

C2.2 BILLS OF QUANTITIES

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BILL 1.0: PRELIMINARY AND GENERAL ITEMS

ITEM	DESCRIPTION	UNIT	QTY	MATERIAL				LABOUR			
				RATE		TOTAL		RATE		TOTAL	
1.0	<u>Fixed Charge Items</u>										
1.1	Contractual requirements (Provision of 10% Performance Bond, Insurance of Works, etc.).	Sum	1	R	-	R	-	R	-	R	-
1.2	Establish facilities on site:										
1.2.1	Office and storage sheds.	Sum	1	R	-	R	-	R	-	R	-
1.2.2	Workshops.	Sum	1	R	-	R	-	R	-	R	-
1.2.3	Ablutions and latrines.	Sum	1	R	-	R	-	R	-	R	-
1.2.4	Tools and equipment.	Sum	1	R	-	R	-	R	-	R	-
1.2.5	Water supply, electrical power, telephone and access.	Sum	1	R	-	R	-	R	-	R	-
1.3	Remove site establishment upon completion of contract.	Sum	1	R	-	R	-	R	-	R	-
1.4	Allowances:										
1.4.1	For the preparation and submission of a construction programme to the Engineer as required in the documents.	Sum	1	R	-	R	-	R	-	R	-
1.4.2	For the submission of detailed design, construction and shop drawings to the Engineer for approval as required in the documents.	Sum	1	R	-	R	-	R	-	R	-
1.4.3	For three (3) sets of test certificates to be submitted to Engineer on hand-over.	Sum	1	R	-	R	-	R	-	R	-
1.4.4	For instructions to maintenance staff of operating and maintenance procedure.	Sum	1	R	-	R	-	R	-	R	-
1.4.5	Project Notice Board as per Drawing No. 10527/E/04.	Sum	1	R	-	R	-	R	-	R	-
1.4.6	Project Notice Board Support Structure Detail as per Drawing No. 10502/E/05.	Sum	1	R	-	R	-	R	-	R	-
1.4.7	For compliance with the requirements of the Occupational Health and Safety Act Construction Regulations.	Sum	1	R	-	R	-	R	-	R	-
1.4.8	Liaison and co-ordination with Kouga Municipality for the duration of the contract.	Sum	1	R	-	R	-	R	-	R	-
1.4.9	Liaison and co-ordination with Eskom for the duration of the contract.	Sum	1	R	-	R	-	R	-	R	-
2.0	<u>Time Related Items</u>										
2.1	Contractual requirements, i.e. insurances, etc.	Sum	1	R	-	R	-	R	-	R	-
2.2	Accommodation and / or living out expenses for the duration of the contract.	Sum	1	R	-	R	-	R	-	R	-
2.3	Travelling charges for the duration of the contract.	Sum	1	R	-	R	-	R	-	R	-
2.4	Supervision and provision of facilities and attendance of site meetings.	Sum	1	R	-	R	-	R	-	R	-
2.5	Allowance to publically advertise for a local CLO (Community Liason Officer) for the duration of the contract, as	Sum	1	R	-	R	-	R	-	R	-
2.6	Allowance to appoint a local CLO (Community Liason Officer) for the duration of the contract.	Sum	1	R	-	R	-	R	-	R	-

BILL 1.0: PRELIMINARY AND GENERAL ITEMS

ITEM	DESCRIPTION	UNIT	QTY	MATERIAL				LABOUR			
				RATE		TOTAL		RATE		TOTAL	
2.7	Allowance to fully comply with the Municipality's Local Labour and SMME's requirements as per Clause 17.0 of Part C3.1 for the duration of the contract.	Sum	1	R	-	R	-	R	-	R	-
2.8	Allowance to appoint an Environmental Control Officer (ECO) to oversee the environmental aspects for the duration of the project.	Sum	1	R	-	R	-	R	-	R	-
2.9	Operate and maintain facilities on site:										
2.9.1	Office and storage sheds.	Sum	1	R	-	R	-	R	-	R	-
2.9.2	Workshops.	Sum	1	R	-	R	-	R	-	R	-
2.9.3	Ablutions and latrines.	Sum	1	R	-	R	-	R	-	R	-
2.9.4	Tools and equipment	Sum	1	R	-	R	-	R	-	R	-
2.9.6	Water supply, electrical power, telephone and access.	Sum	1	R	-	R	-	R	-	R	-
3.0	<u>Day work</u>										
	The following rates are for variations to the contract, as directed by the Engineer, and are for work not covered by rates in the schedules. The total cost will be adjusted in the final account in accordance with the variation orders issued.										
3.1	Labour, Normal Time:										
3.1.1	Installation Electrician and Labourer.	hour	10	R	-	R	-	R	-	R	-
3.1.2	Artisan Electrician and Labourer.	hour	10	R	-	R	-	R	-	R	-
3.1.3	Labourer.	hour	10	R	-	R	-	R	-	R	-
3.2	Labour, Normal Overtime:										
3.2.1	Installation Electrician and Labourer.	hour	10	R	-	R	-	R	-	R	-
3.2.2	Artisan Electrician and Labourer.	hour	10	R	-	R	-	R	-	R	-
3.2.3	Labourer.	hour	10	R	-	R	-	R	-	R	-
3.3	Labour, Sundays and Public Holidays:										
3.3.1	Installation Electrician and Labourer.	hour	10	R	-	R	-	R	-	R	-
3.3.2	Artisan Electrician and Labourer.	hour	10	R	-	R	-	R	-	R	-
3.3.3	Labourer.	hour	10	R	-	R	-	R	-	R	-
3.4	Transport:										
3.4.1	Private car or light delivery vehicle.	km	10	R	-	R	-	R	-	R	-
3.4.2	5 tonne truck.	km	10	R	-	R	-	R	-	R	-
3.4.3	10 tonne truck.	km	10	R	-	R	-	R	-	R	-
3.4.4	10 tonne truck with crane.	hour	10	R	-	R	-	R	-	R	-
3.4.5	5 tonne mobile crane.	hour	10	R	-	R	-	R	-	R	-
4.0	Lump sum allowance for any items not included in this schedule, but deemed necessary by the Tenderer, to complete the installation in accordance with the specification and drawings. Brief description of such items to be entered hereunder.	Sum	1	R	-	R	-	R	-	R	-
	Totals to Price Summary Item 1.0					R	-			R	-

BILL 2.0: 66kV OVERHEAD LINE

ITEM	DESCRIPTION	UNIT	QTY	MATERIAL				LABOUR			
				RATE		TOTAL		RATE		TOTAL	
(i)	Notes: This section is for "Supply and Design", therefore the Tenderer must allow for all material and equipment that will be required as per his/her own detailed design. The main item descriptions and quantities are, however, given hereafter as provisional and as a guide only. The Tenderer must make adjustments where necessary to suit his design.										
(ii)	All rates must be exclusive of VAT.										
(iii)	Refer to Drawing No's 10527/E/01 to 05.										
(iv)	All items to include for the supply and deliveries thereof unless specified otherwise.										
(v)	ACSR - Aluminium Conductor Steel Reinforced Al - Aluminium Cu - Copper HD - Hard Drawn R/O - Rate Only										
1.0	Verification of line design and route in conjunction with Engineer and the Municipality, including preparation and submission to the Engineer of construction shop drawings of all require pole structures.	Sum	1	R	-	R	-	R	-	R	-
2.0	Obtain services of Professional Land Surveyor to locate and peg servitude boundary positions and mark-out final overhead line route on site in conjunction with the Engineer.	No.	4	R	-	R	-	R	-	R	-
3.0	Mark-out pole structure positions on site in conjunction with the Engineer.	No.	6	R	-	R	-	R	-	R	-
4.0	Excavate inspection trenches 600mm wide and 1500mm deep to locate existing underground services, including backfilling and compaction:										
4.1	Earth	m	2	R	-	R	-	R	-	R	-
4.2	Hard Earth	m	2	R	-	R	-	R	-	R	-
4.3	Rock	m	2	R	-	R	-	R	-	R	-
5.0	Tree, bush and ground clearance along route of 66kV overhead line, approx. 20m wide, incl. removal and disposal of material to Humansdorp Waste Management site:										
5.1	Shrubs and bushes up to 3m high.	m	10	R	-	R	-	R	-	R	-
5.2	Trees and bushes 3m to 6m high.	m	10	R	-	R	-	R	-	R	-
5.3	Trees and bushes 6m to 8m high.	m	10	R	-	R	-	R	-	R	-
6.0	Arrange power shut-down with:										
6.1	Kouga Municipality for shutdown of 1 x 66kV and 3 x 22kV overhead lines.	No.	2	R	-	R	-	R	-	R	-
6.2	Eskom for 1 x 22kV overhead line.	No.	2	R	-	R	-	R	-	R	-

BILL 2.0: 66kV OVERHEAD LINE

ITEM	DESCRIPTION	UNIT	QTY	MATERIAL				LABOUR			
				RATE		TOTAL		RATE		TOTAL	
7.0	Hard rock excavation for concrete foundation for Support Pole Structure No:										
7.1	S10	No	1	R	-	R	-	R	-	R	-
7.2	S11	No	1	R	-	R	-	R	-	R	-
7.3	S12	No	1	R	-	R	-	R	-	R	-
7.4	S13	No	1	R	-	R	-	R	-	R	-
7.5	S14	No	R/O	R	-	R	Nil	R	-	R	Nil
7.5	S15	No	R/O	R	-	R	Nil	R	-	R	Nil
8.0	Concrete foundation for Support Pole Structure No's, complete as designed by Contractor's Structural Engineer:										
8.1	S10	No	1	R	-	R	-	R	-	R	-
8.2	S11	No	1	R	-	R	-	R	-	R	-
8.3	S12	No	1	R	-	R	-	R	-	R	-
8.4	S13	No	1	R	-	R	-	R	-	R	-
8.5	S14	No	R/O	R	-	R	Nil	R	-	R	Nil
8.6	S15	No	R/O	R	-	R	Nil	R	-	R	Nil
9.0	Support Pole Structure, complete with insulators and clamps, armour rods, vibration dampers, ground earth, conductor jumpers, binding in of phase and earth or lightning conductors, etc., but <u>excluding excavations for and the concrete foundations itself measured above, for Pole Structure No's:</u>										
9.1	S10	No	1	R	-	R	-	R	-	R	-
9.2	S11	No	1	R	-	R	-	R	-	R	-
9.3	S12	No	1	R	-	R	-	R	-	R	-
9.4	S13	No	1	R	-	R	-	R	-	R	-
9.5	S14	No	R/O	R	-	R	Nil	R	-	R	Nil
9.6	S15	No	R/O	R	-	R	Nil	R	-	R	Nil
10.0	Four (4) temporary ±14m high H-pole structures complete, or alternatively utilisation of four (4) crane trucks or cherry pickers to temporary hold new Chicadee ACSR conductor in place at approx. 12m above ground level when the new conductor is strung and tensioned between Pole Structure No's S9 and S10 and between S5 and S11.	Sum	1	R	-	R	-	R	-	R	-
11.0	Chicadee ACSR (stranding and wire diameter 18/1/3,77mm), <u>greased</u> .	m	1200	R	-	R	-	R	-	R	-
12.0	Overhead line phase conductor:										
12.1	Chicadee ACSR (stranding and wire diameter 18/1/3,77mm), <u>greased</u> .	m	1200	R	-	R	-	R	-	R	-
13.0	Terminate set of <u>three</u> (3) Chicadee ACSR overhead line conductor at strain insulators.	Sets	8	R	-	R	-	R	-	R	-
14.0	Earth or lightning conductor at top of the pole:										
14.1	Hare ACSR (stranding and wire diameter 6/1/4,72mm), <u>greased</u> .	m	400	R	-	R	-	R	-	R	-
15.0	Terminate HARE ACSR lightning conductor at top of pole.	Sets		R	-	R	-	R	-	R	-

BILL 2.0: 66kV OVERHEAD LINE

ITEM	DESCRIPTION	UNIT	QTY	MATERIAL				LABOUR			
				RATE		TOTAL		RATE		TOTAL	
16.0	Optical Ground Wire (OPGW) conductor at top of the pole:										
16.1	Fibre count 12 (Similar or equal to Prysmian standard OPGW 16A41).	m	400	R	-	R	-	R	-	R	-
16.2	Fibre count 24 (Similar or equal to Prysmian standard OPGW 12A39).	m	R/O	R	-	R	Nil	R	-	R	Nil
17.0	Terminate Optical Ground Wire (OPGW) conductor at top of the pole.	No.	8	R	-	R	-	R	-	R	-
18.0	Set of three (3) Chicadee ASCR jumper conductors at strain points, complete with AMPACT Tap Connectors.	No.	6	R	-	R	-	R	-	R	-
19.0	Pole number label fixed to pole at minimum height of 4000mm above finished ground level.	No.	4	R	-	R	-	R	-	R	-
20.0	Danger sign label fixed to pole at minimum height of 3000mm above finished ground level.	No.	4	R	-	R	-	R	-	R	-
21.0	Allowance for submersible pump and necessary equipment to pump out ground water from foundation hole just before concrete is to be casted. Minimum pump specifications: Operating range 30 l/min; head up to 30m, nominal power: 220V, 0.37kW. Rate to include allowance for generator on site.	hr	12	R	-	R	-	R	-	R	-
22.0	Specify and include any other items in accordance with Tenderer's own design to complete the work:										
Totals to Price Summary Item 2.0						R	-			R	-

BILL 3.0: ALTERATIONS TO EXISTING 66kV OVERHEAD LINE

ITEM	DESCRIPTION	UNIT	QTY	MATERIAL				LABOUR			
				RATE		TOTAL		RATE		TOTAL	
	Notes: (i) All rates must be exclusive of VAT. (ii) Refer to Drawing No. 10527/E/01. (iii) ACSR - Aluminium Conductor Steel Reinforced Al - Aluminium Cu - Copper HD - Hard Drawn R/O - Rate Only										
1.0	Arrange power shut-down with Municipality.	Sum	1	R	-	R	-	R	-	R	-
2.0	Set of three 66kV strain insulators complete with pistol grip, socket Y-clevis, ball clevis, shackles, pins, etc.	No.	1	R	-	R	-	R	-	R	-
3.0	Set of three 66kV linepost insulators complete with suspension clamp, clevis eye, bolts, nuts, washers, etc.	No.	R/O			R	nil	R	-	R	nil
4.0	Disconnect HARE ACSR, (6/1/4,72) conductor at existing strain insulators (set of three).	Sets	2	R	-	R	-	R	-	R	-
5.0	Extend existing HARE ACSR conductor to new HARE ACSR using suitably sized aluminium extension crimp ferrules (set of three).	Sets	1	R	-	R	-	R	-	R	-
6.0	Overhead line phase conductor:										
6.1	Hare ACSR (stranding and wire diameter 6/1/4,72mm), <u>greased</u> .	m	100	R	-	R	-	R	-	R	-
7.0	Terminate extended HARE ACSR, (6/1/4,72) conductor at new strain insulators using "Preformed" dead ends (set of three).	No.	1	R	-	R	-	R	-	R	-
8.0	Set of three (3) HARE ACSR jumper conductors at strain points, complete with AMPACT Tap Connectors.	No.	1	R	-	R	-	R	-	R	-
9.0	Excavate hole and expose existing pole or stay in order to remove:										
9.1	Earth	No.	R/O	R	-	R	nil	R	-	R	nil
9.2	Hard Earth	No.	5	R	-	R	-	R	-	R	-
9.3	Rock	No.	5	R	-	R	-	R	-	R	-
10.0	Disconnect, dismantle and remove abandoned material:										
10.1	±16m Long wooden pole.	No.	4	R	-	R	-	R	-	R	-
10.2	±4.5m Long wooden cross-arm.	No.	2	R	-	R	-	R	-	R	-
10.3	66kV strain insulators (set of three).	No.	4	R	-	R	-	R	-	R	-
10.4	Stay.	No.	6	R	-	R	-	R	-	R	-
10.5	HARE ACSR bare overhead conductor.	m	600	R	-	R	-	R	-	R	-
11.0	Deliver all recovered material above to municipal stores in Humansdorp.	Sum	1	R	-	R	-	R	-	R	-

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PRICE SUMMARY

ITEM	DESCRIPTION	MATERIAL		LABOUR	
1.0	BILL 1.0: PRELIMINARY AND GENERAL ITEMS	R	-	R	-
2.0	BILL 2.0: 66kV OVERHEAD LINE	R	-	R	-
3.0	BILL 3.0: ALTERATIONS TO EXISTING 66kV OVERHEAD LINE	R	-	R	-
4.0	SUB-TOTALS	R	-	R	-
5.0	TOTAL MATERIAL AND LABOUR			R	-
6.0	ADD 15% VAT			R	-
7.0	GROSS TENDER AMOUNT, TO BE CARRIED FORWARD TO FORM OF OFFER AND ACCEPTANCE IN PART C1.1 HEREOF.			R	-

Name of Tenderer:

Signature of Tenderer:

Date:.....

Address:

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.....

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Tel No:

E-mail: