAL		3	
21	175098	TFR 32kVA 22kV/240/-240V COASTAL	Ea	5	
22	189923	TFR 64kVA 22kV/240/-240V COASTAL	Ea	2	
23	182715	TFR 100kVA 22kV/415/-415V COASTAL	Ea		
24	0257003	METER, SMART DIN RAIL 20A PLC	Ea	102	
25	0187154	KEY, PADLOCK, LIVE MASTER EC OU (Orange)	Ea	87	
		<b>TOTAL</b>			