# **ESKOM ROTEK INDUSTRIES - CONSTRUCTION SERVICES - POWERLINES DIVISION**

The Contractor is referred to the full intent and meaning of each clause or item herein. He shall allow opposite each clause or item, whatever payments he may consider necessary, to carry out and observance of same. ESKOM ROTEK INDUSTRIES - CONSTRUCTION SERVICES - POWERLINES DIVISION

# PREAMBLES

- 1 The Tenderer is advised to read and understand all aspects and documentation associated with this Enquiry BEFORE inserting his Prices and or Rates and or Amounts.
- 2 The bill of quantities provides the basis of all valuations of the work and general progress monitoring.
- 3 The amount due at each application for payment is based as measured in terms of the bill of quantities. The Contractor provides all necessary information which is required to determine amounts due at each application for payment relative to the completed works.
- 4 The total of the prices includes for all direct and indirect costs, overheads, profits, on costs, risks, liabilities, obligations, etc. relative to the contract.
- 5 All values are total values prior to any retention and excludes VAT. Retention is not calculated in the forecast rate of payment Bill (FRP).
- 6 Tenderer to check and take responsibility for all descriptions, formulae and structure of this file.

## A Free issue of Material by the Employer

1 Tenderers are advised that the Employer may provide certain Free Issue Materials and or Components and or Plant and or Equipment to the Contractor at no cost to the Contractor. The Contractor shall price for the taking delivery, protection, inspection, testing, storing as required and installation complete as more fully described within this Enquiry Documentation.

#### B GUIDANCE BEFORE PRICING AND MEASURING

- 1 The NEC's approach to the Preliminary & General (P&G) section of the bill of quantities assumes use will be made of method related charges for project applied to providing the works based on durations shown in the Accepted Programme. Fixed charges for the use of Equipment that are required throughout the construction phase, time related charges for people working in a managerial and supervisory capacity for the period required, and lump sum charges for other facilities or services not directly related to performing work items typically included in other parts of the bill of quantities.
- 2 The P&G section of the bill of quantities is not used for the assessment of compensation events but can however be used as a guide.

## C METHOD OF MEASUREMENT

- 1 The bill of quantities comprises a list of work items and quantities, based on standard methods of measurement, which are either published or stated herein and state the items to be included and how quantities are to be calculated and the items and activities that are deemed to be included within the Rates and Prices inserted by the Tenderer.
- 2 Tenderers shall price the items, taking account all of the information within and associated with the tender documents and shall include for all matters, which are at the Contractors risk.
- 3 All enquiry documents supplied must be considered for pricing the items in the Bills of Quantities for the completion of the works.
- 4 Unless otherwise stated, items are measured net in accordance with the contract drawings, and no allowance has been made for waste or bulking or compaction or evaporation or loss by any means whatsoever.
- 5 The quantities contained in the bill of quantities are provisional shall not be used for ordering purposes. No claims whatsoever, however arising will be entertained, should the bill of quantities have been used for ordering and or procurement purposes.

## RATES AND PRICES

D

- 1 Rates and Prices shall be expressed to two decimal places (i.e. cents) except in the case of a NIL rate or price.
- 2 The Tenderers Rates and Prices shall be inserted in the bill of quantities are deemed to be the fully inclusive Rates and Prices to the Employer for the work described under the several items. Such Rates and Prices shall cover all costs and expenses that may be required in, and for the prompt and efficient and safe execution of the work described, and shall cover the cost of all general risks, liabilities and obligations set forth or implied in this Enquiry document.
- 3 Rates and Prices for items which are required to be inserted in the bill of quantities by the Tenderer and which have not been duly inserted, are deemed to be covered by other Rates and Prices in the bill of quantities.
- 4 The Tenderers omission to insert Rates and Prices shall not be deemed to be a qualified exclusion to execute such work, activity or responsibility.
- 5 The Rates and Prices are deemed to include (unless otherwise specifically stated in the bill of quantities or herein) all the relevant costs associated with the Clauses of Contract as amended and shall include but not be limited to the following cost components:
- 6 The Tenderer is deemed to have obtained all the necessary information required to adequately price the scope of work associated with this Enquiry and no claim shall be considered resulting from lack of knowledge in this respect.

Item Description Unit Qty Fixed Time Related Value Related Total				1			Rates			
Image: specific control of the specif	ltem	Description		Unit	Otv	Fixed		Value Related	Total	
The Contractor is referred to the full intent and meaning of each clause or item herein. He shal allow opposite each clause or item, whatever payments here more constants or and observance of same. The Contractor shall price BII No.1 - Preliminary and General in respect of all payment required for any work, risk, contingency or objation whatsoever, that is not described in the <i>Bill of Quantities</i> and which is in responsibility under the Contractor.          11       Programm: Contractor Band price BII No.1 - Preliminary and General in respect of all payment required for any work, risk, contingency or objation whatsoever, that is not described in the <i>Bill of Quantities</i> and which is in responsibility under the Contract.         13       Programm: Contractor Bandmane, Performance Bod Drawing & sum 1       1				•					(1)x(2) OR (2)+(3)+(4)	
The Contractor is referred to the full intent and meaning of each clause or item herein. He shall allow opposite each clause or item heave consider necessary, to carry out and observance of same.         The Contractor shall price BII Ko.1 - Preliminary and General in respect of all payment required for any work, risk, contingency or objaction whateover, that is not described in the Bil of Quantities and which is its responsibility under the Contractor         1.1       Programme: Contractor Immunes. Performance Bod : Drawing & sum       1										
and payments he may consider necessary, to carry out and observance of same.           The Contractor shall pice BUI No. 1 - Preliminary and General in respect of all payment required for any work, risk, excitangency or obligation whatsoever, that is not described in the BUI Outerities and sum of the payments in the contract.         Image: Contractor Shall pice BUI No. 1 - Preliminary and General in respect of all payment required for any work, risk, excitangency or Pathemano Bond () Travings & sum         Image: Contractor Shall pice BUI No. 1 - Preliminary and General in respect of all payment required for any work in the Contract.           Image: Contractor Shall pice BUI No. 1 - Preliminary and General in respect of all payments is sum in the contract.         Image: Contractor Shall pice BUI No. 1 - Preliminary and General in respect of all payments is sum in the contract.           Image: Contractor Shall pice BUI No. 1 - Preliminary and General Shall pice BUI No. 1 - Preliminary and General Payments is sum in the contract.         Image: Contractor Shall pice BUI No. 1 - Preliminary and General Payments is sum in the contract.           Image: Contractor to specify here any costs foreseen not made provision for:         Mol Image: Contractor to specify here any costs foreseen not made provision for:         Contractor Shall pice Bui No. 7 SUMMARY           Image: Contractor to specify here any costs foreseen not made provision for:         Mol Image: Contractor to specify here any costs foreseen not made provision for:         Mol Image: Contractor to specify here any costs foreseen not made provision for:	1									
1.1       WORKS INFORMATION       sum       1         1.1.1       Programme: Contractor's Quality Pransity & Sum       sum       1         1.2       Stret COSTS AND OVERHEADS       sum       1         1.2       Item to the stret of the	or The (	pposite each clause or item, whatever payments he may consider i observance of same. <i>Contractor</i> shall price <b>Bill No. 1 - Preliminary and General</b> in resp vork, risk, contingency or obligation whatsoever, that is not describ	necessary, to c pect of all paym ed in the <i>Bill of</i>	arry ou ent rec	t and juired for					
1.1.1       Programme : Contractors Insurance : Performance Bond : Drawing & Sum       1	1 1		ci.							
1.2.1       Establish staff accommodation and site camp, including sanitation as per OHS ACT's requirements and remove on completion.       sum       12		Programme ; Contractors Insurance ; Performance Bond ; Drawings &		sum	1				-	
1.2.1 per QHS ACTs requirements and remove on completion.       Sum       1.2       Image: Complexity of the second of the sec	1.2	SITE COSTS AND OVERHEADS								
1.3.1     Contractor to specify here any costs foreseen not made provision for.     PSU M     1	1.2.1			sum	12				-	
1.3.1       Contractor to specify here any costs foreseen not made provision to:       M       I       Carried forward to Bill No.7- SUMMARY         Item       Description       Unit       Carried forward to Bill No.7- SUMMARY       Carried forward to Bill No.7- SUMMARY         2.0       SAFETY MANAGEMENT       Rates       Carried forward to Bill No.7- SUMMARY         2.1       Supply of all items of Personal Protective Clothing/Equipment & ensure use thereof for full compliance       sum       1       Carried forward to Bill No.7- SUMMARY         2.1       Supply of all items of Personal Protective Clothing/Equipment & ensure use thereof for full compliance       sum       1       Image: Carried forward to Bill No.7- SUMMARY         2.1       Supply of all items of Personal Protective Clothing/Equipment & ensure use thereof for full compliance       sum       1       Image: Carried forward to Bill No.7- SUMMARY         2.1       Supply of all items of Personal Protective Clothing/Equipment & ensure use thereof for full compliance to CHS ACT and Eskom's SHE specification. ; Task specific gives ;; Colour code hard hards is a per latest faxem specific gives ;; Colour code hard hards is a specific gives ; Colour code hard hards is a specific gives ; Colour code hard hards is a specific gives ; Colour code hard hards is a specific gives ; Colour code hard hards is a specific gives ; Colour code hard hards is a specific gives ; Colour code hard hards is a specific gives ; Colour code hard hards is a specific gives ; Colour code hard hards is a specific gives ; Colour code hard hards is a specific gives ; Colour code hard	1.3	ADDITIONAL & MISCELLANEOUS COSTS								
Item       Description       Unit       City       Rates       Image: City       Rates       Total Price         2.0       SAFETY MANAGEMENT       3       (4)       (1)X(2) OR (1)X(3) C(2)+(3)+(4)       (2)+(3)+(4)         2.1       Supply of all terms of Personal Protective Clothing/Equipment & ensure use thereof for full compliance       sum       1       (1)       (2)       (3)       (4)       (1)X(2) OR (1)X(3) C(2)+(3)+(4)         2.1       Supply of all terms of Personal Protective Clothing/Equipment & ensure use thereof for full compliance       sum       1       (1)       (2)+(3)+(4)         2.1.1       hats as per latest Eskom specification. ; Ear protection (earplugs etc). ; Eav protection appropriate to task performed. ; Induction tags/cards.; Luminous high visibility asfety vests.       sum       1       (1)       (2)       (3)       (4)       (1)X(2) OR (1)X(3) C(2)+(3)+(4)         2.1.1       hats as per latest Eskom specification.; Ear protection (earplugs etc). ; Eav protection appropriate to task performed. ; Induction tags/cards.; [2]       sum       1       (1)       (2)       (3)       (4)       (1)X(2) OR (1)X(3) C(2)+(3)+(4)         2.1.1       hats as per latest Eskom specification.; Ear protection equipment to tags/cards.; [2]       sum       1       (1)       (2)       (3)       (4)       (1)       (2)       (2)       (3)       (2)+(3)	1.3.1	Contractor to specify here any costs foreseen not made provision for.			1					
Item       Description       Unit       City       Rates       Image: City       Rates       Total Price         2.0       SAFETY MANAGEMENT       3       (4)       (1)X(2) OR (1)X(3) C(2)+(3)+(4)       (2)+(3)+(4)         2.1       Supply of all terms of Personal Protective Clothing/Equipment & ensure use thereof for full compliance       sum       1       (1)       (2)       (3)       (4)       (1)X(2) OR (1)X(3) C(2)+(3)+(4)         2.1       Supply of all terms of Personal Protective Clothing/Equipment & ensure use thereof for full compliance       sum       1       (1)       (2)+(3)+(4)         2.1.1       hats as per latest Eskom specification. ; Ear protection (earplugs etc). ; Eav protection appropriate to task performed. ; Induction tags/cards.; Luminous high visibility asfety vests.       sum       1       (1)       (2)       (3)       (4)       (1)X(2) OR (1)X(3) C(2)+(3)+(4)         2.1.1       hats as per latest Eskom specification.; Ear protection (earplugs etc). ; Eav protection appropriate to task performed. ; Induction tags/cards.; [2]       sum       1       (1)       (2)       (3)       (4)       (1)X(2) OR (1)X(3) C(2)+(3)+(4)         2.1.1       hats as per latest Eskom specification.; Ear protection equipment to tags/cards.; [2]       sum       1       (1)       (2)       (3)       (4)       (1)       (2)       (2)       (3)       (2)+(3)						Carried for	rward to Bill No.7-	- SUMMARY	-	
Item       Description       Unit       Ory       Fixed       Time Related       Value Related       Total Price         2.0       SAFETY MANAGEMENT       3       (4)       (1)x(2) OR (1)x(3) C       (2)H(3)H(4)       (2)H(3)										
2.0       SAFETY MANAGEMENT         2.1       Supply of all items of Personal Protective Clothing/Equipment & ensure use thereof for full compliance         2.1.1       Steel toe capped safety boots. ; Appropriate protective clothing as per Eskom SHE specification.; Task specific gloves. ; Colour coded hard Law is a per latest Eskom specification.; Task specific gloves. ; Colour coded hard escole appropriate to task performed.; induction tags/cards. ; Luminous figh visibility safety vests.       sum       1         2.1.1       hats as per latest Eskom specification.; Task specific gloves. ; Colour coded hard escole appropriate to task performed.; induction tags/cards. ; Luminous figh visibility safety vests.       sum       1         2.1.1       hats as per latest Eskom specification.; Ear protection (earplugs etc).; Eve protection appropriate to task performed.; induction tags/cards. ; Luminous figh visibility safety vests.       sum       1         2.2.2       Supply and provision of Equipment for working at Heights & ensure use thereof for full compliance to OHS ACT and Eskom's SHE spec.       sum       1         2.2.1       lang ard(), ropes, pulley set. ; 2Valuation of physical and psychological fitness of personnel working at heights. ; Access ladders. ; Portable Ladders.       sum       1         2.3.1       Barricading       sum       1								r		
2.0       SAFETY MANAGEMENT       (1)       (2)       (3)       (4)       (2)+(3)+(4)         2.1       Supply of all items of Personal Protective Clothing/Equipment & ensure use thereof for full compliance       (1)       (2)       (3)       (4)       (2)+(3)+(4)         2.1       Supply of all items of Personal Protective Clothing/Equipment & ensure use thereof for full compliance       (1)       (2)       (3)       (4)       (2)+(3)+(4)         2.1       Supply of all items of Personal Protective Clothing/Equipment & ensure use thereof for full compliance to Clot coded hard       (1)       (2)       (3)       (4)       (2)+(3)+(4)         2.1.1       hats as perificits Efsterions.; Ear protection (earlings as perificits Efsterions). Ear protection (earlings etsterio); is sum       1       1       (1)       (2)       (3)       (4)       (2)+(3)+(4)         2.1.1       hats as perificits Efsterions.; Ear protection (earlings etsterion); Ear protection (earlings etsterio); is sum       1       1       (1)       (2)       (2)       (3)       (4)       (2)+(3)+(4)         2.1.1       hats as perificits Efsterion       is sum       1       1       (1)       (2)       (2)+(3)+(4)       (3)       (4)       (2)+(3)+(4)       (5)       (5)       (5)       (5)       (5)       (5)       (5)       (5)	ltem	Description		Unit	Qty	Fixed	Time Related	Value Related		
2.1       Supply of all items of Personal Protective Clothing/Equipment & ensure use thereof for full compliance         2.1       Supply of all items of Personal Protective Clothing as per Eskom SHE specification. ; Task specific gloves. ; Colour coded hard         2.1.1       hats as per latest Eskom specification. ; Ear protective clothing as per Eskom SHE specification. ; Ear protection (earpluge sch.) ; Eye protection appropriate to task performed. ; Induction tags/cards. ; Luminous high visibility safety vests.         Supply and provision of Equipment for working at Heights & ensure use thereof for full compliance to OHS ACT and Eskom's SHE spec         Fail protection equipment incl but not limited to Safety Harness(double lanyard), ropes, pulleys etc. ; Evaluation of physical and psychological fitness of personnel working at heights . ; Access ladders. ; Portable Ladders.         2.3.1       Barricading Supply & install, including removal upon completion to ensure full compliance to legislation:         2.3.1       Temporary fence barricading along perimeter of excavated areas ; Mum 1         3.4       SHE File         Recording & availability of SHE File and file.       sum 1         2.4       SHE File         Recording & availability of SHE File and file.       sum 1         2.5       Transportation of employees in compliance with the Transportation of employees in compliance of cal taxi association.         2.6       Compliance       sum 1					(1)	(2)	(3)	(4)		
2.1       ensure use thereof for full compliance         2.1.1       hats specification.; Task specific gloves.; Colour code hard hats aper latest Eskom specification.; Ear protection (early get etc.); Eye protection appropriate to task performed.; Induction tags/cards.; Luminous high visibility safety vests.       sum       1         3upply and provision of Equipment for working at Heights & ensure use thereof for full compliance to OHS ACT and Eskom's SHE spec       sum       1         2.2.1       Fall protection equipment incl but not limited to Safety Hamess(double lanyard), ropes, pulleys etc.; Evaluation of physical and psychological fitness of personnel working at heights.; Access ladders.; Portable Ladders.       sum       1         2.3.1       Barricading Maring of excavation and peggings       sum       1          2.4.1       Compliance to Iegislation:       sum       1           2.3.1       Barricading Maring of excavation and peggings       sum       1           2.4.1       Compliance to Iegislation:       sum       1            2.4.1       Compliance to Iegislation:       sum       1            2.5.1       Fall protection equipment for but mot timilet of savated areas ; Sum of the compliance to Iegislation:       sum       1            2.5.1       Temporary fl	2.0	SAFETY MANAGEMENT								
2.1.1       Eskom SHE specification.; Task specific gloves.; Colour coded hard hats as per latest Eskom specification.; Ear protection (earplugs etc).; Eurninous high visibility safety vests.       sum       1         2.2.       Supply and provision of Equipment for working at Heights & ensure use thereof for full compliance to OHS ACT and Eskom's SHE spec       sum       1         2.2.1       Fall protection equipment incl but not limited to Safety Harness(double lanyard), ropes, pulley set.; Evaluation of physical and psychological fitness of personnel working at heights. Access ladders.; Portable       sum       1         2.2.1       Fall protection equipment incl but not limited to Safety Harness(double lanyard), ropes, pulley set.; Evaluation of physical and psychological fitness of personnel working at heights. Access ladders.; Portable       sum       1         2.2.3       Barricading Supply & install, including removal upon completion to ensure full compliance to legislation:       sum       1         2.3.1       Temporary face to legislation:       sum       1           2.3.1       Temporary face to legislation:       sum       1            2.3.3       Temporary face to legislation:       sum       1             2.4.4       SHE File       scording & availability of SHE File/Site              2.5.1	2.1									
2.2       ensure use thereof for full compliance to OHS ACT and Eskom's SHE spec         2.2.1       Fall protection equipment incl but not limited to Safety Harness(double Layders, or personnel working at heights.; Access ladders.; Portable Ladders.       sum       1         2.3.       Barricading Supply & install, including removal upon completion to ensure full compliance to legislation:       sum       1         2.3.1       Temporary fence barricading along perimeter of excavated areas; Marking of excavation and peggings       sum       1          2.4.4       SHE File       Recording & availability of SHE File/Site           2.4.1       Compile SHE plan and file.       sum       1           2.5.1       Transport              2.5.1       Transportation of employees in compliance with the Transportation of employees procedure (Preferred usage of local taxi association).       sum       1            2.6       Compliance         sum       1            2.6       Compliance <t< td=""><td>2.1.1</td><td>Eskom SHE specification. ; Task specific gloves. ; Colour coded hard hats as per latest Eskom specification. ; Ear protection (earplugs etc). ; Eye protection appropriate to task performed. ; Induction tags/cards. ;</td><td></td><td>sum</td><td>1</td><td></td><td></td><td></td><td></td></t<>	2.1.1	Eskom SHE specification. ; Task specific gloves. ; Colour coded hard hats as per latest Eskom specification. ; Ear protection (earplugs etc). ; Eye protection appropriate to task performed. ; Induction tags/cards. ;		sum	1					
Fall protection equipment incl but not limited to Safety Harness(double lanyard), ropes, pulleys etc. ; Evaluation of physical and psychological fitness of personnel working at heights. ; Access ladders. ; Portable Ladders.       sum       1         2.3       Barricading Supply & install, including removal upon completion to ensure full compliance to legislation:       sum       1         2.3.1       Temporary fence barricading along perimeter of excavated areas ; Marking of excavation and peggings       sum       1          2.4       SHE File Recording & availability of SHE File/Site       sum       1           2.5.1       Transport       sum       1            2.5.1       Transportation of employees in compliance with the Transportation of employees procedure (Preferred usage of local taxi association).       sum       1           2.6       Compliance         sum       1	2.2	ensure use thereof for full compliance to OHS ACT and Eskom's					1			
2.3       Barricading Supply & install, including removal upon completion to ensure full compliance to legislation:         2.3.1       Temporary fence barricading along perimeter of excavated areas ; Marking of excavation and peggings       sum       1         2.4       SHE File Recording & availability of SHE File/Site       sum       1          2.4.1       Compile SHE plan and file.       sum       1          2.5.1       Transport            2.5.1       Transportation of employees in compliance with the Transportation of employees procedure (Preferred usage of local taxi association).       sum       1          2.6       Compliance	2.2.1	Fall protection equipment incl but not limited to Safety Harness(double lanyard), ropes, pulleys etc. ; Evaluation of physical and psychological fitness of personnel working at heights. ; Access ladders. ; Portable		sum	1					
2.3.1       Temporary fence barricading along perimeter of excavated areas ; Marking of excavation and peggings       sum       1           2.4       SHE File Recording & availability of SHE File/Site       sum       1            2.4.1       Compile SHE plan and file.       sum       1             2.5.1       Transport       sum       1             2.5.1       Transportation of employees in compliance with the Transportation of employees procedure (Preferred usage of local taxi association).       sum       1	2.3	Barricading Supply & install, including removal upon completion to ensure			<u> </u>		1	<u> </u>	<u> </u>	
Recording & availability of SHE File/Site         2.4.1       Compile SHE plan and file.       sum       1 <td>2.3.1</td> <td>Temporary fence barricading along perimeter of excavated areas ;</td> <td></td> <td>sum</td> <td>1</td> <td></td> <td></td> <td></td> <td></td>	2.3.1	Temporary fence barricading along perimeter of excavated areas ;		sum	1					
2.5       Transport         2.5.1       Transportation of employees in compliance with the Transportation of employees procedure (Preferred usage of local taxi association).       sum       1         2.6       Compliance		Recording & availability of SHE File/Site						-	-	
2.5.1     Transportation of employees in compliance with the Transportation of employees procedure (Preferred usage of local taxi association).     sum     1       2.6     Compliance				sum	1					
2.5.1     employees procedure (Preferred usage of local taxi association).     Sum     1       2.6     Compliance		Iransport								
	2.5			1	1		1	1	1	
				sum	1					

2.70	SHEQ Appointment							
2.70	Appointment of SHEQ OFFICER FULL TIME ON SITE Costs							
	associated with the appointment of Safety personel and actual time							
2.7.1	spent on implementation, managing, documenting, monitoring,		sum	1				
	reviewing, internal and external audits, incident investigations and		oann					
	mitigating safety related impacts.							
	Appointment of a registered Construction Manager FULL TIME ON	-						
2.7.2	SITE.		sum	1				
	one.	1			Carried for	ward to Bill No.7	SUMMARY	
				L	Carried for			
BILL N	0.3 - INSTALLATION OF FOUNDATIONS CONVENTIONAL							
CONCR	ETE FOUNDATIONS FOR ALL TOWER TYPES COMPLETE WITH AN	NCHORING BOLTS	S, STI	JBS AND E	ARTHING SYSTI	EM.		
The rate	s of the foundation is per foundation leg inclusive of all materials as per the dra		-, -					
The quar	ntity includes contingency as priced for in the rates						-	
ITEM	DESCRIPTION		UNIT	QUANTI	MATERIAL	PLANT	LABOUR	TOTAL PRICE
			0.01	ΤY				
				(1)	(2)	(3)	(4)	(1)x(2+3+4)
3.1	SELF-SUPPORTING ANGLE STRAIN 0° TERMINAL - ALL TYPES							
c	Concrete Leg Foundations (4 per tower)							
3.1.1	Type 1 Soil		No.	4				-
3.1.1	Type 2 Soil		No.	4				
3.1.2			No.	4				-
3.1.3	Type 3 Soil Type 4 Soil		No.	4				-
3.1.4	Hard Rock		No.	4				-
	Soft Rock		-	4				-
3.1.6	SELF-SUPPORTING SUSPENSION - ALL TYPES		No.	4				-
3.2 c								
-	Concrete Leg Foundations (4 per tower)		NI-	4				-
3.2.1	Type 1 Soil		No.	4				
3.2.2	Type 2 Soil		No.	4				-
3.2.3	Type 3 Soil		No.	4				-
3.2.4	Type 4 Soil		No.	4				-
3.2.5	Hard Rock		No.	4				-
3.2.6	Soft Rock		No.	4				-
3.3	GUYED CROSS-ROPE SUSPENSION TOWERS - ALL TYPES							
	Constate Dead Man Curry Anabay Foundations including							
с	Concrete Dead Man Guy-Anchor Foundations including encasing anchor links in concrete (4 per tower)							
3.3.1	Type 1 Soil		No.	4				
3.3.1	Type 2 Soil		No.	4				
3.3.2 3.3.3	Type 3 Soil	┟────┤	No.	4				-
3.3.3 3.3.4	Type 4 Soil	┟────┤	No.	4				-
3.3.4 3.3.5	Hard Rock	<u>├</u>	No.	4				-
3.3.5 3.3.6	Soft Rock	<u>                                     </u>	No.	4				-
c.5.0	Concrete Mast (Plinth) Foundations (2 per tower)		NU.	4				-
3.3.7	Type 1 Soil		No.	4				-
3.3.7	Type 2 Soil		No.	4				
3.3.0	Type 3 Soil		No.	4				
3.3.10	Type 4 Soil		No.	4				
3.3.10	Hard Rock	<u> </u>	No.	4				-
3.3.11	Soft Rock	<u>├</u>	No.	4				
3.3.12 3.4	GUYED "V" SUSPENSION TOWERS - ALL TYPES		NU.	4				-
c	Concrete Dead Man Guy-Anchor Foundations (4 per tower)							
3.4.1	Type 1 Soil		No.	4				-
3.4.2	Type 2 Soil		No.	4				-
3.4.3	Type 3 Soil		No.	4				-
3.4.4	Type 4 Soil	+ +	No.	4				
3.4.5	Hard Rock		No.	4				
3.4.6	Soft Rock		No.	4				
5.4.0			110.	+				-

2 5	Concrete Mast (Blinth) Foundations (1 nor towar)					
<b>3.5</b> 3.4.7	Concrete Mast (Plinth) Foundations (1 per tower) Type 1 Soil	No.	4			-
	Type 2 Soil	 No.	4			-
3.4.8						-
3.4.9	Type 3 Soil	No.	4			
3.4.10	Type 4 Soil	No.	4			-
	Hard Rock	No.	4	 		-
3.4.12	Soft Rock	 No.	4			-
3.5	CROSS-ROPE ANGLE STRAIN TOWERS - ALL TYPES					
	Concrete Dead Man Guy-Anchor Foundations including					
с	encasing anchor links in concrete (inner guys - 2 per tower)					
3.5.1	Type 1 Soil	No.	4	 		-
3.5.2	Type 2 Soil	 No.	4			-
3.5.3	Type 3 Soil	No.	4			-
3.5.4	Type 4 Soil	No.	4			-
3.5.5	Hard Rock	No.	4			-
3.5.6	Soft Rock	No.	4			-
с	Concrete Dead Man Guy-Anchor Foundations including encasing anchor links in concrete (outer guys - 2 per tower)					
3.5.7	Type 1 Soil	No.	4			-
3.5.8	Type 2 Soil	No.	4			-
3.5.9	Type 3 Soil	No.	4			-
3.5.10	Type 4 Soil	 No.	4			-
3.5.11	Hard Rock	No.	4			
3.5.12	Soft Rock	No.	4			-
5.5.1Z		NO.	4			-
0 5 4 2	Concrete Mast (Plinth) Foundations (2 per tower)	No.	4			
3.5.13			4			-
3.5.14	Type 2 Soil	No.	4			-
3.5.15	Type 3 Soil	No.				
3.5.16	Type 4 Soil	No.	4			-
3.5.17	Hard Rock	No.	4			-
3.5.18	Soft Rock	No.	4			-
3.6 c	GUYED SINGLE MAST ANGLE STRAIN TOWERS - ALL TYPES Concrete Dead Man Guy-Anchor Foundations including encasing anchor links in concrete (inner guys - 2 per tower)					
3.6.1	Type 1 Soil	No.	4			-
3.6.2	Type 2 Soil	No.	4			-
3.6.3	Type 3 Soil	No.	4			-
3.6.4	Type 4 Soil	No.	4			-
3.6.5	Hard Rock	No.	4			-
3.6.6	Soft Rock	No.	4			-
c	Concrete Dead Man Guy-Anchor Foundations including encasing anchor links in concrete (outer guys - 2 per tower)					
3.6.7	Type 1 Soil	No.	4			-
3.6.8	Type 2 Soil	No.	4			-
3.6.9	Type 3 Soil	No.	4			-
3.6.10	Type 4 Soil	No.	4			-
3.6.11	Hard Rock	No.	4			-
3.6.12	Soft Rock	No.	4			-
с	Concrete Mast (Plinth) Foundations (1 per tower)		•			
3.6.13	Type 1 Soil	No.	4			-
3.6.14	Type 2 Soil	 No.	4			-
3.6.15	Type 3 Soil	No.	4			-
3.6.16	Type 4 Soil	No.	4			
3.6.17			4			-
	Hard Rock	No.	4			-
3.6.18	Soft Rock	No.	4		1	-

3.7	SELF-SUPPORTING ANGLE STRAIN 0° TERMINAL - TYPE 517F									I
3.7	SELF-SUPPORTING ANGLE STRAIN 0" TERMINAL - TYPE 51/F									
с	Concrete Leg Foundations (4 per tower)									
3.7.1	Type 1 Soil	No	. 4	L .			-			
3.7.2	Type 2 Soil	No	. 4	L			-			
3.7.3	Type 3 Soil	No	. 4				-			
3.7.4	Type 4 Soil	No	4				-			
3.7.5	Hard Rock	No					-			
3.7.6	Soft Rock	No					-			
3.8	CROSS-ROPE SUSPENSION TOWERS - ALL TYPES	140					-			
5.0	Concrete Dead Man Guy-Anchor Foundations including									
с	encasing anchor links in concrete (4 per tower)									
3.8.1	Type 1 Soil	No					-			
3.8.2	Type 2 Soil	No		•	-		-			
3.8.3	Type 3 Soil	No					-			
3.8.4	Type 4 Soil	No					-			
3.8.5	Hard Rock	No					-			
3.8.6	Soft Rock	No	4	ł			-			
с	Concrete Mast (Plinth) Foundations (2 per tower)									
3.8.7	Type 1 Soil	No	4				-			
3.8.8	Type 2 Soil	No	. 4	ł			-			
3.8.9	Type 3 Soil	No	. 4				-			
3.8.10		No					-			
3.8.11	Hard Rock	No		1			-			
3.8.12	Soft Rock	No					-			
3.9	WEEKEND WORK	140					-			
	Saturday and Public Holiday work by foundation team on the <i>Project</i>		-							
3.9.1	Manager's instruction.(team per day)	No	. 4				-			
3.9.2	Sunday and Public Holiday work by foundation team on the <i>Project</i>	No	. 4	L .			-			
0.40	Manager's instruction.(team per day)		_							
3.10	RELOCATION									
	Relocation of foundation team(s) and equipment(s) necessary for out									
3.10.1	of sequence work due to instruction by the Employer (per move).	No	. 4				-			
			_			_				
							0.00			R 0.00
6 - MIN	OR WORKS									
ITEM	DESCRIPTION		UNIT	QUANTITY		MATERIAL	PLANT	LABO	JR	TOTAL PRICE
6 - MIN	OR WORKS			(1)		(2)	(3)	(4)		(1)x(2+3+4)
6.1	PEGGING OF TOWER POSITIONS						l í			
6.1.1	Self Supporting Angle Strain 0° Terminal - All Types		No.	96						-
6.1.2	Self Supporting Suspension - All Types		No.	96						-
6.1.3	Cross-rope Suspension Towers - All Types		No.	96						-
6.1.4	Guyed "V" Suspension Towers - All Types		No.	96						-
6.1.5	Cross-rope Angle Strain 0° - 15° - All Types		No.	96						-
6.1.6	Guyed Single Mast Angle Strain 15° - 30° - All Types		No.	96						-
6.1.7	Self Supporting Angle Strain 0° Terminal - All Types		No.	96						
6.1.8	Cross-Rope Suspension - All Types		No.	96						-
6.2	SUPPLY AND INSTALL TOWER LABELS		NU.	90						-
6.2.1	Line designation labels.		No.	340						-
6.2.1	Tower identification labels.		NO.	340						-
	Phase disk labels.			340						-
6.2.3			No.							
6.2.4	Tower danger signs to the public area.		No.	340						
6.3	WARNING DEVICES		-							
6.3.1	Supply and install bird guards.		No.	96						-
6.3.2	Installation of bird diverters.		No.	168						-
6.4	FOUNDATION LOAD TESTS (On the Project Manager's instruction)									
6.4.1	Proof load test		No.	4	•					-

6.5	ADDITIONAL & MISCELLANEOUS WORKS											
6.5.1	Backstay at Terminal Tower.			No.	4							-
6.5.2	Supply and install aviation lights (low intensity led steady burning			No.	1							-
	type A light of 10 candellas) on towers.			NO.	4							
Carried	forward to Bill No. 7 - SUMMARY											-
		ESKOM ROT	EK IN	DUSTR	IES - CONSTI	RUCTION SE	RVICES - POV	VERLINES DIVISIO	N			
SUMM	RY											
BILL No.	DESCRIPTION											TOTAL
1	1 PRELIMINARY AND GENERAL R							R	-			
2	2 SHEQ							-				
3	INSTALLATION OF FOUNDATIONS CONVENTIONAL											-
6	MINOR WORKS											-
								-				
	FOR ERI: FOR SERVICE PROVIDER:											
	BOQ Compiled by:	Pricing Done By:										
	Name: _ <u>Segametsi L. Ramoshaba</u> Name:											

	Job Title:
Signature:	Signature:
BOQ Compilation supported By	Pricing Approved By
Name:	Name:
Job Title:	Job Title:
Signature:	Signature: