

BILL NO 1 - PRELIMINARY AND GENERAL						
Sixhotyeni Link Line			PRICE (EXC.VAT)			
Item	Description	Unit	QTY	Labour Rate	Material Rate	Total Price (R)
1.1	Conditions of Contract Contractual requirements including, amongst others, Transport , Preparation of Site Camp, maintenance of fire-breaks, Dismantling of Site Camp & restoration to original condition, Attendance to meetings, liaison & co-ordination with TSC, roads authority, SAPS for outages, Handing Over as per TQRRP020, weekly stats reporting, monthly man hours reporting, etc...	Item	1.00			
1.2	Site Store and Office The Electrical contractor shall provide for a temporary site office, for his own use where all drawings and specifications shall be kept in accordance with the provisions of the specifications, as well as provision of safe and adequate storage space for all material and the removal of such on completion.	Per Month	6.00			
1.3	Materials Management Allow for co-ordination with Eskom, receipt and handling of "free-issue" materials from the New Germany stores, including the transport, loading & offloading, safekeeping & storage and the maintenance of a record keeping system to track the issue of materials for incorporation into the works.	Item	1.00			
1.4	As-built drawings (on Survey Department approval) Allow for the marking up, annotating of a set of drawings to accurately represent the works constructed, the co-ordination with the surveyor on site for re-pegging where appropriate and supply to the Engineer for approval (2-5m accuracy). Engineer supplies only 3 sets of Construction Drawings. Supply As-Built to Engineer 4 weeks before Outage, to allow the CoW to verify and forward to Survey for approval.	Item	1.00			
1.5	Safety Regulations The Electrical Contractor is to invoke adequate allowances to abide by the Construction Regulations that has been promulgated in the Government Gazette in July 2003 extracted from the OHS ACT 85 of 1993. This will include the services of a competent safety officer that will ensure that all requirements pertaining to the construction regulations have been met for the duration of the contract.					
1.5(a)	Legal and contractual compliance as per OHS Act, Construction Regulations & Eskom Safety Regulations.	Item	1.00			
1.5(b)	Personal protective Equipment. The contractor is to make adequate provision for the supply and management of acceptable safety clothing for his/her duly appointed casual labour in order to facilitate compliance with the OHS ACT 85 of 1993.	per person	20.00			
1.6(c)	Fall arrest system/Ladders/Climbing Irons etc...	Month	6.00			
1.5(d)	Health & Safety Plan, File & and requirements as per Works Information and Eskom DDT standards.	Item	1.00			
1.6	Labour Intensive Works Expanded Public Works Programme (EPWP)					
1.6.1	Compliance with the EPWP reports	Per Month	6.00			
1.6.2	PC Amount for CLO	Per Month	6.00	R5,000.00		R 30,000.00
1.6.3	PC Amount for PSC Members	Sum	6.00	R1,000.00		R 6,000.00
1.7	Electricity Contractor is to Source Temporary Power Supply for the Site Office. Contractor will Ascertain that this Temporary Supply is Metered at all Times.	Sum	1.00			
1.8	Site Fence					
1.8.1	Contractor is to Supply and Install Diamond Mesh Fence at 1.8m	m	40.00			
1.8.2	Supply and Install Diamond mesh Lockable Gate 1.8m high x 3.6m wide	each	1.00			
TOTAL : Amount Carried Forward to Next Page						

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BILL NO 2 - MEDIUM VOLTAGE OVERHEAD DISTRIBUTION SYSTEM							
Sixhotyeni Link Line				PRICE (EXCL VAT)			
Item	Description	DDT	Unit	Qty	Supply Rate	Install Rate	Total Price (R)
2.1(a)	Conductor						
	Supply, 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.						
Note	The following dimensions will all be "Conductor Length" with 10% is allowed for slack & wastage. Additional wastage/slack is for Contractor's account.						
2.1.1(a)	ACSR Hare - 64mm ²	3136	m	38,500			
2.1(b)	MV Structures						
	Allow for the following structures and insulator assemblies in accordance with the specifications as shown in the drawings. Include the specified crossarms, drilling of holes and treating of such holes, the provision of the U-nails and earthwire in accordance with Eskom specifications. All jumpers to links and transformers to be installed with PVC black pipe. Supply and installation of 15m of 3/3.35x1100MPa steel wire for a BIL for each pole structure as per Eskom specification. Exclude the supply and planting of poles, stays and struts which are measured elsewhere. Insulators as per EI090SS.						
Note							
2.1.1(a)	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.						
	Note: RX refers to statutory road crossings with the relevant DDT0257-10kN-31mm/kV post insulator, full wrap tie or DDT0251-40kN-31mm/kV longrod with pistolgrips.						
2.2	2 Phase Structures General Arrangement						
2.2.1	Phase / phase – Staggered Vertical (600mm spacing) – Intermediate – 0° Deviation	1310	No	0			Rate Only
2.2.2	Phase / phase – Vertical (600mm spacing) – Intermediate – Small(1°-±10°) Deviation	1311	No	0			Rate Only
2.2.3	Phase / phase – Vertical (600mm spacing) – Strain - 0° Deviation	1313	No	0			Rate Only
2.3	3 Phase Structures General Arrangement						
2.3.2	3 Phase - Delta / 2.5m Wood X-arm Strain 0° Deviation RX	1743	No	1			
2.3.3	3 Phase - H-Pole / 4.5m Wood X-arm Intermediate 0° Deviation - RX	1770	No	25			
2.3.4	3 Phase - H-Pole / 4.5m Wood X-arm - Strain-Terminal RX	1776	No	2			
2.3.5	3 Phase - H-Pole / 2 x 4.5m Wood X-arm	1777	No	41			
2.3.6	3 Phase- H-Pole / 2 x 4.5m Wood X-arm Strain - Medium (1°- 60°) Deviation RX	1778	No	30			
2.3.7	3 Phase - Trips	1783	No	1			
2.3.8	3 Phase - Trips	1784	No	1			
2.4	Auxiliary Structures						
2.4.1	3Ph, Take off (2.5m X-arm)	1804	No	2			Rate Only
2.4.2	2Ph, Take off (2.5m X-arm)	1814	No	0			Rate Only
2.4.3	Transformer - Single Pole mount (16-100kVA).	1860	No	0			Rate Only
2.4.4	Transformer - Pole mounting out-of-line (16-100kVA) includes 1866 module, etc... as per EI067-MVL) and excludes transforme and equipment links.	1866	No	0			Rate Only
2.4.5	3Ph, T-Frame (2m Steel X-arm)	1870B	No	0			Rate Only
2.4.6	Equipment Links Cut-Outs Or Disconnectors 2.5m Wood Crossarm / Single Pole	1849	No	0			Rate Only
2.4.7	Section / Equipment Links Or Disconnectors 1.3m Steel Crossarm / Single Pole	1850	No	0			Rate Only
	TOTAL: Carried Over to Next Page						

Item	Description		Unit	Qty	Supply Rate	Install Rate	Total Price (R)
	TOTAL:Brought Forward from Previous Page						
2.5	Recloser Installation						
2.5.1	Recloser, 11 + 22kV 400A 8kA with IRTU (DDT3180). Install recloser, control box & IRTU supplied as free issue from Eskom. Transport to site, load/offload, safe storage, install on appropriate structure and secure as required including termination of cables and conductors provision of suitable lugs & glands for all size cables as required. Supply and install surge arrestors & links (200A load break).	D-EC-1947	No	3			
2.6	Testing						
	Allowance shall be made for the complete testing and commissioning of the Medium Voltage overhead distribution system						
2.6.1	MV Test (per transformer installation) Ref. SCSASABZ1	0311	No	3			
2.6.2	MV Phasing of line, ensure correct phasing per Transformer	0311	Sum	3			
2.7	General						
	Supply and install MV Full tension Joints as per the DDT Standards						
2.7.1	Hare - Line splice	3228	Ea	69			
2.7.2	Insulation Co-ordination and Bonding. The unit rate shall allow for the complete installation of a BIL lightning downwire on New and existing structures; including the excavation around the pole, the installation of a 3x4.5mm galvanised BIL downwire, installed down the pole in accordance with the Eskom standard, 03TB-34.	0310	No	204			
TOTAL: Carried Over to Summary							

BILL NO 3 - SUPPORT FOR OVERHEAD RETICULATION							
Sixhotyeni Link Line				PRICE (EXCL VAT)			
Item	Description	DDT	Unit	Qty	Supply Rate	Install Rate	Total Price (R)
3.1	Poles and Crossarms						
	Supply and safely store the following poles. Transport to site of works and install pole in excavated hole, including cutting and scafing, kicking blocks, bonding, treating, etc. Excavations and compaction are measured elsewhere.						
3.1.1	2.5m Wood X-Arm , 120-139mm top diameter	0316	No	4			
3.1.2	4.5m Wood X-Arm, 120-139mm top diameter	0318	No	177			
3.1.3	9m Pole, 160-179mm top diameter	0055	No	0			Rate Only
3.1.4	9m Pole, 180-199mm top diameter	0055	No	6			
3.1.5	10m Pole,160-179mm top diameter	0051	No	0			Rate Only
3.1.6	11m Pole, 160-179mm top diameter	0051	No	0			Rate Only
3.1.7	11m Pole, 180-199mm top diameter	0051	No	146			
3.1.8	11m Pole, 200 - 220mm top diameter	0051	No	62			
3.1.9	12m Pole, 180 - 199mm top diameter	0053	No	0			Rate Only
3.1.10	16m Pole, 180 - 199mm top diameter	53	No	0			Rate Only
3.2	Stays, Flying Stays and Anti-Climbing Devices						
Note	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 clamp, nuts bolts and washers etc. The following stays shall be in accordance with the specification and shall include a stay plate						
3.2.1	MV Stay (DDT0341 rev 9, BIL 40kV & 150kV)	0341	No	388			
	The following flying stays shall be in accordance with the specifications and shall include poles & excavation.						
3.2.3	MV Flying Stay	0343	No	0			
	The following struts shall be in accordance with the specifications and shall include poles & excavation.						
3.2.4	MV Strut	0342	No	0			Rate Only
3.2.5	LV Strut	1167	No	0			Rate Only
	TOTAL: Carried Over to Next Page						

Item	Description	DDT	Unit	Qty	Supply Rate	Install Rate	Total Price (R)
	TOTAL: Brought Forward from Previous Page						
3.3	Excavations and Compaction						
Note	The excavations for service connections are measured elsewhere						
	Determine pole positions, excavate, and supply a mechanical boring device if required. The rate shall include backfilling, compaction to 93% MOD AASHTO density. Any damage to existing services shall be made good by the Contractor at his own expense and to the approval or the PM(C).						
3.3.1	Hole for 9m pole - 1.5m deep - pickable	0332	No	0			Rate Only
3.3.2	Hole for 9m pole - 1.5m deep - compressor drilling	0332	No	6			
3.3.3	Hole for 10m pole - 1.8m deep - pickable	0332	No	0			Rate Only
3.3.4	Hole for 11m pole - 1.8m deep - pickable	0332	No	22			
3.3.5	Hole for 11m pole - 1.8m deep - Hard Rock drilling	0332	No	82			
3.3.6	Hole for 12m pole - 2.0m deep - pickable	0332	No	0			Rate Only
3.3.7	Hole for 12m pole - 2.0m deep - Compressor drilling	0332	No	0			Rate Only
3.3.8	Hole for MV stay - 1.8m deep - pickable	0350	No	102			
3.3.9	Hole for MV stay - 1.8m deep - Hard Rock drilling	0350	No	290			
3.3.10	Hole for LV stay - 1.4m deep - pickable	0350	No	0			Rate Only
3.3.11	Hole for LV stay - 1.4m deep - compressor drilling	0350	No	0			Rate Only
3.3.12	Hole for MV strut - 0,5m deep - pickable	0342	No	0			Rate Only
3.3.13	Hole for MV strut - 0,5m deep - Compressor drilling	0342	No	0			Rate Only
3.3.14	Hole for LV strut - 1.3m deep - pickable	0342	No	0			Rate Only
3.3.15	Hole for LV strut - 1.3m deep - compressor drilling	0342	No	0			Rate Only
3.3.16	Provisional blasting - Up to 2,2m deep. Each hole to be verified by Clerk of Works. Develop a method statement in accordance with explosives legislation, by an appointed person who is competent in the use of explosives for excavation work and that the procedures therein are followed. Ref CR (11)		No	Prov			Rate Only
3.3.17	Rock excavation (the contractor is to provide adequate measures to ensure a rock hole be excavated to the correct depth to facilitate the correct infrastructure, this may include the excavation per rock hole by mechanical means viz. Compressors dependent on diesel fuel to accommodate Jackhammer drilling). These Rock Holes to be verified by the relevant Clerk of Works. Ref CR (11)		No	Prov			Rate Only
3.4	Pole Labels						
	Install labels on all poles in accordance with the specifications including the provision of all fixing materials. Transport from Eskom stores to site to be priced in Preliminary & General 1.3. Labels to the Eskom Standard SCSSCAAP5, TQGHSP05 and TQCSS005. Dynatape, masking tape or Hand written with permanent marker type labels are not to be considered for operational labelling under any circumstances.						
3.4.1	Equipment labels		No	102			
3.4.2	Mosdorfer fuse rating labels (transformers)		No	0			Rate Only
3.4.3	Fuse - "Warning. Open all fuses before working on line"		No	20			
3.4.4	Transformer Max fuse notification label		No	0			Rate Only
3.4.5	Feeder Max Fuse notification label		No	0			Rate Only
3.4.6	Pole Top Box Phase Labels		No	0			Rate Only
	TOTAL: Carried Over to Next Page						

Item	Description		Unit	Qty	Supply Rate	Install Rate	Total Price (R)
	TOTAL: Brought Forward from Previous Page						
3.5	General Items						
3.5.1	Supply and install labels Spiral Vibration Dampers as per the DT Standards Spiral Vibration Dampers (Hare & Fox)	3175	Each	30			
3.5.2	Supply and Install Anti-Climbing Devices as per the latest DDT Standards. Anti-Climbing Device as per 05TI09. Including the removal of existing spikes. Galvanised wire per DDT3170. Galvanises staples per DDT3129. Install on trfr str, struts, parallel MV stay wires, recloser str, OOL trfr str, etc, structures where meter boxes or equipment is installed <2m above ground, any str having cable secured by means of strapping <0.5m apart, any climbable pole str, apparatus etc as per DDT standard.	0399	per str	20			
3.6	Miscellaneous Expenses						
3.6.1	Handling Costs and Profit in Respect of 3.6		Prov Sum	1			R 300,000.00
TOTAL : Carried Over to Summary							

FINAL SUMMARY		
Sixhotyeni Link Line		PRICE (EXCL VAT)
Item	Description	Total
1	PRELIMINARY AND GENERAL	
2	MEDIUM VOLTAGE OVERHEAD DISTRIBUTION SYSTEM	
3	SUPPORT FOR OVERHEAD RETICULATION	
4	SUB TOTAL A	
5	CONTRACT CONTINGENCY AMOUNT (10% of SUB-TOTAL A)	
6	SUB TOTAL B	
7	ADD 15% VAT	
8	TOTAL AMOUNT	