

BILL 1 - PRELIMINARY & GENERAL

MTSHILWANE ELECTRIFICATION				ESTIMATE	
ITEM NO.	DESCRIPTION	UNIT	QTY	RATE	
1	<u>Contractual Compliance</u>				
1.1	Compliance with all the contractual requirements of the contract, including project programming, outage management, weekly progress reporting, materials management, meetings and quality & environmental management.	Sum	1		
1.2	Establish facilities on site. The Contractor shall provide a fenced space with fence at least 1.8m high with a lockable gate for a temporary Site Office and Stores where all drawings and Specifications will be kept, as well as the provision of safe and ad				
	<u>Facilities for Contractor :</u>				
	a) Offices & storage sheds	Sum	1		
	b) Establishment of staff accommodation, office accommodation on site for site meetings and a Clerk of Works including office furniture and telephone / telefax as specified and facilities.	Sum	1		
	c) Ablution & latrine facilities	Sum	1		
	d) Tools & equipment	Sum	1		
	e) Water supplies, electric power & communications	Sum	1		
1.4	Removal of all items indicated above upon completion of construction and making good and restoring of the Site to the satisfaction of the Project Manager.	Sum	1		
1.5	Provision of "As Built" drawings.	Sum	1		
1.6	<u>Construction Name Board</u> - The Contractor shall place an order and collect from Municipality and maintain one project signboard bearing the name of the project, the name and logo of Municipality, and the Contractor.	Sum	1		
1.7	Provision of samples of materials to be used (only materials supplied by contractor) and construction thereof sample line and board.	Sum	1		
1.8	Provision for the compilation of the Construction Programme, to be done in MS Project and updated on a fortnight basis and Quality Assurance Programme for the works.	Sum	1		
2	<u>Occupational Health & Safety Requirements</u>				
2.1	Provision for Legal and Contractual Compliance.	Sum	1		
2.2	Provision of personal protective equipment and clothing for all the contractor's staff, including sub-contractors.	Sum	1		
2.3	Provision of safety measures, e.g.. Fall arrest systems, shoring for safety purposes etc.	Sum	1		
2.4	Compliance with OH&S Act & Construction Regulations.	Sum	1		
3	<u>Compliance with the Requirements for the Expanded Public Works Programme</u>				
	Note: The reports are to be submitted with the contractors monthly invoice.				
3.1	Compliance with the Requirements for the Expanded Public Works Programme (incl. monthly reports). Released at the end of the project	Sum	1		
4	<u>ENdumeni Municipality Materials</u>				
4.2	On Completion of the project, all unused Municipality supplied Non Free Issue materials shall be reconciled and qualified. Once authorised by the Consultant/Project Co-ordinator, the unused materials shall be transported to Endumeni Municipality stores.	km	1		
4.3	Survey + Environmentalist	PS	1	R 100,000.00	R 100,000.00
SUB TOTAL (BILL 1) PAGE 1 C/F					

BILL 1 - PRELIMINARY & GENERAL

ITEM NO.	DESCRIPTION	UNIT	QTY	RATE	TOTAL PRICE (SA RANDS)
	Amount brought forward from previous page				
5	<u>Time Related Items (To maintain site for the duration of the project)</u>				
5.1	Operate and Maintain Facilities on Site				
	Facilities for Contractor:				
	a) Offices & storage sheds	Month	2		
	b) Ablution & latrine facilities	Month	2		
	c) Tools & equipment	Month	2		
	d) Water supplies, electric power & communications	Month	2		
	e) Safety related items	Month	2		
5.2	Provision of office accommodation on site for site meetings and a Clerk of Works including office furniture and telephone / email as specified.	Month	2		
5.3	Contract management and full time supervision of the works	Month	2		
5.6	Community Liaison Officer conversant in Zulu or Xhosa and local cultural norms, to cater for all three areas	Month	2		
5.7	<u>Security</u> Contractor shall provide security guard/s to ensure the site including offices, storage sheds and all Municipality material are protected from theft or any damage. The Contractor needs to ensure that the above mentioned is guarded 24hrs a day.	Month	2		
6	<u>Environmental Management</u>				
	Compliance to Environmental Management Plan/EMPR	Month	2		
TOTAL (BILL 1) PAGE 2					

BILL NO 2 - MEDIUM VOLTAGE SWITCHGEAR, SECTIONALISERS, TRANSFORMERS, ETC

PROJECT NAME: MTSHILWANE ELECTRIFICATION		ENQUIRY NO.		ESTIMATE			
Item	Description	Detail Reference	Unit	Tender Quantity	Supply Rate	Install Rate	Total Price (R)
Transformers ("Non Free Issue" Item)							
Supply, deliver and install on appropriate structure and secure as required including the termination of cables and conductors, the provision of suitable lugs for 35, 50 or 70mm conductor as required. Excluding cable, conductors, and the transformer structure.							
2.1	Transformer 16kVA, 11kV/240V Single Phase Coastal	DDT 3021	No	7			
2.2	Transformer 32kVA, 11kV/460V Dual Phase Coastal	DDT 3021	No	0			
2.3	Transformer 50kVA, 11kV/400V Three phase Coastal	DDT 3021	No	0			
2.4	Transformer 100kVA, 11kV/400V Three phase Coastal	DDT 3021	No	0			
New Section Breaker							
Supply, deliver and install new MV Auto Reclosers. Install on appropriate structure and secure as required including the termination of cables and conductors, the provision of suitable lugs for 35, 50 or 70mm conductor as required. Structure and installation of auxiliaries is measured elsewhere.							
2.5	Section Breaker	D-DT 1829	No	1			
Replacement of Auxiliaries (Sectionalisers and Links)							
The unit rate shall allow for the complete elevated replacement of the following auxiliaries, the rate shall include all materials required to remove, reposition the auxiliary with new assembly in accordance the Eskom Standard.							
2.6	2 Phase Section link - Cut-out - 2.5M X-ARM - Single pole c/w inserts	D-DT 1848	No	0			
2.7	3 Phase Equipment link - Cut-out - 2.5M X-ARM - Single pole c/w inserts	D-DT 1848	No	9			
2.8	3 Phase Equipment link - Cut-out - 3.5M/4.5M X-ARM - H-pole c/w inserts	D-DT 1847	No	0			
Medium Voltage Surge Arrestors							
Supply, deliver, off load on site and safely store on site the following surge arrestors, complete with galvanised steel mounting brackets for securing the surge arrestor, nuts, bolts, washers and lock washers as specified. Secure the surge arrestors and brackets to the transformer as specified including the termination of conductors. Excluding the conductors and transformer.							
2.9	11kV, 10kA Surge arrestor Coastal	D-DT 3100	No	28			
2.10	22kV, 19,2kA Surge arrestor Coastal	DDT 3100	No	0			
Amount carried over to next page							

Item	Description	Detail Reference	Unit	Tender Quantity	R	-	Total Price (R)
	Amount brought forward from previous page						
2.11	Neutral Surge Arrestor						
	Supply and install a LV surge arrestor including lugs and galvanised bolts						
	Surge arrestor	DDT D270	No	7			
	Transformer Earthing						
	Supply and install all materials for the complete earthing of transformers and bulk meter structures for ABC networks as specified. Included in the rate shall be all required spikes, insulated copper conductor, galvanised conduits, staples, bare copper, excavations, backfilling, etc. The rate shall allow for one MV earth electrode only, consisting of four earth spikes in accordance with the specifications. Additional earth spikes/conductor shall be measured elsewhere if required.						
2.12	MV Earth Transformers (Incl Aux trfr)	DDT 1860	No	7			
2.13	MV Earth Section Breaker	DDT 1829B	No	1			
	TOTAL : Carried forward to summary						

BILL NO 3 - MEDIUM VOLTAGE OVERHEAD DISTRIBUTION SYSTEM

PROJECT NAME: MTSILWANE ELECTRIFICATION		ENQUIRY NO.		ESTIMATE			
Item	Description	Detail Reference	Unit	Tender Quantity	Supply Rate	Install Rate	Total Price (R)
	Conductor ("Non Free Issue" Item)						
Note	Safely store on sealed drums with ends adequately secured and transport to site conductor as specified. String conductor as specified including splices, jumper conductor ties, strain clamps, suspension clamps, tensioning, sagging, etc. The following dimensions will all be "CONDUCTOR LENGTH" not route length, allowance made for sag, waste.						
3.1	FOX Three Phase		m	10500			
3.2	Dual Phase		m	0			
	Supply and install all material as specified for the construction of the following MV structures. Including bonding of hardware and earthing. All excavations, poles, crossarms and stays are measured elsewhere						
3.3	Dual phase - Delta / 2,5m Wood X-arm - Intermediate - 0° Deviation	D-DT-1340B	No	0			
3.4	Dual phase - Delta / 2,5m Wood X-arm - Intermediate - 0° Deviation RX	D-DT-1340B	No	0			
3.5	Dual phase - Delta / 2,5m Wood X-arm - Strain - 0° Deviation	D-DT-1343	No	0			
3.6	Dual phase - Delta / 2,5m Wood X-arm - Strain - 0° Deviation RX	D-DT-1343	No	0			
3.7	Dual phase - Delta / 2,5m Wood X-arm - Strain - Medium(1°-60°) Deviation	D-DT-1344	No	0			
3.8	Dual phase - Delta / 2,5m Wood X-arm - Strain - Medium(1°-60°) Deviation RX	D-DT-1344	No	0			
3.9	Dual phase - Delta / 2,5m Wood X-arm - Strain - Terminal	D-DT-1346	No	0			
3.10	Dual phase - Delta / 2,5m Wood X-arm - Strain - Terminal RX	D-DT-1346	No	0			
	Amount carried over to next page						

Item	Description	Detail Reference	Unit	Tender Quantity	Supply Rate	Install Rate	Total Price (R)
	Amount brought forward from previous page						
3.11	Three phase - Delta / 2,5m Wood X-arm - Intermediate - 0° Deviation	D-DT-1740B	No	22			
3.12	Three phase - Delta / 2,5m Wood X-arm - Intermediate - 0° Deviation RX	D-DT-1740B	No	0			
3.13	Three phase - Delta / 2,5m Wood X-arm - Strain - 0° Deviation	D-DT-1743	No	8			
3.14	Three phase - Delta / 2,5m Wood X-arm - Strain - 0° Deviation RX	D-DT-1743	No	0			
3.15	Three phase - Delta / 2,5m Wood X-arm - Strain - Medium(1°-60°) Deviation	D-DT-1744	No	3			
3.16	Three phase - Delta / 2,5m Wood X-arm - Strain - Medium(1°-60°) Deviation RX	D-DT-1744	No	1			
3.17	Three phase - Delta / 2,5m Wood X-arm - Strain - Terminal	D-DT-1746	No	8			
3.17a	Three phase - Delta / 2,5m Wood X-arm - Strain - Terminal RX	D-DT-1746	No	0			
3.18	Three phase -Delta / 4,5m Wood X-arm - Strain - 0° Deviation	D-DT-1770	No	0			
3.19	Three phase - Take-off / 2,5m Wood X-arm	D-DT-1804	No	9			
3.20	Transformer - Single pole mount - 16-64kVA - General arrangement	D-DT-1860	No	4			
3.21	Transformer - Double pole mount - out-of-line arrangement	D-DT-1865B	No	0			
3.22	Transformer - Single pole mount - out-of-line arrangement	D-DT-1866B	No	3			
3.23	Recloser Structure	D-DT-1829B	No	1			
	TOTAL : Carried forward to summary						

Item	Description	Detail Reference	Unit	Tender Quantity	Supply Rate	Install Rate	Total Price (R)
	Amount brought forward from previous page						
	Testing						
	Allowance shall be made for the complete testing and commissioning of the Medium Voltage overhead distribution system						
3.24	MV Test (per transformer installation, Incl Aux Trf)		No	7			
3.25	MV Test (Recloser)		No	1			
	TOTAL : Carried forward to summary						

BILL NO 4 - LV OVERHEAD DISTRIBUTION LINES

PROJECT NAME: MTSHILWANE ELECTRIFICATION							
ENQUIRY NO.				ESTIMATE			
Item	Description	Detail Reference	Unit	Tender Quantity	Supply Rate	Install Rate	Total Price (R)
	LV ABC						
Note	The LV insulated aerial bundle conductor system shall be in accordance with SABS 1418 and insulated in accordance with SABS 0198 and the Distribution Standard Part 3.						
Note	The unit rate per meter shall include the tensioning and stringing of the bundle in accordance with the sag and stress tables provided by the manufacturer with all plant, equipment and accessories required to erect an LV overhead bundled distribution line i.e. Drum trailer, winch, wind-off pulleys, pulling rope/cable with connection, dynamometer, slide-lock, sheathed synthetic-fibre belt, woven snatch belt, snatch block, tackle, shackle, etc.						
Note	Measured lengths for stringing shall be net line route lengths and unit rates shall include for sag, off-cuts, etc.						
	Contractor to Safely store and transport to site and string. The conductor will be delivered on sealed drums and adequate allowance shall be made for the correct handling thereof.						
4.1	Single phase ABC (35mm ²) Insulated Neutral		m	2353			
4.2	Dual phase ABC (35mm ²) Insulated Neutral		m	0			
4.3	Single phase ABC (70mm ²) Insulated Neutral		m	0			
	LV STRUCTURES						
	Allow for the assembly of the following LV strain and suspension assemblies in accordance with the specifications shown in the drawings. Including all earthing, drilling of holes and treating of drilled holes. All LV ABC hardware, line connectors, PVC cable ties, nuts, bolts, washers, lock washers shall be allowed for in the appropriate item below. Excluding the supply and planting of poles, stays and struts, which are measured elsewhere.						
	Amount carried over to next page						

Item	Description	Detail Reference	Unit	Tender Quantity	Supply Rate	Install Rate	Total Price (R)
	Amount brought forward from previous page						
	Supply and install all the materials as specified for the following						
	LV STRUCTURES SINGLE PHASE						
4.4	ABC Suspension Assembly 0-30	DDT-1153	No	30			
4.5	ABC Terminal Assembly	DDT-1154	No	20			
4.6	ABC Strain Assembly (0-60°)	DDT-1155	No	5			
4.7	ABC Strain Assembly (60-90°)	DDT-1156	No	10			
4.8	ABC T-off from Intermediate	DDT-1157	No	1			
4.9	ABC Intermediate Suspension Assembly	DDT-1158	No	0			
4.10	ABC T-off from Strain	DDT-1159	No	1			
4.11	ABC T-X Intermediate Strain Assembly	DDT-1160	No				
	LV STRUCTURES DUAL PHASE						
4.12	ABC Suspension Assembly 0-30	DDT-1145	No	0			
4.13	ABC Terminal Assembly	DDT-1146	No	0			
4.14	ABC Strain Assembly (0-60°)	DDT-1147	No	0			
4.15	ABC Strain Assembly (60-90°)	DDT-1148	No	0			
	LV STRUCTURES THREE PHASE						
4.16	ABC Suspension Assembly 0-30	DDT-1100	No	0			
4.17	ABC Terminal Assembly	DDT-1120	No	0			
4.18	ABC T-off from Strain	DDT-1142	No	0			
4.19	ABC T-X Intermediate Strain Assembly	DDT-1143	No	0			
	Amount carried over to next page						

Item	Description	Detail Reference	Unit	Tender Quantity	Supply Rate	Install Rate	Total Price (R)
	Amount brought forward from previous page						
	LV Fuse Switch Units Supply, deliver to site, off load on site and safely store. The fused switch shall be supplied complete with the pole mounting bracket, nuts, bolts, washers, etc. for securing the unit to the wooden pole. The fuses shall be supplied with the fuse switch unit. Fuse ratings shall be as shown on the drawings. Install the on load fused disconnecting switch on the transformer structure including the drilling of holes as required, including the termination of the LV ABC to the unit.						
4.20	63A Load disconnecting switch similar to MORSDORPHER 63A		No	18			
4.21	80A Load disconnecting switch similar to MORSDORPHER 80A		No	0			
4.22	125A Load disconnecting switch similar to MORSDORPHER 125A		No	0			
	Amount carried over to next page						

Item	Description	Detail Reference	Unit	Tender Quantity	Supply Rate	Install Rate	Total Price (R)
	Amount brought forward from previous page						
	LV Pole Mounted Service Boxes						
	Supply, deliver and install on a wooden and/or concrete pole a pole mounted distribution box as specified complete with pole mounting brackets, 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 and buckles and terminations of the tails onto the LV ABC.						
4.23	0-2 York type box, complete with insulated copper tails, insulation piercing connectors and nylon compression glands. (Split Metering)	DDT 3055	No	20			
4.24	1-4 York type box, complete with insulated copper tails, insulation piercing connectors and nylon compression glands. (Split Metering)	DDT 3055	No	0			
4.25	5-8 York type box, complete with insulated copper tails, insulation piercing connectors and nylon compression glands.	DDT 3055	No	0			
	Earthing of LV Network						
Note	All MV transformer earthing is measured elsewhere and all LV earths per structure are measured with the structure. This section is intended for LV earths at transformers Allowance shall be made for the testing of the earth resistance for the entire reticulation system in accordance with the TN-C-S earthing system as defined in the Distribution Standard Part 2 and any earth tests which may be required in terms of the standard and detailed specifications.						
4.26	LV Earth	DDT 0637	No	7			
	Testing						
	Allowance shall be made for the testing of each LV ABC distributor on accordance with the project specification. Included shall be the provision of test certificates and all documentation as required.						
4.27	LV Test		No	7			
	TOTAL : Carried forward to summary						

BILL NO 5 - SUPPORT FOR OVERHEAD RETICULATION

PROJECT NAME: MTSHILWANE ELECTRIFICATION							
ENQUIRY NO				ESTIMATE			
Item	Description	Detail Reference	Unit	Tender Quantity	Supply Rate	Install Rate	Total Price (R)
Note	Poles and Crossarms						
	Poles for service connections are measured elsewhere						
	Supply and install pole in excavated hole, including cutting and scaffolding, kicking blocks, bonding, treating, etc. Excavations and compaction are measured elsewhere.						
5.1	7m Pole, 120-139mm top diameter	D-DT-0055	No	47			
5.2	9m Pole, 140-159mm top diameter	D-DT-0055	No	2			
5.2	10m Pole, 160-179mm top diameter	D-DT-0055	No	0			
5.3	11m Pole, 160-179mm top diameter	D-DT-0051	No	26			
5.4	11m Pole, 180-199mm top diameter	D-DT-0051	No	17			
5.5	11m Pole, 200-219mm top diameter	D-DT-0053	No	1			
5.6	12m Pole, 160-179mm top diameter	D-DT-0053	No	1			
5.7	12m Pole, 180-199mm top diameter	D-DT-0053	No	0			
	Supply, off load and install the following wooden cross arms.						
5.8	2.5m, 140-159mm Diameter	D-DT-0316	No	56			
5.9	3.5m, 140-159mm Diameter	D-DT-0317	No	0			
5.10	4.5m, 160-179mm Diameter	D-DT-0317	No	0			
5.11	6m, 160-179mm Diameter	D-DT-0317	No	3			
Note	Stays, Flying Stays and Anti-Climbing Devices						
	The unit price for a standard stay and an aerial stay shall exclude the wooden poles, but include the stay wire, stay rods, insulators, stay plate, stay guards, bitumastic paint, guy grip dead end, earthing of stay, line splice, precast concrete slabs, pole anchor						
	The following stays shall be in accordance with the specification and shall include a stay plate						
5.12	MV Stay	D-DT-0341	No	41			
5.13	MV Flying Stay	D-DT-0343	No	0			
5.14	LV Stay	D-DT-0343	No	36			
5.15	LV Flying Stay	D-DT-0343	No	0			
	The following struts shall be in accordance with the specifications						
5.16	MV 11m Strut	D-DT-0342	No	0			
	LV 7m Strut	D-DT-0342	No	0			
	Amount carried over to next page						

Item	Description	Detail Reference	Unit	Tender Quantity	Supply Rate	Install Rate	Total Price (R)
	Amount brought forward from previous page						
5.17	The following anti-climbing devices shall include barbed wire as specified Anti climbing devices as per 05T109 (Including on stays as per DDT0399) Excavations and Compaction Note The excavations for service connections are measured elsewhere Determination of pole positions, excavate in all ground conditions as necessary, and supply a mechanical boring device if required. The rate shall include backfilling, compaction to 93% MOD AASHTO density, and where necessary the supply and transportation		set	12			
5.18	Hole for 7m pole - 1.5m deep		No	47			
5.19	Hole for 9m pole - 1.5m deep		No	2			
5.20	Hole for 10m Pole - 1.8m deep		No	0			
5.21	Hole for 11m pole - 1.8m deep		No	44			
	Amount carried over to next page						

Item	Description	Detail Reference	Unit	Tender Quantity	Supply Rate	Install Rate	Total Price (R)
	Amount brought forward from previous page						
5.22	Hole for 12m pole - 2.0m deep		No	1			
5.23	Hole for 13m pole - 2.2m deep		No	0			
5.24	Hole for MV stay - 1.5m deep		No	41			
5.25	Hole for MV strut - 1.8m deep		No	0			
5.26	Hole for LV stay - 1.4m deep		No	36			
5.27	Hole for LV strut - 1.4m deep		No	0			
5.28	Pole Stabilisation Material - Up to 2,2m deep (each hole to be verified by Eskom's Clerk of Works) (The rate includes importing soil and transport)		No	0			
5.29	Mechanical Excavations - holes by compressor or other drilling equipment for holes closer to houses - Up to 2,2m deep (each hole to be verified by Eskom's Clerk of Works) (The rate includes importing soil and transport)		No	20			
	Line Route Clearing						
	Clearing of trees from a servitude, including the stacking or disposal of cuttings and debris as directed by Eskom, and the poisoning of stumps with an approved poison/herbicide as per OHS Act & Eskom Regs. Cut bush & trees to be cut into 1-2m strips and removed from the MV/LV servitude. Allow for working in the area where appropriate. Security for Contractor to have certificates for ORHVS, Environmental Awareness, Plant Identification, Safe Working Procedures & Correct use of herbicides. The CoW must audit quantities below and sign off as being correct, on notification from the Contractor to do so.						
5.30	Dense Bush (thin dense blackwattles, thornbush or brambles - not possible to walk through) MV strip (12m either side of the centre line) to be cleared and poisoned		m ²	500			
5.31	Ditto , but for LV (1m either side of the centre line or as per Eskom Regulations & TSC request) and no poisoning required.		m ²	250			
5.32	Small Trees (less than 30cm diameter scattered bush or plantation - accessible on foot) MV strip (12m on either side of the line)		No	0			
5.33	Large Trees (greater than 30cm diameter) including poisoning/herbicides. Trees to be cut down as close as possible to the ground, but not higher than 50mm from ground level. Special equipment & expertise to be accommodated for where required for trees close to houses, roads, sensitive areas etc...		No	0			
	Amount carried over to next page						

Item	Description	Detail Reference	Unit	Tender Quantity	Supply Rate	Install Rate	Total Price (R)
	Amount brought forward from previous page						
	Pole Labels						
	Supply and install labels on all poles in accordance with the specifications including the provision of all fixing materials						
5.34	Equipment labels (Trfs, links, SB)		No	13			
5.35	Transformer max fuse labels		No	6			
5.36	Warning labels		No	7			
	General						
	Supply and install labels Spiral Vibration Dampers as per the DT Standards						
5.37	Vibration Dampers, Spiral (Fox)	D-DT-3175	No	0			
5.38	Bird Flappers (Fox)	D-DT-3053	No	0			
	TOTAL : Carried forward to summary						

BILL NO 6 - HOUSE CONNECTIONS

PROJECT NAME: MTSHILWANE ELECTRIFICATION		ENQUIRY NO		ESTIMATE			
Item	Description	Detail Reference	Unit	Tender Quantity	Supply Rate	Install Rate	Total Price (R)
	House Connections						
	House Connections (Type B), test and commissioning complete. Poles and excavation are measured elsewhere.						
6.1	Type B	D-DT-0361	No	24			
	Supply, delivery on road on site and safely store on site to install the following Split Meter Base, Keypad, complete with rail, galvanised steel mounting brackets for securing to the dwelling, nuts, bolts, washers and lock washers as required. Secure the passive base, Keypad and brackets to the dwelling as required including the termination of conductors. Excluding the conductors.						
6.2	METER, SPLIT DIN RAIL 20A PLC + CUI	D-DT-3145	No	24			
6.3	READYBOARD,SPLIT METER 2x16A SKTS	D-DT-3176	No	24			
	Conductor ("Non Free Issue" Item)						
Note	Measured lengths for stringing shall be net line route lengths and unit rates shall include for sag, cut-offs etc.						
	Contractor to supply, <u>deliver</u> , safely store, transport to site and string. Installation includes all glands, lugs, shrouds, termination and connections as required.						
6.4	Cable 1kV 6mm ² Concentric Cu	D-DT-3140	m	1,200			
	Amount carried over to next page						

Item	Description	Detail Reference	Unit	Tender Quantity	Supply Rate	Install Rate	Total Price (R)
	Amount brought forward from previous page						
	Sundry Items						
	Supply and install pole in excavated hole, including cutting and scaffing, kicking bolts, bonding, treating, etc. Excavations and compaction are measured elsewhere.						
6.5	5m Pole, 80-99mm top diameter	DDT 0058	No	24			
6.6	7m Pole, 120-139mm top diameter	DDT 0050	No	0			
	Determination of pole positions, excavate in all ground conditions as necessary, and supply a mechanical boring device if required. The rate shall include backfilling, compaction to 93% MOD AASHTO density, and where necessary the supply and transportation of suitable ground as may be required to receive the desired compaction, except where cement is specified. Any damage to existing services shall be made good by the Contractor at his own expense and to the approval or the PM(C).						
6.7	Hole for 5m service pole - 1m deep		No	24			
6.8	Hole for 7m service pole - 1.4m deep		No	0			
6.9	Sealing of meters		No	24			
6.10	House Labels						
	Supply and install house lables in accordance with the specifications including the provision of all fixing materials						
6.11	LV lables		No	24			
6.12	LV Pole lables (rate includes label and 4x clout nails)		No	0			
6.13	LV Phasing lables		No	24			
6.14	Detailed Data Capture onto a PCS upon the successful energising of a customer. Payment will only be made upon the successful loading of the Data onto Eskom's CorDaptix software system. Resolve queries raised by Eskom and/or the Engineer.		No	24			
	TOTAL : Carried forward to summary						

BILL NO 7 - DISMANTLING AND REMOVAL

PROJECT NAME: MTSILWANE ELECTRIFICATION							
ENQUIRY NO.		ESTIMATE					
Item	Description	Detail Reference	Unit	Tender Quantity	Supply Rate	Install Rate	Total Price (R)
Conductors <u>MV Dismantling</u> Allowing for the loosening of conductor and removal of insulators (and X arms if required) on existing X-Arms. All dismantled materials to be returned to New Germany Stores							
7.1	MV+ LV Conductor		m	0			
7.2	Transformers		No	0			
7.3	Bulk Meter		No	0			
7.4	Voltage Regulator		No	0			
7.5	Insulators 22kV		No	0			
7.6	X-Arms		No	0			
Structures The rate shall allow for removal from the ground, the old structure poles, stay anchors and stays and returning them to Contractor's Site Camp							
7.7	Stays and anchors		No	0			
7.8	Single Pole Structures		No	0			
Surge Arresters							
7.9	6kV/10KA neutral surge arresters		No	0			
7.10	11kV / 22kV MV surge arrester		No	0			
TOTAL : Carried forward to summary							

PRELIM DESIGN SUMMARY

PROJECT NAME: MTSHILWANE ELECTRIFICATION					ENQUIRY NO.		ESTIMATE	
Bill	Description				Detail Reference	Unit	Total Price (R)	
1	PRELIMINARY AND GENERAL						R	-
2	MEDIUM VOLTAGE SWITCHGEAR, SECTIONALISERS, TRANSFORMERS, ETC.						R	-
3	MEDIUM VOLTAGE OVERHEAD DISTRIBUTION SYSTEM						R	-
4	LOW VOLTAGE OVERHEAD DISTRIBUTION LINES						R	-
5	SUPPORT FOR OVERHEAD RETICULATION						R	-
6	HOUSE CONNECTIONS						R	-
7	DISMANTLING						R	-
8	SUB-TOTAL						R	-
9	CONTINGENCY of 10%						R	-
10	TOTAL						R	-