

TENDER NO.: SC1478/2014

## SUPPLY AND DELIVERY OF ELECTRICAL INVENTORY ITEMS FOR A CONTRACT PERIOD ENDING 30 JUNE 2017

## PROCUREMENT DOCUMENT

NAME OF TENDERER:	
Total Bid Price (Inclusive of VAT)	PRICING SCHEDULE - PAGES 121 TO 164

#### **MAY 2014**

## PREPARED AND ISSUED BY:

Directorate: Finance:

Supply Chain Management Unit Overstrand Municipality PO Box 20, Hermanus, 7200 CONTACT FOR ENQUIRIES
REGARDING SPECIFICATIONS:
Valmarie Lyners-Swartz
Stores Coordinator

Tel. Number: 028 313 5027



## **MUNICIPALITY**

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TENDER DETAILS									
TENDER NUMBER:	SC1478/2014								
TENDER TITLE:		Y AND DELI'RACT PERIOD						VENTORY ITE	MS FOR A
CLOSING DATE:	04 、	JULY 2014	CLOS	SING TII	ME:			12H00	
SITE MEETING:	DATE:	N/A	TIME	:		1	N/A	COMPULSORY:	N/A
SITE MEETING ADDRESS:	N/A								
CIDB GRADING REQUIRED:	NO	LEVEL AND CAT	EGORY	/: N	I/A				
BID BOX NO:	2	SITUATED AT: C The bid box is ge						a Avenue, Hermanus. week.	
OFFER TO BE VALID FOR:	60	DAYS FROM TH	E CLOS	ING DA	DATE OF BID.				
TENDERER DETAILS									
NAME OF TENDERER:									
NAME OF CONTACT PERSON:							_		
PHYSICAL ADDRESS:					POSTAL ADDRESS:				
TELEPHONE #:			FAX NO		Э.				
E-MAIL ADDRESS:									
TENDER AMOUNT (INCLUDING VAT):									
DATE:									
SIGNATURE OF TENDERER:									
CAPACITY UNDER WHICH TH	IIS BID IS S	SIGNED:							
PLEASE NOTE:									

- 1. Tenders that are deposited in the incorrect box will not be considered.
- Tender box deposit slot is 28cm x 2.5cm. 2.
- 3. Mailed, telegraphic or faxed tenders will not be accepted.
- If the bid is late, it will not be accepted for consideration.
- Bids may only be submitted on the Bid Documentation provided by the Municipality.

ENQUIRIES MAY BE DIRECTED TO:						
	ENQUIRIES REGARDING BID PROCEDURES	TECHNICAL ENQUIRIES				
CONTACT PERSON:	BLAKE D'OLIVEIRA	VALMARIE LYNERS-SWARTZ				
TEL.# 028 313 5016		028 313 5027				

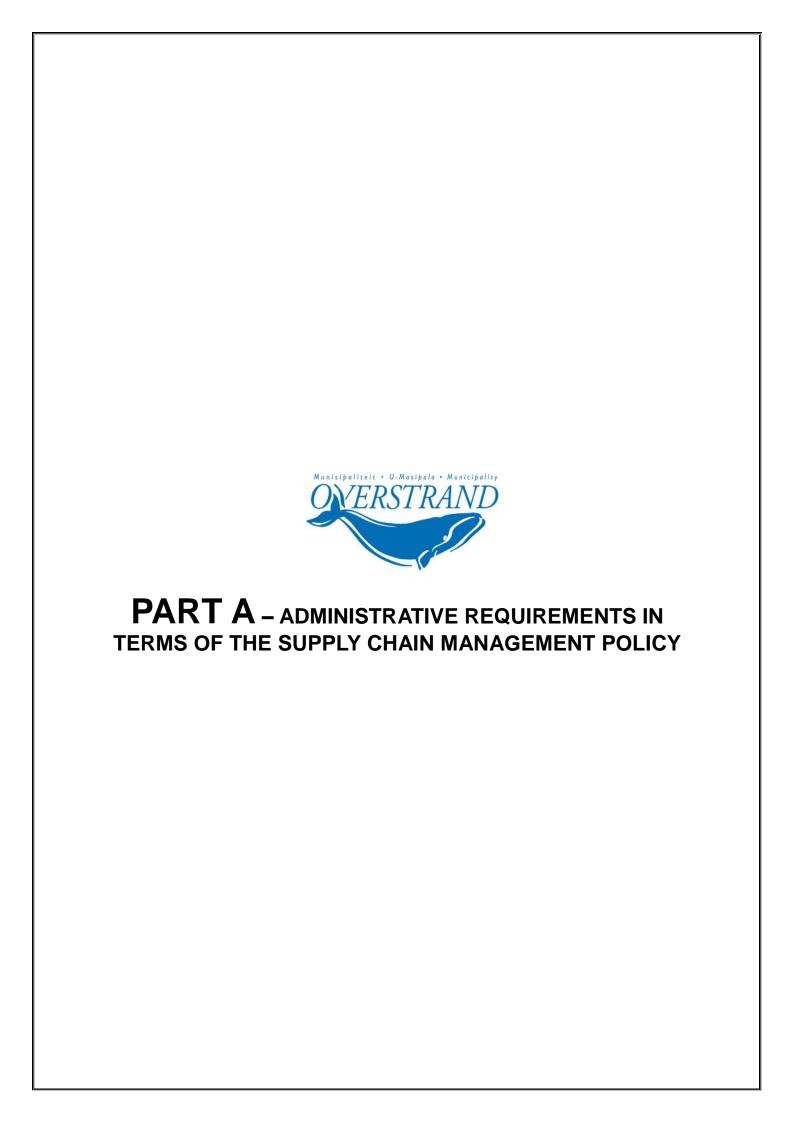
## **MUNICIPALITY**



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## **MUNICIPALITY**

## 1. CHECKLIST

# PLEASE ENSURE THAT THE FOLLOWING FORMS HAVE BEEN DULY COMPLETED AND SIGNED AND THAT ALL DOCUMENTS AS REQUESTED, ARE ATTACHED TO THE TENDER DOCUMENT:

<b>Authority to Sign a Bid -</b> Is the form duly completed and is a <b>certified copy</b> of the <b>resolution</b> attached?	Yes	No	
Tax Clearance Certificate - Is an ORIGINAL and VALID Tax Clearance Certificate attached?	Yes	No	
MBD 4 (Declaration of Interest) - Is the form duly completed and signed?	Yes	No	
MBD 6.1 (Preference Points claim form for purchases/services) - Is the form duly completed and signed?  Is a CERTIFIED copy of the B-BBEE Certificate or the original B-BBEE Certificate attached?	Yes	No	
MBD6.2 (Local Content) - Is the form duly completed and signed?  IF IMPORTED PRODUCT UNDER "CABLES" IS A LETTER OF EXEMPTION FROM THE DTI INCLUDED IN THE BID SUBMISSION?	Yes	No	
MBD 8 (Declaration of Past Supply Chain Practices) - Is the form duly completed and signed?	Yes	No	
MBD 9 (Certificate of Independent Bid Determination) - Is the form duly completed and signed?	Yes	No	
MBD 15 (Certificate of Payment of Municipal Accounts) - Is the form duly completed and signed?  Are the Identity numbers, residential addresses and municipal account numbers of ALL members, partners, directors, etc. provided on the form as requested?	Yes	No	
OHASA (Occupational Health and Safety) - Is the form duly completed and signed? Is a valid Letter of Good Standing from the Compensation Commissioner attached?	Yes	No	
Form of Indemnity - Is the form duly completed and signed?	Yes	No	
Specifications - Is the form duly completed and signed?	Yes	No	
MBD 7.1 (Contract form – Goods) - Is the form duly completed and signed?	Yes	No	
DATA BASE REGISTRATION - Is the form duly completed and signed?  Are ALL the supporting documents attached?	Yes	No	
		•	

SIGNATURE	NAME (PRINT)	
CAPACITY	DATE	
NAME OF FIRM		

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#### 2. TENDER NOTICE & INVITATION TO TENDER

#### **TENDER NO. SC 1478/2014**

#### SUPPLY AND DELIVERY OF ELECTRICAL INVENTORY ITEMS FOR A CONTRACT PERIOD END-ING 30 JUNE 2017

Tenders are hereby invited for: Supply and delivery of electrical inventory items for a contract period ending 30 June 2017.

Tender documents, in English, are obtainable from Friday, **30 May 2014**, at the offices of the Supply Chain Management Unit, Overstrand Municipality, Magnolia Avenue, Hermanus, Tel. 028 313 8064 from Ms. Rita Neethling between 08h30 and 15h30, upon payment of a tender participation fee of R130.00 per set. Alternatively the documents can be downloaded free from the website: <a href="https://www.overstrand.gov.za">www.overstrand.gov.za</a>.

Sealed tenders, with "Tender No. SC 1478/2014: Supply and delivery of electrical inventory items" clearly endorsed on the envelope must be deposited in Tender Box No. 2 at the offices of the Overstrand Municipality, Magnolia Avenue, Hermanus. Bids may only be submitted on the bid documentation provided by the Municipality.

The closing date and time of the tender is on **04 July 2014 at 12h00** and will be opened in public immediately thereafter in the Committee Room, Hermanus Administration.

Tenders must be valid for 60 days after the closing date. Tenders shall be evaluated in terms of the Preferential Procurement Regulations, 2011 and bidders may claim preference points in terms of their B-BBEE status level of contribution.

Only locally produced or locally manufactured cables with a stipulated minimum threshold for local production and content will be considered.

The Overstrand Municipality does not bind itself to accept the lowest or any tender and reserves the right to accept any tender, as it may deem expedient. Tenders are subject to the General Conditions of Tender and the Supply Chain Management Policy of the Overstrand Municipality.

Please refer enquiries to Ms. V Lyners-Swartz at telephone number: 028 313 5027.

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## 3. AUTHORITY TO SIGN A BID

#### 1. COMPANIES AND CLOSE CORPORATIONS

- 1.1. If a Bidder is a COMPANY, a certified copy of the resolution by the board of directors, duly signed, authorising the person who signs this bid to do so, as well as to sign any contract resulting from this bid and any other documents and correspondence in connection with this bid and/or contract on behalf of the company must be submitted with this bid, that is, before the closing time and date of the bid
- 1.2. In the case of a CLOSE CORPORATION (CC) submitting a bid, a resolution by its members, authorizing a member or other official of the corporation to sign the documents on their behalf, shall be included with the bid.

## PARTICULARS OF RESOLUTION BY BOARD OF DIRECTORS OF THE COMPANY / MEMBERS OF THE CC

Date Resolution was take	en					
Resolution signed by (na	me and surname)					
Capacity						
Name and surname of de Signatory	legated Authorised					
Capacity						
Specimen Signature						
Full name and surname of	of ALL Director(s) / Men	nber (s)				
Is a CERTIFIED COPY	of the resolution atta	ched?		YES	NO	
SIGNED ON BEHALF OF COMPANY / CC:			DATE:			
PRINT NAME:						
WITNESS 1:			WITNESS 2	): ::		

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2.	SOLE PROPRIETOR (		_, the undersigned, hereby confirm			
	that I am the sole owner	er of the business trading as		-		
	SIGNATURE:		DATE:			
	PRINT NAME:					
	WITNESS 1:		WITNESS	2:		
3.	PARTNERSHIP					
	We, the undersigned p	artners in the business tradin	ng as			
	hereby authorize Mr/Ms	s	to s	ign this bid as well as any con-		
	tract resulting from the bid and any other documents and correspondence in connection with this					
	bid and /or contract for	and on behalf of the abover	mentioned part	nership.		
	The following particulars in respect of every partner must be furnished and signed by every partner:					
	- ·	rs in respect of every partne	r must be furr	nished and signed by every part-		
	ner:	rs in respect of every partne	r must be furr	nished and signed by every part-		
	ner:		r must be furr			
	ner:		r must be furr			
	ner:		er must be furr			
	ner:		er must be furr			
	ner:		er must be furr			
	ner:					
	ner:		DATE:			
	SIGNED ON BEHALF					

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#### 4. GENERAL CONDITIONS OF CONTRACT – GOVERNMENT PROCUREMENT

#### 1. **DEFINITIONS**

The following terms shall be interpreted as indicated:

- 1.1. "Closing time" means the date and hour specified in the bidding documents for the receipt of bids.
- 1.2. "Contract" means the written agreement entered into between the purchaser and the supplier, as recorded in the contract form signed by the parties, including all attachments and appendices thereto and all documents incorporated by reference therein.
- 1.3. "Contract price" means the price payable to the supplier under the contract for the full and proper performance of his contractual obligations.
- 1.4. "Corrupt practice" means the offering, giving, receiving, or soliciting of any thing of value to influence the action of a public official in the procurement process or in contract execution.
- 1.5. "Countervailing duties" are imposed in cases where an enterprise abroad is subsidized by its government and encouraged to market its products internationally
- 1.6. "Country of origin" means the place where the goods were mined, grown or produced or from which the services are supplied. Goods are produced when, through manufacturing, processing or substantial and major assembly of components, a commercially recognized new product results that is substantially different in basic characteristics or in purpose or utility from its components.
- 1.7. "Day" means calendar day.
- 1.8. "Delivery" means delivery in compliance of the conditions of the contract or order.
- 1.9. "Delivery ex stock" means immediate delivery directly from stock actually on hand
- 1.10. "Delivery into consignees store or to his site" means delivered and unloaded in the specified store or depot or on the specified site in compliance with the conditions of the contract or order, the supplier bearing all risks and charges involved until the supplies are so delivered and a valid receipt is obtained.
- 1.11. "Dumping" occurs when a private enterprise abroad market its goods on own initiative in the RSA at lower prices than that of the country of origin and which have the potential to harm the local industries in the RSA.
- 1.12. "Force majeure" means an event beyond the control of the supplier and not involving the supplier's fault or negligence and not foreseeable.
- 1.13. Such events may include, but is not restricted to, acts of the purchaser in its sovereign capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions and freight embargoes.
- 1.14. "Fraudulent practice" means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of any bidder, and includes collusive practice among bidders (prior to or after bid submission) designed to establish bid prices at artificial non-competitive levels and to deprive the bidder of the benefits of free and open competition.
- 1.15. "GCC" means the General Conditions of Contract.
- 1.16. "Goods" means all of the equipment, machinery, and/or other materials that the supplier is required to supply to the purchaser under the contract.
- 1.17. "Imported content" means that portion of the bidding price represented by the cost of components, parts or materials which have been or are still to be imported (whether by the supplier or his subcontractors) and which costs are inclusive of the costs abroad, plus freight and other direct importation costs such as landing costs, dock dues, import duty, sales duty or other similar tax or duty at the South African place of entry as well as transportation and handling charges to the factory in the Republic where the supplies covered by the bid will be manufactured.

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- 1.18. "Local content" means that portion of the bidding price which is not included in the imported content provided that local manufacture does take place.
- 1.19. "Manufacture" means the production of products in a factory using labour, materials, components and machinery and includes other related value-adding activities.
- 1.20. "Order" means an official written order issued for the supply of goods or works or the rendering of a service.
- 1.21. "Project site" where applicable, means the place indicated in bidding documents.
- 1.22. "Purchaser" means the organization purchasing the goods.
- 1.23. "Republic" means the Republic of South Africa.
- 1.24. "SCC" means the Special Conditions of Contract.
- 1.25. "Services" means those functional services ancillary to the supply of the goods, such as transportation and any other incidental services, such as installation, commissioning, provision of technical assistance, training, catering, gardening, security, maintenance and other such obligations of the supplier covered under the contract.
- 1.26. "Supplier" means the successful bidder who is awarded the contract to maintain and administer the required and specified service(s) to the State.
- 1.27. "Tort" means in breach of contract.
- 1.28. "Turnkey" means a procurement process where one service provider assumes total responsibility for all aspects of the project and delivers the full end product / service required by the contract.
- 1.29. "Written" or "in writing" means handwritten in ink or any form of electronic or mechanical writing.

#### 2. Application

- 2.1. These general conditions are applicable to all bids, contracts and orders including bids for functional and professional services, sales, hiring, letting and the granting or acquiring of rights, but excluding immovable property, unless otherwise indicated in the bidding documents.
- 2.2. Where applicable, special conditions of contract are also laid down to cover specific supplies, services or works.
- 2.3. Where such special conditions of contract are in conflict with these general conditions, the special conditions shall apply.

#### 3. General

- 3.1. Unless otherwise indicated in the bidding documents, the purchaser shall not be liable for any expense incurred in the preparation and submission of a bid. Where applicable a non-refundable fee for documents may be charged.
- 3.2. Invitations to bid are usually published in locally distributed news media and on the municipality / municipal entity website.

#### 4. Standards

4.1. The goods supplied shall conform to the standards mentioned in the bidding documents and specifications.

#### 5. Use of contract documents and information; inspection.

- 5.1. The supplier shall not, without the purchaser's prior written consent, disclose the contract, or any provision thereof, or any specification, plan, drawing, pattern, sample, or information furnished by or on behalf of the purchaser in connection therewith, to any person other than a person employed by the supplier in the performance of the contract. Disclosure to any such employed person shall be made in confidence and shall extend only as far as may be necessary for purposes of such performance.
- 5.2. The supplier shall not, without the purchaser's prior written consent, make use of any document or information mentioned in GCC clause 5.1 except for purposes of performing the contract.

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- 5.3. Any document, other than the contract itself mentioned in GCC clause 5.1 shall remain the property of the purchaser and shall be returned (all copies) to the purchaser on completion of the supplier's performance under the contract if so required by the purchaser.
- 5.4. The supplier shall permit the purchaser to inspect the supplier's records relating to the performance of the supplier and to have them audited by auditors appointed by the purchaser, if so required by the purchaser.

#### 6. Patent rights

- 6.1. The supplier shall indemnify the purchaser against all third-party claims of infringement of patent, trademark, or industrial design rights arising from use of the goods or any part thereof by the purchaser.
- 6.2. When a supplier developed documentation / projects for the municipality / municipal entity, the intellectual, copy and patent rights or ownership of such documents or projects will vest in the municipality / municipal entity.

#### 7. Performance security

- 7.1. Within thirty (30) days of receipt of the notification of contract award, the successful bidder shall furnish to the purchaser the performance security of the amount specified in SCC.
- 7.2. The proceeds of the performance security shall be payable to the purchaser as compensation for any loss resulting from the supplier's failure to complete his obligations under the contract.
- 7.3. The performance security shall be denominated in the currency of the contract or in a freely convertible currency acceptable to the purchaser and shall be in one of the following forms:
  - 7.3.1. bank guarantee or an irrevocable letter of credit issued by a reputable bank located in the purchaser's country or abroad, acceptable to the purchaser, in the form provided in the bidding documents or another form acceptable to the purchaser; or
  - 7.3.2. a cashier's or certified cheque
- 7.4. The performance security will be discharged by the purchaser and returned to the supplier not later than thirty (30) days following the date of completion of the supplier's performance obligations under the contract, including any warranty obligations, unless otherwise specified.

#### 8. Inspections, tests and analyses

- 8.1. All pre-bidding testing will be for the account of the bidder.
- 8.2. If it is a bid condition that supplies to be produced or services to be rendered should at any stage during production or execution or on completion be subject to inspections tests and analysis, the bidder or contractor's premises shall be open, at all reasonable hours, for inspection by a representative of the purchaser or an organization acting on behalf of the purchaser.
- 8.3. If there are no inspection requirements indicated in the bidding documents and no mention is made in the contract, but during the contract period it is decided that inspections shall be carried out, the purchaser shall itself make the necessary arrangements, including payment arrangements with the testing authority concerned.
- 8.4. If the inspections, tests and analyses referred to in clauses 8.2 and 8.3 show the goods to be in accordance with the contract requirements, the cost of the inspections, tests and analyses shall be defrayed by the purchaser.
- 8.5. Where the goods or services referred to in clauses 8.2 and 8.3 do not comply with the contract requirements, irrespective of whether such goods or services are accepted or not, the cost in connection with these inspections, tests or analyses shall be defrayed by the supplier.
- 8.6. Supplies and services which are referred to in clauses 8.2 and 8.3 and which do not comply with the contract requirements may be rejected.

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- 8.7. Any contract goods may on or after delivery be inspected, tested or analyzed and may be rejected if found not to comply with the requirements of the contract. Such rejected goods shall be held at the cost and risk of the supplier who shall, when called upon, remove them immediately at his own cost and forthwith substitute them with goods which do comply with the requirements of the contract. Failing such removal the rejected goods shall be returned at the suppliers cost and risk. Should the supplier fail to provide the substitute goods forthwith, the purchaser may, without giving the supplier further opportunity to substitute the rejected goods, purchase such goods as may be necessary at the expense of the supplier.
- 8.8. The provisions of clauses 8.4 to 8.7 shall not prejudice the right of the purchaser to cancel the contract on account of a breach of the conditions thereof, or to act in terms of Clause 22 of GCC.

## 9. Packing

- 9.1. The supplier shall provide such packing of the goods as is required to prevent their damage or deterioration during transit to their final destination, as indicated in the contract. The packing shall be sufficient to withstand, without limitation, rough handling during transit and exposure to extreme temperatures, salt and precipitation during transit, and open storage. Packing, case size and weights shall take into consideration, where appropriate, the remoteness of the goods' final destination and the absence of heavy handling facilities at all points in transit.
- 9.2. The packing, marking, and documentation within and outside the packages shall comply strictly with such special requirements as shall be expressly provided for in the contract, including additional requirements, and in any subsequent instructions ordered by the purchaser.

#### 10. Delivery

Delivery of the goods shall be made by the supplier in accordance with the documents and terms specified in the contract. The details of shipping and/or other documents to be furnished by the supplier are specified.

#### 11. Insurance

The goods supplied under the contract shall be fully insured in a freely convertible currency against loss or damage incidental to manufacture or acquisition, transportation, storage and delivery in the manner specified.

## 12. Transportation

Should a price other than an all-inclusive delivered price be required, this shall be specified.

#### 13. Incidental

- 13.1. The supplier may be required to provide any or all of the following services, including additional services, if any:
  - 13.1.1. performance or supervision of on-site assembly and/or commissioning of the supplied goods;
  - 13.1.2. furnishing of tools required for assembly and/or maintenance of the supplied goods;
  - 13.1.3. furnishing of a detailed operations and maintenance manual for each appropriate unit of the supplied goods;
  - 13.1.4. performance or supervision or maintenance and/or repair of the supplied goods, for a period of time agreed by the parties, provided that this service shall not relieve the supplier of any warranty obligations under this contract; and
  - 13.1.5. training of the purchaser's personnel, at the supplier's plant and/or on-site, in assembly, start-up, operation, maintenance, and/or repair of the supplied goods.
- 13.2. Prices charged by the supplier for incidental services, if not included in the contract price for the goods, shall be agreed upon in advance by the parties and shall not exceed the prevailing rates charged to other parties by the supplier for similar services.

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#### 14. Spare parts

- 14.1. As specified, the supplier may be required to provide any or all of the following materials, notifications, and information pertaining to spare parts manufactured or distributed by the supplier:
  - 14.1.1. such spare parts as the purchaser may elect to purchase from the supplier, provided that this election shall not relieve the supplier of any warranty obligations under the contract; and:
  - 14.1.2. in the event of termination of production of the spare parts:
    - 14.1.2.1. advance notification to the purchaser of the pending termination, in sufficient time to permit the purchaser to procure needed requirements; and
    - 14.1.2.2. following such termination, furnishing at no cost to the purchaser, the blue-prints, drawings, and specifications of the spare parts, if requested.

#### 15. Warranty

- 15.1. The supplier warrants that the goods supplied under the contract are new, unused, of the most recent or current models, and that they incorporate all recent improvements in design and materials unless provided otherwise in the contract. The supplier further warrants that all goods supplied under this contract shall have no defect, arising from design, materials, or workmanship (except when the design and/or material is required by the purchaser's specifications) or from any act or omission of the supplier, that may develop under normal use of the supplied goods in the conditions prevailing in the country of final destination.
- 15.2. This warranty shall remain valid for twelve (12) months after the goods, or any portion thereof as the case may be, have been delivered to and accepted at the final destination indicated in the contract, or for eighteen (18) months after the date of shipment from the port or place of loading in the source country, whichever period concludes earlier, unless specified otherwise in SCC.
- 15.3. The purchaser shall promptly notify the supplier in writing of any claims arising under this warranty.
- 15.4. Upon receipt of such notice, the supplier shall, within the period specified in SCC and with all reasonable speed, repair or replace the defective goods or parts thereof, without costs to the purchaser.
- 15.5. If the supplier, having been notified, fails to remedy the defect(s) within the period specified, the purchaser may proceed to take such remedial action as may be necessary, at the supplier's risk and expense and without prejudice to any other rights which the purchaser may have against the supplier under the contract.

#### 16. Payment

- 16.1. The method and conditions of payment to be made to the supplier under this contract shall be specified.
- 16.2. The supplier shall furnish the purchaser with an invoice accompanied by a copy of the delivery note and upon fulfillment of other obligations stipulated in the contract.
- 16.3. Payments shall be made by the purchaser **no later than thirty (30)** days after submission of an **invoice**, **statement** or claim by the supplier.
- 16.4. Payment will be made in Rand unless otherwise stipulated.

#### 17. Prices

Prices charged by the supplier for goods delivered and services performed under the contract shall not vary from the prices quoted by the supplier in his bid, with the exception of any price adjustments authorized or in the purchaser's request for bid validity extension, as the case may be.

#### 18. Variation orders

In cases where the estimated value of the envisaged changes in purchase does not vary more tha 15% of the total value of the original contract, the contractor may be instructed to deliver the goods or render the services as such. In cases of measurable quantities, the contractor may be approached to reduce the unit price and such offers, may be accepted provided that there is no escalation in price.

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#### 19. Assignment

The supplier shall not assign, in whole or in part, its obligations to perform under the contract, except with the purchaser's prior written consent.

#### 20. Subcontracts

The supplier shall notify the purchaser in writing of all subcontracts awarded under this contract, if not already specified in the bid. Such notification, in the original bid or later, shall not relieve the supplier from any liability or obligation under the contract.

#### 21. Delays in the supplier's performance

- 21.1. Delivery of the goods and performance of services shall be made by the supplier in accordance with the time schedule prescribed by the purchaser in the contract.
- 21.2. If at any time during performance of the contract, the supplier or its subcontractor(s) should encounter conditions impeding timely delivery of the goods and performance of services, the supplier shall promptly notify the purchaser in writing of the fact of the delay, its likely duration and its cause(s). As soon as practicable after receipt of the supplier's notice, the purchaser shall evaluate the situation and may at his discretion extend the supplier's time for performance, with or without the imposition of penalties, in which case the extension shall be ratified by the parties by amendment of contract.
- 21.3. The right is reserved to procure outside of the contract small quantities or to have minor essential services executed if an emergency arises, the supplier's point of supply is not situated at or near the place where the supplies are required, or the supplier's services are not readily available.
- 21.4. Except as provided under GCC Clause 25, a delay by the supplier in the performance of its delivery obligations shall render the supplier liable to the imposition of penalties, pursuant to GCC Clause 22, unless an extension of time is agreed upon pursuant to GCC Clause 22 without the application of penalties.
- 21.5. Upon any delay beyond the delivery period in the case of a supplies contract, the purchaser shall, without cancelling the contract, be entitled to purchase supplies of a similar quality and up to the same quantity in substitution of the goods not supplied in conformity with the contract and to return any goods delivered later at the supplier's expense and risk, or to cancel the contract and buy such goods as may be required to complete the contract and without prejudice to his other rights, be entitled to claim damages from the supplier.

#### 22. Penalties

Subject to GCC Clause 25, if the supplier fails to deliver any or all of the goods or to perform the services within the period(s) specified in the contract, the purchaser shall, without prejudice to its other remedies under the contract, deduct from the contract price, as a penalty, a sum calculated on the delivered price of the delayed goods or unperformed services using the current prime interest rate calculated for each day of the delay until actual delivery or performance. The purchaser may also consider termination of the contract pursuant to GCC Clause 23.

#### 23. Termination for default

- 23.1. The purchaser, without prejudice to any other remedy for breach of contract, by written notice of default sent to the supplier, may terminate this contract in whole or in part:
  - 23.1.1. if the supplier fails to deliver any or all of the goods within the period(s) specified in the contract, or within any extension thereof granted by the purchaser pursuant to GCC Clause 21.2;
  - 23.1.2. if the Supplier fails to perform any other obligation(s) under the contract; or
  - 23.1.3. if the supplier, in the judgment of the purchaser, has engaged in corrupt or fraudulent practices in competing for or in executing the contract.
- 23.2. In the event the purchaser terminates the contract in whole or in part, the purchaser may procure, upon such terms and in such manner as it deems appropriate, goods, works or services similar to those undelivered, and the supplier shall be liable to the purchaser for any excess

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costs for such similar goods, works or services. However, the supplier shall continue performance of the contract to the extent not terminated.

- 23.3. Where the purchaser terminates the contract in whole or in part, the purchaser may decide to impose a restriction penalty on the supplier by prohibiting such supplier from doing business with the public sector for a period not exceeding 10 years.
- 23.4. If a purchaser intends imposing a restriction on a supplier or any person associated with the supplier, the supplier will be allowed a time period of not more than fourteen (14) days to provide reasons why the envisaged restriction should not be imposed. Should the supplier fail to respond within the stipulated fourteen (14) days the purchaser may regard the supplier as having no objection and proceed with the restriction.
- 23.5. Any restriction imposed on any person by the purchaser will, at the discretion of the purchaser, also be applicable to any other enterprise or any partner, manager, director or other person who wholly or partly exercises or exercised or may exercise control over the enterprise of the first-mentioned person, and with which enterprise or person the first-mentioned person, is or was in the opinion of the purchase actively associated.
- 23.6. If a restriction is imposed, the purchaser must, within five (5) working days of such imposition, furnish the National Treasury, with the following information:
  - 23.6.1. the name and address of the supplier and / or person restricted by the purchaser;
  - 23.6.2. the date of commencement of the restriction
  - 23.6.3. the period of restriction; and
  - 23.6.4. the reasons for the restriction.

These details will be loaded in the National Treasury's central database of suppliers or persons prohibited from doing business with the public sector.

23.7. If a court of law convicts a person of an offence as contemplated in sections 12 or 13 of the Prevention and Combating of Corrupt Activities Act, No. 12 of 2004, the court may also rule that such person's name be endorsed on the Register for Tender Defaulters. When a person's name has been endorsed on the Register, the person will be prohibited from doing business with the public sector for a period not less than five years and not more than 10 years. The National Treasury is empowered to determine the period of restriction and each case will be dealt with on its own merits. According to section 32 of the Act the Register must be open to the public. The Register can be perused on the National Treasury website.

#### 24. Anti-dumping and countervailing duties and rights

When, after the date of bid, provisional payments are required, or antidumping or countervailing duties are imposed, or the amount of a provisional payment or anti-dumping or countervailing right is increased in respect of any dumped of subsidized import, the State is not liable for any amount so required or imposed, or for the amount of any such increase. When, after the said date, such a provisional payment is no longer required or any such anti-dumping or countervailing right is abolished, or where the amount of such provisional payment or any such right is reduced, any such favourable difference shall on demand be paid forthwith by the contractor to the State or the State may deduct such amounts from moneys (if any) which may otherwise be due to the contractor in regard to supplies or services which he delivered or rendered, or is to deliver or render in terms of the contract or any other contract or any other amount which may be due to him.

#### 25. Force Majeure

- 25.1. Notwithstanding the provisions of GCC Clauses 22 and 23, the supplier shall not be liable for forfeiture of its performance security, damages, or termination for default if and to the extent that his delay in performance or other failure to perform his obligations under the contract is the result of an event of force majeure.
- 25.2. If a force majeure situation arises, the supplier shall promptly notify the purchaser in writing of such condition and the cause thereof. Unless otherwise directed by the purchaser in writing, the supplier shall continue to perform its obligations under the contract as far as is reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the force majeure event.

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#### 26. Termination for insolvency

The purchaser may at any time terminate the contract by giving written notice to the supplier if the supplier becomes bankrupt or otherwise insolvent. In this event, termination will be without compensation to the supplier, provided that such termination will not prejudice or affect any right of action or remedy which has accrued or will accrue thereafter to the purchaser.

#### 27. Settlement of Disputes

- 27.1. If any dispute or difference of any kind whatsoever arises between the purchaser and the supplier in connection with or arising out of the contract, the parties shall make every effort to resolve amicably such dispute or difference by mutual consultation.
- 27.2. If, after thirty (30) days, the parties have failed to resolve their dispute or difference by such mutual consultation, then either the purchaser or the supplier may give notice to the other party of his intention to commence with mediation. No mediation in respect of this matter may be commenced unless such notice is given to the other party.
- 27.3. Should it not be possible to settle a dispute by means of mediation, it may be settled in a South African court of law.
- 27.4. Notwithstanding any reference to mediation and/or court proceedings herein,
  - 27.4.1. the parties shall continue to perform their respective obligations under the contract unless they otherwise agree; and
  - 27.4.2. the purchaser shall pay the supplier any monies due for goods delivered and / or services rendered according to the prescripts of the contract.

#### 28. Limitation of liability

- 28.1. Except in cases of criminal negligence or wilful misconduct, and in the case of infringement pursuant to Clause 6:
  - 28.1.1. the supplier shall not be liable to the purchaser, whether in contract, tort, or otherwise, for any indirect or consequential loss or damage, loss of use, loss of production, or loss of profits or interest costs, provided that this exclusion shall not apply to any obligation of the supplier to pay penalties and/or damages to the purchaser; and
  - 28.1.2. the aggregate liability of the supplier to the purchaser, whether under the contract, in tort or otherwise, shall not exceed the total contract price, provided that this limitation shall not apply to the cost of repairing or replacing defective equipment

#### 29. Governing language

The contract shall be written in English. All correspondence and other documents pertaining to the contract that is exchanged by the parties shall also be written in English.

#### 30. Applicable law

The contract shall be interpreted in accordance with South African laws, unless otherwise specified.

#### 31. Notices

- 31.1. Every written acceptance of a bid shall be posted to the supplier concerned by registered or certified mail and any other notice to him shall be posted by ordinary mail to the address furnished in his bid or to the address notified later by him in writing and such posting shall be deemed to be proper service of such notice
- 31.2. The time mentioned in the contract documents for performing any act after such aforesaid notice has been given, shall be reckoned from the date of posting of such notice.

#### 32. Taxes and duties

- 32.1. A foreign supplier shall be entirely responsible for all taxes, stamp duties, license fees, and other such levies imposed outside the purchaser's country.
- 32.2. A local supplier shall be entirely responsible for all taxes, duties, license fees, etc., incurred until delivery of the contracted goods to the purchaser.

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- 32.3. No contract shall be concluded with any bidder whose tax matters are not in order. Prior to the award of a bid SARS must have certified that the tax matters of the preferred bidder are in order.
- 32.4. No contract shall be concluded with any bidder whose municipal rates and taxes and municipal services charges are in arrears.

#### 33. Transfer of contracts

The contractor shall not abandon, transfer, cede, assign or sublet a contract or part thereof without the written permission of the purchaser.

#### 34. Amendment of contracts

No agreement to amend or vary a contract or order or the conditions, stipulations or provisions thereof shall be valid and of any force unless such agreement to amend or vary is entered into in writing and signed by the contracting parties. Any waiver of the requirement that the agreement to amend or vary shall be in writing, shall also be in writing.

#### 35. Prohibition of restrictive practices.

- 35.1. In terms of section 4 (1) (b) (iii) of the Competition Act No. 89 of 1998, as amended, an agreement between, or concerted practice by, firms, or a decision by an association of firms, is prohibited if it is between parties in a horizontal relationship and if a bidder(s) is / are or a contractor(s) was / were involved in collusive bidding.
- 35.2. If a bidder(s) or contractor(s) based on reasonable grounds or evidence obtained by the purchaser has / have engaged in the restrictive practice referred to above, the purchaser may refer the matter to the Competition Commission for investigation and possible imposition of administrative penalties as contemplated in section 59 of the Competition Act No 89 0f 1998.
- 35.3. If a bidder(s) or contractor(s) has / have been found guilty by the Competition Commission of the restrictive practice referred to above, the purchaser may, in addition and without prejudice to any other remedy provided for, invalidate the bid(s) for such item(s) offered, and / or terminate the contract in whole or part, and / or restrict the bidder(s) or contractor(s) from conducting business with the public sector for a period not exceeding ten (10) years and / or claim damages from the bidder(s) or contractor(s) concerned.

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#### 5. GENERAL CONDITIONS OF TENDER

- Sealed tenders, with the "Tender Number and Title" clearly endorsed on the envelope, must be deposited in the tender box indicated at the offices of the Overstrand Municipality, Magnolia Avenue, Hermanus.
- 2. The tender must be lodged by the Tenderer in the tender box in the Main Cash Hall, Hermanus Municipal Offices, Magnolia Avenue, Hermanus

#### **PLEASE NOTE:**

- 2.1. Tenders that are deposited in the incorrect box will not be considered.
- 2.2. Tender box deposit slot is 28cm x 2.5cm.
- 2.3. Mailed, telegraphic or faxed tenders will not be accepted.
- 2.4. Documents may only be completed in black ink.
- 2.5. In the event of a mistake having been made, it shall be crossed out in ink and be accompanied by an initial at each and every alteration. The use of correction fluid/tape is not allowed.
  - 2.5.1. Alterations or deletions not signed by the Tenderer may render the tender invalid.
- 2.6. All bids must be submitted in writing on the official forms supplied (not to be re-typed)
- 2.7. All prices shall be quoted in South African currency and be INCLUSIVE of VAT.
- 3. Any Tender received after the appointed time for the closing of Tenders shall not be considered but shall be filed unopened with the other Tenders received or may be returned to the Tenderer at his request.
- Tenders may not be telefaxed to the Municipality and therefore any tenders received by fax will not be considered.
- 5. A separate Tender box is provided for the reception of Tenders and no Tender will be considered which, subsequent to the closing hour for Tenders, may be found in another box.
- 6. Tenders shall be opened in public at the Hermanus Municipal Offices as soon as possible after the closing time for the receipt of tenders.
- 7. The Municipality shall have the right to summarily disqualify any Tenderer who, either at the date of submission of this tender or at the date of its award, is indebted to the Municipality in respect of any rental, levies, rates and/or service charges; ALTERNATIVELY;
  - 7.1. That an agreement be signed whereby the Tenderer agrees that a percentage or fixed amount at the discretion of the Municipality, be deducted from payments due to him for this tender, until the debt is paid in full.
  - 7.2. The tenderer shall declare **all** the Municipal account numbers in the Overstrand Area for which the enterprise or the proprietors or directors in their personal capacity is/ are responsible or co-responsible.
- 8. This bid will be evaluated and adjudicated according to the following criteria:
  - 8.1. Relevant specifications
  - 8.2. Value for money
  - 8.3. Capability to execute the contract
  - 8.4. PPPFA & associated regulations

 [insert any other c	criteria]
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#### 9. Invoices

All invoices must be forwarded to the following address:

Overstrand Municipality PO Box 20 Hermanus, 7200

#### 10. Value-Added Tax (VAT)

- 10.1. Tax invoices are to comply with the requirements as contained in the Value Added Tax Act, Act 89 of 1991. The content of the invoice must contain sufficient information for audit purposes.
- 10.2. It is a requirement of this contract that the amount of value-added tax (VAT) must be shown clearly on each invoice.
- 10.3. The amended Value-Added Tax Act requires that a Tax Invoice for supplies in excess of R3,000 should, in addition to the other required information, also disclose the VAT registration number of the recipient, with effect from 1 March 2005.
- 10.4. The VAT registration number of the Municipality is 4140106396.

#### 11. Standard Payment Terms

- 11.1. All money owed by the municipality must be paid within 30 calendar days of receiving the relevant invoice or statement, unless prescribed otherwise for certain categories of expenditure.
- 11.2. Payment Cycles for the first 12 months of business with the Overstrand Municipality to Survivalist enterprises / Micro-enterprises
- 11.3. Survivalist enterprises / Micro-enterprises are entitled to a weekly payment cycle by the municipality.
- 11.4. In order to qualify for a weekly payment, a supplier must be classified as a Survivalist enterprises / Micro-enterprises on the Municipality's supplier database.
- 11.5. A weekly payment to Survivalist enterprises / Micro-enterprises is not a right in terms of this policy. Survivalist enterprises / Micro-enterprises may request such payments which may be made at the discretion of the Municipality.

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#### 6. MBD 2 – TAX CLEARANCE CERTIFICATE REQUIREMENTS

It is a condition of bid that the taxes of the successful bidder **must** be in order, or that satisfactory arrangements have been made with South African Revenue Services (SARS) to meet the bidder's tax obligations.

- 1. In order to meet this requirement, bidders are required to complete in full the TCC 0001 form, "Application for a Tax Clearance Certificate" and submit it to any SARS branch office nationally. The Tax Clearance Certificate Requirements are also applicable to foreign bidders / individuals who wish to submit bids.
- 2. SARS will then furnish the bidder with a Tax Clearance Certificate that will be valid for a period of 1 (one) year from the date of approval.
- 3. The original Tax Clearance Certificate must be submitted together with the bid. Failure to submit the original and valid Tax Clearance Certificate will result in the invalidation of the bid. Certified copies of the Tax Clearance Certificate will not be accepted.
- 4. In bids where Consortia / Joint Ventures / Sub-Contractors are involved, each party must submit a separate Tax Clearance Certificate.
- 5. Copies of the TCC 001 "Application for a Tax Clearance Certificate" form are available from any SARS branch office nationally of on the website <a href="https://www.sars.gov.za">www.sars.gov.za</a>
- 6. Applications for the Tax Clearance Certificates may also be made via e-Filing. In order to use this provision, taxpayers will need to register with SARS as e-Filers through the website <a href="https://www.sars.gov.za">www.sars.gov.za</a>

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#### 7. MBD 4 - DECLARATION OF INTEREST

- 1. No bid will be accepted from persons in the service of the state<sup>1</sup>.
- 2. Any person, having a kinship with persons in the service of the state, including a blood relationship, may make an offer or offers in terms of this invitation to bid. In view of possible allegations of favouritism, should the resulting bid, or part thereof, be awarded to persons connected with or related to persons in service of the state, it is required that the bidder or their authorised representative declare their position in relation to the evaluating/adjudicating authority and/or take an oath declaring his/her interest.
- 3. In order to give effect to the above, the following questionnaire must be completed and submitted with the bid:

3.1.	Full Name of bidder or his or her representative									
3.2.	Identity Number									
3.3.	Position occupied in the Company (director, shareholder <sup>2</sup> etc.)									
3.4.	Company Registration Number									
3.5.	Tax Reference Number									
3.6.	VAT Registration Number									
3.7.	Are you presently in the service of the state?						YES	3	NO	
3.7.1.	If so, furnish particulars:									
							YES			
3.8.	Have you been in the service of the state for the	e past twel	ve mo	nths?	? 		IES	•	NO	
<b>3.8.</b> 3.8.1.	Have you been in the service of the state for the lf so, furnish particulars:	e past twel	ve mo	onths?	?		TEX	•	NO	

- 1. a member of
  - i. any municipal council;
  - ii. any provincial legislature; or
  - iii. the National Assembly or the National Council of Provinces;
- a member of the board of directors of any municipal entity;
- 3. an official of any municipality or municipal entity;
- an employee of any national or provincial department, national or provincial public entity or constitutional institution within the meaning of the Public Finance Management Act, 1999 (Act No.1 of 1999);
- 5. a member of the accounting authority of any national or provincial public entity; or
- 6. an employee of Parliament or a provincial legislature.

<sup>&</sup>quot;Shareholder" means a person who owns shares in the company and is actively involved in the management of the company or business and exercises control over the company.

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<sup>&</sup>lt;sup>1</sup> MSCM Regulations: "in the service of the state" means to be –



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3.9.	Do you have any relationship (family, friend, other) with persons in the service of the state and who may be involved with the evaluation and or adjudication of this bid?	YES		NO	
3.9.1.	If so, furnish particulars:				
			1		1
3.10.	Are you aware of any relationship (family, friend, other) between a bidder and any persons in the service of the state who may be involved with the evaluation and or adjudication of this bid?	YES		NO	
3.10.1.	If so, furnish particulars:				
			ı		
3.11.	Are any of the company's directors, managers, principal shareholders or stake-holders in the service of the state?	YES		NO	
3.11.1.	If so, furnish particulars:				
			ı		ı
3.12.	Is any spouse, child or parent of the company's directors, managers, principal share-holders or stakeholders in the service of the state?	YES		NO	
3.12.1.	If so, furnish particulars:				
			1		1
3.13.	Do you or any of the directors, trustees, managers, principal shareholders, or stake- holders of this company have any interest in any other related companies or busi- ness whether or not they are bidding for this contract?	YES		NO	
3.13.1.	If so, furnish particulars:				



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3.14.	Please provide the following information on ALL directors/shareholders/trustees/members below:								
	Full Name and Surname	Identity Number	Personal Income Tax Number	Provide State <sup>3</sup> Em- ployee Number					
_									

N	R	
	u	

- a) PLEASE ATTACH CERTIFIED COPY(IES) OF ID DOCUMENT(S)
- b) PLEASE PROVIDE PERSONAL INCOME TAX NUMBERS FOR ALL DIRECTORS / SHAREHOLDERS / TRUSTEES / MEMBERS, ETC.

#### 4. DECLARATION

I, the undersigned (name), certify that the information furnished in paragraph 3 above is correct.  I accept that the state may act against me should this declaration prove to be false.								
SIGNATURE		DATE						
NAME OF SIGNATORY								
POSITION								
NAME OF COMPANY								

- 1. a member of
  - 2. any municipal council;
  - 3. any provincial legislature; or
  - 4. the National Assembly or the National Council of Provinces;
- 5. a member of the board of directors of any municipal entity;
- 6. an official of any municipality or municipal entity;
- an employee of any national or provincial department, national or provincial public entity or constitutional institution within the meaning of the Public Finance Management Act, 1999 (Act No.1 of 1999);
- 8. a member of the accounting authority of any national or provincial public entity; or
- 9. an employee of Parliament or a provincial legislature.

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 $<sup>^{3}\,</sup>$  MSCM Regulations: "in the service of the state" means to be -



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## 8. MBD5 – DECLARATION FOR PROCUREMENT ABOVE R10 MILLION (VAT INCLUDED)

For all procurement expected to exceed R10 million (VAT included), bidders must complete the following questionnaire:

1.	Are you by law requ	uired to prepare annual financial statements	s for auditing?		YES		NO	
1.1.		lited annual financial statements for the the past three years.	past three years or	since the d	late of	establ	ishme	nt if
2.		outstanding undisputed commitments for other service provider in respect of which p			YES		NO	
		certify that the bidder has no undisputed ovider in respect of which payment is overdoculars.			s towar	ds a m	nunicip	ality
3.		been awarded to you by an organ of s s of any material non-compliance or disp			YES		NO	
3.1.	If yes, furnish partic	culars						
4.		goods or services be sourced from outsicer any portion of payment from the municipal tof the Republic?			YES		NO	
4.1.	If yes, furnish partic	culars					·	
CE	RTIFICATION							
	e undersigned (name led on this declaratio			, certify th	at the	inform	nation	fur-
I acc	cept that the state ma	ay act against me should this declaration p	rove to be false.					
SIGN	NATURE		DATE					
NAM	ME (PRINT)							
CAP	PACITY							
NAM	ME OF FIRM							

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## 9. MBD6.1 – PREFERENCE POINTS CLAIM FORM IN TERMS OF THE PREFERENTIAL PROCUREMENT REGULATIONS 2011 – PURCHASES/SERVICES (90/10)

#### NB:

Before completing this form, bidders must study the general conditions, definitions and directives applicable in respect of B-BBEE, as prescribed in the Preferential Procurement Regulations, 2011.

#### 1. GENERAL CONDITIONS

- 1.1. The following preference point systems are applicable to all bids:
  - 1.1.1. the 80/20 system for requirements with a Rand value of up to R1,000,000 (all applicable taxes included); and
  - 1.1.2. the 90/10 system for requirements with a Rand value above R1,000,000 (all applicable taxes included).
- 1.2. The value of this bid is estimated to exceed R1,000,000 (all applicable taxes included) and therefore the 90/10 system shall be applicable.
- 1.3. Preference points for this bid shall be awarded for:
  - 1.3.1. Price; and
  - 1.3.2. B-BBEE Status Level of Contribution.
- 1.4. The maximum points for this bid are allocated as follows:

		POINTS
1.4.1.	Price	90
1.4.2.	B-BBEE status level of contribution	10
	Total points for Price and B-BBEE must not exceed	100

- 1.5. Failure on the part of a bidder to fill in and/or to sign this form will be interpreted to mean that preference points for B-BBEE status level of contribution are not claimed.
- 1.6. Failure on the part of a bidder to submit a B-BBEE Verification Certificate from a Verification Agency accredited by the South African Accreditation System (SANAS) or a Registered Auditor approved by the Independent Regulatory Board of Auditors (IRBA) or an Accounting Officer as contemplated in the Close Corporation Act (CCA) together with the bid will be interpreted to mean that preference points for B-BBEE status level of contribution are not claimed.
- 1.7. The Municipality reserves the right to require of a bidder, either before a bid is adjudicated or at any time subsequently, to substantiate any claim in regard to preferences, in any manner required by the Municipality.

#### 2. **DEFINITIONS**

- 2.1. *"All Applicable Taxes"* includes value-added tax, pay as you earn, income tax, unemployment insurance fund contributions and skills development levies;
- 2.2. "B-BBEE" means broad-based black economic empowerment as defined in section 1 of the Broad-Based Black Economic Empowerment Act;
- 2.3. "B-BBEE status level of contributor" means the B-BBEE status received by a measured entity based on its overall performance using the relevant scorecard contained in the Codes of Good Practice on Black Economic Empowerment, issued in terms of section 9(1) of the Broad-Based Black Economic Empowerment Act;
- 2.4. "Bid" means a written offer in a prescribed or stipulated form in response to an invitation by an organ of state for the provision of services, works or goods, through price quotations, advertised competitive bidding processes or proposals;
- 2.5. "Broad-Based Black Economic Empower-ment Act" means the Broad-Based Black Economic Empowerment Act, 2003 (Act No. 53 of 2003);



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- 2.6. "Comparative Price" means the price after the factors of a non-firm price and all unconditional discounts that can be utilized have been taken into consideration;
- 2.7. "Consortium or Joint Venture" means an association of persons for the purpose of combining their expertise, property, capital, efforts, skills and knowledge in an activity for the execution of a contract;
- 2.8. "Contract" means the agreement that results from the acceptance of a bid by an organ of state;
- 2.9. "EME" means any enterprise with an annual total revenue of R5 million or less (except where Sector Charter Thresholds apply);
- 2.10. "Firm Price" means the price that is only subject to adjustments in accordance with the actual increase or decrease resulting from the change, imposition, or abolition of customs or excise duty and any other duty, levy, or tax, which, in terms of the law or regulation, is binding on the contractor and demonstrably has an influence on the price of any supplies, or the rendering costs of any service, for the execution of the contract;
- 2.11. "Functionality" means the measurement according to predetermined norms, as set out in the bid documents, of a service or commodity that is designed to be practical and useful, working or operating, taking into account, among other factors, the quality, reliability, viability and durability of a service and the technical capacity and ability of a bidder;
- 2.12. "Non-firm Prices" means all prices other than "firm" prices;
- 2.13. "Person" includes a juristic person;
- 2.14. "Rand Value" means the total estimated value of a contract in South African currency, calculated at the time of bid invitations, and includes all applicable taxes and excise duties;
- 2.15. "Sub-contract" means the primary contractor's assigning, leasing, making out work to, or employing, another person to support such primary contractor in the execution of part of a project in terms of the contract;
- 2.16. "Total Revenue" bears the same meaning assigned to this expression in the Codes of Good Practice on Black Economic Empowerment, issued in terms of section 9(1) of the Broad-Based Black Economic Empowerment Act and promulgated in the Government Gazette on 9 February 2007;
- 2.17. "Trust" means the arrangement through which the property of one person is made over or bequeathed to a trustee to administer such property for the benefit of another person; and
- 2.18. "Trustee" means any person, including the founder of a trust, to whom property is bequeathed in order for such property to be administered for the benefit of another person.

#### 3. ADJUDICATION USING A POINT SYSTEM

- 3.1. The bidder obtaining the highest number of total points will be awarded the contract.
- 3.2. Preference points shall be calculated after prices have been brought to a comparative basis taking into account all factors of non-firm prices and all unconditional discounts;.
- 3.3. Points scored must be rounded off to the nearest 2 decimal places.
- 3.4. In the event that two or more bids have scored equal total points, the successful bid must be the one scoring the highest number of preference points for B-BBEE.
- 3.5. However, when functionality is part of the evaluation process and two or more bids have scored equal points including equal preference points for B-BBEE, the successful bid must be the one scoring the highest score for functionality.
- 3.6. Should two or more bids be equal in all respects, the award shall be decided by the drawing of lots.

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#### 4. POINTS AWARDED FOR PRICE

#### 4.1. THE 80/20 OR 90/10 PREFERENCE POINT SYSTEMS

A maximum of 80 or 90 points is allocated for price on the following basis:

30/20

or

90/10

$$Ps = 80 \left( 1 - \frac{Pt - P\min}{P\min} \right)$$

or

$$Ps = 90 \left( 1 - \frac{Pt - P\min}{P\min} \right)$$

Where:

Ps = Points scored for comparative price of bid under consideration
Pt = Comparative price of bid under consideration

Pmin = Comparative price of lowest acceptable bid

#### 5. POINTS AWARDED FOR B-BBEE STATUS LEVEL OF CONTRIBUTION

5.1. In terms of Regulation 5 (2) and 6 (2) of the Preferential Procurement Regulations, preference points must be awarded to a bidder for attaining the B-BBEE status level of contribution in accordance with the table below:

B-BBEE Status Level of Contributor	Number of points (90/10 system)	Number of points (80/20 system)
1	10	20
2	9	18
3	8	16
4	5	12
5	4	8
6	3	6
7	2	4
8	1	2
Non-compliant contributor	0	0

- 5.2. Bidders who qualify as EMEs in terms of the B-BBEE Act must submit a certificate issued by an Accounting Officer as contemplated in the CCA or a Verification Agency accredited by SANAS or a Registered Auditor. Registered auditors do not need to meet the prerequisite for IRBA's approval for the purpose of conducting verification and issuing EMEs with B-BBEE Status Level Certificates
- 5.3. Bidders other than EMEs must submit their original and valid B-BBEE status level verification certificate **or a CERTIFIED COPY** thereof, substantiating their **B-BBEE** rating issued by a Registered Auditor approved by IRBA or a Verification Agency accredited by SANAS.
- 5.4. A trust, consortium or joint venture, will qualify for points for their B-BBEE status level as a legal entity, provided that the entity submits their B-BBEE status level certificate.
- 5.5. A trust, consortium or joint venture will qualify for points for their B-BBEE status level as an unincorporated entity, provided that the entity submits their consolidated B-BBEE scorecard as if they were a group structure and that such a consolidated B-BBEE scorecard is prepared for every separate bid.
- 5.6. Tertiary institutions and public entities will be required to submit their B-BBEE status level certificates in terms of the specialized scorecard contained in the B-BBEE Codes of Good Practice.
- 5.7. A person will not be awarded points for B-BBEE status level if it is indicated in the bid documents that such a bidder intends sub-contracting more than 25% of the value of the contract to any other enterprise that does not qualify for at least the points that such a bidder qualifies for, unless the intended sub-contractor is an EME that has the capability and ability to execute the sub-contract.
- 5.8. A person awarded a contract may not sub-contract more than 25% of the value of the contract to any other enterprise that does not have an equal or higher B-BBEE status level than the person concerned, unless the contract is sub-contracted to an EME that has the capability and ability to execute the sub-contract.

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#### 6. BID DECLARATION

6.1. Bidders who claim points in respect of B-BBEE Status Level of Contribution must complete the following:

6.1.1. B-BBEE STATUS LEVEL OF CONTRIBUTION CLAIMED IN TERMS OF PARAGRAPHS 1.3.1.2 AND 5.1			
6.1.1.1.	B-BBEE Status Level of Contribution as reflected on the B-BBEE Certificate		
6.1.1.2.	Points claimed in respect of Level of Contribution (maximum of 10 or 20 points)		

(Points claimed in respect of paragraph 6.1 must be in accordance with the table reflected in paragraph 5.1 and must be substantiated by means of a B-BBEE certificate issued by a Verification Agency accredited by SANAS or a Registered Auditor approved by IRBA or an Accounting Officer as contemplated in the CCA).

#### 7. SUB-CONTRACTING

7.1. Will any portion of the contract be sub-contracted? (Tick applicable box)  YES				
7.1.1. If yes, indicate:				
7.1.1.1. what percentage of the contract will be subcontracted?				%
7.1.1.2. the name of the sub-contractor?				
7.1.1.3. the B-BBEE status level of the sub-contractor?				
7.1.1.4. whether the sub-contractor is an EME? (Tick applicable box)			NO	

#### 8. DECLARATION WITH REGARD TO COMPANY/FIRM

Name of Enterprise		
VAT registration number		
Company registration number		
	Partnership / Joint Venture / Consortium	
TYPE OF ENTERPRISE	One person business / sole proprietor	
(Tick applicable box)	Company	
	Close Corporation	
Describe principal business ac-		
tivities		
	Manufacturer	
Company Classification	Supplier	
(Tick applicable box)	Professional service provider	
	Other service providers, e.g. transporter, etc.	
TOTAL NUMBER OF YEARS THE	ENTERPRISE HAS BEEN IN BUSINESS	

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- 9. I / we, the undersigned, who is / are duly authorised to do so on behalf of the company/firm, certify that the points claimed, based on the B-BBE status level of contribution indicated in paragraph 7 of the foregoing certificate, qualifies the company/ firm for the preference(s) shown and I / we acknowledge that:
  - 9.1. The information furnished is true and correct;
  - 9.2. The preference points claimed are in accordance with the General Conditions as indicated in paragraph 1 of this form.
  - 9.3. In the event of a contract being awarded as a result of points claimed as shown in paragraph 7, the contractor may be required to furnish documentary proof to the satisfaction of the purchaser that the claims are correct;
  - 9.4. If the B-BBEE status level of contribution has been claimed or obtained on a fraudulent basis or any of the conditions of contract have not been fulfilled, the purchaser may, in addition to any other remedy it may have
    - 9.4.1. disqualify the person from the bidding process;
    - 9.4.2. recover costs, losses or damages it has incurred or suffered as a result of that person's conduct;
    - 9.4.3. cancel the contract and claim any damages which it has suffered as a result of having to make less favourable arrangements due to such cancellation;
    - 9.4.4. restrict the bidder or contractor, its shareholders and directors, or only the shareholders and directors who acted on a fraudulent basis, from obtaining business from any organ of state for a period not exceeding 10 years, after the *audi alteram partem* (hear the other side) rule has been applied; and
    - 9.4.5. forward the matter for criminal prosecution

SIGNATURE OF BIDDER(S):		
WITNESS 1:	WITNESS 2:	
DATE:		
ADDRESS:		

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## FOR INFORMATION PURPOSES ONLY

PLEASE NOTE THE FOLLOWING REQUIREMENTS REGARDING VALIDATION OF B-BBEE SCORE.

- 1. EME B-BBEE STATUS LEVEL CERTIFICATES ISSUED BY AUDITORS AND ACCOUNTING OFFICERS AS CONTEMPLATED IN THE CLOSE CORPORATION ACT
  - 1.1. Certificates issued by an Auditor or Accounting Officer will be issued on his or her letterhead with the practice number and contact number clearly specified on the face of the Certificate.
  - 1.2. When confirming the validity of such a certificate, the following should be detailed on the face of the certificate:
    - 1.2.1. The Auditor's / Accounting Officer's letterhead with **FULL contact details**;
    - 1.2.2. The Auditor's / Accounting Officer's practice number;
    - 1.2.3. The name and physical location of the measured entity;
    - 1.2.4. The registration number and, where applicable, the VAT number of the measured entity;
    - 1.2.5. The date of issue and date of expiry;
    - 1.2.6. The B-BBEE Status Level of Contribution obtained by the measured entity; and
    - 1.2.7. The total black shareholding and total black female shareholding.

#### 2. BIDDERS OTHER THAN EMES

These bidders **MUST** submit their **ORIGINAL** and valid **B-BBEE** status level verification certificate **OR A CERTIFIED COPY** thereof, substantiating their **B-BBEE** rating issued by a Registered Auditor approved by IRBA or a Verification Agency accredited by SANAS.

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#### **MUNICIPALITY**

## 10. MBD 6.2. – DECLARATION CERTIFICATE FOR LOCAL PRODUCTION AND CONTENT FOR DESIGNATED SECTORS

#### 1. Introduction

This Municipal Bidding Document (MBD) must form part of all bids invited. It contains general information and serves as a declaration form for local content (local production and local content are used interchangeably).

Before completing this declaration, bidders must study the:

- General Conditions,
- Definitions,
- Directives applicable in respect of Local Content as prescribed in the Preferential Procurement Regulations, 2011; and
- South African Bureau of Standards (SABS) approved technical specification number SATS 1286:2011 (Edition 1)<sup>4</sup> and the Guidance on the Calculation of Local Content together with the Local Content Declaration Templates
  - Annexure C- Local Content Declaration: Summary Schedule,
  - Annexure D- Imported Content Declaration: Supporting Schedule to Annex C and
  - Annexure E- Local Content Declaration: Supporting Schedule to Annex C.

#### 2. General Conditions

- 2.1 Preferential Procurement Regulations, 2011 (Regulation 9) makes provision for the promotion of local production and content.
- 2.2 Regulation 9.(1) prescribes that in the case of designated sectors, where in the award of bids local production and content is of critical importance, such bids must be advertised with the specific bidding condition that only locally produced goods, services or works or locally manufactured goods, with a stipulated minimum threshold for local production and content will be considered.
- 2.3 Where necessary, for bids referred to in paragraph 1.2 above, a two stage bidding process may be followed, where the first stage involves a minimum threshold for local production and content and the second stage price and B-BBEE.
- 2.4 A person awarded a contract in relation to a designated sector, may not sub-contract in such a manner that the local production and content of the overall value of the contract is reduced to below the stipulated minimum threshold.
- 2.5 The local content (LC) expressed as a percentage of the bid price must be calculated in accordance with the SABS approved technical specification number SATS 1286: 2011 as follows:

$$LC = [1 - x / y] *100$$

Where

x is the imported content in Rand

y is the bid price in Rand excluding value added tax (VAT)

Prices referred to in the determination of x must be converted to Rand (ZAR) by using the exchange rate published by the South African Reserve Bank (SARB) at 12:00 on the date of advertisement of the bid as required in paragraph 4.1 below.

The SABS approved technical specification number SATS 1286:2011 is accessible on http://www.thedti.gov.za/industrial development/ip.jsp at no cost.

- 2.6 A bid may be disqualified if -
- (a) this Declaration Certificate and the Annexure C (Local Content Declaration: Summary Schedule) are not submitted as part of the bid documentation; and
- (b) the bidder fails to declare that the Local Content Declaration Templates (Annexure C, D and E) have been audited and certified as correct.

<sup>&</sup>lt;sup>4</sup> The SABS approved technical specification number SATS 1286:2011 is accessible or <a href="http://www.thedti.gov.za/industrial development/ip.jsp">http://www.thedti.gov.za/industrial development/ip.jsp</a> at no cost.



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#### 3. Definitions

- 3.1 "bid" includes written price quotations, advertised competitive bids or proposals;
- 3.2 "bid price" price offered by the bidder, excluding value added tax (VAT);
- 3.3 "contract" means the agreement that results from the acceptance of a bid by an organ of state;
- 3.4 "designated sector" means a sector, sub-sector or industry that has been designated by the Department of Trade and Industry in line with national development and industrial policies for local production, where only locally produced services, works or goods or locally manufactured goods meet the stipulated minimum threshold for local production and content;
- 3.5 **"duly sign"** means a Declaration Certificate for Local Content that has been signed by the Chief Financial Officer or other legally responsible person nominated in writing by the Chief Executive, or senior member / person with management responsibility(close corporation, partner-ship or individual).
- 3.6 "imported content" means that portion of the bid price represented by the cost of components, parts or materials which have been or are still to be imported (whether by the supplier or its subcontractors) and which costs are inclusive of the costs abroad (this includes labour and intellectual property costs), plus freight and other direct importation costs, such as landing costs, dock duties, import duty, sales duty or other similar tax or duty at the South African port of entry;
- 3.7 **"local content"** means that portion of the bid price which is not included in the imported content, provided that local manufacture does take place;
- 3.8 "stipulated minimum threshold" means that portion of local production and content as determined by the Department of Trade and Industry; and
- 3.9 **"sub-contract"** means the primary contractor's assigning, leasing, making out work to, or employing another person to support such primary contractor in the execution of part of a project in terms of the contract.

## 4. The stipulated minimum threshold(s) for local production and content (refer to Annex A of SATS 1286:2011) for this bid is/are as follows:

	DESCRIPTION OF SERVICES, WORKS OR GOODS	STIPULATED MINIMUM THRESHOLD AS A %
1.	CABLES (Specifications: Paragraph B 1)	
1.1.	PVC insulated COPPER conductor ; PVC bedded SWA PVC sheathed; 600/1000 Volt cable to SANS 1507	
1.1.4	95 mm² x 4 core	90%
1.1.5	70 mm² x 4 core	90%
1.1.6	50 mm² x 4 core	90%
1.1.7	35 mm² x 4 core	90%
1.1.8	25 mm² x 4 core	90%
1.2.	PVC insulated ALUMINIUM conductor; PVC bedded SWA PVC sheathed; 600/1000 Volt cable to SANS 1507	
1.2.4	95 mm² x 4 core	90%
1.2.5	70 mm² x 4 core	90%
1.2.6	50 mm² x 4 core	90%
1.2.7	35 mm² x 4 core	90%
1.2.8	25 mm² x 4 core	90%
1.3.	Paper insulated COPPER conductor cable; PVC served 6,35/11KV table 19; PILC GSTA to SANS 97	
1.3.1	185 mm² x 3 core	90%
1.3.2	120 mm² x 3 core	90%
1.3.3	95 mm² x 3 core	90%
1.3.4	70 mm² x 3 core	90%
1.3.5	35 mm² x 3 core	90%

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## **MUNICIPALITY**

	DESCRIPTION OF SERVICES, WORKS OR GOODS	STIPULATED MINIMUM THRESHOLD AS A %
1.3.6	25 mm² x 3 core	90%
1.4.	Paper insulated ALUMINIUM conductor cable; PVC served 6,35/11KV table 19; PILC GSTA to SANS 97	
1.4.1	300 mm² x 3 core	90%
1.4.2	240 mm² x 3 core	90%
1.4.3	185 mm² x 3 core	90%
1.4.4	120 mm² x 3 core	90%
1.4.5	95 mm <sup>2</sup> x 3 core	90%
1.4.6	70 mm <sup>2</sup> x 3 core	90%
1.5.	INSULATED AERIAL CABLE	
1.5.1	Copper split concentric Airdac	
1.5.1.1.	10 mm² copper split concentric Airdac plus stranded pilot cable	90%
1.5.1.2.	16 mm² copper split concentric Airdac plus stranded pilot cable	90%
1.5.2	XLPE-insulated ALUMINIUM ABC- conductor to SABS 1418 Part 1 and 2/1986 with core identification (LV)	
1.5.2.1.	3x120 + 54,6 + 25 mm <sup>2</sup>	90%
1.5.2.2.	3x95 + 54,6 + 25 mm <sup>2</sup>	90%
1.5.2.3.	3x70 + 54,6 + 25 mm <sup>2</sup>	90%
1.5.2.4.	3x35 + 54,6 + 25 mm <sup>2</sup>	90%
1.6.	XLPE- insulated ALUMINIUM ABC- conductor to SABS 1418 Part 1 and 2/1986 with core identification (MV)	
1.6.1	3x120 + 54,6	90%
1.6.2	3x95 + 54,6	90%
1.6.3	3x70 + 54,6	90%
1.6.4	3x35 + 54,6	90%
16	General	
16.92	House Wire:16mm Red PVC	90%
16.93	House Wire:16mm White PVC	90%
16.94	House Wire:16mm Black PVC	90%
16.95	House Wire:16mm Blue PVC	90%
16.96	House Wire:16mm Green/Yellow PVC	90%
16.97	House Wire: 1.5mm Red PVC	90%
16.98	House Wire: 1.5mm White PVC	90%
16.99	House Wire: 1.5mm Black PVC	90%
16.100	House Wire: 1.5mm Blue PVC	90%
16.101	House Wire: 1.5mm Green/Yellow PVC	90%
16.102	House Wire: 2.5mm Red PVC	90%
16.103	House Wire: 2.5mm White PVC	90%
16.104	House Wire: 2.5mm Black PVC	90%
16.105	House Wire: 2.5mm Blue PVC	90%
16.106	House Wire: 2.5mm Green/Yellow PVC	90%

**5.** Does any portion of the services, works or goods offered have any imported content? (*Tick applicable box*)

5.1 If yes, the rate(s) of exchange to be used in this bid to calculate the local content as prescribed in paragraph 1.5 of the general conditions must be the rate(s) published by the SARB for the specific currency at 12:00 on the date of advertisement of the bid.

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The relevant rates of exchange information is accessible on <a href="https://www.reservebank.co.za">www.reservebank.co.za</a>.

Indicate the rate(s) of exchange against the appropriate currency in the table below (refer to Annexure A of SATS 1286:2011):

Currency	Rates of exchange
US Dollar	
Pound Sterling	
Euro	
Yen	
Yuan	
Other	

		NB: Bidders must submit proof of the SARB rate (s) of exchange used.					
6.	Were	Were the Local Content Declaration Templates (Annexure C, D and E) audited and certified as correct ( <i>Tick applicable box</i> )					
	(7						
		YES		NO			
	6.1	If yes,	, provide	the follow	ing particu	lars:	
		a) Full name of auditor:					
		b) Pı	ractice n	umber:			
		c) Te	elephone	and cell n	umber:		
		d) Eı	mail add	ress:			

(Documentary proof regarding the declaration will, when required, be submitted to the satisfaction of the Accounting Officer)

**7.** Where, after the award of a bid, challenges are experienced in meeting the stipulated minimum threshold for local content the dti must be informed accordingly in order for the dti to verify and in consultation with the Accounting Officer provide directives in this regard.

SIGNATURE OF BIDDER(S):		
WITNESS 1:	WITNESS 2:	
DATE:		
ADDRESS:		



#### MUNICIPALITY

#### LOCAL CONTENT DECLARATION

LOCAL CONTENT DECLARATION BY CHIEF FINANCIAL OFFICER OR OTHER LEGALLY RESPONSIBLE PERSON NOMINATED IN WRITING BY THE CHIEF EXECUTIVE OR SENIOR MEMBER/PERSON WITH MANAGEMENT RESPONSIBILITY (CLOSE CORPORATION, PARTNERSHIP OR INDIVIDUAL)

In respect of Tender No. SC1478/2014: SUPPLY AND DELIVERY OF ELECTRICAL INVENTORY ITEMS FOR A CONTRACT PERIOD ENDING 30 JUNE 2017, issued by Overstrand Municipality

- 1. The obligation to complete, duly sign and submit this declaration cannot be transferred to an external authorized representative, auditor or any other third party acting on behalf of the bidder.
- 2. Guidance on the Calculation of Local Content together with Local Content Declaration Templates (Annexure C, D and E) is accessible on <a href="http://www.thedti.gov.za/industrial\_development/ip.jsp.">http://www.thedti.gov.za/industrial\_development/ip.jsp.</a> Bidders should first complete Declaration D. After completing Declaration D, bidders should complete Declaration E and then consolidate the information on Declaration C. Declaration C should be submitted with the bid documentation at the closing date and time of the bid in order to substantiate the declaration made in paragraph (c) below. Declarations D and E should be kept by the bidders for verification purposes for a period of at least 5 years. The successful bidder is required to continuously update Declarations C, D and E with the actual values for the duration of the contract.

I, the undersigned,	_(full names),
do hereby declare, in my capacity as	
of	,
(name of bidder entity), the following:	

- 1. The facts contained herein are within my own personal knowledge.
- 2. I have satisfied myself that
  - a) the goods/services/works to be delivered in terms of the above-specified bid comply with the minimum local content requirements as specified in the bid, and as measured in terms of SATS 1286:2011; and
  - b) the declaration templates have been audited and certified to be correct.
- 3. The local content percentages (%) indicated below has been calculated using the formula given in clause 3 of SATS 1286:2011, the rates of exchange indicated in paragraph 4.1 above and the information contained in Declaration D and E which has been consolidated in Declaration C;

Bid price (Excluding VAT) (y)	R
Imported content (x), as calculated in terms of SATS 1286:2011	R
Stipulated minimum threshold for local content (paragraph 3 above)	
Local content %, as calculated in terms of SATS 1286:2011	

If the bid is for more than one product, the local content percentages for each product contained in Declaration C shall be used instead of the table above. The local content percentages for each product has been calculated using the formula given in clause 3 of SATS 1286:2011, the rates of exchange indicated in paragraph 4.1 above and the information contained in Declaration D and E.

- I accept that the Municipality has the right to request that the local content be verified in terms of the requirements of SATS 1286:2011.
- 5. I understand that the awarding of the bid is dependent on the accuracy of the information furnished in this application. I also understand that the submission of incorrect data, or data—that are not verifiable as described in SATS 1286:2011, may result in the Municipality imposing any or all of the remedies as provided for in Regulation 13 of the Preferential Procurement Regulations, 2011 promulgated under the Preferential Policy Framework Act (PPPFA), 2000 (Act No. 5 of 2000).

	SIGNATURE	DATE
TENDERER		
WITNESS 1:		
WITNESS 2:		

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Reference No:



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ANNEXURE C SAT										ATS 1286.2011		
Local Content Declaration – Summary Schedule												
(C1) Tender No.									NOTE: \	NOTE: VAT to be excluded from all calculations		
(C2) Tender Description												
(C3) Designated product(s)												
(C4) Tender Authority												
(C5) Name of Tendering Entity												
(C6) Tender Exchange Rate		Currency			Rate							
(C7)Specified local content %												
		Calculation of local content							Tender summary			
Ten- der Item No's	List of Items	Tende Price each	- imported	Tender value net of exempted imported content	Imported value	Local value	Local con- tent % (per item)	Tender Quantity	Total tender value	Total exempted imported con- tent	Total imported content	
(C8)	(C9)	(C10	(C11)	(C12)	(C13)	(C14)	(C15)	(C16)	(C17)	(C18)	(C19)	
(C20) Total tender value											1	
(C21) Total Exempt imported content												
(C22) Total Tender value net of exempt imported content												
SIGNAT	SIGNATURE OF TENDERER AS PER LOCAL CONTENT DECLARATION (C23) Total Imported content											
(C24) Total local content												
DATE					(C25) Average local content % of tender							
								,	· •			

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(D32) Total imported value by tenderer

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						ANNEXU	KE D					SA15 1286.2011
			Imp	orted Content	Declaration -	<ul><li>Supporting</li></ul>	Schedule to	Annexure C				
(D1)	Tender No.								NO	TE: VA	T to be exclud	led from all calculations
(D2)	Tender Description											
(D3)	Designated product(s)											
(D4)	Tender Authority											
(D5)	Tendering Entity's Name											
(D6)	Tender Exchange Rate	Currency		Rate								
A. Exe	mpted imported content					Calculation of i	mported content					Summary
Tende item no's	Description of imported content	Local s		Foreign currency value as per Con mercial Invoice	n- Exchange	Local value of imports	Freight costs to port of entry	All locally in- curred landing costs & duties	Total landed cost	l	Tender Quantity	Exempted imported value
(D7)	(D8)	(D9	(D10)	(D11)	(D12)	(D13)	(D14)	(D15)	(D16)		(D17)	(D18)
									(D19) Total	exempt i	imported value	1
												must correspond with Annex C – C21
B. Imp	orted directly by the Tenderer					Calculation of imported content						Summary
Tende item no's	Description of imported content	Unit meas		Foreign currency value as per Con mercial Invoice	n- Exchange	Local value of imports	Freight costs to port of entry	All locally in- curred landing costs & duties	Total landed cost	I	Tender Quantity	Total imported value
(D20)	(D21)	(D2	2) (D23)	(D24)	(D25)	(D26)	(D27)	(D28)	(D29)		(D30)	(D31)



					ANN	IEXURE	D - C	ontinued					SATS 1286.2011
			Impo	rted Content Dec	laration -	Suppor	rting S	Schedule to	Annexure C				
										NOTE:	VAT	to be exclude	d from all calculations
C. Imported by a 3 <sup>rd</sup>	party and supplied to	the Tenderer				Calcula	ation of i	mported content					Summary
Description of impo content	rted Unit of measure	Local supplier	Overseas supplier	Foreign currency value as per Commercial Invoice	Tender Exchange Rate	Local valu		Freight costs to port of entry	All locally in- curred landing costs & duties	Total landed cost		Quantity imported	Total imported value
(D33)	(D34)	(D35)	(D36)	(D37)	(D38)	(D39)	)	(D40)	(D41)	(D42)		(D43)	(D44)
-							Į.			(D45) Total impor	ted valu	e by 3 <sup>rd</sup> party	
D. Other foreign curr	ency payments			Calculation of foreig	ın currency pa	yments						Summary	of Payments
Type of payment	Local supplier makin payment	g the Overse	as beneficiary	Foreign currency value paid	Tender ra exchan							Local valu	e of payments
(D46)	(D47)		(D48)	(D49)	(D50)	)						(1	D51)
					(D52)	Total of for	reian cur	rency payments d	eclared by tenderer	and/or 3 <sup>rd</sup> party			
				(D53)			•		ents <i>– (D32), (D45)</i> a				
SIGNATURE OF	TENDERER AS PI	ER LOCAL CON	TENT DECL					- •••	. ,, ,		must o	correspond w	vith Annex C – (C23)
DATE													
		Referen	ce No:	SC 1478/2014						Page 38 of 1	78		



		ANNEX E		SATS 1286.2011	
L	ocal content Dec	laration – Sum	marv Schedule		
_					
(E1) Tender No.			NOTE: VAT to be	excluded from all calculations	
(E2)Tender Description					
(E3) Designated product(s)					
(E4) Tender Authority					
(E5) Tendering Entity's Name					
(2-) romaning 2 mily 0 million			J		
	LOCAL PRODUCT	TS (Goods, Service	es and Works)		
Description of items pu	ırchased	Local	suppliers	Value	
(E6)			(E7)	(E8)	
	(E9) Total loca	l products (Goods	, service and works)		
				[	
	(E10) Manpowe	r costs (Tenderer's	own manpower cost)		
(F44) Factoria con the ada (Dant					
(E11) Factory overheads (Renta	ai, depreciation & amo	ortization, utility cost	s, consumables, etc.)		
(E12) Administration overhead	Is and mark-up (Mar	keting, insurance, fi	nancing interest, etc.)		
		-	-		
		(E13	) Total local content		
			This total must corre	spond with Annex C - C24	
SIGNATURE OF TENDERER AS PER LOCAL CONTENT DECLARATION					
DATE			_		

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#### **MUNICIPALITY**

## 11. MBD 8 – DECLARATION OF BIDDER'S PAST SUPPLY CHAIN MANAGEMENT PRACTICES

- 1. This Municipal Bidding Document must form part of all bids invited.
- 2. It serves as a declaration to be used by municipalities and municipal entities in ensuring that when goods and services are being procured, all reasonable steps are taken to combat the abuse of the supply chain management system.
- 3. The bid of any bidder may be rejected if that bidder, or any of its directors have:
  - 3.1. abused the municipality's / municipal entity's supply chain management system or committed any improper conduct in relation to such system;
  - 3.2. been convicted for fraud or corruption during the past five years;
  - 3.3. willfully neglected, reneged on or failed to comply with any government, municipal or other public sector contract during the past five years; or
  - 3.4. been listed in the Register for Tender Defaulters in terms of section 29 of the Prevention and Combating of Corrupt Activities Act (No 12 of 2004).
- 4. In order to give effect to the above, the following questionnaire must be completed and submitted with the bid.

4.1	Is the bidder or any of its directors listed on the National Treasury's database as a company or person prohibited from doing business with the public sector?  (Companies or persons who are listed on this database were informed in writing of this restriction by the National Treasury after the audi alteram partem rule was applied).	Yes	No
4.1.1	If so, furnish particulars:		
4.2	Is the bidder or any of its directors listed on the Register for Tender Defaulters in terms of section 29 of the Prevention and Combating of Corrupt Activities Act (No 12 of 2004)?  (To access this Register enter the National Treasury's website, <a href="www.treasury.gov.za">www.treasury.gov.za</a> , click on the icon "Register for Tender Defaulters" or submit your written request for a hard copy of the Register to facsimile number (012) 3265445).	Yes	No
4.2.1	If so, furnish particulars:		
4.3	Was the bidder or any of its directors convicted by a court of law (including a court of law outside the Republic of South Africa) for fraud or corruption during the past five years?	Yes	No
4.3.1	If so, furnish particulars:		

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	4.4	Does the bidder or any of its directors owe any municipal rates and taxes or municipal charges to the municipality / municipal entity, or to any other municipality / municipal entity, that is in arrears for more than three months?	harges to the municipality / municipal entity, or to any other municipality / Yes No							
	4.4.1	If so, furnish particulars:								
	4.5	Was any contract between the bidder and the municipality / municipal entity or any other organ of state terminated during the past five years on account of failure to perform on or comply with the contract?	r organ of state terminated during the past five years on account of fail- Yes No							
	4.5.1	If so, furnish particulars:								
5.	I, the undersigned (full name),, certify that the information furnished on this declaration form true and correct.  I accept that, in addition to cancellation of a contract, action may be taken against me should this declaration prove to be false.									
SIC	SNATUR	E: NAME (PRINT):								
CA	PACITY:	DATE:								
NAME OF FIRM:										

#### 12. MBD 9 – CERTIFICATE OF INDEPENDENT BID DETERMINATION

- 1. This Municipal Bidding Document (MBD) must form part of all bids invited.
- 2. Section 4 (1) (b) (iii) of the Competition Act No. 89 of 1998, as amended, prohibits an agreement between, or concerted practice by, firms, or a decision by an association of firms, if it is between parties in a horizontal relationship and if it involves collusive bidding (or bid rigging). Collusive bidding is a *per se* prohibition meaning that it cannot be justified under any grounds.
- 3. Municipal Supply Regulation 38 (1) prescribes that a supply chain management policy must provide measures for the combating of abuse of the supply chain management system, and must enable the accounting officer, among others, to:
  - 3.1. take all reasonable steps to prevent such abuse;
  - 3.2. reject the bid of any bidder if that bidder or any of its directors has abused the supply chain management system of the municipality or municipal entity or has committed any improper conduct in relation to such system; and
  - 3.3. cancel a contract awarded to a person if the person committed any corrupt or fraudulent act during the bidding process or the execution of the contract.
- 4. This MBD serves as a certificate of declaration that would be used by institutions to ensure that, when bids are considered, reasonable steps are taken to prevent any form of bid-rigging.
- 5. In order to give effect to the above, the attached Certificate of Bid Determination (MBD 9) must be completed and submitted with the bid:

#### CERTIFICATE OF INDEPENDENT BID DETERMINATION:

In response to the invitation for the bid made by:

#### **OVERSTRAND MUNICIPALITY**

I, the undersigned, in submitting the accompanying bid, hereby make the following statements that I certify to be true and complete in every respect:

- 1. I have read and I understand the contents of this Certificate;
- 2. I understand that the accompanying bid will be disqualified if this Certificate is found not to be true and complete in every respect;
- 3. I am authorized by the bidder to sign this Certificate, and to submit the accompanying bid, on behalf of the bidder:
- 4. Each person whose signature appears on the accompanying bid has been authorized by the bidder to determine the terms of, and to sign, the bid, on behalf of the bidder;
- 5. For the purposes of this Certificate and the accompanying bid, I understand that the word "competitor" shall include any individual or organization, other than the bidder, whether or not affiliated with the bidder, who:
  - 5.1. has been requested to submit a bid in response to this bid invitation;

<sup>5</sup> Bid rigging (or collusive bidding) occurs when businesses, that would otherwise be expected to compete, secretly conspire to raise prices or lower the quality of goods and / or services for purchasers who wish to acquire goods and / or services through a bidding process. Bid rigging is, therefore, an agreement between competitors not to compete.

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- 4.1. could potentially submit a bid in response to this bid invitation, based on their qualifications, abilities or experience; and
- 4.2. provides the same goods and services as the bidder and/or is in the same line of business as the bidder
- 5. The bidder has arrived at the accompanying bid independently from, and without consultation, communication, agreement or arrangement with any competitor. However communication between partners in a joint venture or consortium<sup>6</sup> will not be construed as collusive bidding.
- 6. In particular, without limiting the generality of paragraphs 6 above, there has been no consultation, communication, agreement or arrangement with any competitor regarding:
  - 6.1. prices;
  - 6.2. geographical area where product or service will be rendered (market allocation)
  - 6.3. methods, factors or formulas used to calculate prices;
  - 6.4. the intention or decision to submit or not to submit, a bid;
  - 6.5. the submission of a bid which does not meet the specifications and conditions of the bid; or
  - 6.6. bidding with the intention not to win the bid.
- 7. In addition, there have been no consultations, communications, agreements or arrangements with any competitor regarding the quality, quantity, specifications and conditions or delivery particulars of the products or services to which this bid invitation relates.
- 8. The terms of the accompanying bid have not been, and will not be, disclosed by the bidder, directly or indirectly, to any competitor, prior to the date and time of the official bid opening or of the awarding of the contract.
- 9. I am aware that, in addition and without prejudice to any other remedy provided to combat any restrictive practices related to bids and contracts, bids that are suspicious will be reported to the Competition Commission for investigation and possible imposition of administrative penalties in terms of section 59 of the Competition Act No. 89 of 1998 and or may be reported to the National Prosecuting Authority (NPA) for criminal investigation and or may be restricted from conducting business with the public sector for a period not exceeding ten (10) years in terms of the Prevention and Combating of Corrupt Activities Act No. 12 of 2004 or any other applicable legislation.

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<sup>&</sup>lt;sup>6</sup> Joint venture or Consortium means an association of persons for the purpose of combining their expertise, property, capital, efforts, skill and knowledge in an activity for the execution of a contract.



#### **MUNICIPALITY**

#### 13. MBD 15 – CERTIFICATE FOR PAYMENT OF MUNICIPAL SERVICES

DECLARATION IN TER			OF THE MUNIC the presence of				MENT ACT (NO.56
I,	the Overstrate) months.	nunicipal s nd Municip ct on beha	service charges pality, or to any could be serviced and could be serviced as the serviced by t	owed b	may y th nicip	reject the tend le Tenderer o lality or municip	r any of its directed and entity, are in an entity, are in an entity, are in an entity (name
tor/member/partner of sain of South Africa, for a period of South Africa, for a period further hereby certify that The Tenderer acknowled being disqualified, and/or	d firm is in arr od longer than It the informat ges that failur	rears on ar a 3 (three) ion set out e to prope	ny of its municipa months. in this schedule rly and truthfully	and/or at	ts w	ith any municip nment(s) hereto s schedule may	ality in the Republi is true and correct result in the tende
PHYSICAL BU	SINESS ADDRES	SS(ES) OF TH	HE TENDERER			MUNICIPAL AC	COUNT NUMBER
FURTHER DETAILS OF TH	E BIDDER'S D	irector / Sh	areholder / Partne	rs, etc.:			
Director / Shareholder / partner	Physical addr Busine		number(s) dres			al residential ad- of the Director / nolder / partner	Municipal Account number(s)
NB: Please attach cert  If the entity or any ment must be subr	of its Directors	/Shareholde	` '	nts/leases	prem	nises, a copy of t	he rental/lease agree
Signature			Position				Date
	SSIONER OF			Apply o	ffici	al stamp of auth	ority on this page:
Signed and sworn to before me at, on hisday of20						•	
by the Deponent, who has acknowledged that he/she knows and understands the contents of this Affidavit, it is true and correct to the best of his/her knowledge and that he/she has no objection to taking the prescribed oath, and that the prescribed oath will be binding on his/her conscience.							
COMMISSIONER OF OATH	S:-						
Position:							
Address:							

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#### **MUNICIPALITY**

## 14. MBD 16 - KEY PERFORMANCE INDICATORS

1. KEY PERFORMANCE INDICATORS (KPIs)						
1.1.	Work(s) performed / goods delivered within timeframes specified					
1.2.	Work(	s) performed / goods delivered within financial framework specified				
1.3.	Accep	table quality of work(s) performed / goods delivered				
1.4.	OTHE	R:				
	(a)					
	(b)					
	(c)					
	(d)					
	(e)					
I / We acknowledge that I / we am / are fully acquainted with the abovementioned Key Performance Indicators (KPIs) applicable to this tender / contract as stipulated by the Municipality and that I / we accept these Key Performance Indicators (KPIs) in all respects.  I / We furthermore confirm I / we satisfied myself / ourselves as to the corrections and validity of my / our tender: that the price quoted cover all the work / item(s) specified in the tender document and that the price cover all my / our obligations under a resulting contract and that I / we accept that any mistake(s) regarding price and calculations will be at my / our risk.						
SIGNAT	SIGNATURE NAME (PRINT)					
CAPACITY		DATE				
NAME C	NAME OF FIRM					
WITNESS 1 WITNESS 2						

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15. SECTION 37(2) OF THE OCCUPATIONAL HEALTH AND SAFETY ACT, 1993 (ACT 85 OF 1993)

#### WRITTEN AGREEMENT

# THIS IS IN TERMS OF SECTION 37(2) OF THE OCCUPATIONAL HEALTH AND SAFETY ACT, 1993 (ACT 85 OF 1993)

#### BETWEEN:

#### **OVERSTRAND MUNICIPALITY**

AND

#### (Mandatary)

#### INTRODUCTION

The Occupational Health and Safety Act, 1993 (Act 85 of 1993) stipulates that the Chief Executive Officer is primarily responsible or liable for the health and safety of all his/her employees. This is embedded in Section 16(1) of the said Act. This responsibility or liability is also extended to include a mandatary that performs work on behalf of the employer on his/her premises.

A "mandatary" is defined in the said Act as: - "Including an agent, contractor or subcontractor for work, but without derogating from his status in his own right as an employer or user"

In terms of Section 37(2), read with Section 41, of the said Act, it is legally possible for an employer to indemnify himself from this responsibility or liability regarding the actions of the mandatary. Section 37(2) stipulates that there should be a written agreement in place between the employer and the mandatary regarding the arrangements and procedures between them to ensure compliance by the mandatary with the provisions of the Occupational Health and Safety Act, 1993.

By ensuring that there is a written agreement in place, the Management of Overstrand Municipality is acting in a responsible manner, so as to ensure that this requirement is indeed being met.

In order to ensure that this written agreement is honoured at all times, regular inspections of work that is performed will be conducted and if found not complying with the said agreement, a notice of non-compliance will be issued. All work will be stopped and reasons for non-compliance must be given and what corrective action will be taken to rectify the situation must be stipulated.

SIGNED - MANAGEMENT:	
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#### **MUNICIPALITY**

## **WRITTEN AGREEMENT**

This is a written agreement between

## **OVERSTRAND MUNICIPALITY**

And						
(Name of the MANDATARY)						
in terms Section 37	(2) of the Occupational Health and	d Safety Act, 1	993 (Act 85 of 1993) as amended.			
I,			, rep-			
(mandatary) is an e Safety Act, 1993 (a formed, any article	Act 85 of 1993) as amended and or substance that will be produ	ies as prescrib d agree to en ced, processe	ped in the Occupational Health and sure that all work that will be perd, used, handled, stored or transcordance with the provisions of the			
	e to comply with the Health and S whatever reason, be unable to per		nents and to liaise with the Munici- of this Agreement.			
SIGNED ON BEHA	ALF OF MANDATORY					
DATE:		PLACE:				
PRINT NAME:						
CAPACITY:						
SIGNATURE:						
SIGNED ON BEHALF OF THE MUNICIPALITY						
DATE:		PLACE:				
PRINT NAME:						
CAPACITY:						
SIGNATURE:						

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## **MUNICIPALITY**

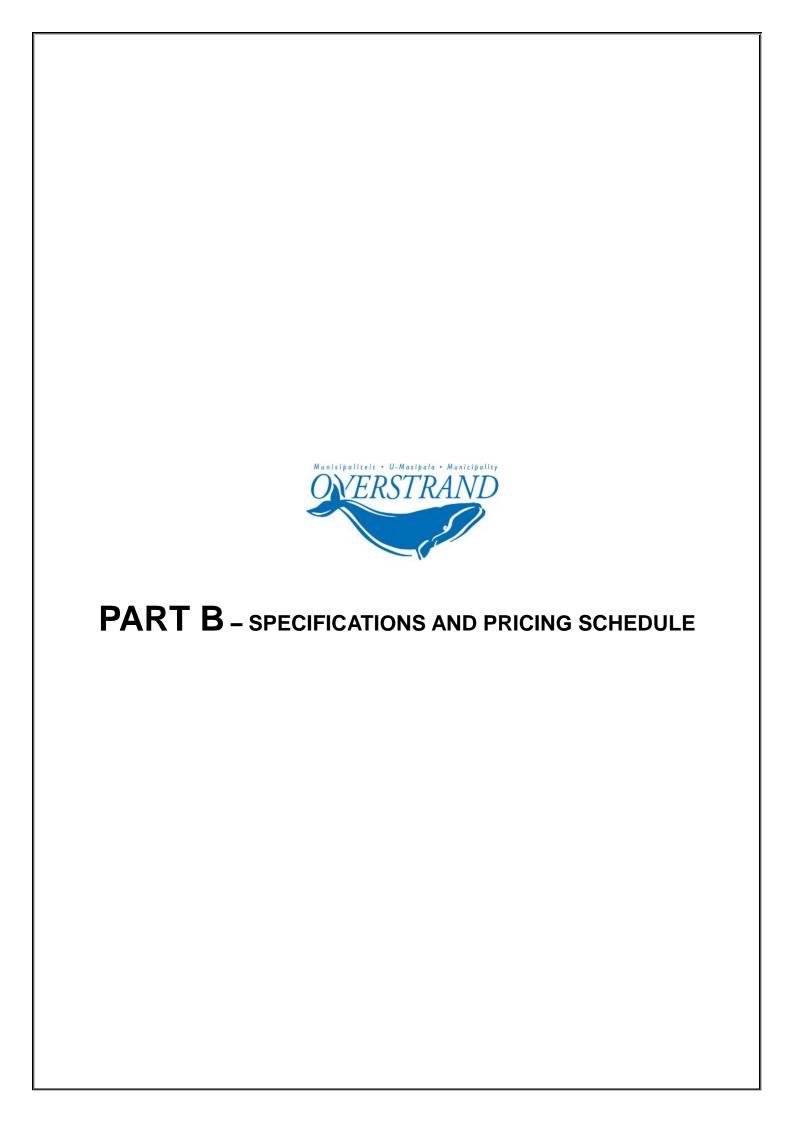
COMPENSATION FOR OCCUPATIONAL INJURIES AND DISEASES ACT, 1993 (ACT 130 OF 1993)

	(Municipality)
has legal duty in terms of Section 89 of	the said Act to ensure that all contractors with whom agree-
ments are entered into for the execution	of work are registered as employers in accordance with the
provisions of this Act and that all the nec	essary assessments have been paid by the contractor.
	,
In order to enter into this agreement,	the following information is needed regarding the above-
mentioned:	
Contractor's registration number with the office of the Compensation Com-	
missioner:	
	A copy of the latest receipt together with a copy of the
Proof that assessment has been paid:	relevant assessment OR a copy of a valid Letter of
	Good Standing must be handed in, in this regard.
Signature of CONTRACTOR:	
Date:	
2.00	



16. FORM OF INDEMNITY						
INDEMNITY						
Given by (Name of Company)	Given by (Name of Company)					
of (registered address of Company)						
a company incorporated with limited liab	ility according to the Company Law	s of the Republic of South				
Africa (hereinafter called the Contractor),	, represented herein by (Name of Re	epresentative)				
in his cap	pacity as (Designation)					
of the Contractor, is duly authorised here	eto by a resolution dated					
to sign on behalf of the Contractor.						
WHEREAS the Contractor has entered in	nto a Contract dated	/ 20 ,				
with the Municipality who require this ind						
Municipality by reason of or in any way arising out of or caused by operations that may be carried out by the Contractor in connection with the aforementioned contract; and also in respect of all claims that may be made against the Municipality in consequence of such operations, by reason of or in any way arising out of any accidents or damage to life or property or any other cause whatsoever; and also in respect of all legal or other expenses that may be incurred by the Municipality in examining, resisting or settling any such claims; for the due performance of which the Contractor binds itself according to law.						
SIGNATURE OF CONTRACTOR:						
DATE:						
IGNATURE OF WITNESS 1:						
DATE:						
SIGNATURE OF WITNESS 2:						
DATE:						

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#### 17. SPECIFICATIONS

#### A GENERAL

#### 1. Information and definitions:

- 1.1. All items on the Pricing Schedule, where detailed specifications apply, are listed under B. PRODUCT SPECIFICATIONS, and are cross referenced to the Pricing Schedule. In cases where a product does not have extensive specifications, the item specifications are listed with the item on the Pricing Schedule.
- 1.2. All fields must be completed for the tender to be considered. In cases where certain items cannot / are not provided by any one tenderer, it must be indicated as such on the tender document.
- 1.3. The tenderer must be in possession of an official order before any delivery may be made to the Municipality.
- 1.4. Similar Products: Similarity depends on several factors such as qualities, appearance, nature, meanings, characteristics, functions, quantities etc.
- 1.5. Compatible Products: Products capable of being used together with the existing infrastructure without special modification or adaptations OR capable of orderly, efficient integration and operation with other elements in a system with no modification or conversion required.
- 1.6. Abbreviations/Acronyms:
  - 1.6.1. OM Overstrand Municipality
  - 1.6.2. Qty. Quantity
  - 1.6.3. Est. Estimated

#### 2. Deliveries:

- 2.1. Delivery must take place within 7 working days of placing an official order where lead times have not been indicated on the tender document by the tenderer.
- 2.2. Delivery address will be indicated on the official order as one of the following:
  - 2.2.1. Municipal Store, Mussel Road, HERMANUS
  - 2.2.2. Municipal Electrical Store, Molteno Street Onrus, Hermanus.
  - 2.2.3. Municipal Store, 13th Street, KLEINMOND
  - 2.2.4. Municipal Store, Voortrekker Street GANSBAAI
- 2.3. Delivery of products must include the off-loading thereof at the supplier's own risk and cost to the designated delivery addresses as indicated above.
- 2.4. Overstrand Municipality reserves the right to deviate from the contract and to obtain the product(s) from another supplier, where delivery/lead times are too long (in circumstances where emergencies arise). This deviation will be communicated to the supplier in writing before exercising this right.

#### 3. Pricing:

- 3.1. Pricing must be per unit or per meter (Tenderers must furnish unit prices for the listed products only no alternatives will be accepted).
- 3.2. All prices must include delivery and off-loading at the respective stores mentioned in 2.2 above and MUST also EXCLUDE VAT.
- 3.3. Should the item prices tendered be subject to escalation, full details of the applicable formulae and base indices MUST be submitted with the tender.

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- 3.4. Due to the fact that this is a three year contract, the Overstrand Municipality holds the right to terminate the contract in cases of unfavourable price escalations.
- 3.5. All price increases must be communicated in writing to the Overstrand Municipality (Supply Chain Management and to the relevant Manager of the user department involved) prior to implementation. Price increases will only be implemented once written notification thereof has been received by the Municipality. Non-compliance herewith will be for the suppliers own account.

#### 4. Quality and quantities:

- 4.1. All cables shall be SANS tested and shall bear the SANS mark.
- 4.2. All products/material must be SANS and SABS approved.
- 4.3. All product items, where applicable, should carry minimum of one year guarantees or warrantees and faulty items will be replaced at the cost of the supplier. It will be the responsibility of the supplier to ensure that the products are replaced (Retailers to Manufacturers).
- 4.4. Only those items as listed on the pricing schedule will be evaluated. NO ALTERNATIVE offers will be consider.
- 4.5. Quantity projections based on historical data, will be provided in all instances where it is possible.
- 4.6. The quantities as indicated in the pricing schedule are only estimates which will be used in order to evaluate the bid. The Overstrand Municipality will not be bound to the estimated quantities

#### 5. Key Performance Indicators

- 5.1. The Overstrand Municipality has a system by which service delivery is measured. The appropriate Key Performance Indicators (KPI's) to which the Service Provider in this tender will be measured are as follows.
- 5.2. Timeous delivery of the correct quantities as per order of items as stipulated in Par. 5.
- 5.3. Quality of product as stipulated in Section B: Specifications of this document.
- 5.4. The Service Provider will be notified if the KPI's are not met. If the Service Provider cannot submit satisfactory reasons why the KPI's was not met, the contract may be cancelled and the Service Provider may be blacklisted
- 5.5. Non-compliance with agreed service delivery, may lead to breach of contract and the supplier will be liable for any expenses incurred as effect thereof.

#### **B PRODUCT SPECIFICATIONS**

## 1. CABLES PVC-INSULATED CABLES 600/1000 V GRADE (See items 1.1 to 1.4 on the Pricing Schedule)

#### 1.1. General

- 1.1.1. Cables shall be manufactured in accordance with SANS 1507, shall come only from fresh stocks, and shall be constructed as follows:
- 1.1.2. Unarmoured cables PVC-insulated/PVC-sheathed
- 1.1.3. Armoured cables PVC-insulated/PVC-bedded/armoured/black extruded PVC outer sheath
- 1.1.4. Single core cables PVC-insulated/unsheathed
- 1.1.5. The conductors shall be of high conductivity annealed stranded copper and the cores may be shaped or circular.
- 1.1.6. The insulation shall be general purpose PVC, 600/1 000V Grade.

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- 1.1.7. The bedding shall consist of a continuous impermeable sheath of PVC extruded to fit the core or cores closely and in the case of multi-core cables, to fill the interstices between the cores.
- 1.1.8. Where armouring is specified it shall consist of one layer of galvanised steel wire in the case of multi-core cables and nonmagnetic metallic wire in the case of single core cables. Aluminium strip or tape armouring is not acceptable.
- 1.1.9. Where specified, an earth continuity conductor shall be provided in the armouring in accordance with SANS 1507.

PLEASE NOTE: CABLE SHALL BE MANUFACTURED AND SUPPLIED IN ONE LENGTH TO THE LENGTHS SPECIFIED UNLESS THESE LENGTHS EXCEED THE STANDARD DRUM LENGTH.

#### 1.2. PVC -Sheathed Aluminium Covered Cables

- 1.2.1. Aluminium-covered cables shall comprise PVC-insulated copper conductors protected by an aluminium foil tape screen and a PVC sheath.
- 1.2.2. Cable ends shall be made off with compression glands fitted with a neoprene ring to seal the end.
- 1.2.3. Aluminium sheathed cable shall be installed on surface only using matching saddles installed at suitable intervals to prevent sagging.
- 1.2.4. Where exposed to sunlight, the cable shall have a stabilised black outer sheath.

#### 1.3. Paper-Insulated Cables

- 1.3.1. Cables shall be manufactured in accordance with SANS 97 and shall come only from fresh stocks.
- 1.3.2. The cable construction shall be impregnated paper-insulated/lead or lead alloy E sheathed/DSTA/PVC bedding /outer PVC sheath.
- 1.3.3. The conductors shall be of high conductivity, annealed, stranded copper that may be shaped or circular.
- 1.3.4. The conductor insulation shall consist of impregnated paper tapes, either preimpregnated or mass-impregnated with a non-draining compound.
- 1.3.5. The sheath shall be lead or lead alloy E. The cable shall be sheathed with watertight extruded black PVC to eliminate electrolytic corrosion of the cable. Abbreviation for this type is PLSTC or PESTC.
- 1.3.6. Double steel tape armoured
- 1.3.7. The cable insulation shall be suitable for the supply voltage specified and the cable must be suitable for a system with an unearthed neutral.

## 2. ENERMAX PLUS METERS: SPECIFICATION FOR ELECTRONIC PROGRAMMABLE 3 AND 4 WIRE ELECTRICITY METERS (ENERMAX PLUS METERS ONLY) (Item 2.1 on Pricing Schedule)

#### 2.1. General

- 2.1.1. The meters shall be suitable for 3 phase 50Hz 3 and 4 wire class 0,5Wh, 4 quadrant energy and demand metering of nominal voltages 100-400V line or 60-230V phase and currents 1A and 5A.
- 2.1.2. The meter shall be programmable to cater for time of use metering with at least 8 user programmable display menus, including automatic scrolling of any menu and display of alpha numerical programmable messages.
- 2.1.3. IEC 62052-11 compliance.

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- 2.1.4. Voltage operating range: 80% 115% of nominal.
- 2.1.5. Current operating range: 200% of nominal.
- 2.1.6. Short circuit 0,5 seconds 20 x Imax.
- 2.1.7. Burden < 3 VA
- 2.1.8. Internal clock accuracy: 0,5 seconds/day.
- 2.1.9. Internal battery replaceable: power down life min 8 years.
- 2.1.10. Auxiliary terminals: 3 input, 3 output solid state.
- 2.1.11. LCD Display: dot matrix
- 2.1.12. Program for PC: latest version to be provided free of charge
- 2.1.13. Extraction of meter program file and report and instantaneous phasor diagrams.
- 2.1.14. Extraction of billing data for at least 32 months and 8 channels 30 minute profile data for 175 days.
- 2.1.15. Selectable instantaneous parameters for profile recording including voltages, currents, import and export active and reactive power, power factor, frequency and temperature
- 2.1.16. Profile data storage based on instantaneous, sum, min., max. or average.
- 2.1.17. Block demand programmable 1 60 minutes.
- 2.1.18. Firmware upgrading via optical port.
- 2.1.19. Time of use metering up to 12 seasons, 8 day types, 16 rates, 64 switching times per day and 128 exclusion days.

#### 2.2. Electrical

#### 2.2.1. Accuracy

- 2.2.1.1. IEC 62053-22 Class 0.5 (Wh)
- 2.2.1.2. IEC 62053-23 Class 2.0: (varh)

#### 2.2.2. **Models**

- 2.2.2.1. 1A or 5A CT selectable.
- 2.2.2.2. E+MA-454000 (4wire 230V L-N).
- 2.2.2.3. E+MA-153000 (3wire 110V L-L).
- 2.2.2.4. Whole current 100A.

#### 2.2.3. Functions

- 2.2.3.1. Fully programmable.
- 2.2.3.2. Multi-function.
- 2.2.3.3. Powerful tariff structure.
- 2.2.3.4. Multiple rates for Energy & Demand.
- 2.2.3.5. Full functions, import & export.
- 2.2.3.6. User configured Menu's & displays.
- 2.2.3.7. Profiling Wh, varh, Amps, Volts.

#### 2.2.4. Additional input/output:

- 2.2.4.1. 8 outputs
- 2.2.4.2. 8 inputs
- 2.2.4.3. 4 inputs & 4 outputs

#### 2.2.5. Communications

- 2.2.5.1. RS232/485: RS232 local with on-board RS485 port (Multi-drop).
- 2.2.5.2. GPRS: Remote communication with on-board RS485 port (Multi-drop).
- 2.2.5.3. Ethernet LAN: Remote communication with on-board RS485 port (Multi-drop).

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#### 2.2.6. Environmental

2.2.6.1. IEC 62052-11 compliant

2.2.6.2. Temperature range: operation -25°C to 55 °C

## 3. MRF-METERS (Item 2.2 on Pricing Schedule)

## 3.1. Single Phase Split DIN-Rail mounted PLC Prepayment meter - MCU

	Description	Specification
1)	Rated Voltage	230 Volt
2)	Frequency	50/60 Hz
3)	Base Current	5 Amp
4)	Maximum Current	100 Amp
5)	Continuous Supply Voltage	Maximum: 265 Volt Minimum: 120 Volt
6)	Maximum Withstand Voltage	440 Volt
7)	Power Consumption	Power consumption: The meter (MCU and CIU combined) shall have a power consumption burden of no more than 2W, 10VA.
8)	Rate Indicator	1000 pulses/kWh
9)		Contactor Status
	Status Indication	Comms Status
		Rate Indicator LED's
10)	Installation	35mm DIN-Rail Mounting
11)	Disconnection Device	100 A single pole bi-stable latch
12)	Terminal Wiring	Top connection supply (LN), bottom connection load (L)
13)	IP Rating	IP51
14)		PLC – 120m range
	Communication (CIU)	It shall be possible to co-locate no less than 30 MCU's without causing interference or degrading the communication between MCU's and CIU's. It shall not be acceptable to install additional external equipment or filters to ensure reliable communication.
		The preferred MCU/CIU communication technology shall be based on the latest multi carrier technology such as OFDM. Single or dual carrier technologies are not acceptable.
15)	Operating Mode	Prepayment mode – fully STS compliant

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## 3.2. Customer Interface Unit (CIU) - STAND ALONE

	Description	Specification	
a)	User Interface	12 Digit keypad with audio feedback	
b)	User Display	8 Digit LCD with language independent icons	
c)	Consumption Display	Optional LED	
d)		Cenelec A compliant PLC or similar	
	Communication Circuitry	The CIU shall implement a dynamic communication algorithm to minimize the interference from adjacent meters.	
e)	IP Rating	IP51	
f)	Installation Type	Stand Alone – plugs into mains socket	
2)	Customer Interface Unit (CIU) - STANDARD BASE		
a)	User Interface	12 Digit keypad with audio feedback	
b)	User Display	8 Digit LCD with language independent icons	
c)	Consumption Display	Optional LED	
d)		Cenelec A compliant PLC or similar	
	Communication Circuitry	The CIU shall implement a dynamic communication algorithm to minimize the interference from adjacent meters.	
e)	IP Rating	IP51	
f)	Installation Type	Standard Base plug in mount	

## 4. RF METERS (Item 2.3 on Pricing Schedule)

#### 4.1. Single Phase integrated RF split configuration meter

1)	General information	
a)	Туре	Single phase, 2 wire, direct connected RF prepayment meter
b)	Compatible networks	Single phase, 2-wire, earthed neutral
c)	Compliance	IEC 62051, IEC 62052-11, IEC 62053-2, IEC 62055-21, IEC 62055-31, IEC 62055-41, IEC 62055-51, IEC 62055-52, IEC 62056-21, IEC 61000-4-2, IEC 61000-4-3, IEC 61000-4-4, IEC 61000-4-5, IEC 60950-1, CISPR 22, SANS 1524-1, SANS 1524-1-1, SANS 1524-1-2, SANS 1524-4, SANS 15417, SANS 300220-1, ETSI EN300220-1, STS 101-1, STS 201-15.1.0, DSP 34-749, DSP 34-1527, DSP 34-1635, RES/RR/00/11740, ISO 9001, ISO 14001, OHAS 18001
2)	Electrical ratings	
a)	Accuracy	kWh Class 1 (IEC 62053-21)
b)	Voltage measurement (Un)	230VAC
c)	Frequency	50Hz ± 5%

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	d)	Extended operating voltage	0.5 Un to 1.15 Un
	e)	Load switching voltage range	0.5 Un to 1.15 Un
	f)	Voltage circuit burden	₪2 W and 10 VA
	g)	Current circuit burden	□□□VA @ Base reference current lb ( actual value 0.015)
	h)	Current measurement	lb
	i)	Protective class	Class II double insulated
3)		MCU Enclosure	
	a)	Mounting	Rail mounting, with locking clip compatible with 35 mm DIN standard rail
	b)	IP Rating	IP54, suitable for installation in a pole-top or outdoor kiosk housing
	c)	Maximum Dimensions	160mm x 55mm x 95mm
	d)	Material	UV stable polycarbonate/ABS blend with flame retardant
	e)	Resistance to heat and fire	As per IEC 60695-2-1 (glow-wire)
	f)	Resistance to spread of fire	UL94-VO rated @ 1.5mm
4)		Terminals	
	a)	Live Circuit	
	b)	Туре	Moving-cage terminal
	c)	Material	Mild steel/nickel/brass
	d)	Maximum Cable Size	25 mm2
	e)	Neutral Circuit	
	f)	Туре	Moving-cage terminal
	g)	Material	Mild steel/nickel/brass
	h)	Maximum Cable Size	16 mm2
5)		Sealing	
	a)	Enclosure	Factory sealed, no user serviceable parts
	b)	Security sealing of terminals	Security seal compatible with stainless steel wire and ferrule seal
6)		Operating environment	
	a)	Area of application	Indoor meter
	b)	Operating temperature range	-10 o C to 55 o C
	c)	Storage temperature range	-25 o C to 70 o C
	d)	Relative humidity	Maximum 95% non-condensing
7)		Operation	
	a)	General	Credit store with decrement-on-use
	b)	Credit entry mechanism	Keypad; encrypted numeric tokens
	c)	Credit encryption method	20-digit STS
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8)	Metrological performance				
a)	Measurement direction	Forward and reverse detection and metering			
b)	Consumption indicator	Visible LED			
c)	Status indication	Visible LED			
d)	Communications Link Status	Visible LED			
e)	Liquid Crystal Display (LCD)	7 digits + icons; icon information, numeric information			
f)	Accurate metering range	0.05 lb to 1.2 lmax			
g)	Starting current	0111111b 0			
h)	Short circuit current	30 x Imax for one half cycle at rated frequency			
9)	Disconnection Device				
a)	Туре	Single pole latching contactor, 100 A.			
b)	Insulation; Over voltage and S	Surge Protection			
c)	Insulation system classifica-	Protective class II			
	tion Insulation level	4 kV rms for 1 minute			
d)	Over voltage withstand	456 VAC for 48 hours			
10)	Surge immunity				
a)	Voltage impulse withstand	In excess of 6 kV, 1.2/50Is (IEC 62052-11)			
b)	Current impulse withstand	5kA/20 ls			
c)	Electromagnetic compatibility Electrostatic discharge Immunity to HF fields Immunity to FTB Radio interference Specification Compliance	15 kV air discharge 80 MHz to 2 GHz @ 10V/m with load 80 MHz to 2 GHz @ 30V/m no load 4 kV Complies with requirements for CISPR 22 IEC 61000-4-2; IEC 61000-4-3; IEC 61000-4-4; IEC 61000-4-6 CISPR 22			
11)	Communication Circuitry				
a)	Туре	RF communications between MCU and CIU. Meter operation is independent of CIU function			
b)	Transmission frequency	433.05 to 434.79MHz SRD band			
c)	Maximum Power Output	10mW ERP (10dBm)			
d)	Electromagnetic compatibility: Electrostatic discharge (enclosure) Electrostatic discharge (battery holder)	15kV, air discharge (IEC62055-31 § 7.8.2 and IEC62052-11 § 7.5.2) 8kV, (IEC62055-31 § 7.8.2 and IEC62052-11 § 7.5.2)			
e)	Communication Distance	metres line of sight			
12)	Alternate Communications	ports			
a)	Direct probe port	STS101-1 compliant			
b)	USB port				

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## 4.2. RF CIU Keypad

	Туре	RF
1)	Communication Circuitry	
a)	Туре	RF communications between MCU and CIU. Meter operation is independent of CIU function
b)	Transmission frequency	433.05 to 434.79MHz SRD band
c)	Maximum Power Output	10mW ERP (10dBm)
d)	Electromagnetic compatibility: Electrostatic discharge (enclosure) Electrostatic discharge (battery holder)	15kV, air discharge (IEC62055-31 § 7.8.2 and IEC62052-11 § 7.5.2) 8kV, (IEC62055-31 § 7.8.2 and IEC62052-11 § 7.5.2)
e)	Communication Distance	Minimum 100 metres line of sight Provision to be made for range extension in the case of building or foliage interference
2)	Operating Environment	
a)	Operating Temperature Range	-10 o C to 55 o C
b)	Storage Temperature Range	-25 o C to 70 o C
c)	Relative Humidity	Maximum 95% non-condensing
3)	CIU Enclosure	
a)	Туре	Wall mounted
b)	Rating	IP 54
c)	Material	UV stable polycarbonate/ABS blend with flame retardant
d)	Туре	Language-independent
e)	Components	Pictographic/Numeric LCD display, keypad, rate of consumption indicator, audio feedback
f)	Liquid Crystal Display (LCD)	At least 7 digits + 11 icons; icon information; numeric information display of various meter information such as credit levels, token entry
g)	Minimum character size	10mm
h)	Keypad	12-key, international standard layout including "information" and "backspace" keys, telephone type configuration with four rows and 3 columns
i)	Buzzer	Feedback on key press, Token Accept and Reject melodies, low-credit alarms as a factory-programmable option
j)	Rate enunciation	Pictorial enunciation using a bar graph or equivalent or a flashing icon depicting the rate of consumption
4)	Power source	
a)	Туре	Options of Lithium battery, NiMH or Alkaline
b)	Operational life	Minimum of 3 years operational life
5)	Sealing	
a)	Enclosure	Factory sealed, no user serviceable parts
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## 4.3. Data Concentrator Unit

1)	General information		
a)	Nominal voltage	127/230 Volts AC (50/60Hz)	
b)	Nominal voltage range	85 to 265 Volts AC	
c)	Minimum start up voltage	85 Volts AC	
d)	Withstand voltage 440V / 48 hours		
2)	Battery		
a)	Battery type	Li Po (Lithium Polymer) >1.8Ah Rechargeable	
b)	Battery voltage	3.6 volts	
c)	Operating voltage range	3.3 to 4.2V	
d)	Battery life span	5 years	
3)	Communication		
a)	Ethernet	10/100 Full-duplex with auto-negotiation IPv4 DHCP, DNS, or static IP configurations	
b)	Plug-in GSM module	Quad-band GSM850, EGSM900, DCS1800, PCS 1900	
c)	Antenna	Integrated External	
d)	Protocol Proprietary		
e)	Security	128-bit encryption with CBC	
4)	) Functionality		
a)	Automatic discovery of electricity meters Remote meter reading Event notification (metering events) Tamper detection STS Token delivery GPS for time synchronisation and location LCD display for local configuration Remotely Upgradeable Battery backed-up real time clock USB interface for system configuration and data retrieval Battery backed up – Last gasp communications support Plug-in communication module slots - upgradeable		
5)	Data Concentrator Unit Enclosure		
a)	Area of application	Indoors	
b)	Mounting	DIN rail Wall mountable	
c)	IP Rating	IP 51	
d)	Maximum Dimensions 163mm x 130mm x 93mm		

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6)	Communication interface	
a)	Wireless Network Connectivity	Plug-in Communication module A GSM plug in communications module capable of SMS and GPRS communications.
b)	RF	A radio frequency interface (433MHz) for communication with metering devices including the RF extenders and field service terminals units.
c)	Wired Network Connectivity	RJ45 Ethernet interface for connection to a network
d)	DCU Extension	RS485 multi-drop communication port to allow connection to metering devices in kiosk environments.
7)	Sealing	
a)	Enclosure	Mainboard access via the front cover
b)	Security sealing of terminals	Security seal compatible with stainless steel wire and ferrule seal

## 4.4. RF Signal Extender

1)	General information		
a)	Nominal voltage	127/230 Volts AC (50/60Hz)	
b)	Nominal voltage range 85 to 265 Volts AC		
c)	Minimum start up voltage	85 Volts AC	
d)	Withstand voltage	440V / 48 hours	
e)	Power source	Mains power Battery Solar power	
2)	Battery ratings		
a)	Battery type	Li Po (Lithium Polymer) >1.8Ah Rechargeable	
b)	Battery voltage	3.6 volts	
c)	Operating voltage range	3.3 to 4.2V	
d)	d) Battery life span 5 years		
3)	Solar panel ratings		
a)	Voltage at maximum output	5 V	
b)	Current at maximum output	410mA	
4)	Functionality		
a)	Extend RF signal distance to 150M Support up to 24 devices		
5)	Data Concentrator Unit Enclosure		
a)	Area of application	Outdoors	
b)	Mounting	DIN rail Pole strap	
c)	IP Rating	IP 55	
d)	Maximum Dimensions	277 mm x 80mm x 86mm	

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## 4.5. RF Common base ED & ECU keypad

1)	General information		
a)	Battery type	Lithium	
b)	Typical battery life	In excess of 10 years, based on normal op	erating conditions
c)	Current rating	ED	ECU
d)	Maximum current (Imax)	100A	20A
2)	Communication		
a)	RF type	433.05MHz to 434.790MHz (SRD band with	thin the 10mW)
b)	Maximum distance (line of sight)	Up to 100m	
c)	Maximum distance (built up area)	Up to 50m	
d)	Displayed Information		
e)	Previously entered STS tokens Token accept / reject Available credit Meter status register Low credit warning Variety of consumption data Status of consumer's AC supply	on data	
3)	Display		
a)	Number of digits	7 major / 3 minor	
b)	Туре	Liquid crystal display	
c)	Minimum character size	10mm	
d)	Rate enunciation	Pictorial enunciation using a bar graph or equivalent or a flashing icon depicting the rate of consumption	
4)	Interface		
a)	Keypad	12-key, international standard layout including "information" and "backspace" keys, telephone type configuration with four rows and 3 columns	
b)	Audible feedback	Key presses Token acceptance / rejection Low credit warning	
5)	Installation		
a)	Footprint	Common wall base	
b)	Insulation class	Double insulation	
c)	Environmental	ED	ECU
d)	IP Rating	IP 55	IP 51
e)	Standards	IEC 61000-4-2, ISO 14001, IEC 61000-4-3 4-4, OHSAS 18001, IEC 61000-4-5, CISPI SANS 767-1 (ECU version), SANS 300 22 1	R 22, IEC 60950-1,

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#### 4.6. Additional Information

- 4.6.1.On-site training to be supplied free of charge when required by the OM
- 4.6.2. Software as well as any updates to be supplied free of charge to the OM over the course of the contract period.

#### 4.6.3. Normative references

4.6.3.1.	IEC 62051:	Electricity metering – Glossary of terms
4.6.3.2.	IEC 62052-11:	Electricity metering - General requirements, Tests and test conditions - Part 11: Metering equipment
4.6.3.3.	IEC 62053-21:	Electricity metering equipment (ac.) – Part 21: Particular requirements – Static meters for active energy (classes 1 and 2)
4.6.3.4.	IEC 62055-21:	Electricity metering – Payment systems – Part 21: Framework for standardization
4.6.3.5.	IEC 62055-31:	Electricity payment metering systems – Part 31: Particular requirements – Static payment meters for active energy (classes 1 & 2)
4.6.3.6.	IEC 62055-41:	Electricity metering – Payment systems – Part 41: Standard transfer specification (STS ) – Application layer protocol for one-way token carrier systems
4.6.3.7.	IEC 62055-51:	Electricity metering – Payment systems – Part 51: Standard transfer specification – Physical layer protocol for one-way numeric and magnetic card token carriers
4.6.3.8.	IEC 62055-52:	Electricity metering – Payment systems – Part 52: Standard transfer specification – Physical layer protocol for a two-way virtual token carrier for direct local connection
4.6.3.9.	IEC 62056-21:	Electricity metering – Data exchange for meter reading, tariff and load control – Part 21:Direct local data exchange
4.6.3.10.	BS 7856:	Code of practice for Design of alternating current, watt-hour meters for active energy (classes 1 and 2)
4.6.3.11.	SANS 1524-1:	Electricity payment systems - Part 1: Payment meters
4.6.3.12.	SANS 1524-1-1:	Electricity payment systems - Part 1-1: Mounting and terminal requirements for payment meters
4.6.3.13.	SANS 1524-1-2:	Electricity payment systems - Part 1-2: Specification for surge arresters for the protection of electricity dispensers
4.6.3.14.	SANS 1524-4:	Electricity payment systems - Part 4: National prepayment electricity meter cards
4.6.3.15.	SANS 15417:	Information technology: Automatic identification and data capture techniques - Code 128 bar code symbology specification
4.6.3.16.	STS 101-1:	Interface specification - STS 101-1: Standard transfer specification (STS) – Physical layer mechanical and electrical interface for virtual token carriers
4.6.3.17.	STS 201-15.1.0:	Companion specification - STS 201-15.1.0: Standard trans-

ble for electricity payment meters				
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fer specification (STS) - Meter function object: Register Ta-

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	4.6.3.18.	DSP 34-749:	Esko ment	m specification: Standard for sealing metering equip-
	4.6.3.19.	DSP 34-1527:		m specification: Procedure for producing software ess assessment documents
	4.6.3.20.	DSP34-1635:	Esko mete	m Specification: Particular requirements for prepayment rs
	4.6.3.21.	RES/RR/00/11740	Eskom specification: Accelerated Environmental Stress Test for Pre-payment metering; Electricity metering equip- ment – Data exchange for meter reading, tariff and load con- trol – Part21: Direct local data exchange	
	4.6.3.22.	ISO 14001:	Envir	onmental Management
	4.6.3.23.	ISO 9001:	Quali	ty Management Systems
	4.6.3.24.	IEC 61000-4-2:		romagnetic compatibility (EMC) - Part 4-2: Testing and surement techniques - Electrostatic discharge immunity
	4.6.3.25.	IEC 61000-4-3:	meas	romagnetic compatibility (EMC) - Part 4-3: Testing and surement techniques - Radiated, radio-frequency, elecagnetic field immunity test
	4.6.3.26.	IEC 61000-4-4:	meas	romagnetic compatibility (EMC) - Part 4-4: Testing and surement techniques - Electrical fast transient/burst im-
	4.6.3.27.	IEC 61000-4-5:	Electromagnetic compatibility (EMC) - Part 4-5: Testing as measurement techniques - Surge immunity test	
	4.6.3.28.	CISPR 22 CLASS	B: In	formation Technology Equipment
	4.6.3.29.	EN 300 220:	(ERM used powe	romagnetic compatibility and Radio spectrum Matters (1); Short Range Devices (SRD); Radio equipment to be in the 25 MHz to 1 000 MHz frequency range with r levels ranging up to 500 mW; Part 1: Technical characteristics and test methods
	4.6.3.30.	IEC 60950-1:		nation technology equipment - Safety - Part 1: General rements
4.6	.4. Definit	ions and abbrevia	tions	
	4.6.4.1.	Administrator Mod	e:	See Dispenser mode
	4.6.4.2.	Consumption Limit	t:	Limit restricting the total consumption allowed in a 24 hour period
	4.6.4.3.	Critical Load Redu	iction:	Load restriction that can be imposed on a consumer by a Utility on demand
	4.6.4.4.	Cyclic Redundanc	y Che	ck: A method implemented to allow data to be validated for authentication
	4.6.4.5.	Decryption:		The process of transforming encrypted information into something readable
	4.6.4.6.	Direct Probe:		Probe used for meter interrogation which complies with STS201-15-1
	4.6.4.7.	Disconnection Dev	/ice:	The device with the measurement unit which controls

	connection and disconnection of the load
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	4.6.4.8.	Dispenser Mode:		e in which the meter will allow free prescribed unts of credit in a 24 hour period
	4.6.4.9.	Emergency Credit:		rating mode whereby the user is allowed to oper- in arrears with possible punitive measures being used
	4.6.4.10	. Encryption Algorithm:		git number used to uniquely identify which algonisto be used for encrypting token data
	4.6.4.11	. Encryption:	as p	process of transforming information (referred to plaintext) using an algorithm (called cipher) to e it unreadable
	4.6.4.12	. Flags Probe:		e used for meter interrogation which complies IEC62056-21
	4.6.4.13	. Galvanic Isolation:		principle of isolating functional electrical systems nat there is no current flow from one section to her
	4.6.4.14	. Hand Held Unit:		luct used to extract information from a prepay-t meter
	4.6.4.15	. Icon:	Grap	phic used in the place of words
	4.6.4.16	. Instantaneous Power:	Powe	er averaged over a 5s interval
	4.6.4.17	. Interrogator Kit:		luct used to extract information from a prepay-t meter
	4.6.4.18	. Key Expiry Number:		umber that is associated with a validity period for /ending Key
	4.6.4.19	. Key Revision Number:	with a	git number in the range 1 to 9, which is associated a version of the Vending Key and with the correding meter Key
	4.6.4.20	. Key Roll Over:	Element within a key change token pair that is used in conjunction with the STS base date	
	4.6.4.21	. Key Type:	prope	git number in the range 0 to 3 associated with a erty of the Vending Key and thus also with the esponding Meter Key which defines the purpose which the key can be used
	4.6.4.22	. Life Line:	the u	rating mode following emergency credit whereby user is allowed to operate in arrears with possible tive measures being imposed
	4.6.4.23	. Line / Load Reversal:		dition whereby the LINE and LOAD wiring is oped.
	4.6.4.24	. Line:	Incon	ming supply
	4.6.4.25	. Load Limit:	Progr	rammable limit at which power limiting occurs
	4.6.4.26	. Load:	Outgo	going supply
	4.6.4.27	. Manufacturer Code:		git number that uniquely identifies the manufactor of a prepayment meter
	4.6.4.28	. Measurement Unit:	that	ological portion of a prepayment electricity meter may also include a disconnection device, ac- nting registers and other control functions
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4.6.4.29. Meter Identification Card	: Card identifying its bearer and issuer which may carry data required as input for the intended use of the card and for transactions based thereon
4.6.4.30. Meter Key:	Unique key used by a prepayment meter to decrypt STS tokens
4.6.4.31. Optical Probe:	LED which the meter uses to perform a data dump
4.6.4.32. Over Current Trip:	Trip event that occurs when the measured average current is greater than a pre-set limit
4.6.4.33. Over Temperature Trip:	Trip event that occurs when the measured average temperature is greater than a pre-set limit
4.6.4.34. Over Voltage Trip:	Trip event that occurs when the measured average voltage is greater than a pre-set limit
4.6.4.35. Power Limiting:	Automatic load disconnection when the average power measured is greater than a pre-set limit
4.6.4.36. Scheduled load Reduction	on: Load restriction that can be imposed on a consumer by a Utility on a scheduled basis
4.6.4.37. Serial Number:	Number that is associated with the metrological part of the payment meter
4.6.4.38. Software Version:	Revision number associated with a particular release of software
4.6.4.39. Supply Burden:	Power that is being used by the meter to run that is not measured
4.6.4.40. Supply Group Code:	Unique 6-digit number allocated to a utility that identifies a subgroup of payment meters within the supply or distribution domain
4.6.4.41. Tariff Index:	A 2-digit number associated with a particular tariff that is allocated to a particular customer
4.6.4.42. Token Carrier:	Any device or media used to transport and present to- ken information to prepayment meters
4.6.4.43. Token Identifier:	Unique time-based identifier for each token.
4.6.4.44. Unbalanced Load Limit:	Programmable limit at which unbalanced power limiting occurs
4.6.4.45. Unbalanced Power Limit	ing: Automatic load disconnection when the average power measured between any two phases is greater than a pre-set limit
4.6.4.46. Under Voltage Trip:	Trip event that occurs when the measured average voltage is less than a pre-set limit
4.6.4.47. User Interface Unit:	The part of a prepayment meter that contains interfaces which allow interaction with the meter. Usually associated with the end customer
4.6.4.48. Virtual Token Carrier:	Any device or media that does not require a human to transport and present token information to prepayment meters

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5. STREET LIGHTING LUMINAIRES TO SABS 1277 AND 1088 NB: BEKA COMPATIBLE (Item 3 on Pricing Schedule)

High wattage streetlight luminaire designed for lighting of group 'A' roads where efficiency, excellent optical control and ease of maintenance is required.

#### 5.1. BEKASTRADA FLAT GLASS VERSION

- 5.1.1. The luminaire shall consist of a separate lamp, gear and spigot compartment.
- 5.1.2. It shall be designed to operate 150/250/400W high-pressure sodium/metal halide tubular lamps.
- 5.1.3. The luminaire shall bear the SABS 1277 mark and the SABS IEC 60598 safety mark.
- 5.1.4. Luminaire spigot entries shall comply with SABS 1088 Table 1.
- 5.1.5. Side entry 42mm ø x 125mm
- 5.1.6. Bottom entry 76mm ø x 75mm
- 5.1.7. The luminaire shall have a degree of protection that complies with SABS
- 5.1.8. 1222 and SABS 098: Part 1 1990 Code of Practice Table B-1:
- 5.1.9. Lamp compartment: IP66
- 5.1.10. Control gear compartment: IP66
- 5.1.11. The IP ratings shall be certified by a SABS test report.
- 5.1.12. The housing shall be robustly constructed, , hail proof, corrosion proof and vandal resistant.
- 5.1.13. It shall be manufactured from filled ultra-violet stabilized engineering polymer and shall be grey in colour.
- 5.1.14. An exterior lip of 7mm shall be provided on the lamp housing to avoid direct rainwater contact with the gasket, thus ensuring that no moisture shall be sucked into the diffuser when the luminaire is switched off and cools down.
- 5.1.15. The lamp compartment shall be enclosed by flat glass and held in place by three stainless steel clips for the 250W version and five stainless steel clips for the 400W version.
- 5.1.16. It shall remain attached to the housing when hinged open.
- 5.1.17. The gasket sealing the lamp compartment shall be made of silicon sponge rubber and shall be fitted into a tongue and groove arrangement.
- 5.1.18. Reflectors shall be manufactured from 99,98% super pure deep anodized aluminium and shall not be subject to accidental misalignment.
- 5.1.19. A special reflector system for tubular lamps shall ensure optimum high performance.
- 5.1.20. The lamp holder shall comply with VC 8011, be rated to withstand 240°C/5kV and shall prevent possible loosening of the lamp caused by vibrations.
- 5.1.21. The separate control gear compartment shall be manufactured from high pressure diecast aluminium to ensure excellent heat dissipation and optimum strength and shall be covered by a hinged, non-corrosive lid, which shall fit into a silicon sponge gasket in the body, in a tongue and groove arrangement.
- 5.1.22. Access to the gear compartment shall be gained from underneath by loosening one captive stainless steel screw.

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- 5.1.23. The IP66 ingress protection rating shall ensure that all control gear components shall be protected against the ingress of dust and moisture, which leads to corrosion and premature failure.
- 5.1.24. The control gear shall be mounted on a removable gear tray and shall be suitable for operation with the specified rating of the lamp on a 230V +3%/-10% 50Hz single phase system.
- 5.1.25. All control gear components shall be removable and bear the relevant SABS mark.
- 5.1.26. All internal wiring shall be Teflon® coated with protective sleeving to prevent damage by possible abrasion.
- 5.1.27. All screws, bolts and metal parts shall be stainless steel or non-corrosive material.
- 5.1.28. Ignitors, where applicable, shall be of the superposed pulse type.
- 5.1.29. The luminaire shall be power factor corrected to a minimum of 0,9.
- 5.1.30. The separate spigot compartment shall house the screw terminal block and wire clamp.
- 5.1.31. No access to the control gear compartment shall be required for installation, thus possible damage to the control gear shall be avoided.
- 5.1.32. An optional down facing miniature daylight switch shall be fitted into this compartment, giving it protection against UV and ensuring extended service.

#### 5.2. BEKASTRADA

High wattage street light luminaire designed for lighting of group 'A' roads where efficiency, optical control and ease of maintenance are required.

- 5.2.1. The luminaire shall consist of a separate lamp, control gear and spigot compartment.
- 5.2.2. The control gear housing shall be separated from the lamp housing for thermal reasons.
- 5.2.3. It shall be designed to operate 250/400W mercury vapour and 150/250/ 400W high pressure sodium/metal halide lamps.
- 5.2.4. The luminaire shall bear the SANS 475 mark and the SANS 60598-2-3 safety mark.
- 5.2.5. Luminaire spigot entries shall comply with SANS 1088 Table 1.
- 5.2.6. Side entry ø42mm x 125mm.
- 5.2.7. Bottom entry ø76mm x 75mm.
- 5.2.8. The luminaire shall have a degree of protection that complies with SANS 60598-2-3.
- 5.2.9. Lamp compartment: IP66
- 5.2.10. Gear compartment: IP66.
- 5.2.11. The IP rating shall be certified by a SABS test report.
- 5.2.12. The housing shall be robustly constructed, weather-proof, hail proof, corrosion proof and vandal resistant. It shall be manufactured from illed ultraviolet stabilized engineering polymer and shall be grey in colour.
- 5.2.13. An exterior lip shall be provided on the lamp housing to avoid direct rain water contact with the gasket, thus ensuring that no moisture shall be sucked into the diffuser when the luminaire shall be switched off and cools down.

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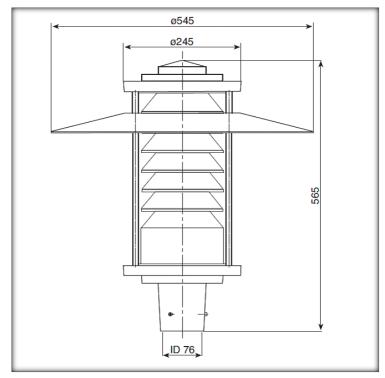
- 5.2.14. The non-discolouring high-impact acrylic diffuser bowl shall have no external prisms and shall be held to the housing by three stainless steel clips. (Five in the 400W version.)
- 5.2.15. It shall remain attached to the housing when hinged open.
- 5.2.16. The gasket sealing the lamp compartment shall be made of silicon sponge rubber and shall be fitted into a tongue-and-groove arrangement.
- 5.2.17. Reflectors shall be manufactured from 99.98% super pure deep anodized aluminium and shall not be subject to accidental misalignment.
- 5.2.18. The lamp holder shall comply with VC 8011, shall be rated to withstand 240°C/5kV and shall prevent possible loosening of the lamp caused by vibrations.
- 5.2.19. The control gear compartment shall be manufactured from high pressure die cast aluminium to ensure excellent heat dissipation and optimum strength.
- 5.2.20. It shall be covered by a hinged, noncorrosive lid which shall fit into a silicon sponge gasket in the body, into a tongue-and groove arrangement.
- 5.2.21. The IP66 ingress protection rating shall ensure that all control gear components shall be protected against the ingress of dust and moisture, thus preventing corrosion and premature failure.
- 5.2.22. The control gear shall be mounted on a removable gear tray and shall be suitable for operation with the specified rating of the lamp on a 230V +3%/-10% 50Hz single phase system.
- 5.2.23. All control gear components shall be removable. Ignitors, where applicable, shall be of the superposed pulse type. The luminaire shall be power factor corrected to a minimum of 0.9.
- 5.2.24. The separate spigot compartment shall house the screw terminal block and wire clamp.
- 5.2.25. No access to the control gear compartment shall be required for installation, thus possible damage to the control gear shall be avoided.
- 5.2.26. An optional down facing miniature daylight switch can be fitted into this compartment, giving it protection against UV and ensuring extended service.

#### 5.3. DECORATIVE LED POST TOP

- 5.3.1. Only offers for Post Top Luminaires which are manufactured in South Africa and supported by the original South African manufacturer, with maintenance facilities and spare parts located in the Western Cape will be considered.
- 5.3.2. Tenderers shall submit a summary of the percentage of local content with their offered product.
- 5.3.3. The LED luminaire shall be designed to meet the lighting criteria for Group 'B' roads as required.
- 5.3.4. The luminaire shall consist of a spigot base, top casting, glare shield, lamp compartment with integral control gear and diffuser that shall be held in position by three extruded aluminium tie bars.

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- 5.3.5. Both the top cover and 545mm diameter glare shield shall be robustly constructed, weather-proof, hail-proof, corrosion proof and vandal resistant.
- 5.3.6. The top cover, glare shield and spigot base shall be manufactured from marine grade high pressure die cast (EN 1706 AC-44300) aluminium, powder coated for added protection in the colour specified, with the underside of the glare shield being white for added reflectivity.
- 5.3.7. The top cover, glare shield and spigot base shall be firmly secured to the tie bars with three captive stainless steel screws. The luminaire shall be secured to the pole by three M8 stainless steel grub screws.
- 5.3.8. The diffuser shall be manufactured from clear high impact acrylic. It shall be seamless and smooth on both the inside and outside. An extruded silicon gasket shall fit over both ends and shall be seated against the top cover and spigot base.
- 5.3.9. The optical system used in conjunction with the clear diffuser version shall consist of a bead blasted aluminium Louvre system; it shall provide quality low level lighting and glare control.
- 5.3.10. Luminaire spigot entries shall comply with SABS 1088 Table 1 for Type 2: 76mm Ø x 75mm
- 5.3.11. The luminaire shall bear the SANS 60598-2-3 safety mark.
- 5.3.12. The luminaire shall have a degree of protection that complies with SANS 60598-2-3:
- 5.3.13. Lamp compartment: IP65
- 5.3.14. The IP rating is certified by an SABS test report.
- 5.3.15. Minimum LED lifetime of 50 000 hours with guaranteed flicker free lighting.
- 5.3.16. Effective high-power OSRAM LED, 4 500K at a colour rendering index >80.
- 5.3.17. It is suitable for operation with the specified rating of the lamp on a 230V ±10% 50Hz single phase system and power factor corrected to 0,9.

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#### **5.4. LED STREET LIGHTS**

The LED luminaire shall be designed to meet the lighting criteria for Group 'A' roads.

The luminaire shall be designed in accordance with the following requirements:

- 5.4.1. Design life: In excess of 25 years
- 5.4.2. The replacement (upgrading and service) of the LED unit and the driver/power supply shall be possible without removing the whole luminaire but by means of replacing only the optical/gear compartment by means of a hinging mechanism.
- 5.4.3. The luminaire shall incorporate a temperature sensor which monitors the temperature of the LEDs on the PCBs. Once a critical temperature is reached, the current shall be reduced to a safe temperature level. The temperature sensor shall not completely switch off the LEDs at high temperatures, which shall facilitate maintenance to be undertaken during daylight hours.
- 5.4.4. The luminaire shall incorporate a surge protection device of 10kA minimum.
- 5.4.5. Minimum IP rating of the light compartment, including driver compartment: IP66.
- 5.4.6. The protector shall be smooth, for easy cleaning, and shall be manufactured of tempered glass (IK08) or high-impact acrylic (IK10).
- 5.4.7. It shall be certified, in terms of IEC 60598, to operate at an ambient temperature of 35°C. The thermal design shall be particularly designed for African exterior conditions, i.e. high temperatures, high pollution, corrosion resistant.
- 5.4.8. The cooling fins shall be designed in such a manner to prevent the accumulation of dirt, thus ensuring the continuous effective cooling. The cooling rib height to width ratio may not exceed 0.7. Additionally the top surface shall be curved in shape.
- 5.4.9. The LED life expectancy shall be 60,000 hours at 80% lumen maintenance. (Documentary evidence from the LED manufacturer, by means of an appropriate datasheet, confirming the statistical correlation, shall be provided).
- 5.4.10. Use of high efficiency LED's (> 70 lumens/watt: Absolute photometry) CRI > 70. Documentary evidence of compliance to this clause shall be submitted with the tender.
- 5.4.11. Colour temperature shall be neutral white (5 000K). A report from the LED vendor, for LED's used in the luminaire, shall be submitted, which shall include the following documentary evidence: Measured LED junction temperature for a given test condition and extrapolated for an ambient temperature of 35°C.
- 5.4.12. LED drive current.
- 5.4.13. LED manufacturer data that clearly correlates LED junction temperature and LED drive current to lumen maintenance.
- 5.4.14. The LED datasheets, indicating the Byy, Lxx data, as provided by the LED manufacturer.
- 5.4.15. Documentary evidence, confirming that the failure of one LED will not cause additional LED's to fail.
- 5.4.16. Direct conduction & maximized surface for external heat exchange shall be provided.
- 5.4.17. The luminaire housing shall be constructed of marine grade high pressure die cast LM6 (EN 1706 AC-44300) aluminium. Tenderers shall submit a metallurgical report from an independent metallurgist confirming the grade of aluminium for all the luminaires offered. The housing shall be robustly constructed, weather-proof, hail-proof, insect-proof, corrosion proof, ultraviolet light resistant and vandal resistant.

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- 5.4.18. Luminaire closure shall be by means of a single movement clip mechanism at the rear of the luminaire and secured by a tamper-proof screw to minimise theft and vandalism.
- 5.4.19. The control gear compartment shall be incorporated into the luminaire housing.
- 5.4.20. The power supply connection must take place inside the luminaire.
- 5.4.21. The luminaire shall automatically disconnect the supply to the power supply once the luminaire is opened.
- 5.4.22. The luminaire manufacturer shall be based in the Republic of South Africa.

#### 5.5. BEKAWAY

Designed for residential road lighting and general area lighting, where both vandal resistance, and efficiency are required.

- 5.5.1. The luminaire shall consist of a spigot base, lamp compartment with integral control gear and top cover and shall be designed to operate compact fluorescent, 80/125W mercury vapour or 70/100W high pressure sodium/metal halide lamps.
- 5.5.2. It shall be also available in a wall bracket version.
- 5.5.3. The luminaire shall bear the SANS 475 performance mark and the SANS 60598-2-3 safety mark.
- 5.5.4. Luminaire spigot entries shall comply with SANS 1088 Table 1 for Type 2: Ø76mm x 75mm.
- 5.5.5. The luminaire shall have a degree of protection that complies with SANS 60598-2-3: Lamp compartment: IP65
- 5.5.6. The IP rating shall be certified by a SABS test report.
- 5.5.7. The top cover shall be manufactured from high pressure die cast aluminium, powder coated for added protection in the colour specified and shall be firmly secured with either a single dome nut or an aluminium nipple/ball casting.
- 5.5.8. It shall be powder coated white on the inside to improve the efficiency of the luminaire. A silicon sponge gasket shall be fixed into a groove in the casting to seal the top cover against the diffuser to IP65.
- 5.5.9. The spigot base shall be manufactured from high pressure die cast aluminium and powder coated for added protection in the colour specified.
- 5.5.10. The luminaire shall be secured to the pole by three M8 stainless steel grub screws.
- 5.5.11. The lamp holder shall comply with VC 8011, shall be rated to withstand 240°C/5kV and prevent loosening of the lamp caused by vibrations.
- 5.5.12. The injection moulded non-discolouring high impact acrylic diffuser bowl shall be both round and tapered in shape and shall be available in either a clear or opal version.
- 5.5.13. It shall be smooth on the outside, but have internal prisms to reduce the direct glare component.
- 5.5.14. A drip ridge shall be provided at the bottom edge to prevent direct rain water contact with the gasket.
- 5.5.15. The control gear shall be incorporated inside the luminaire and mounted on a removable gear tray.
- 5.5.16. It shall be suitable for operation with the specified rating of the lamp on a 230V +3%/- 10% 50Hz single phase system.

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- 5.5.17. All screws, bolts and metal parts shall be stainless steel or anti-corrosion treated material.
- 5.5.18. Ignitors, where applicable, shall be of the superposed pulse type.
- 5.5.19. The luminaire shall be power factor corrected to a minimum of 0,9.

#### 5.6. BEKALANE

Designed for the lighting of residential roads where high performance and high ingress protection is required.

- 5.6.1. The luminaire shall consist of a separate lamp, gear and spigot compartment.
- 5.6.2. It shall be designed to operate 2\*26W compact fluorescent, 80/125W mercury vapour and 70/100/150W high pressure sodium/metal halide lamps.
- 5.6.3. The luminaire shall bear the SANS 475 performance mark and the SANS 60598-2-3 safety mark.
- 5.6.4. Luminaire spigot entries shall comply with SANS 1088 Table 1.
- 5.6.5. Side entry ø42mm x 125mm.
- 5.6.6. Bottom entry ø76mm x 75mm.
- 5.6.7. The luminaire shall have a degree of protection that complies with SANS 60598-2-3. Lamp compartment: IP66 Gear compartment: IP66
- 5.6.8. The IP ratings shall be certified by SABS test reports.
- 5.6.9. The housing shall be robustly constructed, weather-proof, hail-proof, corrosion proof and vandal resistant. It shall be manufactured from filled ultra violet stabilised engineering polymer and shall be grey in colour.
- 5.6.10. An exterior lip of 7mm shall be provided on the lamp housing to avoid direct rain water contact with the gasket, thus ensuring that no moisture shall be sucked into the diffuser when the luminaire is switched off and cools down.
- 5.6.11. The non-discolouring clear high impact acrylic diffuser bowl shall have no external prisms and shall be held to the housing by three stainless steel clips.
- 5.6.12. It shall remain attached to the housing when hinged open.
- 5.6.13. The gasket sealing the lamp compartment shall be made of silicon sponge rubber and shall be fitted into a tongue and groove arrangement.
- 5.6.14. Reflectors shall be manufactured from 99,98% super pure deep anodised aluminium and shall not be subject to accidental misalignment.
- 5.6.15. A special reflector system for tubular lamps shall ensure optimum high performance. The lamp holder shall comply with VC8011, shall be rated to withstand 240° C/5kV and prevent loosening of the lamp caused by vibrations.
- 5.6.16. The gear compartment shall be covered by a hinged, non-corrosive lid, which fits into a silicon sponge gasket in the body, in a tongue and groove arrangement.
- 5.6.17. Access to the gear compartment shall be gained from underneath by loosening one captive stainless steel screw (nylon in the double insulated version).
- 5.6.18. The IP66 ingress protection rating shall ensure that all control gear components are protected against the ingress of dust and moisture, which leads to corrosion and premature failure.

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- 5.6.19. The control gear shall be mounted on a removable gear tray and shall be suitable for operation with the specified rating of the lamp on a 230V +3%/-10% 50Hz single phase system.
- 5.6.20. All screws, bolts and metal parts shall be stainless steel or anti-corrosion treated material. Ignitors, where applicable, shall be of the superposed pulse type.
- 5.6.21. The luminaire shall be power factor corrected to a minimum of 0,9.
- 5.6.22. The separate spigot compartment shall house the screw terminal block and wire clamp.
- 5.6.23. No access to the control gear compartment shall be required for installation, thus possible damage to the control gear shall be avoided.
- 5.6.24. An optional down-facing miniature daylight switch can be fitted into this compartment, giving it protection against UV and ensuring extended service.

#### 5.7. BEKARAY

# Designed for decorative residential road lighting and general area lighting.

- 5.7.1. The luminaire shall consist of a spigot base, lamp compartment with integral control gear and top cover and shall be designed to operate compact fluorescent, 50/80/125W mercury vapour or 50/70/100W high pressure sodium/ metal halide lamps. It shall be also available in a wall bracket version.
- 5.7.2. The luminaire shall bear the SANS 475 performance mark and the SANS 60598-2-3 safety mark.
- 5.7.3. Luminaire spigot entries shall comply with SANS 1088 Table 1 for Type 2: Ø76mm x 75mm.
- 5.7.4. The luminaire shall have a degree of protection that complies with SANS 60598-2-3: Lamp compartment: IP65
- 5.7.5. The IP rating shall be certified by a SABS test report.
- 5.7.6. The top cover shall be robustly constructed, weather-proof, hail-proof, corrosion proof and vandal resistant. It shall be manufactured from glass-filled nylon and shall be firmly secured with a single injection moulded dome nut. It shall be coated white on the inside to improve the efficiency of the luminaire.
- 5.7.7. A silicon sponge gasket shall be fixed into a groove to seal the top cover against the diffuser to IP65.
- 5.7.8. The spigot base shall be manufactured from high pressure die cast aluminium and powder coated for added protection in the colour specified.
- 5.7.9. The luminaire shall be secured to the pole by three M8 stainless steel grub screws.
- 5.7.10. The lamp holder shall comply with VC8011, be rated to withstand 240°C/5kV and prevent loosening of the lamp caused by vibrations.
- 5.7.11. The injection moulded non-discolouring high impact acrylic diffuser bowl shall be hexagonal in shape and shall be available in either a clear or opal version. It shall be smooth on the outside, but shall have internal prisms to reduce the direct glare component.
- 5.7.12. A drip ridge shall be provided at the bottom edge to prevent direct rain water contact with the gasket.3

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- 5.7.13. The control gear shall be incorporated inside the luminaire and mounted on a removable gear tray.
- 5.7.14. It shall be suitable for operation with the specified rating of the lamp on a 230V +3% /- 10% 50Hz single phase system.
- 5.7.15. All control gear components shall be removable and bear the relevant SABS marks. All internal wiring shall be Teflon® coated with protective sleeving to prevent damage by possible abrasion.
- 5.7.16. All screws, bolts and metal parts shall be stainless steel or of non-corrosive material.
- 5.7.17. Mains connections shall be by means of a suitable screw terminal block with a wire clamping contact. Ignitors, where applicable, shall be of the superposed pulse type.
- 5.7.18. The luminaire shall be power factor corrected to a minimum of 0,9

#### 5.8. BEKALUX

# Designed for lighting of group 'B' roads where efficiency, ease of maintenance and economy are required.

- 5.8.1. The luminaire shall consist of a lamp compartment separated for thermal reasons from the control gear compartment and be designed to operate 2 x 26 Watt compact fluorescent, 80/125 Watt mercury vapour and 70/100 Watt high pressure sodium/metal halide elliptical lamps.
- 5.8.2. The luminaire shall bear the SANS 475 mark and the SANS 60598-2-3 safety mark.
- 5.8.3. Luminaire spigot entries shall comply with SANS 1088 Table 2.
- 5.8.4. Side entry ø42mm x 125mm long.
- 5.8.5. Bottom entry ø76mm x 75mm deep.
- 5.8.6. The luminaire shall have a degree of protection that complies with SANS 60598-2-3.
- 5.8.7. Lamp compartment: IP65 Control gear compartment: IP43
- 5.8.8. The IP rating shall be certified by a SABS test report.
- 5.8.9. The housing shall be robustly constructed, weather-proof, hail-proof, corrosion proof and vandal resistant.
- 5.8.10. It shall be manufactured from filled ultra-violet stabilised engineering polymer and shall be grey in colour. The non-discolouring high-impact acrylic diffuser bowl shall have no external prisms and shall be held to the housing by three stainless steel clips.
- 5.8.11. It shall remain attached to the housing when hinged open.
- 5.8.12. The gasket sealing the lamp compartment shall be made of silicon sponge rubber and shall be fitted into a tongue and groove arrangement.
- 5.8.13. Reflectors shall be manufactured from 99,98% super pure deep anodised aluminium and shall not be subject to accidental misalignment.
- 5.8.14. The lamp holder shall comply with VC 8011, be rated to withstand 240° C and shall prevent loosening of the lamp caused by vibrations.
- 5.8.15. The control gear compartment shall be protected by a hinged non-corrosive cover and shall be accessible from underneath. Access to the control gear compartment shall be gained by loosening one captive stainless steel screw (nylon in the double insulated version).

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- 5.8.16. The control gear shall be mounted on a removable gear tray and shall be suitable for operation with the specified rating of the lamp on a 230V+3%/-10% 50 Hz single phase system.
- 5.8.17. All control gear components shall be removable and shall bear the relevant SABS mark.
- 5.8.18. All internal wiring shall be Teflon® coated with protective sleeving to prevent damage by possible abrasion. All screws, bolts and metal parts shall be stainless steel or non-corrosive material.
- 5.8.19. Mains connections shall be by means of a suitable screw terminal block with a wire clamping contact. Ignitors, where applicable, shall be of the superposed pulse type.
- 5.8.20. The luminaire shall be power factor corrected to a minimum of 0,85.

# 6. MINIATURE SUBSTATIONS (Item 5 on Pricing Schedule)

1)	CONSTRUCTION – GENERAL	
a)	Relevant Standards	SABS 1029, SABC 1030 NRS 004 (Part 1) latest revisions. Units shall bear the relevant SABS mark.
b)	Construction type	Type A (Longitudinal)
c)	Enclosure, roof, doors manufactured from:	3 mm mild steel, hot dip galvanized or 3CR12 stainless steel. All bolts, nuts, washers to be stainless steel.
d)	Doors: Hinges	Heavy-duty brass or stainless steel, pedestal type.
e)	Locking mecha- nisms	Three-point heavy duty type, constructed entirety of stainless steel, pad lockable handle. Stainless steel Allen head bolt (12mm), recessed into door to lock three point mechanisms in closed position when screwed fully home.
f)	Restraints	Door hook or stainless steel chain.
g)	Finish	Appropriate surface treatment, 125 micron coastal paint finish, final colour "Avocado", C12 to SABC 1091.
2)	HIGH VOLTAGE COMPARTMENT	
a)	Ring main Unit	Schneider/ABB
b)	Approved types	RM6-2-11kV-NEIDI35U; ABB Safe Ring CCV 11kV
c)	Cable end boxes	Suitable for heat shrink terminations
d)	Fuse Ratings	As per mini substation manufacturer recommendations.
3)	TRANSFORMER	
a)	Relevant Standard	SABS 780, latest revision
b)	Tank	Hermetically sealed, welded lid, zinc sprayed, paint finish as for miniature substation enclosure. Fins HDG
c)	Standard Ratings	200, 315, 400, 500, 630 kVA
d)	Winding material	Copper
e)	Voltage radio (centre tap)	11500/420V

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f)	Tap changer: Type Rang e	Off-load, padlockable. 0%, ±2.5%,±5%	
g)	Vector group	Dyn 11	
h)	Maximum impedance	4.5%, SANS780	
i)	Other equipment / accessories	Porcelain bushings (HV & LV); Diagram and rating plate; Oil level sight glass	
4)	LOW VOLTAGE COMPARTME	:NT	
a)	Equipment support frame and cover plates	Manufactured form 3CR12 steel, with white enamel finish, mounting facilities and blanking plates at future or spare equipment positions. Heater to be installed + Thermostat.	
b)	Busbars: Type	Predrilled tinned copper to SABS 1195	
c)	Current Rating	In accordance with transformer rating, subject to minimum of 250 mm² for phases and neutral 15 kA (min) up to 400 kVA	
d)	Fault Rating	20 kA for 500 kVA	
5)	MAIN LV CIRCUIT BREAKER:		
a)	Up to 400kVA (600A)	Heinemann L20B	
b)	500kVA (800A)	Heinemann MB 25	
6)	LV DISTRIBUTION PROTECTIVE DEVICES:		
a)	Circuit breakers	Heinemann JSO with T2 extended lug terminals and phase barriers on line and load side.	
b)	Instrumentation: current transformers	Set of three, dual ratio, connected for lower ration. Enermax Plus meter with modem (E+454000 E+EA/GSM040 MTN DATA SIM CARD) supplied via a test block.	
c)	Am meters	Set of three combined maximum demand / instantaneous indication, dual scales as per associated current transformers, size 96 mm x 96 mm	
d)	Volt meter	96mm x 96mm, Scaled 0-500V, selector switch for readings between phases and between phases and neutral, connected upstream of main circuit breaker via HRC cartridge fuse.	
7)	STREETLIGHT CONTROL EQ	UIPMENT:	
a)	Main protection:	3 x 63A HRC cartridge fuses	
b)	Metering:	1 x 3 phase kWh meter	
c)	Feeder protection:	30A single pole 5 kA circuit breaker.	
d)	Contactor:	60A three pole	
e)	Control fuse:	6A HRC	
f)	Bypass switch:	3 position rotary (ON, AUTO, OFF)	
g)	Support for cable terminations: Single switch socket outlet 16A	Hot dip galvanized K-Clamp: Controlled by E/Leakage and 20 A C/B.	

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8)	EARTHING	
a)	Earth bolts	M12 SS in HV and LV compartments, complete with nuts, two washers and locknuts.
b)	Earth bar	25mm x 6mm Copper earth bar, predrilled and at least 1000mm long, separately in HV and LV compartments.
c)	Connections	Lugged 70mm <sup>2</sup> copper connections between earth bolts and neutral and earth bars.
d)	Earth Conductor	Refer item 3.7.2
9)	LABELS AND NOTICES	
a)	External designation label	Engraved 3mm thick aluminium, 40mm lettering, filled with red paint and over baked, fixed to centre of unit on road side with non-corrosive pop rivets.
b)	Danger signs	Durable, non-corrosive "electrical flash" sign to MOS Act requirements, fitted to outside of doors with non-corrosive pop rivets.
c)	Compartment identification	Inside of doors stencilled "HV/HS" and "LV/LS" for HV and LV compartments respectively, red lettering on white background.
d)	Equipment labels: Type	Engraved Celeron or similar material, 10mm black lettering on white background, pop riveted.
e)	Typical inscriptions	"TRANSFORMER" (at fuse switch of HV ring main unit.)  "SS 41", "SS43" (at ring switches of HV ring main unit at SS 42)  "MAIN SWITCH" (at main switch in LV compartment)  'CABLE 2 – 43/5" (at feeder circuit breaker or fuse pillar of LV cable feeder no 2 to meter kiosk 43/5)
f)	Typical inscriptions - continue	"RED PHASE" (at am meter registering red (or ammeter frame of relevant colour) phase current0 "CONNECTED TO 250/5" and (on reverse) "CONNECTED TO 500/5" (at am meters to indicate applicable current ratio) "RW", "WV", "BR", "RN", "WN", "BN" (various positions of voltmeter selector indicated on escutcheon plate) "STREET LIGHTS MAIN" (at 63A HRC fuses) "VOLTMETER" (at 6A HRC street light control fuse) "ON OFF PHOTOCELL" (at bypass switch) "CABLE 8 – S/L18" (at street light circuit breaker of feeder no 8 to street light no 18)
10)	INSTALLATION REQUIREMEN	NTS
a)	Positioning	To be individually clarified by Municipality
b)	Plinth: Material	In situ cast concrete (20 Mpa at 7 days)
c)	Dimension	To miniature substation manufacturer's recommendations, to protrude 150mm above surrounding ground level and 100mm beyond base frame with 45° chamfer.
d)	Gasket	Wax-impregnated polyurethane foam strip (Sondorband or similar approved) / Malthoid 2mm thick, placed between base frame and concrete.
e)	Vermin proofing	Cable access opening below HV & LV compartments filled with clean sand and top 50mm finished with 1-:1 weak sand/cement screed after installation of all cables

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# 7. POLE MOUNTED TRANSFORMER WITH ENCLOSED LV COMPARTMENT 'PINE NUT' FOR COASTAL SPECIFICATIONS (Item 6 on Pricing Schedule)

# 7.1. POLE MOUNTED TRANSFORMER FOR COASTAL SPECIFICATIONS

POLE MOUNTED TRANSFORMERS					
Transformer Spec		Details Transformer Spec			Details
Transformer Type		SABS 780	LV Bushing Location		Side Mounted
Reference		New Design	LV Bushing Type		Porcelain
Rating	kVA	100	Cable Box HV		None
Cooling		ONan	Cable Box LV		None
Phase		3	Corrosion Protection		Zinc Spray &GalvRads
Vector Group		Dyn 11	Final Coat colour		Avocado
HV Volts	V	11500	Paint thickness	pm	125
LV Volts	V	420	Thermometer Pocket		No
Frequency	Hz	50	Surge Arrestor Brackets		Yes
Conducting material	Lv/Hv	Cu/CU	Earthing facility		Earth Boss
Impendance	%	SANS 780	Arcing Horns		No
No Load Loss	Watt	SANS 780	Jacking Pads		No
Load Loss	Watt	SANS 780	Fasteners		Stainless Steel
Tappings	%	HV ±2.5±5.0	Oil Gauge		None
Temp. Rise	Deg C	Oil/60/65	Pressure Valve		None
Ambient	Deg C	40	Valves		None
Tank Construction		Conventional Type – Welded Radiators	Rollers		None
Tank Material		Mild Steel	Thermometer (oil)		None
Tank Type		Welded Sealed	Thermometer (winding)		None
Base Type		Flat Base	Buchholz		None
HV Bushing Location		Side Mounted	Main LV Compartment	Α	None
HV Bushing Type		Porcelain	Feeders	Α	None

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# 7.2. POLE MOUNTED TRANSFORMER WITH ENCLOSED LV COMPARTMENT FOR COASTAL SPECIFICATIONS

POLE MOUNTED TRANSFORMERS					
Transformer Spec		Details Transformer Spec			Details
Transformer Type		SABS 780	LV Bushing Location		Side Mounted
Reference		New Design	LV Bushing Type		Porcelain
Rating	kVA	200	Cable Box HV		None
Cooling		ONan	Cable Box LV		Air Box with Gear (hinged door)
Phase		3	Corrosion Protection		Zinc Spray &GalvRads
Vector Group		Dyn 11	Final Coat colour		Avocado
HV Volts	V	11500	Paint thickness	pm	125
LV Volts	V	420	Thermometer Pocket		No
Frequency	Hz	50	Surge Arrestor Brackets		Yes
Conducting material	Lv/Hv	Cu/CU	Earthing facility		Earth Boss
Impendance	%	SANS 780	Arcing Horns		No
No Load Loss	Watt	SANS 780	Jacking Pads		No
Load Loss	Watt	SANS 780	Fasteners		Stainless Steel
Tappings	%	HV ±2.5±5.0	Oil Gauge		None
Temp. Rise	Deg C	Oil/60/65	Pressure Valve		None
Ambient	Deg C	40	Valves		None
Tank Construction		Conventional Type – Welded Radiators	Rollers		None
Tank Material		Mild Steel	Thermometer (oil)		None
Tank Type		Welded Sealed	Thermometer (winding)		None
Base Type		Flat Base	Buchholz		None
HV Bushing Location		Side Mounted	Main LV Compartment	Α	300
HV Bushing Type		Porcelain	Feeders	Α	3 X 150

# 8. KIOSKS (Item 7.1 to 7.3 on Pricing Schedule)

# 8.1. POLYETHYLENE KIOSK AND POLE MOUNT ENCLOSURE SPECIFICATIONS

Prospective tenders are required to submit proof of SABS "Glow Wire Test" certificate as well as an Accelerated 'UV Test Certificate" from an accredited test facility

8.1.1.Distribution Kiosks, Polyethylene: 2-Way,4-Way, 6-Way, 9-Way and 12-Way Single/Double Door Kiosks

# 8.1.1.1. Polyethylene

8.1.1.1.1. Shall be manufactured from compounded dark grey UV stabilised Linear Low Density Polyethylene (LLDPE) using rotational moulding. Such UV Polyethylene to carry a 25 year UV guarantee.

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- 8.1.1.1.2. The design of the unit to be such that all external surfaces are "rounded" to prevent buckling.
- 8.1.1.1.3. Shall be rigidly moulded and have high impact resistance and dielectric strength.
- 8.1.1.1.4. Kiosk wall thickness shall be at least 4mm throughout.
- 8.1.1.1.5. LLDPE powder used must be chemically resistant and resistant to deterioration from prolonged contact with soil and/or moisture.
- 8.1.1.1.6. Must be resistant to abrasion and heat and specifically treated with stabilising additives to provide enhanced UV breakdown resistance.
- 8.1.1.1.7. Materials used must be free from blow holes and defects.

#### 8.1.1.1.8. Frame:

- 8.1.1.1.8.1. Root must be moulded incorporating a self-supporting polyethylene equipment mounting panel, so as to decrease the likelihood of condensation.
- 8.1.1.1.8.2. The frame must contain a 19mm wooden block board inserted the whole width and length of the frame

#### 8.1.1.2. **Colouring**

All Kiosks shall be coloured "Light Grey - UV25."

# 8.1.1.3. **Doors & Hinges**

- 8.1.1.3.1. Must be manufactured from polyethylene.
- 8.1.1.3.2. Danger labels on the doors must be of the mould-in graphic type.
- 8.1.1.3.3. Doors must open at least 130 degrees with hinges being an integral part of the moulding process.
- 8.1.1.3.4. No piano hinges will be accepted.
- 8.1.1.3.5. Doors to be removable on site for ease of installation, maintenance and replacement (where necessary).
- 8.1.1.3.6. Stainless steel standard pad lockable facilities to be provided for both doors unless otherwise stated.
- 8.1.1.3.7. A polyethylene legend holder with card must be riveted to the inside of the consumer door.
- 8.1.1.3.8. All rivets, bolts, nuts, washers and set screws must be Stainless Steel.

# 8.1.1.4. Cable Termination

Galvanised heavy duty Unistrut 40 x 20mm is to be installed on both the incomer and consumer side of the kiosk, for cable termination and must be connected to the Earth and neutral bars by means of 70mm sq cable

#### 8.1.1.5. **Busbars**

- 8.1.1.5.1. All kiosks must be fitted with phase busbars, earth bars and neutral bars.
- 8.1.1.5.2. All Busbars to be high conductivity tinned copper.
- 8.1.1.5.3. Phase Busbars are to be mounted horizontally on a moulded 3Ph staggered polyethylene Busbar holder.
- 8.1.1.5.4. Phase Busbars must be capable of accommodating 3 x 300mm cables (per phase) and must be heatshrink colour coded red, white, and blue.

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- 8.1.1.5.5. A polyethylene Busbar shroud, which is enclosed on top and sides for safety, to be fitted over the phase Busbars.
- 8.1.1.5.6. The Busbar shroud is to include a mould-in graphics danger label, as well as a trafolite danger live Busbars label.
- 8.1.1.5.7. Busbars must be predrilled prior to tinning or galvanising.
- 8.1.1.5.8. Busbars must be fitted with close tolerance stainless steel bolts, nuts, spring and flat washers at all connecting points.
- 8.1.1.5.9. Neutral and Earth bars are to be fitted to the consumer side of the kiosk and must extend through to the incoming side.
- 8.1.1.5.10. No interconnecting cables will be allowed.
- 8.1.1.5.11. Earth and Neutral bars to be connected by means of 70mm wire (green), bolted to Unistrut.
- 8.1.1.5.12. Phase, neutral and earth bar shall be dimensioned as detailed in table 1.

# 8.2. POLYETHYLENE KIOSK AND POLE MOUNT ENCLOSURE SPECIFICATIONS (PEARLY BEACH)

Prospective tenders are required to submit proof of SABS "Glow Wire Test" certificate as well as an Accelerated 'UV Test Certificate" from an accredited test facility

# 8.2.1.Distribution Kiosks, Polyethylene: 2-Way,4-Way, 6-Way, 9-Way and 12-Way Single/Double Door Kiosks

#### 8.2.1.1. Polyethylene

- 8.2.1.1.1. Shall be manufactured from compounded dark grey UV stabilised Linear Low Density Polyethylene (LLDPE) using rotational moulding. Such UV Polyethylene to carry a 25 year UV guarantee.
- 8.2.1.1.2. The design of the unit to be such that all external surfaces are "rounded" to prevent buckling.
- 8.2.1.1.3. Shall be rigidly moulded and have high impact resistance and dielectric strength.
- 8.2.1.1.4. Kiosk wall thickness shall be at least 4mm throughout.
- 8.2.1.1.5. LLDPE powder used must be chemically resistant and resistant to deterioration from prolonged contact with soil and/or moisture.
- 8.2.1.1.6. Must be resistant to abrasion and heat and specifically treated with stabilising additives to provide enhanced UV breakdown resistance.
- 8.2.1.1.7. Materials used must be free from blow holes and defects.

# 8.2.1.1.8. <u>Frame</u>:

- 8.2.1.1.8.1. Root must be moulded incorporating a self-supporting polyethylene equipment mounting panel, so as to decrease the likelihood of condensation.
- 8.2.1.1.8.2. The frame must contain a 19mm wooden block board inserted the whole width and length of the frame

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# 8.2.1.2. **Colouring**

8.2.1.2.1. All Kiosks shall be coloured "Light Grey – UV25."

#### 8.2.1.3. **Doors & Hinges**

- 8.2.1.3.1. Must be manufactured from polyethylene.
- 8.2.1.3.2. Danger labels on the doors must be of the mould-in graphic type.
- 8.2.1.3.3. Doors must open at least 130 degrees with hinges being an integral part of the moulding process.
- 8.2.1.3.4. No piano hinges will be accepted.
- 8.2.1.3.5. Doors to be removable on site for ease of installation, maintenance and replacement (where necessary).
- 8.2.1.3.6. Stainless steel Grade 304, Anti vandal lock M10 left hand thread
- 8.2.1.3.7. Key anti vandal left-hand thread.
- 8.2.1.3.8. A polyethylene legend holder with card must be riveted to the inside of the consumer door.
- 8.2.1.3.9. All rivets, bolts, nuts, washers and set screws must be Stainless Steel.

#### 8.2.1.4. Cable Termination

8.2.1.4.1. Galvanised heavy duty Unistrut 40 x 20mm is to be installed on both the incomer and consumer side of the kiosk, for cable termination and must be connected to the Earth and neutral bars by means of 70mm sq cable

#### 8.2.1.5. **Busbars**

- 8.2.1.5.1. All kiosks must be fitted with phase busbars, earth bars and neutral bars.
- 8.2.1.5.2. All Busbars to be high conductivity tinned copper.
- 8.2.1.5.3. Phase Busbars are to be mounted horizontally on a moulded 3Ph staggered polyethylene Busbar holder.
- 8.2.1.5.4. Phase Busbars must be capable of accommodating 3 x 300mm cables (per phase) and must be heatshrink colour coded red, white, and blue.
- 8.2.1.5.5. A polyethylene Busbar shroud, which is enclosed on top and sides for safety, to be fitted over the phase Busbars.
- 8.2.1.5.6. The Busbar shroud is to include a mould-in graphics danger label, as well as a trafolite danger live Busbars label.
- 8.2.1.5.7. Busbars must be predrilled prior to tinning or galvanising.
- 8.2.1.5.8. Busbars must be fitted with close tolerance stainless steel bolts, nuts, spring and flat washers at all connecting points.
- 8.2.1.5.9. Neutral and Earth bars are to be fitted to the consumer side of the kiosk and must extend through to the incoming side.
- 8.2.1.5.10. No interconnecting cables will be allowed.
- 8.2.1.5.11. Earth and Neutral bars to be connected by means of 70mm wire (green), bolted to Unistrut.
- 8.2.1.5.12. Phase, neutral and earth bar shall be dimensioned as detailed in table 1:

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#### Table 1:

		Main & Neutra	l Busbars		Earth Bar
Distribution Kiosk Type	Cross Section	Pre-drilling Requirements (Excl. Mountings) (mm diameter)		Cross Section	Pre-drilling Require- ments (Excl. Mount-
	(mm)	Main Busbars	Neutral Busbar	(mm)	ings) (mm diameter)
2-Way	25 x 6 (470A)	2 x 6.5	6 x 6.5	25 x 6	6 x 6.5
Z-vvay	23 % 0 (47 0%)	2 x10.5	2 x 10.5	25 × 0	2 x 10.5
4-Way	25 x 6 (470A)	2 x 6.5	6 x 6.5	25 x 6	6 x 6.5
4-vvay	23 X 0 (470A)	2 x10.5	2 x 10.5	23 X 0	2 x 10.5
6-Way	25 x 6 (470A)	3 x 6.5	9 x 6.5	25 x 6	9 x 6.5
0-vvay	23 X 0 (470A)	3 x 10.5	3 x 10.5	25 X 0	3 x 10.5
9-Way	32 x 6 (560A)	4 x 6.5	12 x 6.5	32 x 6	12 x 6.5
9-vvay	32 X 0 (300A)	3 x 10.5	3 x 10.5	32 X 0	3 x 10.5
12-Way	40 x 6 (680)	6 x 6.5	12 x 6.5	40 x 6	12 x 6.5
12-vvay	40 X 0 (000)	3 x 10.5	3 x 10.5	40 X 0	3 x 10.5

### 8.3. POLE MOUNTED DISTRIBUTION/METERING ENCLOSURES

# 8.3.1. Polyethylene

- 8.3.1.1. Shall be manufactured from compounded dark grey UV stabilised Linear Low Density Polyethylene (LLDPE) using rotational moulding. Such UV Polyethylene to carry a 25 year UV guarantee.
- 8.3.1.2. The design of the unit to be such that all external surfaces are "rounded" to prevent buckling.
- 8.3.1.3. Shall be rigidly moulded and have high impact resistance and dielectric strength.
- 8.3.1.4. LLDPE used must be chemically resistant and resistant to deterioration from prolonged contact with soil and/or moisture.
- 8.3.1.5. Must be resistant to abrasion and heat and specifically treated with stabilising additives to provide enhanced UV breakdown resistance.
- 8.3.1.6. Materials used must be free from blow holes and defects.
- 8.3.1.7. Shall have a 19mm wooden mounting block board
- 8.3.1.8. 2 x stainless steel grade 304 pole mounting brackets shall be fitted

# 8.3.2. Colouring

All Boxes shall be coloured UV 25 "Dark Grey."

# 8.3.3. Doors & Hinges

- 8.3.3.1. Must be manufactured from polyethylene.
- 8.3.3.2. Danger labels on the door must be of the mould-in graphic type.
- 8.3.3.3. Doors must open at least 90 degrees where it can be "stay put" in the open position. Hinges will be an integral part of the moulding process.
- 8.3.3.4. No piano hinges will be accepted.
- 8.3.3.5. All rivets, bolts, nuts, washers and set screws must be Stainless Steel.

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8.3.3.6. Locking device to be manufactured from Stainless steel and shall be padlockable

# 8.3.4. Spec for: Type AP1 Pole mount enclosure.

8.3.4.1. "Neutral bar must be a 20 x 3 Insulator mounted Copper busbar

BOX SIZES					
H1 H2 W1 W2 D1 Working Depth					
490mm	450mm	490mm	450mm	220mm	180mm

# 8.3.5. Specs for: Type SMB2 polyethylene, Stainless steel pole mount brackets, one row din rail

BOX SIZES					
H1 H2 W1 W2 D1 Working Depth					
300mm	240mm	235mm	175mm	160mm	115mm

8.3.5.1.

# **Pole Mount Enclosure Dimensions**



# 9. 12 KV INDOOR AND OUTDOOR METAL-ENCLOSED RING MAIN UNITS, METERING RING MAIN UNITS AND COMPACT SWITCHGEAR (Item 8 on Pricing Schedule)

#### 9.1. SCOPE OF SPECIFICATION

This specification provides for the manufacture, testing, supply and delivery of 12 kV metalenclosed ring main units for both indoor and outdoor installation.

#### 9.2. NORMATIVE REFERENCES

- 9.2.1.The following documents contain provisions that, through reference in the text, constitute requirements of this specification. At the time of publication, the editions indicated were valid. For dated references only, the edition cited applies. For undated references, the latest edition (including amendments) applies. Information on currently valid national and international standards can be obtained from the South African Bureau of Standards.
  - 9.2.1.1. BS 7215 Separable insulated cable connector system above 1 kV and up to 36 kV
  - 9.2.1.2. EN 50181 Plug-in type bushings above 1 kV up to 36 kV and from 250 A to 1,25 kA, for equipment other than liquid filled transformers.

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	9.2.1.3.	IEC 60255-1	-	Measuring relays and protection equipment – Part 1: Common requirements		
	9.2.1.4.	IEC 60255-151	-	Measuring relays and protection equipment – Part 151: Functional requirements for over / under current protection		
	9.2.1.5.	IEC 60376	-	Specification of technical grade sulphur hexafluoride (SF6) for use in electrical equipment		
	9.2.1.6.	IEC 60787	-	Application guide for the selection of high-voltage current-limiting fuses for transformer circuit applications		
	9.2.1.7.	NRS 012	-	Cable terminations and live conductors within air insulated enclosures (insulation co-ordination) for rated A. C. voltages of 7,2kV and up to and including 36 kV.		
	9.2.1.8.	NRS 053	-	Accessories for medium-voltage power cables (3,8/6,6 kV to 19/33 kV)		
	9.2.1.9.	SANS 97	-	Electric cables - Impregnated paper-insulated metal- sheathed cables for rated voltages 3,3/3,3 kV to 19/33 kV (excluding pressure assisted cables)		
	9.2.1.10	. SANS 630	-	Decorative high gloss enamel paint for interior and exterior use		
	9.2.1.11	. SANS 780	-	Distribution transformers		
	9.2.1.12	. SANS 1091	-	National colour standards for paint		
	9.2.1.13	. SANS 1186-1	-	Symbolic safety signs Part 1: Standard signs and general requirements		
	9.2.1.14	. SANS 1507-2	-	Electrical cables with extruded solid dielectric insulation for fixed installation (300/500 V to 1 900/ 3 300) Part 2: Wiring Cables		
	9.2.1.15	. SANS 1874	-	Metal enclosed ring main units for rated ac voltages above 1 kV and up to and including 36 kV		
	9.2.1.16	. SANS 9001	-	Quality management systems - Requirements		
	9.2.1.17	. SANS 60044-1	-	Instrument transformers Part 1: Current transformers		
	9.2.1.18	. SANS 60044-2	-	Instrument transformers Part 2: Inductive voltage transformers		
	9.2.1.19	. SANS 60137	-	Insulated bushings for alternating voltages above 1 000 V		
	9.2.1.20	. SANS 60265-1	-	High-voltage switches Part 1: Switches for rated voltages above 1 kV and less than 52 kV		
	9.2.1.21	. SANS 60270	-	High-voltage test techniques - Partial discharge measurements		
	9.2.1.22	. SANS 60282-1	-	High-voltage fuses Part 1: Current limiting fuses		
	9.2.1.23	. SANS 60529	-	Degree of Protection provided by Enclosures (IP Code)		
	9.2.1.24	. SANS 60815-1	-	Selection and dimensioning of high-voltage insulators intended for use in polluted conditions Part 1: Definitions, information and general principles		
	9.2.1.25	. SANS 61238-1	-	Compression and mechanical connectors for power cables for rated voltages up to 30 kV (Um = 36 kV) Part 1: Test methods and requirements		
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9.2.1.26.	SANS 61243-5 -		ve working – Voltage detectors Part 5: Voltage detecting stems (VDS)
9.2.1.27.	SANS 62271-1 -		gh-voltage switchgear and control gear Part 1: Common ecifications
9.2.1.28.	SANS 62271-100	-	High-voltage switchgear and control gear Part 100: Alternating-current circuit-breakers
9.2.1.29.	SANS 62271-102	-	High-voltage switchgear and control-gear – Alternating current disconnectors and earthing switches
9.2.1.30.	SANS 62271-105	-	High-voltage switchgear and control-gear – Alternating current switch-fuse combinations
9.2.1.31.	SANS 62271-200	-	High-voltage switchgear and control-gear – AC metal enclosed switchgear and control-gear for voltages above 1 kV and up to and including 52 Kv
9.2.1.32.	SANS 62271-202	-	High-voltage switchgear and control-gear – High voltage / low voltage prefabricated substation

9.2.2.Tenderers offering equipment to standards other than those mentioned above might be considered provided it is clearly indicated in which respects the equipment offered does not comply and the likely consequences of such non-compliance.

#### 9.3. GENERAL

#### 9.3.1. Service Conditions

- 9.3.1.1. The equipment will be connected to a 50 Hz, three-phase system having a maximum fault level of 20 KA and a nominal voltage of 11kV.
- 9.3.1.2. Ring main units for outdoor installation shall be suitable for outdoor all-weather use at sea-level and furthermore be suitable for installation in areas classified as Pollution Level III (Heavy) in accordance with SANS 60815 due to close proximity to the sea and exposure to strong onshore winds.
- 9.3.1.3. Ring main units and compact switchgear for indoor installation shall be suitable for installation in areas classified as Pollution Level III (Heavy) in accordance with SANS 60815 due to substation switch-room locations in close proximity to the sea and with exposure to strong onshore winds.
- 9.3.1.4. The highest ambient temperature commonly experienced is 40°C and the lowest -5°C. Relative humidity varies between 20% and 90%.

#### 9.3.2.Installation Conditions

- 9.3.2.1. Ring main units for outdoor installation will be installed on a concrete plinth with suitable cut-outs for cable entry.
- 9.3.2.2. Ring main units and compact switchgear for indoor installation will be installed within brick-built substation rooms with epoxy finished cement screed concrete floors and 900 mm deep cable trenches fitted with Meranti timber or marine-ply clad glass fibre grid trench cover boards.

# 9.3.3. Compliance With Regulations

All apparatus and materials supplied shall comply with the current requirements of the Republic of South Africa's Occupational Health and Safety Act, Act 85 of 1993 as amended, and the Regulations issued there under and any regulations issued in modification or substitution thereof. In addition, they shall comply with any other requirements having the force of law to which the Municipality is subject.

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# 9.3.4. Quality, Design And Execution

- 9.3.4.1. All apparatus should comply with this Specification. Any departures from the requirements of this Specification shall be stated in the Schedules and/or in a covering letter and may be accepted at the Engineer's discretion.
- 9.3.4.2. No departure shall be implemented without the prior approval of the Engineer.
- 9.3.4.3. The equipment shall comply with the particulars and guarantees stated in the Schedules.
- 9.3.4.4. The equipment offered shall comprise the Manufacturer's standard equipment, the reliability of which has been thoroughly proven in service.
- 9.3.4.5. Only proven design and construction methods and principles will be acceptable.
- 9.3.4.6. All equipment, components and accessories shall have passed the type tests laid down in the appropriate specifications. The Tenderer shall submit with his tender copies of the results of all type tests and certificates of rating. The tests shall have been conducted by an accredited independent test laboratory and approved by the Engineer. The testing laboratory shall be accredited by a national accreditation body that is a member of the International Accreditation Cooperation. TENDERS WILL NOT BE CONSIDERED UNLESS THE REQUIRED CERTIFICATES HAVE BEEN SUBMITTED. Type tests for extensible switch panels shall include certification for an assembled switchboard including the busbar couplers or external busbars.
- 9.3.4.7. The Contractor's quality assurance system shall be approved in terms of SANS 9001. A copy of the registration certificate shall be submitted with the Tender and the number entered in the Schedules. Alternative quality assurance systems may be considered but shall be to the approval of the Engineer.
- 9.3.4.8. All materials used shall be new materials and of the best quality. The material of which each part is made shall be one of those recognised as suitable for the purpose in conservative modern practice and of a class suitable for working under the conditions specified. The variations of temperature and atmospheric conditions arising under working conditions shall not cause distortion, deterioration or the setting up of undue stresses in any part nor affect the strength and suitability of the various parts for the work which they have to perform. No welding, filling or plugging of defective parts will be permitted without the sanction in writing of the Engineer.
- 9.3.4.9. Only materials with minimum temperature ratings, in air, in accordance with SANS 62271-1 shall be acceptable and all such materials shall be non-combustible.
- 9.3.4.10. The design and execution of the Work shall incorporate every practicable precaution and provision for:-
  - 9.3.4.10.1. The safety of those who will operate and maintain the equipment.
  - 9.3.4.10.2. The satisfactory operation of the equipment under all conditions liable to be met in service, and
  - 9.3.4.10.3. To facilitate inspection, maintenance and repairs.
  - 9.3.4.10.4. Features likely to require excessive maintenance shall be carefully avoided.
  - 9.3.4.10.5. Kiosks, cubicles and similar enclosed compartments shall be adequately ventilated to restrict condensation but shall at the same time be vermin proof.

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9.3.4.10.6. Tenderers shall offer equipment of the highest possible quality to ensure highly reliable service and only proven designs will be accepted.

#### 9.4. REQUIREMENTS

### 9.4.1. Configuration

- 9.4.1.1. The ring main units shall comprise a combination of non-automatic ring main switch disconnector, switch-fuse combination tee-off and/or circuit breaker teeoff modules, as specified, connected in series by a common busbar.
- 9.4.1.2. The ring main units shall be non-extensible.
- 9.4.1.3. The compact switchgear shall comprise single module or multiple module extensible non-automatic ring main switch disconnector, switch-fuse combination, circuit breaker and/or metering modules, as specified, designed for assembly into switchboards through interconnection with insulated and screened busbar couplers or external busbars.
- 9.4.1.4. The ring main units and compact switchgear shall be supplied and type tested complete with any weather-proof kiosks, pedestals and / or raising bases necessary to comply with the requirements of this specification.

# 9.4.2.Ratings

- 9.4.2.1. Rated Voltage: The rated voltage of the ring main units and compact switchgear shall be 12 kV.
- 9.4.2.2. <u>Rated Insulation Level:</u> The rated peak lightning impulse peak withstand voltage shall be 95 kV and the rated short duration power frequency withstand voltage 28 kV.

# 9.4.2.3. Rated Normal Current

- 9.4.2.3.1. The rated normal current of the ring main switch disconnectors shall be 630 A.
- 9.4.2.3.2. The rated normal current of the switch-fuse combination tee-off and circuit breaker tee-off shall be 200 A.
- 9.4.2.3.3. The rated normal current of the busbars, including all couplers and connectors, shall be the same as the ring main switch disconnectors.
- 9.4.2.4. Rated Short-time and Peak Withstand Current: The rated short time withstand rms current shall be 20 kA for 3 seconds, and the rated peak withstand current shall be 50 kA.

# 9.4.2.5. Rated Breaking Current and Short Circuit Breaking Current

- 9.4.2.5.1. The rated breaking current of the ring main switch-disconnector and circuit breaker modules shall be in accordance with the requirements of SANS 1874.
- 9.4.2.5.2. The rated breaking current of the switch of the switch-fuse combination modules shall be 200 A, in accordance with SANS 60265-1.
- 9.4.2.5.3. The rated short circuit breaking current of the switch-fuse combination and circuit breaker tee-offs shall be 20 kA.

# 9.4.2.6. Rated Short Circuit Making Current

9.4.2.6.1. The rated short circuit making current of the ring main switch disconnectors, switch-fuse combination tee-offs, circuit breaker tee-offs and earthing switches shall be 50kA.

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#### 9.4.3.Internal Arc Classification

- 9.4.3.1. Ring main units for outdoor installation shall have a minimum internal arc classification of IAC AB 20 kA 0,5 s, in accordance with the requirements of SANS62271 202. This rating shall apply to the complete ring main unit, including cable termination enclosures, and its weather-proof kiosk, as installed.
- 9.4.3.2. Ring main units and compact switchgear for indoor installation shall have a minimum internal arc classification of IAC AFL 20 kA 0,5 s, in accordance with the requirements of SANS 62271-200. This rating shall apply to the complete ring main unit or assembled compact switchgear switchboard, including cable termination enclosures and any necessary pedestals or raising bases, as installed.
- 9.4.3.3. Tenderers shall provide detailed information with their tenders covering the installation requirements necessary to ensure compliance with the IAC rating of the ring main units and compact switchgear. This shall include requirements for fixing of the ring main unit or its weather-proof kiosk to the floor or plinth, details of minimum wall and roof clearances for indoor installations and details of any restrictions or prohibited access zones necessary in the vicinity of the ring main unit.

#### 9.5. GENERAL REQUIREMENTS

#### 9.5.1. Design and Construction of Switchgear

- 9.5.1.1. The ring main units and compact switchgear shall comply with the requirements of SANS 1874 and SANS 62271-200 and shall be of fixed pattern design.
- 9.5.1.2. All primary components of the equipment shall be made and assembled by the same Manufacturer.
- 9.5.1.3. Only units with proven service history shall be considered.
- 9.5.1.4. All switching devices shall be operable from the front of the unit.
- 9.5.1.5. The ring main units and compact switchgear shall be provided with lifting eyes with a minimum diameter of 30 mm for lifting or slinging.

#### 9.5.2.Insulating/Interrupting Medium

- 9.5.2.1. The ring main units and compact switchgear shall be SF6 insulated.
- 9.5.2.2. Only new SF6 gas complying with the requirements of IEC 60376 shall be used.
- 9.5.2.3. The gas-insulated switch compartments of the switchgear shall be factory sealed for life for a minimum maintenance-free lifespan of 30 years.
- 9.5.2.4. The ring main units and compact switchgear shall not require routine gas replenishment during normal service.
- 9.5.2.5. The manufacturer of the ring main units and compact switchgear shall provide full details of the programme for safe recovery of SF6 gas after their service life.
- 9.5.2.6. The cartridge fuses on switch-fuse combination modules shall be air insulated.
- 9.5.2.7. The interrupting medium for the switch disconnectors, switch fuse combination disconnectors and circuit breakers shall be SF6 gas or vacuum, and shall be detailed in the Schedules.

# 9.5.3. Monitoring Facility for Insulating Medium

An SF6 gas monitoring gauge shall be provided to indicate safe and unsafe gas pressure and shall be visible from the front panel.

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# 9.5.4. Degree of Protection

- 9.5.4.1. The degree of protection of the weather-proof kiosk for ring main units for out-door installations shall be a minimum of IP 44, in accordance with SANS 60529.
- 9.5.4.2. The degree of protection of all accessible enclosures and compartments of the ring main units and compact switchgear shall be a minimum of IP 4X, in accordance with SANS 60529, applicable when all doors are closed.

#### 9.5.5. Accessibility of Compartments

- 9.5.5.1. The ring main unit and compact switchgear gas-insulated switch compartment shall be a non-accessible compartment in accordance with SANS 62271-200.
- 9.5.5.2. The ring main unit and compact switchgear air-insulated fuse compartment, where applicable, shall be an interlock-controlled accessible compartment in accordance with SANS 62271-200.
- 9.5.5.3. The compact switchgear air-insulated metering module shall be an interlock-controlled accessible compartment in accordance with SANS 62271-200.
- 9.5.5.4. The ring main unit and compact switchgear cable termination boxes shall be interlock-controlled accessible compartments in accordance with SANS 62271-200.
- 9.5.5.5. The ring main unit and compact switchgear cable test facility compartments, where applicable, shall be interlock-controlled accessible compartments in accordance with SANS 62271-200.

#### 9.5.6. Partition Class

The ring main units and compact switchgear shall be of Partition Class PM in accordance with SANS 62271-200, with earthed metallic partitions between live compartments.

#### 9.5.7. Service Continuity Category

The ring main units and compact switchgear shall be Loss of Service Continuity (LSC) category LSC1 in accordance with SANS 62271-200.

#### 9.5.8. Cable Test Facilities

- 9.5.8.1. Integral cable test facilities that do not require access to the cable boxes or removal of the separable connectors of the cable termination shall be provided on the ring main switch disconnector modules for the application of test voltages to the associated circuit of up to 19 kV DC or 13 kV AC to earth.
- 9.5.8.2. Where provided for by the particular switchgear design, integral cable test facilities that do not require access to the cable boxes or removal of the separable connectors of the cable termination shall also be provided on the switch-fuse combination modules and circuit breaker modules.
- 9.5.8.3. The cable test facilities shall not require the use of any loose test plugs or prods and shall be accessible from the front of the ring main unit and compact switchgear.
- 9.5.8.4. Access to cable test facilities shall be interlock-controlled to ensure that the test facilities shall only be accessible when the associated earth switch is in the EARTH position, and the cable test facility access shall be capable of being padlocked.
- 9.5.8.5. The internal arc classification of the ring main unit and compact switchgear pertaining to other live compartments or switch modules shall be maintained while the cable test facilities on any particular switch module are accessed.

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9.5.8.6. Phase colours and warning notices shall be permanently marked on test terminals, to approval.

# 9.5.9. Cable Earthing Facilities

- 9.5.9.1. The ring main switch disconnector, switch-fuse combination tee-off and circuit breaker tee-off modules shall each be fitted with an integral cable earthing switch that complies with the requirements of SANS 62271-102 and SANS 62271-200.
- 9.5.9.2. Cable earthing facilities which require the use of loose equipment or attachments shall not be acceptable.
  - 9.5.9.3. Earthing facilities on the switch-fuse combination modules shall earth both sides of the fuse link.

#### 9.5.10. Cable Live Indication

- 9.5.10.1. A three phase voltage detection system (VDS) suitable for the detection and indication of presence and absence of operating voltage and complying with the requirements of SANS 61243-5 shall be provided on all switching devices on the ring main units and compact switchgear.
- 9.5.10.2. The VDS system shall provide permanent VDS indication and shall provide for electrical phasing between modules on the ring main units and compact switch-gear through the use of universal phase comparators (UPCs).
- 9.5.10.3. All capacitive dividers utilised for live circuit indication shall have been type tested, shall have proven in-service performance history in harsh coastal environments, and shall be individually tested for partial discharge in accordance with the requirements of SANS 60270.

# 9.5.11. Mechanism Locking Facilities

- 9.5.11.1. Each ring main switch disconnector, switch-fuse combination tee-off and circuit breaker tee-off shall be capable of being padlocked in the ON position, the OFF position and the EARTH position in accordance with SANS 1874.
- 9.5.11.2. Each push button for operation of the ring main unit (e.g. Trip / close push buttons on switch-fuse combination tee-off and circuit breaker tee-off) shall be fitted with a pad lockable metal cover to prevent unauthorized operation.
- 9.5.11.3. The operating control locking facilities shall be designed to be locked with minipadlocks with 4 mm shackles.

# 9.5.12. General Interlocks

Positive mechanical interlocking shall be provided on the ring main units operating mechanisms in accordance with SANS 1874.

# 9.5.13. RMU Rating Plate

The ring main units and compact switchgear shall be fitted with rating plates complying with the requirements of SANS 1874.

#### 9.5.14. Marking and Labelling

- 9.5.14.1. The ring main units and compact switchgear shall have markings and labeling as specified in SANS 1874.
- 9.5.14.2. Single line operating diagrams shall be clearly marked on the front panel of the units.
- 9.5.14.3. All apparatus and interlocks shall be clearly labeled indicating their purpose, function and operating procedure.

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- 9.5.14.4. All main circuit bushings and test contacts shall be legibly and indelibly marked with the appropriate phase designation assigned to that terminal. The markings shall be one of L1, L2 or L3, as appropriate.
- 9.5.14.5. The material, method of printing and method of fixing of all labels shall be to the approval of the Engineer. Mechanical methods of fixing are preferred.
- 9.5.14.6. Paper stick-on labels shall not be acceptable.
- 9.5.14.7. The total mass of the unit (in kilograms) shall be marked on its side or rear. In the case of ring main units for outdoor installation the total mass of the ring main unit and kiosk assembly shall be stenciled on the side of the kiosk in white lettering with a minimum font size of 50 mm (e.g. "TOTAL MASS: 500 kg").
- 9.5.14.8. A metallic corrosion-resistant 150 mm x 150 mm Type WW7 warning sign in accordance with SANS 1186 shall be permanently attached to the outside of the weather-proof kiosk doors and also each cable termination compartment cover or door. If pop-rivets are used, only stainless steel blind pop rivets will be acceptable.
- 9.5.14.9. Where the ring main unit or compact switchgear supplier is not the manufacturer, the supplier shall provide and affix in an approved position a label detailing the supplier's name or trade mark.

# 9.5.15. Earthing

- 9.5.15.1. The ring main units and compact switchgear shall be provided with earth connection terminals and tinned copper earth bars complying with the requirements of SANS 1874.
- 9.5.15.2. The earth connection terminal for each metal enclosure and the main tank shall be suitable for the maximum earth fault current specified in Clause 3 of the specification, and shall be of size M12.
- 9.5.15.3. Two stainless steel nuts and washers shall be provided on each earth connection terminal.
- 9.5.15.4. All earth bars shall be bonded together providing electrical continuity. All bonding conductors used to interconnect the separate earth bars shall be copper and have a cross sectional area not less than that of the ring main unit earth bar.
- 9.5.15.5. A minimum of 4 holes diameter suitable for an M12 bolt shall be provided in the earth bar for earth connections.
- 9.5.15.6. Any earth bars external to the cable termination compartments shall be shrouded or covered in an approved manner to remove them from view and inhibit unauthorized access so as to minimize the possibility of theft.

#### 9.5.16. Painting and Protection against Corrosion

- 9.5.16.1. The ring main units and compact switchgear shall be painted and protected against corrosion in accordance with the requirements of SANS 1874.
- 9.5.16.2. The gas-insulated switch compartment shall be constructed from stainless steel.
- 9.5.16.3. All other sheet steel work shall comprise an approved corrosion resistant metal.
- 9.5.16.4. All external nuts and bolts shall be manufactured from stainless steel. Care shall be taken to ensure that nuts and bolts are not over tightened such that the threads are damaged and the nuts and bolts cannot be loosened and/or retightened.

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#### 9.6. SWITCH DISCONNECTOR MODULES

#### 9.6.1.General

- 9.6.1.1. Each switch disconnector shall be a three pole switch that complies with the requirements for general purpose switches of SANS 60265-1.
- 9.6.1.2. Switch disconnectors shall be at least Class E2 M1 in accordance with SANS 60265-1.

#### 9.6.2. Operation

The operating mechanism of switch disconnectors shall provide independent manual closing and opening.

# 9.7. SWITCH-FUSE COMBINATION MODULES

#### 9.7.1.General

- 9.7.1.1. Each switch-fuse combination shall be a three phase unit that complies with the requirements of SANS 62271-105 and SANS 1874.
- 9.7.1.2. Where fuse links are housed in a free breathing enclosure there shall be a minimum specific creepage of 25 mm/kV for any creepage paths between live terminals and earthed metal work.
- 9.7.1.3. The switch-fuse combination shall be capable of supplying a transformer of 1 600 kVA rating.

#### 9.7.2. Fuse-Links

- 9.7.2.1. Fuse links utilized with the ring main units and compact switchgear shall be 12 kV current-limiting HRC striker pin fuses complying with SANS 60282-1 Type I.
- 9.7.2.2. Fuse-link enclosures shall comply with the requirements of SANS 1874.
- 9.7.2.3. Full details of recommended fuse types shall be provided with the tender, including all full technical characteristics and tolerances for striker pin energy class and travel.
- 9.7.2.4. The preferred fuse-links for switch-fuse combination modules shall be DIN type fuses of length 442 mm.
- 9.7.2.5. The fuse-links will be supplied by others.

# 9.7.3. Fuse Compartment Interlocks

Mechanical interlocks preventing access to the fuse compartment and interlocks on the operating mechanism of the switch fuse combination tee-off shall comply with the requirements of SANS 1874.

# 9.7.4. Operating Mechanism

The operating mechanism of the switch-fuse combinations shall provide independent manual closing and stored energy tripping.

# 9.8. CIRCUIT BREAKER MODULES

# 9.8.1.General

- 9.8.1.1. Circuit breakers shall be three pole devices complying with the requirements of SANS 62271-100 and SANS 1874.
- 9.8.1.2. Circuit breakers shall be Class C2 E2 M1 in accordance with SANS 62271-100.
- 9.8.1.3. The rated operating sequence of the circuit breakers shall be O t CO t CO where t equals 3 minutes, in accordance with SANS 62271-100.

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9.8.1.4. The first-pole-to-clear factor shall be 1.5 in accordance with SANS 62271-100.

#### 9.8.2. Operation

- 9.8.2.1. The operating mechanism of the circuit breakers shall provide independent manual closing and stored energy tripping.
- 9.8.2.2. Circuit breakers shall have a trip-free mechanical switching mechanism.

#### 9.8.3. Protection

- 9.8.3.1. The circuit breaker modules shall each be fitted with the standard self-powered protection relay, installed and wired complete for service, as specified in 4.7.4 below.
- 9.8.3.2. The circuit breaker modules shall each be fitted with ring core current transformers rated for the protective relay offered, or alternatively shall be fitted with current sensors incorporated within the type C cable bushings and suitable for the protective relay offered.

# 9.8.4. Protection Relay (Standard)

- 9.8.4.1. The protection relays shall provide both over-current and earth fault functions with definite time, normal inverse time, very inverse time and extremely inverse time protection characteristics in accordance with IEC 60255-151.
- 9.8.4.2. Protection relays shall be housed within the standard fascia of the ring main units or compact switchgear and shall not require a separate relay compartment.
- 9.8.4.3. The protection relay installation on the ring main unit or compact switchgear fascia shall have a minimum IP rating of IP54 and shall be fully protected against the effects of rain during switching operations. Relays that do not have a minimum intrinsic IP54 rating shall be provided with a gasketted removable transparent cover and / or housing and any other measures necessary to raise the IP rating as specified and provide appropriate weather protection.
- 9.8.4.4. Protection relays shall be fitted with clearly visible indicators identifying when a relay initiated circuit breaker trip has commenced timing or has occurred, and identifying the specific cause of the trip.
- 9.8.4.5. Protection operation indicators shall continue to indicate for a minimum of 12 hours after closing of the trip contacts, and shall be manually resettable without the need to re-energize the ring main unit on load.
- 9.8.4.6. Protective relays fitted with an HMI for fault indication shall have battery backup to maintain indication and functionality while the ring main unit is deenergized or the circuit breaker open.
- 9.8.4.7. Protection relay back-up batteries shall be maintenance free, shall have a minimum service life of 10 years, shall be easily replaceable by the user, and shall be of a standard commercially available type. Proprietary battery types unique to the relay type or manufacturer shall not be acceptable.
- 9.8.4.8. The over-current pick-up setting range for relays utilizing current transformers shall be selectable from 20% to a minimum of 100% of the nominal relay rating in steps of not greater than 10%.
- 9.8.4.9. The over-current pick-up setting range for relays utilizing current sensors shall be selectable from 10 A to 200 A (primary) in steps of not greater than 10 A. The full selection shall preferably be available in a single range, but failing that, in a maximum of two separate ranges which are either hard-wired or selectable on the relay's fascia.

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- 9.8.4.10. The earth fault pick-up setting range for relays utilizing current transformers shall be selectable from 10% to a minimum of 100% of the nominal relay rating in steps of not greater than 5%.
- 9.8.4.11. The earth fault pick-up setting range for relays utilizing current sensors shall be selectable from 5 A to a minimum of 100 A (primary) in steps of not greater than 10 A. The full selection shall preferably be available in a single range, but failing that, in a maximum of two separate ranges which are either hard-wired or selectable on the relay's fascia.
- 9.8.4.12. The protection relay IDMTL over-current and earth fault characteristics shall have a minimum operating time setting of 0,1 s or better and steps of 0,1 s or better (at 10x relay setting on the normal inverse characteristic).
- 9.8.4.13. The protection relay Definite Time over-current and earth fault characteristics shall have time delay settings selectable from instantaneous to at least 1 s in steps of 0,1 s or better.

#### 9.8.5. Protection Relay (Alternative)

- 9.8.5.1. Tenderers shall provide a price where detailed in the Pricing Schedule for an alternative protection relay as specified below.
- 9.8.5.2. The tender price for the alternative protection relay shall be based upon the relay being factory fitted in place of the standard protection relay provided for in the tender price for each item, and as such shall reflect the price differential between the standard protection relay (supplied and installed, complete) and the alternative protection relay (supplied and installed, complete).
- 9.8.5.3. The alternative protection relay shall be self-powered and shall be specified as detailed for the standard protection relay above, with the following exceptions:
  - 9.8.5.3.1. The relay shall be fitted with a battery powered HMI.
  - 9.8.5.3.2. The HMI shall provide a digital display with a detailed event recording and fault history buffer. This shall record a minimum of two fault events or disturbances.
  - 9.8.5.3.3. The relay shall provide load current indication per phase.
  - 9.8.5.3.4. The relay shall provide separate protection operation indication for each phase and for earth faults.
  - 9.8.5.3.5. The relay shall be housed within the standard fascia of the ring main units or compact switchgear and shall not require a separate relay compartment

#### 9.8.6. Protection Current Transformers / Sensors

- 9.8.6.1. Current transformers shall comply with the requirements of SANS 60044-1.
- 9.8.6.2. Current transformers shall preferably be of ratio 200/1 A and of class 10P10 with a rated burden of 2,5 VA. This notwithstanding, CTs shall be of design and rating suitable for the protective relay offered and appropriate for the circuit breaker module rating.
- 9.8.6.3. Full details of the protection relay and current transformers or current sensors shall be provided with the tender.

# 9.8.7. Protection Wiring and Testing Facilities

9.8.7.1. All wiring to the protection relay (e.g. From CTs) shall be terminated onto a terminal block situated in the circuit breaker module of the ring main unit.

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- 9.8.7.2. The terminal block shall be easily accessible from the front of the ring main unit, without the need to operate the ring main unit in order to gain access.
- 9.8.7.3. The protection relay shall be provided with a dry (potential-free) trip output contact for relay testing purposes which shall be wired to the terminal block.

#### 9.9. METERING MODULES

#### 9.9.1.General

- 9.9.1.1. The metering module shall comprise an air insulated metering cubicle fitted with busbars, busbar extension bushings, metering current transformers, metering voltage transformers, fuses and LV equipment as specified, and designed for assembly into an MV compact switchgear switchboard.
- 9.9.1.2. The metering module shall be rated as specified for the compact extensible switchgear modules.
- 9.9.1.3. The metering module shall have an internal arc classification as specified for the compact switchgear for indoor installation.
- 9.9.1.4. The metering module shall be fitted with an LV compartment equipped with such terminal blocks, test blocks, LV fuses and links, phase indicators and other fittings as are required.
- 9.9.1.5. The metering module shall be fitted with suitable facilities for termination of multi-core cabling for connection to a remote metering cubicle, either directly into the LV compartment or into an approved multi-core cable termination box. Cable access to the LV compartment or termination box shall be from the main cable trench via a suitable multi-core wire-way and gland-plate separate from the MV compartment, to approval, or shall be via a glanded termination from above.
- 9.9.1.6. The metering module metering compartment door shall be fitted with approved interlocks to prevent the opening of the door while the compartment is live.
- 9.9.1.7. The metering compartment shall be designed to facilitate the easy removal and replacement of one or more of the CTs or VTs without the need to remove adjacent CTs or VTs. The replacement of a CT or VT shall not require adjacent chambers of the same panel to be disturbed.

#### 9.9.2.Meters

- 9.9.2.1. The meters to be utilised for metering shall be of the electronic type, class 0.5 accuracy class, on real power and compliant with the Overstrand Municipality's metering code for billing meters and plug ancillary devices.
- 9.9.2.2. Meters will be provided and mounted in separate remote cubicle by others.

#### 9.9.3. Metering Current Transformers

- 9.9.3.1. The metering module shall be fitted with dual ratio metering current transformers for each phase.
- 9.9.3.2. The CTs shall comply with the requirements of SANS 60044-1.
- 9.9.3.3. The CTs shall be dual ratio 100/50/5 A.
- 9.9.3.4. The CTs shall be rated for a burden of 10 VA on each ratio.
- 9.9.3.5. The CT accuracy class on each ratio shall be Class 0,5.
- 9.9.3.6. The CTs shall have a rated short-time thermal current (Ith) equal to the rated short time withstand rms current for the assembled metering unit.

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- 9.9.3.7. The CT star point shall be earthed via a solid link situated in the LV compartment of the metering unit.
- 9.9.3.8. The CT secondary terminals shall be wired to an approved test block with integral shorting facilities in the LV compartment which shall be easily accessible for the purpose of setting the CT ratios to full or half.
- 9.9.3.9. A set of wiring schematics (engraved on metal) must be installed LV compartment for ease of showing the details of the CT, wiring connections and specifications.

# 9.9.4. Metering Voltage Transformers

- 9.9.4.1. Voltage transformers shall comply with the requirements of SANS 60044-2.
- 9.9.4.2. The voltage transformers shall be three phase unearthed voltage transformers (UVTs) with the primary star point fully insulated, or shall be single phase VTs.
- 9.9.4.3. The VTs shall have a standard ratio of 11 000/110 V (3 phase UVTs) or  $11000/\sqrt{3}$  /  $110/\sqrt{3}$  (single phase EVTs).
- 9.9.4.4. The VTs shall be rated for a burden of 25 VA per phase.
- 9.9.4.5. The VTs shall be of Class 0.5, but shall have this accuracy maintained over an extended range from 0% to 100% of rated burden.
- 9.9.4.6. The VTs shall be discharge free and shall have a minimum voltage factor of 1,2 continuous and 1.9 for 30 s.
- 9.9.4.7. The VTs shall have a short circuit withstand capability in accordance with SANS 60044-2.
- 9.9.4.8. Particular attention shall be given to ensuring that saturation or un-damped Ferro-resonant oscillations do not occur during all foreseeable system conditions, and where required to fulfil this requirement tertiary (or residual) windings shall be provided and connected as an open delta winding with suitable protective circuitry. Such circuitry shall also make provision for VT earth fault conditions
- 9.9.4.9. The VTs shall be fitted with fuses on both the HV and LV sides.
- 9.9.4.10. The fuses on the MV side shall be fitted on each phase and shall be easily accessible when the metering compartment door is open.
- 9.9.4.11. The red and blue phases of the VTs shall be fitted with fuses on the LV side. The white phase of the VT shall be fitted with a solid link on the LV side and shall be earthed on the VT side of the solid link, for the default 3-ph 3-w system configuration.
- 9.9.4.12. The LV fuses, solid link, earth connection and LV star point termination shall be situated in the LV compartment of the metering module. The LV star point connection shall not be earthed.
- 9.9.4.13. The secondary circuits of the voltage transformers shall be brought out to an approved test block without integral shorting facilities.
- 9.9.4.14. The voltage transformer secondary circuits shall be complete with one end terminated to the star point.
- 9.9.4.15. In the event that the voltage transformers offered have an output greater than that specified, they shall have an accuracy class at least equal to that specified over the full output range.
- 9.9.4.16. Voltage transformers shall be guaranteed for a period of no less than 1 year.

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# 9.9.5.Low Voltage Compartment

- 9.9.5.1. The metering unit shall be fitted with a low voltage compartment equipped with such terminal blocks, test blocks, LV fuses and links, phase indicators and other fittings as are required.
- 9.9.5.2. The LV compartment shall be fitted with a hinged door which shall be provided with an approved locking mechanism with padlock facilities (shackle diameter 10 mm).
- 9.9.5.3. The door shall be earthed to the LV compartment wall adjacent to the hinge by means of an approved earth strap, and shall be fitted with a separate mechanism to prevent the over swing of the door when opening and to secure the door in an open position.
- 9.9.5.4. Where LV multi-core cabling will be terminated directly into the LV compartment the LV compartment shall be fitted with an undrilled gland plate suitable for terminating a PVC insulated, armoured, 12 core 2,5 mm2, multi-core cable.
- 9.9.5.5. Terminal blocks and test blocks fitted in the LV compartment shall be of the Crompton Parkinson type, or equivalent to the Engineers approval.
- 9.9.5.6. The LV compartment shall be fitted with neon indication lamps for VT Live indication.
- 9.9.5.7. The secondary wiring layout within the LV compartment shall be suitable for both a 3-ph 3-w system and a 3-ph 4-w system configuration, in accordance with Drawing No SK 5178 Sheet 3 (Attached). The default configuration shall be for a 3-ph 3-w system.
- 9.9.5.8. All secondary wiring shall be colour-coded and shall be brought out, via fuses where applicable, to the metering test block situated in the LV compartment of the metering unit.
- 9.9.5.9. All CT and VT secondary side earth connections shall be made within the LV compartment as detailed on drawing SK 5178 Sheet 3, and not within the metering compartment.
- 9.9.5.10. All secondary wiring shall be of 2,5 mm2 PVC copper wire.
- 9.9.5.11. The LV compartment shall be provided with an MV and LV wiring and connection schematic diagram which shall be affixed to the inside of the compartment door.

# 9.9.6.Busbars

#### 9.9.6.1. General

- 9.9.6.1.1. The busbars for ring main units shall be entirely incorporated within the gas-insulated switch compartment, and shall be non-extensible.
- 9.9.6.1.2. The busbars for single and dual module compact switchgear shall be extensible at both sides of the module.
- 9.9.6.1.3. Busbar extension shall be achieved through the use of busbar coupler inserts, or through the use of external busbars.
- 9.9.6.1.4. Busbar connections, whether by busbar couplers or external busbars, shall be fully sealed to preclude ingress of moisture and shall be maintenance free for the service life of the switchgear.
- 9.9.6.1.5. Full design and installation details for the busbar connections shall be provided with the tender documentation.

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#### 9.9.6.2. Busbar Couplers

- 9.9.6.2.1. Busbar couplers shall be fully insulated, screened and stress controlled.
- 9.9.6.2.2. Busbar couplers shall be designed and tested to provide a tight dielectric seal and to fully preclude the possibility of air voids and partial discharges once assembled.
- 9.9.6.2.3. The busbar coupler design shall provide for variations in distance and alignment between adjacent panels, and shall be suitable for user installation.

# 9.9.6.3. <u>Busbar Blanking Plugs</u>

- 9.9.6.3.1. Busbar blanking plugs and metal blanking cover plates shall be provided for sealing busbars at the switchboard end.
- 9.9.6.3.2. Busbar blanking plugs shall be fully insulated and stress controlled.
- 9.9.6.3.3. Busbar blanking plugs shall be designed and tested to provide a tight dielectric seal and to fully preclude the possibility of air voids and partial discharges once assembled.
- 9.9.6.3.4. Busbar blanking plugs shall preclude ingress of moisture and shall be maintenance free for the service life of the switchgear.

#### 9.9.6.4. External Busbars

- 9.9.6.4.1. External busbars shall be fully insulated, screened and stress controlled.
- 9.9.6.4.2. Bushings on compact switchgear for connection to external busbars shall be Type C bushings complying fully with the requirements for MV cable bushings specified below.
- 9.9.6.4.3. External busbars shall be provided with provided with blanking plugs for sealing the busbars at the switchboard end. Such blanking plugs shall be firmly and securely fitted in place and shall comply with the specific requirements stated in section 4.8.3 above.
- 9.9.6.4.4. The compact switchgear shall be provided with protective covers to shroud the external busbars on all sides.

#### 9.10. CABLE TERMINATION ENCLOSURES, TERMINATIONS AND BUSHINGS

# 9.10.1. Cable Termination Enclosures and Terminations

- 9.10.1.1. The ring main units shall be fitted with air filled cable termination enclosures complying with NRS 012.
- 9.10.1.2. The cable termination enclosures shall be suitable for termination of three core impregnated paper insulated 11 kV cables of up to 120 mm2 with dry type cable terminations complying with NRS 053 (95 kV BIL). All 12 kV cables will be provided, installed and terminated by others.
- 9.10.1.3. The cable termination enclosures shall be suitable for Type 2 shrouded and Type 3 unscreened separable connector terminations in accordance with NRS 012.
- 9.10.1.4. The height of the cable termination enclosures for switch disconnector and switch-fuse combination tee-off modules shall be a minimum of 650 mm, measured from the centre line of the cable bushings to the gland plate or cable support clamp, in accordance with NRS 012.
- 9.10.1.5. Cable termination enclosures with cable bushings at staggered heights will not be accepted.

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- 9.10.1.6. Where ring core current transformers are required for the circuit breaker teeoff modules, the height of the cable termination enclosures shall be a minimum of 800 mm, measured from the centre line of the cable bushings to the gland plate or cable support clamp, in accordance with NRS 012.
- 9.10.1.7. Where a pedestal or raising base is required in order to achieve the dimensions indicated in 4.10.1.4 & 5 above, this pedestal or raising base shall comply fully with the requirements of this specification.
- 9.10.1.8. Any ring core current transformers required for the circuit breaker tee-off modules shall be fitted within the enclosure in such a way that they can be easily removed while the cable termination is in progress and easily re-fitted when the cable termination is being mounted in place within the enclosure.
- 9.10.1.9. The current transformers shall be mounted such that they are positioned over the screened portion of the three core 11 kV PILC cable termination, but provide sufficient clearance for core crossings below the current transformers.
- 9.10.1.10. The cable termination enclosures shall be fitted with internal arc rated removable covers in accordance with the internal arc classification of the ring main unit.
- 9.10.1.11. Any breathing and/or drain vents in the cable termination enclosures necessary to prevent condensation or facilitate draining shall be suitably vermin proofed.

# 9.10.2. Cable Clamping and Gland Plate

- 9.10.2.1. Each cable termination enclosure shall be provided with a cable support clamp suitable for clamping of 35 mm2 120 mm2 PILC DSTA cable, and complying with the requirements of NRS 012.
- 9.10.2.2. The cable clamp shall be positioned in the cable termination enclosure or in the pedestal or raising base, as required in order to comply with the specified height, and shall be so designed that the cable is firmly secured but that no stress due to bending is placed on the cable when terminated. Any other arrangements for securing of the cables shall be subject to the Engineer's approval.
- 9.10.2.3. The cable termination enclosure or the pedestal or raising base (where present) on ring main units and compact switchgear for indoor installation shall be provided with a steel gland plate in accordance with the requirements of SANS 1874 which shall be designed and tested to withstand the pressure rise associated with an internal arc fault and to cause the arc energy to be directed through the pressure relief facilities provided. Such gland plate shall prevent the purging of overpressure and arc flash associated with an arcing fault into the cable trench.
- 9.10.2.4. The gland plate shall be suitable for assembly around the cable after making-off of the cable termination and shall not require disassembly or removal of the front side of the cable termination compartment or raising base. The gland plate shall be provided with a rubber grommet to ensure a tight seal between the gland plate and cable.
- 9.10.2.5. Alternative gland plate and cable seal designs shall be to the Engineer's approval.

#### 9.10.3. Cable Bushings

9.10.3.1. Cable bushings on all modules shall be Type C bushings complying with EN 50181.

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- 9.10.3.2. The bushings shall have an 'M16 x 2' thread and be suitable for the use of unscreened separable connectors. The USC in use at the time of preparation of this specification was the Raychem RICS 5123.
- 9.10.3.3. The bushings shall be fitted with M12 stainless steel reducing stems and M12 nut, washer and spring washers.
- 9.10.3.4. The bushings shall be manufactured and tested in accordance with SANS 60137. In addition to the voltage test specified in SANS 60137 the bushings shall be partial discharge tested in accordance with the requirements of SANS 60270. The magnitude of the discharge shall not be greater than 5 pC.
- 9.10.3.5. The surface of the bushings shall be smooth and free from blemishes and patches or fillings.
- 9.10.3.6. The bushings shall be made from insulating material to the approval of the Engineer. Dough moulded compound cable bushings are not acceptable.

#### 9.10.4. Pedestal or Raising Base (for Indoor Ring Main Units and Compact Switchgear)

- 9.10.4.1. Where a pedestal or raising base is required in order to achieve the specified cable box dimensions or to allow adequate bending radii for the MV cables on indoor ring main units and compact switchgear, this pedestal or raising base shall be supplied as a fully assembled part of the ring main unit.
- 9.10.4.2. The pedestal or raising base dimensions shall comply with the ring main unit or compact switchgear footprint dimensions.
- 9.10.4.3. The pedestal or raising base shall be rigid, robust and completely self-supporting.
- 9.10.4.4. The ring main unit and compact switchgear shall comply fully with the internal arc classification requirements of this specification with the pedestal or raising base fitted, and shall have been successfully type tested accordingly.
- 9.10.4.5. Provision shall be made for bolting of the pedestal or raising base to a concrete floor as necessary in order to provide for a safe installation and to comply with the ring main unit internal arc classification.
- 9.10.4.6. Flanges that are provided for the fitting of holding-down set screws shall be of a minimum of 5 mm thick steel or alternatively be reinforced to prevent bending during transportation, handling and installation.

# 9.10.5. Earth Fault Indication Equipment

- 9.10.5.1. One set of approved earth fault indication equipment comprising a split core current transformer and a self-powered control and indicating unit shall be provided with each ring main unit.
- 9.10.5.2. The control and indicating unit shall provide for manual resetting, with an automatic self-resetting facility with selectable time delay.
- 9.10.5.3. The sensitivity of this equipment shall be such that a current imbalance less than 50 A but not less than 25 A will operate the relay.
- 9.10.5.4. Only equipment proven on 12 kV systems will be considered. Full details of the earth fault indication equipment offered are to be submitted with the tender.
- 9.10.5.5. The control and indicating unit shall be mounted on the ring main unit such that it is clearly visible and accessible to the operator from the operating side

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- (i.e. front) of the ring main unit (with the enclosure doors open in the case of ring main units for outdoor installation).
- 9.10.5.6. The earth fault indicator current sensor shall be wired to and temporarily secured onto the cable support clamp fitted in the left hand side switch disconnector cable termination enclosure (when viewed from the front of the ring main unit).
- 9.10.5.7. All wiring between the control and indicating unit and the current sensor shall be routed behind the front fascia of the ring main unit.
- 9.10.5.8. For ring main units for outdoor installation, the earth fault indication equipment shall in addition be supplied with a remote indicator which shall be mounted on the outside of the enclosure in such a manner that it can be clearly viewed from the front of the enclosure (street side) without having to open the enclosure. The remote indicator shall be visible during daylight and protected against vandalism by means of a steel tube fitted around the indicator and welded onto the enclosure.
- 9.10.5.9. The control unit and remote indicator shall not be mounted onto any removable sections of the enclosure and no wiring shall pass through these sections. If the remote indicator is mounted on the enclosure door it shall be situated as close as possible to the hinge side.

# 9.10.6. Phase Comparators

- 9.10.6.1. Phase comparators for electrical phasing-out on the VDS cable live indication system on switchgear supplied in accordance with this contract shall be Universal Phase Comparators complying fully with the requirements of SANS 61243-5.
- 9.10.6.2. Phase comparators shall provide clear and unambiguous indication of voltage-in-phase and voltage-out-of-phase via separate LED indicators (coloured green and red, respectively), and shall be fitted with push button operation, low battery indication and functionality self-test.
- 9.10.6.3. Phase comparators shall be provided with phasing leads long enough to permit the phasing out across a minimum of four panels.
- 9.10.6.4. The phase comparators, leads and ancillary equipment shall be housed in a suitable rigid case, to approval.

#### 9.11. WEATHER-PROOF KIOSK

#### 9.11.1. General

- 9.11.1.1. Ring main units for outdoor installation shall be supplied assembled within an internal arc rated weather-proof kiosk complying with the requirements for enclosures detailed in SANS 62271-202, and manufactured from 3CR12 corrosion resistant steel.
- 9.11.1.2. Notwithstanding the internal arc classification requirements, provision shall be made for the minimization of the possibility of condensation by means of appropriate drainage and ventilation holes or other appropriate means. Any such ventilation facilities shall be positioned so as to comply with the specified Degree of Protection.
- 9.11.1.3. Any breathing and/or venting facilities in the kiosk shall be suitably vermin proofed.
- 9.11.1.4. The kiosk roof, doors and compartments shall be so designed to preclude the possibility of pooling or retention of water.

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9.11.1.5. The weather-proof kiosk material (i.e. 3CR12) shall be clearly identified by means of a metal label affixed in a permanent fashion to the door adjacent to the steel documentation pocket.

#### 9.11.2. Doors

- 9.11.2.1. The kiosk access doors shall be secured with a three point locking mechanism (Barker Nelson 25 Series or similar, to approval) suitable for padlocking with a padlock of 10 mm shackle diameter. Padlocks will be supplied by others.
- 9.11.2.2. In addition, the kiosk doors shall be fitted with a stainless steel Allen key bolt type locking system using a 10 mm Allen key bolt. The Allen key locking system shall obstruct the Barker Nelson locking mechanism from operating in the fully screwed in position. The Allen screw head shall be flush with the door when screwed in.
- 9.11.2.3. Doors hinges shall be manufactured from brass or stainless steel. Hinged doors shall exert uniform pressure at all points on the gasket when the door is closed to ensure proper closing and to prevent the penetration of water and vermin.
- 9.11.2.4. The kiosk doors shall be fitted with a latch facility to prevent the over swing of the doors when opening and to secure the door safely in an open position at a minimum of 90°.
- 9.11.2.5. A steel documentation pocket shall be provided on the inside of the kiosk door for the safekeeping of relevant documents. The means of securing the pocket (eg pop rivets) shall not protrude through the door.

#### 9.11.3. Electrical Bonding

- 9.11.3.1. The kiosk doors, and if applicable, all steel enclosure sections, shall be electrically bonded to the main steel enclosure by means of a tinned copper braid bonding conductor of minimum cross-sectional area 4 mm2.
- 9.11.3.2. The main steel enclosure shall be electrically bonded to the ring main unit earth bar by means of copper bonding conductor (i.e. tinned copper braid or PVC-insulated stranded copper cable) of minimum cross-sectional area 70 mm2.

#### 9.11.4. Lifting and Mounting

- 9.11.4.1. Suitable lifting eyes designed to lift the kiosk with the ring main unit installed within shall be provided on the kiosk. The lifting eyes shall have a minimum diameter of 30 mm.
- 9.11.4.2. The kiosk and position of the ring main unit within the kiosk shall be suitable for mounting on concrete plinths. Detailed requirements and dimensions for the concrete plinth design shall be provided by the Tenderer with the Tender documentation.
- 9.11.4.3. Flanges that are provided for the fitting of holding-down set screws shall be of a minimum of 5 mm thick steel or alternatively be reinforced to prevent bending during transportation, handling and installation.

# 9.11.5. Painting and Protection Against Corrosion

- 9.11.5.1. Painting and corrosion protection of interior and exterior surfaces of the weather-proof kiosk shall comply with the requirements of SANS 780. The following additional requirements are to be complied with for exterior surfaces.
- 9.11.5.2. 3CR12 steel shall be abrasive blasted and then passivated prior to painting.
- 9.11.5.3. The 3CR12 components shall be painted with an approved and appropriate primer and with two coats of an approved polyurethane based heat fused epoxy

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- powder coating of colour C12 (Avocado) to SANS 1091 in accordance with the requirements of SANS 780.
- 9.11.5.4. Suitable steps shall have been taken to ensure a satisfactory bond between the protected surfaces and the paint to prevent peeling.
- 9.11.5.5. The thickness of the paint including the primer shall not be less than 50µm.
- 9.11.5.6. Alternative corrosion protection systems may be considered. Manufacturers shall submit their proposed corrosion protection specifications to the Engineer for approval.
- 9.11.5.7. All external nuts and bolts shall be manufactured from stainless steel. Care shall be taken to ensure that nuts and bolts are not over tightened such that the threads are damaged and the nuts and bolts cannot be loosened and/or retightened.

#### 9.12. PACKING

- 9.12.1. The Contractor shall make his own arrangements for the delivery of the plant to the Employer's Electricity Stores or to site and shall provide all labour, plant and material necessary for the unloading.
- 9.12.2. The Contractor shall be responsible for the packing, loading, transporting and off-loading of the plant from the place of manufacture, whether this is at his own works or those of any supplier, to the Employer's Electricity Stores.
- 9.12.3. The method of packing shall provide adequate protection to the equipment contained within and attached without, for transportation. The method of packing and precautions to be taken during transport shall be clearly marked on the appropriate drawings.
- 9.12.4. Where appropriate all parts shall be boxed in substantial crates or containers to facilitate handling in a safe and secure manner. Each crate or container shall be marked clearly on the outside of the case to show where the mass is bearing and the correct position for the slings. Each crate or container shall also be marked with the notation of the part or parts contained therein, contract number and port of destination, and shall become the property of the Employer after delivery.
- 9.12.5. Loose parts and accessories forming part of each ring main unit and compact switchgear panel or necessary for the assembly of such switchgear shall be dispatch and delivered with such switch panels. Payment will not be authorised per ring main unit or compact switchgear panel until all relevant loose parts and accessories have been delivered. Such loose parts shall be crated or packaged such that all parts and fasteners necessary for each assembly are contained in a single container. The container shall be marked with the container number and a complete bill of materials and components contained there-in, together with the relevant part numbers and reference to the drawing number detailing assembly of such parts. The packing list and drawings shall be dispatched to the Engineer giving full and clear details of the contents of the case. Any special storage/handling requirements, shelf life limitations etc shall be clearly indicated.
- 9.12.6. Transit/storage bushing protection covers shall be fixed to the equipment to prevent damage to bushings.
- 9.12.7. Any damage due to defective or insufficient packing shall be made good by the Contractor at his own expense and within reasonable time when called upon by the Employer to do so. An electronic copy of the complete packing lists showing the number, size, marks, mass and contents of each package shall be provided to the Engineer immediately after the material is dispatched.

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- 9.12.8. The Contractor shall inform himself fully as to all relevant transport facilities and requirements and loading gauges and ensure that the equipment as packed for transport complies with the South African highway regulations and/or conforms to the limitations of the transport facilities of Transnet Ltd. The Contractor shall also be responsible for verifying the adequacy of any cranes required for off-loading at the port of entry, at the Council's Stores and Site.
- 9.12.9. The Contractor shall take reasonable steps to prevent damage to any highways or bridges by his traffic and shall select routes, choose and use vehicles and restrict and distribute loads so that the risk of damage shall be limited as far as is reasonably possible. The Contractor shall immediately report to the Engineer any claims made against him arising out of alleged damage to a highway or bridge.
- 9.12.10. Access to the Stores is by road only.

#### 9.13. TRAINING

- 9.13.1. Training shall be provided in the Overstrand Municipality region free of charge to enable the Employer's staff to install and maintain the equipment offered. The training shall take the form of separate sessions for hardware and maintenance training and for operator training.
- 9.13.2. The Hardware and Maintenance Training course for the switchgear shall include, but not be limited to, the following:
  - 9.13.2.1. Theory of operation
  - 9.13.2.2. Installation and commissioning
  - 9.13.2.3. Preventative maintenance
  - 9.13.2.4. Maintenance manual review
  - 9.13.2.5. Interlocks and Safety Features
  - 9.13.2.6. Testing, troubleshooting and configuration
  - 9.13.2.7. Repairs
  - 9.13.2.8. Practical Demonstration
- 9.13.3. The Operator training for the switchgear shall include, but not be limited to, the following:
  - 9.13.3.1. Theory of operation
  - 9.13.3.2. Detailed overview of Equipment
  - 9.13.3.3. Interlocks and Safety Features
  - 9.13.3.4. Practical Demonstration
- 9.13.4. The training details submitted with the Tender shall include a description of the contents and duration of each course and prerequisites, if any, required of course participants. The outlines shall be in sufficient detail to evaluate the course material.
- 9.13.5. Any special tools shall be identified and if not included shall be quoted for separately.
- 9.13.6. The principal instructors shall have proven prior experience in conducting the specified training. The instructors shall have a complete and thorough knowledge of the equipment and course materials.
- 9.13.7. Each course participant shall receive a copy of the training manuals and other pertinent materials with all changes and revisions to manuals and other documentation used during the training courses.

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- 9.13.8. All training will be undertaken at Employer's premises.
- 9.13.9. Each course module shall be given to classes of nominal size of 15 individuals, although a maximum class size of 20 individuals should be accommodated if operation requirements dictate. The initial training is intended for a nominal quantity of 75 staff members per training module, (i.e. 5 repeats of each training module).
- 9.13.10. On completion of the training each candidate shall be provided with certification of attendance of the course, with copies of the certification being provided to the Employer.
- 9.13.11. The price for each course shall include all preparation, travelling, accommodations and incidental costs including all course materials.

# 9.14. DRAWINGS AND INFORMATION

#### **9.14.1. Drawings**

# Tenderers shall submit with their tenders the following drawings:

- 9.14.1.1. Fully dimensioned drawings indicating the general arrangement of the ring main units, compact switchgear (complete with any necessary pedestals or raising bases) and weather-proof kiosks.
- 9.14.1.2. Fully dimensioned arrangement drawing for each ring main unit and compact switchgear configuration showing cable boxes, cable clamping, cable termination arrangements and clearances between bushings and from bushing centre's to earth.
- 9.14.1.3. Section drawings of each ring main unit and compact switchgear type showing general details of construction and all principal components and dimensions, including internal arc overpressure relief provisions and energy paths for each main compartment.
- 9.14.1.4. Civil Engineering / Installation drawings for each ring main unit and compact switchgear type showing requirements for switch room design and equipment positioning for indoor installation, and requirements for plinth design for outdoor installation.
- 9.14.1.5. Section drawings for busbar couplers and / or external busbars showing expanded view and installed view including provisions for voltage stress relief.
- 9.14.1.6. Full electrical schematic diagrams including details of electrical interlocks and protection schematics shall be submitted by the successful Tenderer for formal approval before manufacture of the equipment is commenced.

#### 9.14.2. Instruction Books

Copies, in English, of operating and maintenance instructions covering each type of equipment provided shall be supplied by the Contractor before delivery, and these shall include full detailed drawings. A copy shall also be provided on CD ROM in Portable Document Format (pdf). These shall include a comprehensive spare parts catalogue.

# 9.15. PARTICULARS

- 9.15.1. Tenderers shall submit with their tenders full particulars of the equipment offered and shall complete the Schedules attached hereto.
- 9.15.2. No tender will be considered unless sufficient technical data, diagrams, drawings and relevant information are submitted to enable the characteristics and merits of the equipment offered to be ascertained, including the design provisions to ensure that the units are fully weather-proof.

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- 9.15.3. All apparatus should comply with this Specification. Any departures from the requirements of this Specification or non-compliance shall be stated by the Tenderer clause-by-clause in the schedules and may be accepted at the Engineer's discretion. Undisclosed non-compliance with requirements of the Specification by the successful Tenderer shall result in the Tenderer being bound to the requirements of the Specification.
- 9.15.4. No departure shall be implemented without the prior approval of the Engineer.
- 9.15.5. The Contractor shall be responsible for any discrepancies, errors or omissions in the particulars and guarantees, whether or not such particulars and guarantees have been approved by the Engineer.
- 9.15.6. Tenderers shall also submit information regarding the manufacturing facilities that will be utilized for the construction of the tendered items and the location thereof, as well as full details of the location and capabilities of their service / repair facility situated closest to the City of Cape Town. Any changes shall be made with the written agreement of the Engineer and the Contractor shall ensure that the manufacturers and places of manufacture are acceptable to the Engineer.
- 9.15.7. Information should also be submitted detailing the quantity of similar ring main units and compact switchgear manufactured and supplied by the Tenderer and in service in South Africa, as well as the details of existing users of the equipment tendered.
- 9.15.8. All details given in this Specification and the drawings forming part of it have been carefully compiled but the onus is on the Tenderer to satisfy himself truly as to the accuracy thereof.

#### 9.16. TESTS AND INSPECTIONS

#### 9.16.1. Inspections

- 9.16.1.1. During manufacture and prior to dispatch the ring main units, compact switch-gear, pedestals or raising bases and weather-proof kiosks may be inspected by the Engineer or his duly appointed representative who will call for such tests as he may consider necessary. To this end, the Engineer or his representative shall, during normal working hours, be given all reasonable access and facilities for the carrying out of his duties and shall have the right of entry into the factory of the manufacturer and the factory of any sub-contractor to the manufacturer, where work in accordance with this specification may be in progress.
- 9.16.1.2. Before the dispatch of any ring main unit or weather-proof kiosk from the factory of manufacture it shall have been inspected by the Engineer or his duly appointed representative and an Acceptance Certificate shall have been issued. The manufacturer shall notify the Engineer at least one week in advance of the proposed dates for final inspections, and units shall be fully completed prior to the day of the final inspection.

# 9.16.2. Type Tests

- 9.16.2.1. The equipment offered shall comprise the manufacturer's standard equipment, the reliability of which has been thoroughly proven in service. The ring main units, compact switchgear, protection relays and weather-proof kiosks shall have passed such type tests as are laid down in SANS 1874, SANS 62271-200, SANS 62271-202, SANS 60044-1, SANS 60044-2 and IEC 60255.
- 9.16.2.2. The Tenderer shall submit copies of the results of all type tests and certificates of rating covering the ring main units, compact switchgear, current transformers, voltage transformers and weather-proof kiosks included in his tender. These type tests shall have been carried out by an internationally recognised independent testing authority.

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- 9.16.2.3. The tests shall be of ring main units and compact switchgear complete with any pedestals, raising bases, weather-proof kiosks or other equipment necessary to comply with the requirements of this specification.
- 9.16.2.4. Only identical units to those successfully type tested will be acceptable. Non-applicable type test certificates should not be submitted. Tenderers shall submit copies of complete detailed drawings of internal connections and facilities as type tested.

#### 9.16.3. Routine Tests

- 9.16.3.1. Routine tests as specified in SANS 1874 and SANS 62271-200, SANS 60044-1, SANS 60044-2, IEC 60255 and other applicable standards shall be carried out on all ring main units, compact switchgear, protection relays, current transformers, voltage transformers and other equipment prior to dispatch, and shall be witnessed by the Engineer or his duly appointed representative unless specifically waived by the Engineer.
- 9.16.3.2. Such tests shall include routine partial discharge testing on MV bushings, current transformers and voltage transformers.
- 9.16.3.3. In addition to the requirements specified above, the following routine tests should be carried out by the manufacturer on the protection equipment before unit dispatch:
  - 9.16.3.3.1. CT polarity, ratio and magnetization curve tests.
  - 9.16.3.3.2. OCEF Secondary injection testing of the relay at 1x (verify pick-up), 2x, 4x, 6x, 8x, 10x (verify definite setting) setting for OC and EF. Alternatively, these secondary injection tests can be replaced by primary OCEF injection tests at 1x, 2x, 4x, 6x, 8x, 10x setting for OC and EF, with the circuit breaker closed.
  - 9.16.3.3.3. Verification that the OCEF relay trips the circuit breaker.
  - 9.16.3.3.4. Protection relays are to be configured and tested in accordance with the generic settings below (or next closest achievable settings):

NI

- a) OC pickup (I>) 125 A
- b) OC IDMT curve
- c) OC time multiplier 0.1
- d) OC definite setting (I>>) 10 x I> (or 9.5 x I> if 10 x not possible)
- e) OC definite time 100 ms (0.1 s)
- f) EF pickup (lo>)
- 37.5 A
- g) EF IDMT curve
- NI
- h) EF time multiplier 0.1
- i) EF definite setting (lo>>) 10 x lo> (or 9.5 x lo> if 10 x not possible)
- j) EF definite time 100 ms (0.1 s)
- 9.16.3.3.5. Copies of the test results are to be furnished with each panel.
- 9.16.3.3.6. Certificates providing the full results of all tests made on the equipment shall be submitted to the Engineer by the Contractor for approval prior to or at the time of delivery of the equipment. All routine test certification shall be dated and signed by the manufacturer's test engineer. Equipment will not be formally accepted until such time as full routine test certification has been submitted and approved.

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#### 10. STREETLIGHT POLES (Items 10.1 to 10.6 on Pricing Schedule)

#### 10.1. STEEL POLES

- 10.1.1. Poles to be designed in accordance with SABS 0214-1987 Code of Practice for the "General Procedure and Loadings" to be adopted in the design of Buildings with the following variables:
  - 10.1.1.1. 50 year mean return period;
  - 10.1.1.2. Category 2, Class B structure;
  - 10.1.1.3. Altitude: Sea level
- 10.1.2. Poles to be able to withstand a wind velocity of up to 150 kph. The total wind area of the pole to be calculated with a lantern wind area of 0.35m2 in addition to the tapering projected area of the pole. All components to have a "Load factor" of greater than 1.9.
- 10.1.3. Poles to be constructed from pre-formed steel pipe of various sizes, welded together through reducers by means of continuous full strength butt welds tubular stepped in sections.
- 10.1.4. Tubular material used to be grade 300MPA to SABS 657, with welding conforming to SABS 1200H, minimum thickness 4mm.
- 10.1.5. The poles and all ancillary items are to be hot dipped galvanised to SABS 763 specification or finished as specified.
- 10.1.6. Base Plate
  - 10.1.6.1. Planted poles must be supplied with a loose base plate of at least 300 x 300 x 4mm thick, which is attached to the pole shaft by means of 2 x (at least) M10 hook bolts.
  - 10.1.6.2. For surface mounted poles, the size of the base plates to vary, to suit the height of the poles and luminaire configuration.
- 10.1.7. A single cable entry 100 x 500mm wide must be provided 400mm below ground level.
- 10.1.8. The planted streetlight poles to be supplied with a ground sleeve of 600mm long, either 3mm or 5mm thick or as required.
- 10.1.9. A hinged, sealed or flush mounted door to be supplied with the poles with various door-locking methods, i.e. hexagonal nut or Allen cap screw.
- 10.1.10. Single and double outreaches to be available with various overhangs and radii. Out-reaches are either detachable or fixed to the pole shaft.
- 10.1.11. All luminaire spigots are to be in accordance with SABS 1088-1978 "Luminaire Entries and Spigots" with an  $\emptyset$  of 76mm.

#### 10.2. CONCRETE POLES

- 10.2.1. Cable entry 152mm x 152 x 51 one entry only
- 10.2.2. Switch boxes to have a wooden backboard with dimensions as detailed below and include a PVC plastic door with Allen screws:
- 10.2.3. 9.00m
- 10.2.4. 407mm x 127mm 140mm deep
- 10.2.5. 4.50m 7.20m
- 10.2.6. 394mm x 114mm x 127mm deep
- 10.2.7. Hot dipped galvanised epoxy coated spigots, Ø 76mm
- 10.2.8. To be designed to comply with the Requirements of SABS 470 2003.

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#### 11. INSULATION TAPE (Items 16.39 to 16.44 on Pricing Schedule)

- 11.1. Vinyl electric Insulation tape with Polyvinyl chloride (PVC) backing;
- 11.2. Super strong adhesion
- 11.3. Fade resistant; Flame retardant; Lead free; Pressure-sensitive rubber based adhesive; Compatible with solid di-electric cable insulations; Compatible with rubber and synthetic splicing compounds, as well as epoxy and polyurethane resins; Inhibits corrosion of electrical conductors; Indoor and outdoor applications; Available in black, red, white, green and yellow. Excellent resistance to abrasion, moisture, alkalis, acids, corrosion and varying weather conditions (including ultraviolet exposure);
- 11.4. The combination of elastic backing and aggressive adhesive must provide moisture-tight electrical and mechanical protection with minimum bulk; and Must be able to withstand low and high temperatures.

#### 11.5. Black Tape

- 11.5.1. 33+ Vinyl Electrical Tape is based on polyvinyl chloride (PVC) and/or it's copolymers and has a rubber-based, pressure-sensitive adhesive.
- 11.5.2. The tape shall be 7 mils thick, and be UL Listed and marked per UL Standard 510 as "Flame Retardant, Cold and Sunlight Resistant.
- 11.5.3. The tape must be applicable at temperatures ranging from 0°F through 100°F (-18°C through 38°C) without loss of physical properties.
- 11.5.4. The tape shall be classified for use in both indoor and outdoor environments.
- 11.5.5. The tape shall be compatible with synthetic cable insulations, jackets and splicing compounds.
- 11.5.6. The tape will remain stable and will not telescope more than 0.1 inches when maintained at temperatures below 120°F (50°C).

#### 11.6. Coloured tape

- 11.6.1. Tape 35 is based on polyvinyl chloride (PVC) and/or its copolymers and has a rubber-based, pressure-sensitive adhesive.
- 11.6.2. The tape shall be 7 mils thick, and be UL Listed and marked per UL Standard 510 as "Flame-Retardant."
- 11.6.3. The tape shall be compatible with synthetic cable insulations, jackets and splicing compounds.
- 11.6.4. The tape will remain stable and will not telescope more than 0.1 inches when maintained at temperatures below 122°F (50°C

#### 12. RUBBER TAPE (Items 16.77 & 16.78 on Pricing Schedule)

- 12.1. Self -fusing. Once it has been applied the tape contracts to fit tightly and give maximum protection needed and will not unwind.
- 12.2. Must be able to use it to Waterproof cable ends, insulate bus bars to prevent spiking, etc.
- 12.3. Must be weather resistant so it can be used outdoors
- 12.4. Di-electric strength 28.KV thick
- 12.5. Supplied in a strong plastic container

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- 12.6. A tough, insulating and self-amalgamating tape. Ideal for insulating busbars, transformer bushing/cable tail connections, cable sheath cuts and cable ends. It can also be used for sealing low pressure water pipes, etc.
- 12.7. Typical electric strength 6.6/ kV/mm
- 12.8. Packed in strong re-usable containers.

#### 13. CABLE TERMINATIONS AND JOINTS (Item 10 on Pricing Schedule)

PLEASE NOTE: SHOULD YOU INTEND TO TENDER ON ANY OF THE ITEMS LISTED UNDER PARAGRAPH 12.1, THE SCHEDULE ON PAGES 113 TO 116 MUST BE COMPLETED

### 13.1. HEAT-SHRINK TERMINATIONS AND JOINTS

13.1.1. SANS 1332: 2013 Schedule of Specifications: Cable Accessories

#### 13.1.2. Scope:

- 13.1.2.1. This schedule covers the requirements for accessories for medium voltage cable accessories from 6,6 kV up to and including 33 kV.
- 13.1.2.2. Accessories for both PILC and XLPE insulated cables are covered.

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# PLEASE NOTE: THE SCHEDULE ON PAGES 113 TO 116 MUST BE COMPLETED SHOULD YOU INTEND TO TENDER ON ANY OF THE ITEMS UNDER PARAGRAPH 12.1

ACCES- SORY REQ		EQUIREMENT		rmance	NOTES			
SORY	KE	QUIREMENT	YES	NO		NOT	Eð	
	1)	Termination range taking according to latest edition of SANS 1332:2013						
	2)	Range taking Mechanical Torque shear (MTS) included						
	3)	M16 Lug hole on the palm of the MTS			NRS \	-		
	4)	Minimum creepage distance 31 mm/ kV (Outdoor) and 20 mm/kV (Indoor) according to SANS 876				·		
	5)	Crutch support (Tri-shed) included (Outdoor termination for PILC cables)						
	6)	Creepage path shall be of the same material for the entire creepage distance						
	7) From the same Manufacturer  8) Indoor Termination tail length 650 mm (3 core 11 kV cable)							
"								
ION 1: IATIONS	9) Indoor Extended screen Termination tail length 800 mm (3 core 11 kV cable, into switchgear with CT's)  10) Outdoor Termination tail length 1200 mm (3 core 11 kV cable)							
SECT	10)	Outdoor Termination tail length 1200 mm (3 core 11 kV cable)						
Ξ.	11)	Installation Instruction (JI) in colour						
	12)	Full parts list (B.O.M.) attached						
	13)	Installation instruction based on "top down" measurement						
	14)	Does the design make provision for Core crossing?						
	15)	Phase Identification marking accessory included			Туре о	f identific	ation m	ethod:
	16)	Type test according to IEC 60055-1 (PILC) or SANS 60502-4			Те	Test report attached?		
	-,	(XLPE)			Yes		No	
	17)	KIPTS approved			Te	est report	attache	d
	.,,	Тап то арриотов			Yes		No	
C)	1)	Termination Earthing kit included						
e. RTHING	2)	70 mm² Tinned Copper Main Earth Braid, rated @ 10 kA/1 sec (unless otherwise specified)						
ION 3	3)	Earth braid 1000 mm length (Indoor Terminations)						
SORY	4)	Earth braid 1000 mm length (Outdoor Terminations)						
ERMII	5)	70 mm² Tinned Copper lug with M 12 Fixing hole						
_	6)	Earthing conductor Integrally Water blocked with Solder						
				L				

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ACCES-	DEO	REQUIREMENT		Confo	rmance	- NOTES			
SORY	REQUIREMENT			YES	NO		NO	IES	
	7)	Constant Force Spring (CFS) minimum 20 mm width							
	8)	Tinned Copper mesh for application under CFS to ensure suf- cient contact area between CFS and Lead	ffi-						
	9)	Adjustable support bush for SWA cable							
	10)	Secondary earthing 16 mm² Tinned Copper braid							
	11)	Joint range taking as per the latest SANS 1332				SANS sion ni			
	12)	Range taking Mechanical Torque shear connector included							
	1)	Is the joint filled to facilitate longitudinal water blocking?							
	2)	Can the Joint accommodate Core crossing?							
3: hrink)	- /	Minimum insulation wall thickness over the connector of 1.2 Cable Insulation	X						
SECTION 3: JOINTS( Heat shrink)		70 mm² Tinned Copper Main Earth Braid, rated @ 10 kA/1 se (unless otherwise specified)	ec						
SE		Type tested according to CENELEC HD 629.1 S2, CENELEC HD 629.2 S2, IEC 60055-1, SANS 60502-4				Te Yes	st repor	t attache No	d?
	6)	Type tested Impact test done				Te Yes	st repor	t attache No	d?
	1)	Dead-break type							
	2)	Extensible							
BLE s)	3)	Range taking							
ECTION 4: NED SEPARABLE (CTORS (USCs)		Bolted 35mm long Stainless steel or brass M16 x 2 threaded connection (set screw and spring washers)	I						
ECTION 4: NED SEP, ECTORS (L	5)	Suitable for 630 A type "C" bushing according to EN 50180							
SE UNSCREEI CONNE	6)	Type tested				Te Yes	st repor	t attache No	d?
	7)	Type tested by an Accredited testing facility				Accr		certifica	ite at-
	,					Yes		No	
щ	1)	Dead-break type							
RABL SSCs)	2)	Extensible							
SEPA SEPA SEPA SES (5	3)	) Range taking							
SECTION 5: SCREENED SEPARABLE CONNECTORS (SSCs)		Suitable for 800 A type "C" bushing according to EN 50180 with integrated Stress Control							
SCR		Bolted 35mm long M16 x 2 threaded connection (set screw and spring washers)							
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ACCES-			Confo	rmance				
SORY	REG	QUIREMENT	YES	NO		NO <sup>-</sup>	IES	
	6)	Insulated drain conductor attached to the body of SSC						
	7)	Drain conductor minimum 4 mm²						
	8)	Drain conductor minimum length of 700 mm						
	9)	Terminated at the non-SSC end with a lug having an M12 fixing hole						
	10)	Suitable for Cable outer sheath testing without the need to disconnect						
	11)	Type tested (Attach copy of Test report)			Yes	est report	attache No	d?
	12)	Type tested by an Accredited testing facility (Attach copy of Accreditation certificate)			Yes	reditatior attac		ation
	1)	Wraparound design						
ဟ	2)	Supplied with stainless steel zip/channel						
SECTION 6: CABLE REPAIR SLEEVES	3)	Length minimum 1000 mm						
ION 6: VIR SL	4)	Minimum wall thickness 2 mm after installation						
SECTION 6:	5)	Inner surface coated with heat activated adhesive						
ABLE	6)	Marked with manufacturers name and batch numbers						
3					T	est report	attache	d?
	7)	UV stable (Attach copy of Test report)			Yes		No	
တ္	1)	Suitable range taking (45 mm to 65 mm) and (65 to 95 mm)						
7: END CAPS	2)	Minimum length 150 mm						
	3)	Minimum wall thickness 2 mm after installation						
OIT.	4)	Inner surface coated with heat activated adhesive						
SEC	5)	Marked with manufacturers name and batch numbers						
SECTION CABLE SEALING	6)	UV stable			T	est report	attache	d?
	0) Ov Stable				Yes		No	
υ <b>S</b>	1)	All components marked with Manufacturers name (visible on the completed accessory)						
MARKING, PACKING AND DOCUMENTATION	2)	All components marked with Manufacturers part number and batch number						
ING, F	3)	All components individually packed and labelled						
MARK VD DO	4)	Does any of the components have an expiry date						
- 4	5)	Identification tag included in the packing						
								1
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SORY	KEG	QUIREMENT		rmance	NOTES			
			YES	NO		NOT	ES	
	6) All documentation in English							
	7)	Legible, colour installation instruction included in every kit						
	8)	Installation Instruction individually printed (not photocopied)						
	9)	Installation Instruction dated and with a revision control						
	10)	Bill of Material included (cross referenced with component part numbers)						
	1)	Test reports shall be correctly identified with respect to:			Attac for e	h a copy o	of test re uct offe	eport red
	2)	Name of manufacturer						
	3)	Brand name						
	4) Type							
	5) Manufacturing date							
	6)	6) Part number						
ည	7)	7) Photos of set up						
TEST REPORTS	8)	Cable cross section						
ST RE	9)	Material composition and shape of the cable conductor						
H	10)	Rated voltages						
	11)	Installation instruction and associated Bill of Materials						
	12)	Tail length tested						
	13)	Cross sectional area of main braid						
	14) Was the product tested as a complete unit i.e. AS SUPPLIED TO THE CUSTOMER							
	15)	Testing Laboratory accredited by Recognized Accreditation			Ce	ertificate a	ittached	?
		Body			Yes		No	
	Does the supplier offer product training							
TRAINING	2)	EWETA or SAQA accredited (attach proof)				Proof atta	1	
TRA					Yes Ce	ertificate a	No ttached	?
	3) Assessors and Moderator Seta accredited				Yes	amoute a	No	

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#### 13.2. RESIN FILLED JOINTS

- 13.2.1. The resin filled joint kit shall comprise a self-sealing plastic mould of high mechanical strength having sufficient connector space.
- 13.2.2. The exact amount of cold hardening resin shall be provided in a two-compartment plastic bag.
- 13.2.3. The resin shall have absolute minimum shrinkage.
- 13.2.4. The mould and resin shall be completely waterproof and non-hygroscopic and shall be resistant to ultraviolet radiation.
- 13.2.5. Joint kits shall be of "SCOTCHCAST", "CELLPACK" or similar

### 14. CIRCUIT BREAKERS (Item 11 on Pricing Schedule)

All miniature circuit breakers (MCB's) supplied in SDB's in accordance with this specification shall be air-break MCB's complying with VC8036 and SANS 556-1 and shall be provided with a non-adjustable hydraulic inverse time over-current release and a magnetic instantaneous short circuit release. The MCB operating characteristics shall NOT be affected by changes in ambient temperature and MCB's with thermal-magnetic operating characteristics shall not be acceptable.

#### 15. MOMAR MIRACLE TOOL (Item 16.64 on Pricing Schedule)

- 15.1. Multi-Purpose Penetrant, Lubricant, Corrosion Retardant Aerosol.
- 15.2. Displaces water removes moisture on contact and provides a long-term anti-corrosion seal.
- 15.3. Eliminates squeaks lubricates metal-on-metal moving parts.
- 15.4. Non-conductive Dielectric strength of >45,000 volts
- 15.5. Loosens frozen parts penetrates rust, corrosion, and oxidation,
- 15.6. Protects metal seals out salt, rust, moisture and dirt
- 15.7. Prevents corrosion long-lasting lubricant resists water.
- 15.8. Density @ 25degrees c (ASTM-D-287) 0900 g/ml
- 15.9. Colour Light Amber
- 15.10. Appearance Clear
- 15.11. Odour Petroleum dour
- 15.12. Health/flammability/reactivity 2/2/0
- 15.13. Personal safety B Safety Glasses
- 15.14. Container 500ml Can

#### 16. OIL SPILL KITS

#### 16.1. One man oils spill kit (Small) (Item 16.65 on Pricing Schedule)

Consisting of:

- 16.1.1. 2 x 3kg Root Sorb
- 16.1.2. 1 X Boom (2m)
- 16.1.3. 2 X Cushions (Containing Orca Sorb) (Ea.)
- 16.1.4. 1 X Dust Masks (Ffp/2)
- 16.1.5. 1 X Gloves (Pigskin)

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- 16.1.6. 1 X Goggles
- 16.1.7. 1 X Chevron Tape
- 16.1.8. 3 X Empty Plastic Bags
- 16.1.9. 3 X Cable Ties
- 16.1.10. 1 X Black Utility Box (110L)

### 16.2. Oil cap (Item 16.66 on Pricing Schedule)

- 16.2.1. Chemical characterization
- 16.2.2. Description: Aqueous silicates in solution and additives.
- 16.2.3. Dangerous components: CAS NO Designation % Index R-phrases
- 16.2.4. 1344-09-8 Sodium silicate 20-30 None
- 16.2.5. Form: liquid Colour: colourless Odour: weak
- 16.2.6. Boiling point: 100°C Flash point: not applicable Ignition. temp.: not applicable
- 16.2.7. Critical values for explosion:
- 16.2.8. Lower: not applicable Upper: not applicable
- 16.2.9. Vapour pressure at 20 °C: not applicable Density: 1,2-1,3 g/m3
- 16.2.10. Solubility
- 16.2.11. in water: 100 %
- 16.2.12. in other: - -
- 16.2.13. pH: 11.3 11.7 (conc.)

#### 16.3. Rootsorb(Item 16.67 on Pricing Schedule)

- 16.3.1. Physical and Chemical Properties
- 16.3.2. Physical State Light brown fibre
- 16.3.3. Boiling Point N/A
- 16.3.4. Vapour Pressure Light smell
- 16.3.5. Specific Gravity N/A
- 16.3.6. Melting Point N/A
- 16.3.7. Solubility in water Not soluble. Colour water to light brown / light yellow.
- 16.3.8. Toxicological Information
- 16.3.9. Low toxicity material. Contain no toxic components. Natural fiber
- 16.3.10. ROOTSORB can be used across the whole spectrum of hydrocarbons, as well as certain acids, as an absorbent and remediation material/product. It can be used on soil, concrete or any other surface as needed. It is totally harmless to human beings, animals, plants or aquatic life, which makes it a total environmental friendly product. A nutrient enhanced version is also available for enhanced remediation of contaminated soil. ROOTSORB also breaks down the thin hydrocarbon layer on water surfaces that other absorbents are unable to remove. ROOTSORB breaks down hydrocarbons in Nitrogen, Carbon, Carbon dioxide and water and is therefore suited for insitu and land-farm remediation purposes.
- 16.3.11. ROOTSORB is available in 25 Kg bags.
- 16.3.12. ROOTSORB-ACID was developed with Rootsorb as base product and serves as an absorbent and neutralizer of mild acids.
- 16.3.13. ROOTSORB-ACID is available in 25 Kg bags.

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#### 16.4. Tsw. Asbestos Encapsulation (Item 16.68 on Pricing Schedule)

- 16.4.1. Composition / Information On Ingredients:
- 16.4.2. Sodium Silicate In Aqueous Solution With Additives Cas # 1344-09-8
- 16.4.3. Dangerous Components: None
- 16.4.4. Physical And Chemical Properties:
- 16.4.5. Boiling Point: 212 Deg F (100 Deg C) Ph 10.5 11 Appearance -- Clear Fluid
- 16.4.6. Water Solubility 100% Colour -- None Wt % Solids 24
- 16.4.7. Specific Gravity -- 1.21 Viscosity -- Low
- 16.4.8. Stability And Reactivity:
- 16.4.9. Normally Stable At Temperatures Above 5 Degrees C.
- 16.4.10. Product May Cause A Gelling Effect To Materials That Contain Acids Or Ammonia.
- 16.4.11. Upon Drying The Crystals Formed From This Solution Become Sharp And Abrasive.
- 16.4.12. Hazardous Polymerization Will Not Occur.
- 16.4.13. Toxicological Information:
- 16.4.14. Product Is An Alkaline Solution, With No Known Chronic Effects.
- 16.4.15. Acute Oral Toxicity Ld50 (Rat) 2,000 3000 Mg/Kg.
- 16.4.16. Ecological Information:
- 16.4.17. Prevent Large Spills From Entering Natural Waters. 48 Hour Lc 50 For Fathead Minnow Is 11.1 Mgms/ℓ

### 16.5. Orcasorb (Item 16.69 on Pricing Schedule)

- 16.5.1. Description/Properties (Nature, Reactivity)
- 16.5.2. A loose fiber product which absorbs hydrocarbons and aqueous liquids and making them safer to handle.
- 16.5.3. Physical and Chemical Properties
- 16.5.4. Physical State Light brown fiber
- 16.5.5. Boiling Point N/A
- 16.5.6. Vapour Pressure Light smell
- 16.5.7. Specific Gravity N/A
- 16.5.8. Melting Point N/A
- 16.5.9. Solubility in water Not soluble.

### 17. COPPER-TOP ALKALINE DISPOSABLE BATTERIES (Item 17 on Pricing Schedule)

- 17.1. AAA: Packs of 2
- 17.2. AA: Packs of 4
- 17.3. C: Packs of 2
- 17.4. D: Packs of 2
- 17.5. PM3, 9 Volt: Per each

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### 18. PRICING SCHEDULE

#### NOTE:

- 1. Only firm prices will be accepted. Non-firm prices will not be considered.
- 2. All delivery costs MUST be included in the bid price, for delivery at the prescribed destina-
- 3. Document MUST be completed in non-erasable black ink.
- 4. NO correction fluid/tape may be used.
  - a. In the event of a mistake having been made, it shall be crossed out in ink and be accompanied by an initial at each and every alteration.

I/We
(full name of Bidder) the undersigned in my capacity as
of the firm
hereby offer to Overstrand Municipality to render the services as described, in accordance with the specification
and conditions of contract to the entire satisfaction of the Overstrand Municipality and subject to the conditions of
tender, for the amounts indicated hereunder:

### PRICING SCHEDULE TO FOLLOW ON PAGE 121 TO 164:

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Item #	OM stock code	Description	Lead Time (Weeks)	Est. Qty. Contract period	Manufacturer & Model / Type	Indicate Quantity / Bag / Drum / Roll / Packet	Kleinmond Tender Price Excluding VAT	Hermanus Tender Price Excluding VAT	Gansbaai Tender Price Excluding VAT
1.	CABLES						price/100m	Price/100m	Price/100m
1.1.	PVC insu	lated COPPER conductor ; PVC bedded SWA P	VC sheath	ed; 600/100	00 Volt cable to SAN	S 1507 (Spec	ifications: Paragraph	n B 1)	
1.1.1		185 mm² x 4 core							
1.1.2		150 mm² x 4 core							
1.1.3		120 mm² x 4 core							
1.1.4	02C085	95 mm² x 4 core		276					
1.1.5	02C082	70 mm² x 4 core		1161					
1.1.6		50 mm² x 4 core							
1.1.7		35 mm² x 4 core							
1.1.8	02C035	25 mm² x 4 core		1182					
1.1.9	02C039	16 mm² x 4 core		1464					
1.1.10		10 mm² x 4 core							
1.1.11		6 mm <sup>2</sup> x 4 core							
1.1.12	02C015	16 mm² x 2 core		4551					
1.1.13	G0103F05	16 mm² x 2 core + 2 core Stranded Pilot		1491					
1.1.14		10 mm² x 2 core							
1.1.15	02C038	6 mm² x 2 core		1878					

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Item #	OM stock code	Description	Lead Time (Weeks)	Est. Qty. Contract period	Manufacturer & Model / Type	Indicate Quantity / Bag / Drum / Roll / Packet	Kleinmond Tender Price Excluding VAT	Hermanus Tender Price Excluding VAT	Gansbaai Tender Price Excluding VAT
1.1.16	02C037	6 mm2 x 3 core		2361					
1.1.17		4 mm² x 2 core							
1.1.18		2,5 mm² x 2 core							
1.1.19		1,5 mm² x 2 core							
1.1.20		16 mm² x 4 core + 2 core Stranded Pilot							
1.2.	PVC insul	ated ALUMINIUM conductor; PVC bedded SWA P	/C sheathe	ed; 600/1000	Volt cable to SANS	1507 (Specific	ations: Paragraph B	1)	
1.2.1		185 mm² x 4 core							
1.2.2		150 mm² x 4 core							
1.2.3		120 mm² x 4 core							
1.2.4		95 mm² x 4 core							
1.2.5		70 mm² x 4 core							
1.2.6		50 mm² x 4 core							
1.2.7		35 mm² x 4 core							
1.2.8		25 mm² x 4 core							
1.3.	Paper ins	ulated COPPER conductor cable; PVC served 6,35	/11KV tabl	e 19 ; PILC	GSTA to SANS 97 (S	pecifications	Paragraph B 1)		
1.3.1		185 mm² x 3 core							
1.3.2		120 mm² x 3 core							

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Item #	OM stock code	Description	Lead Time (Weeks)	Est. Qty. Contract period	Manufacturer & Model / Type	Indicate Quantity / Bag / Drum / Roll / Packet	Tende	nmond er Price ling VAT	Hermanus Tender Price Excluding VAT	Gansbaai Tender Price Excluding VAT
1.3.3		95 mm² x 3 core								
1.3.4		70 mm² x 3 core								
1.3.5		35 mm² x 3 core								
1.3.6		25 mm² x 3 core								
1.3.7		All full drum MV cables to bear meter marking								
1.4.	Paper insu	ulated ALUMINIUM conductor cable; PVC served 6	3,35/11KV	table 19 ; Pl	LC GSTA to SANS 97	7 (Specification	ons: Paraç	graph B 1)		
1.4.1		300 mm² x 3 core								
1.4.2		240 mm² x 3 core								
1.4.3		185 mm² x 3 core								
1.4.4		120 mm² x 3 core								
1.4.5		95 mm² x 3 core								
1.4.6		70 mm² x 3 core								
1.4.7		All full drum MV cables to bear meter marking								
1.5.	INSULATE	D AERIAL CABLE					price	/100m	Price/100m	Price/100m
1.5.1	Copper sp	lit concentric Airdac								
1.5.1.1.	02C012	10 mm² copper split concentric Airdac plus stranded pilot cable		2004					_	
1.5.1.2.	G0103F04	16 mm² copper split concentric Airdac plus stranded pilot cable		1365						
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Item #	OM stock code	Description	Lead Time (Weeks)	Est. Qty. Contract period	Manufacturer & Model / Type	Indicate Quantity / Bag / Drum / Roll / Packet	Kleinmond Tender Price Excluding VAT	Hermanus Tender Price Excluding VAT	Gansbaai Tender Price Excluding VAT
1.5.2	XLPE-insu	lated ALUMINIUM ABC- conductor to SABS 1418	Part 1 and	2/1986 with	core identification (l	LV)			
1.5.2.1.		3x120 + 54,6 + 25 mm <sup>2</sup>							
1.5.2.2.		3x95 + 54,6 + 25 mm²							
1.5.2.3.	02C300	3x70 + 54,6 + 25 mm <sup>2</sup>							
1.5.2.4.		3x35 + 54,6 + 25 mm²							
1.6.	XLPE- ins	ulated ALUMINIUM ABC- conductor to SABS 1418	Part 1 and	l 2/1986 witl	h core identification (	(MV)			
1.6.1		3x120 + 54,6							
1.6.2		3x95 + 54,6							
1.6.3	02C200	3x70 + 54,6							
1.6.4		3x35 + 54,6							
1.7.	CABLE - 0	GENERAL					Each (Unit Price)	Each (Unit Price)	Each (Unit Price)
1.7.1	02C002	End Caps: 16mm(LXAC116)		85					
1.7.2	02B035	END CAPS: 55-25mm		63					
1.7.3	02B036	End Caps: 75-32mm		36					
1.7.4	02C037	End Caps:100-45mm							
1.7.5	G0101B05	End Connectors & Sleeves: No.2		1326					
1.7.6		Heat Shrink Boot: (502K 046-53/42)							

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Item #	OM stock code	Description	Lead Time (Weeks)	Est. Qty. Contract period	Manufacturer & Model / Type	Indicate Quantity / Bag / Drum / Roll / Packet	Kleinmond Tender Price Excluding VAT	Hermanus Tender Price Excluding VAT	Gansbaai Tender Price Excluding VAT
1.7.7	02B029	Heat Shrink Boot: 16mm 3 core		27					
1.7.8	02B028	Heat Shrink Boot: 16mm Single Phase		9					
1.7.9	02B032	Heat Shrink Boot: 35- 95mm 3 Core		45					
1.7.10		Heat Shrink Boot: 35-70mm 3 Phase							
1.7.11	02C110	Insulation Piercing Connectors: 6-35mm (TTD151F)		165					
1.7.12	02C111	Insulation Piercing Connectors:25-95mm (TTD201F)		231					
1.7.13	02B033	Heat Shrink Boot: 70-120mm 3 Phase		3					
2.	METERS						Each (Unit Price)	Each (Unit Price)	Each (Unit Price)
2.1.	ENERMA	X METERS (Specifications Par. B 2.)							
2.1.1	02M010	Meter: Enermax + Meter E+MA-153000110V, 3 Wire (Strike" or compatible)		9					
2.1.2	02M009	Meter: Enermax + Meter E+MA-454000 220V / 400V, 4 Wire("Strike" or compatible)		87					
2.1.3	02M060	Meter: Expansion Module: E+EA-GPRS 04 with RS485 and GSM / GPRS. Under-glass to fit Enermax plus meter version 50V228 (Strike" or compatible)		100					
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Item #	OM stock code	Description	Lead Time (Weeks)	Est. Qty. Contract period	Manufacturer & Model / Type	Indicate Quantity / Bag / Drum / Roll / Packet	Kleinmond Tender Price Excluding VAT	Hermanus Tender Price Excluding VAT	Gansbaai Tender Price Excluding VAT		
2.2.	MRF MET	ERS (Specifications Par. B 3.)									
2.2.1		Multi frequency Single Phase Split DIN-Rail mounted PLC Prepayment meter – MCU		650							
2.2.2		Multi frequency Single Phase Split DIN-Rail mounted PLC Prepayment meter - MCU		650							
2.3.	RF METE	RF METERS (Specifications Par. B 4.)									
2.3.1		RFUIU (Wall base) (Conlog or Compatible)									
2.3.2		RF Data Concetrator Unit (Conlog or Compatible)									
2.3.3		RF Signal extender (Conlog or Compatible)									
2.3.4		RF Common base ED & ECU keypad (Conlog or Compatible)									
2.3.5		Split Meter: W BEC 44 (09) radio frequency									
2.3.6		Split Meter: BEC 62-Three phase radio frequency									
2.3.7		Keypad: WUIU radio frequency									
2.3.8	02M052	Keypad: WUIU radio frequency + WMI (Part No 700028925108)		165							
2.3.9		Wireless Customer Interface unit Common Base Radio Frequency									

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Item #	OM stock code	Description	Lead Time (Weeks)	Est. Qty. Contract period	Manufacturer & Model / Type	Indicate Quantity / Bag / Drum / Roll / Packet	Kleinmond Tender Price Excluding VAT	Hermanus Tender Price Excluding VAT	Gansbaai Tender Price Excluding VAT
2.4.	OTHER								
2.4.1		Single phase digital 20/80 amp class 2 KWh meters							
2.4.2		Three phase digital 40/100 amp class 2 KWh meters							
2.4.3	02M100	Single phase prepayment meters STS compatible, common base		1170					
2.4.4	02M005	Three phase prepayment meters STS compatible,		93					
2.4.5		Single phase prepayment meters STS compatible, split (pilot cable)							
2.4.6		Three ph. prepayment meters STS compatible, split (pilot cable)							
2.4.7		Single phase 80 A DIN rail mounted prepayment meters STS compatible, split (PLC)							
2.4.8		Single phase 80 A common base prepayment meters STS compatible, split (PLC)							
2.4.9		Meter: Single Phase Pre-Paid 20(80) Amp							
2.4.10		Customer Interface unit (PLC )							
2.4.11	02M002	Meter: Conventional Single Phase		159					
2.4.12	02M001	Meter: Conventional 3 PHASE 10(100) AMP		81					
2.4.13	02M101	Base For S/Phase Prepaid Compatible Meter		852					
2.4.14	02M041	Split Meter: Customer Interface Unit PLC 220-240V		1992					

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ltem #	OM stock code	Description  Split Meter: S/Phase Gemini EMU, PLC (10)80A CL 2	Lead Time (Weeks)	Est. Qty. Contract period	Manufacturer & Model / Type	Indicate Quantity / Bag / Drum / Roll / Packet	Kleinmond Tender Price Excluding VAT	Hermanus Tender Price Excluding VAT	Gansbaai Tender Price Excluding VAT
2.4.16	G02M050	Three phase prepayment meters STS compatible, split (PLC) – 100 Amp							
3.	STREET L	IGHTING LUMINAIRES TO SABS 1277 AND 1088	NB: BEK	A COMPATI	BLE		Each (Unit Price)	Each (Unit Price)	Each (Unit Price)
3.1.		150W HPS Flat Glass Bottom Entry(Beka Or Compatible) Beka Strada 150w HPS-T BE9 (Specifications Par. B 5.1)							
3.2.		250W HPS Flat Glass Bottom Entry(Beka Or Compatible) Beka Strada 250w HPS-T BE (Specifications Par. B 5.1)							
3.3.		400W HPS Flat Glass Bottom Entry(Beka Or Compatible) Beka Strada 400w HPS-T BE (Specifications Par. B 5.1)							
3.4.		150W HPS Flat Glass Side Entry(Beka Or Compatible) Beka Strada 150w HPS-T SE (Specifications Par. B 5.1)							
3.5.		250W HPS Flat Glass Side Entry(Beka Or Compatible) Beka Strada 250w HPS-T SE (Specifications Par. B 5.1)							
3.6.		400W HPS Flat Glass Side Entry(Beka Or Compatible) Beka Strada 400w HPS-T SE (Specifications Par. B 5.1)							
3.7.		150W HPS STD Bottom Entry(Beka Or Compatible) Beka Strada 150w HPS-T BE (Specifications Par. B 5.1)							

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3.8.		250W HPS STD Bottom Entry(Beka Or Compatible) Beka Strada 250w HPS-T BE (Specifications Par. B 5.2)							
3.9.		400W HPS STD Bottom Entry(Beka Or Compatible) Beka Strada 250w HPS-T BE (Specifications Par. B 5.2)							
3.10.		150W HPS STD Side Entry(Beka Or Compatible) Beka Strada 250w HPS-T SE (Specifications Par. B 5.2)							
3.11.		250W HPS STD Side Entry(Beka Or Compatible) Beka Strada 250w HPS-T SE (Specifications Par. B 5.2)							
3.12.		400W HPS STD Side Entry(Beka Or Compatible) Beka Strada 400w HPS-T SE (Specifications Par. B 5.2)							
3.13.		"Beka Shine LED 43w (Specifications Par. B 5.3)							
3.14.		"Beka Shine 70w HPS-I (Specifications Par. B 5.3)							
3.15.		Beka LED Lume Maxi 96LED/156W (Specifications Par. B 5.4)							
3.16.		Beka LED Lume Maxi 128LED/300w (Specifications Par. B 5.4)							
3.17.		Round Bottom Entry Post Top DMC Top Cover(Beka Or Compatible) Beka Way 70w HPS-I (Specifications Par. B 5.5)							
3.18.		70W HPS Bekalane Bottom Entry Bubble Glass (Beka Or Compatible) (Specifications Par. B 5.6)							
3.19.		125W MV Bekalane Bottom Entry Bubble Glass (Beka Or Compatible) (Specifications Par. B 5.6)							
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3.20.	02C001	70W HPS Bekalane Side Entry Bubble Glass (Beka Or Compatible) (Specifications Par. B 5.6)		594					
3.21.	02C006	125W MV Bekalane Side Entry Bubble Glass (Beka Or Compatible) (Specifications Par. B 5.6)		30					
3.22.	02C003	70W HPS Bekalane Flat glass Bottom Entry (Beka Or Compatible) (Specifications Par. B 5.6)		246					
3.23.	02C005	70W HPS Bekalane Flat glass Side Entry (Beka Or Compatible) (Specifications Par. B 5.6)		132					
3.24.	028009	150W HPS Bekalane Bottom Entry Bubble Glass (Beka Or Compatible) (Specifications Par. B 5.6)		1156					
3.25.	02S010	150W HPS Bekalane Side Entry Bubble Glass (Beka Or Compatible) (Specifications Par. B 5.6)		171					
3.26.		6 Sided Bottom Entry Post Top(Beka Or Compatible) Beka Ray 70w HPS-I (Specifications Par. B 5.7)							
3.27.		6 Sided Bottom Entry Post Top(Beka Or Compatible) Beka Ray 125w MV (Specifications Par. B 5.7)							
3.28.		70W HPS Bekalux Side Entry (Specifications Par. B 5.8)							
3.29.		70W HPS Bekalux Bottom Entry (Specifications Par. B 5.8)							
3.30.		125W MV Bekalux Side Entry (Specifications Par. B 5.8)							
3.31.		125W MV Bekalux Bottom Entry (Specifications Par. B 5.8)							
4.	LAMPS						Each (Unit Price)	Each (Unit Price)	Each (Unit Price)
4.1.	Compact	fluorescent lamps							

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4.1.1		CFL 13/14 watt, 250 volt, ES.							
4.1.2		CFL 13/14 watt, 250 volt, BC							
4.1.3		CFL 20 watt, 250 volt, ES.							
4.1.4		CFL 20 watt, 250 volt, BC							
4.1.5		55 watt, 12 volt, traffic signage pigtail type							
4.2.	Tungsten	Halogen Lamps							
4.2.1		500 watt, 250 volt, double ended							
4.2.2		1000 watt, 250 volt, double ended							
4.2.3		1500 watt, 250 volt, double ended							
4.2.4		2000 watt, 250 volt, double ended							
4.3.	Fluoresce	nt Lamps							
4.3.1		40 watt, 1200mm, Medium Bi-pin							
4.3.2		65 watt, 1500mm, Medium Bi-pin							
4.3.3		55 watt, 1800mm, Single pin							
4.3.4		85 watt, 2400mm, Bi-pin							
4.3.5		PL 9							
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4.4.	DISCHAR	GE LAMPS							
4.4.1	Mercury V	apour Lamps							
4.4.1.1.	02G004	125 watt, 250 volt, ES		2292					
4.4.1.2.	02G006	250 watt, 250 volt, GES		78					
4.4.1.3.		400 watt, 250 volt, GES							
4.4.2	Mercury T	ungsten Lamps (Mercury Blended)							
4.4.2.1.		160 watt, 250 volt, ES							
4.4.2.2.		160 watt, 250 volt, BC							
4.4.3	High Pres	sure Sodium							
4.4.3.1.		250 watt, Clear tubular, GES							
4.4.3.2.	02G005	250 watt, Coated elliptic, GES		369					
4.4.3.3.		400 watt, Clear tubular, GES							
4.4.3.4.	02G001	400 watt, Coated elliptic, GES		12					
4.4.3.5.	02G017	70 watt, Coated elliptic, ES with internal igniter		2256					
4.4.3.6.		70 watt, Clear tubular, GES							
4.4.3.7.		150 watt Coated elliptic, GES							
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4.4.4	Metal Hali	de							
4.4.4.1.		400 watt, Tubular without internal igniter							
4.4.4.2.		400 watt, Tubular with internal igniter							
4.4.4.3.		2000 watt, Tubular without internal igniter							
4.4.4.4.		2000 watt, Tubular with internal igniter							
4.5.	LAMPS - 0	GENERAL							
4.5.1	G0102F22	Globes: 16W 2D 2PIN		12					
4.5.2	02G012	Globes: 70W E/S Robot		195					
4.5.3	02G010	Globes: 80W Mercury (HPL-N) E27		393					
4.5.4	K02G002B	Globes: 11W Energy Saver BC		534					
4.5.5	K02G002A	Globes: 11W Energy Saver ES		249					
4.5.6		Globes: 160WATT Mercury Blend							
4.5.7	G0101D02	Globes: 60W ES		114					
4.5.8		Globes: 60WATT Spot One (R63)		27					
4.5.9	G0101D08	Globes: 70W NAVT Super		255					
4.5.10	G0101B06	Globes: 100W B/C		135					
4.5.11		GLOBES: 200W BC Clear							

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Item #	OM stock code	Description	Lead Time (Weeks)	Est. Qty. Contract period	Manufacturer & Model / Type	Indicate Quantity / Bag / Drum / Roll / Packet	Kleinmond Tender Price Excluding VAT	Hermanus Tender Price Excluding VAT	Gansbaai Tender Price Excluding VAT
4.5.12	02H001	Halogen Lamp: 12V 55W H3 (OSRAM)		150					
5.	MINIATUR	E SUB-STATION – NB: COPPER WINDING ONLY	(Specificat	ions Par. B	6)		Each (Unit Price)	Each (Unit Price)	Each (Unit Price)
5.1.		200 KVA 11500/420V. Miniature Substation as per specification including LV circuit breakers							
5.2.	02M201	315A 11500/420V. Miniature Substation as per specification including LV circuit breakers		6					
5.3.		400 KVA 11500/420V. Miniature Substation as per specification including LV circuit breakers							
5.4.	02M203	500 KVA 11500/420V. Miniature Substation as per specification including LV circuit breakers		6					
5.5.	02M204	630 KVA 11500/420V. Miniature Substation as per specification including LV circuit breakers		6					
5.6.	02M205	800 KVA 11500/420V. Miniature Substation as per specification including LV circuit breakers		6					
5.7.		1000 KVA 11500/420V. Miniature Substation as per specification including LV circuit breaker.							
6.	TRANSFORMERS – NB: COPPER WINDING ONLY (Specifications, Par. B 7)						Each (Unit Price)	Each (Unit Price)	Each (Unit Price)
6.1.	02T300	25 KVA 11500/420V Pole mounted transformer		3					
6.2.	02T301	50 KVA 11500/420V Pole mounted transformer		3					
6.3.		100 KVA 11500/420V Pole mounted transformer							
6.4.		200 KVA 11500/420V Pole mounted transformer							

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6.5.	02T031	200 KVA 11500/420V Transformer with enclosed LV Compartment – Pole Mounted (Specifications, Par. 6)		6					
6.6.		25 KVA 11500/420V Pole mounted transformer							
6.7.		50 KVA 11500/420V Pole mounted transformer							
6.8.		100 KVA 11500/420V Pole mounted transformer							
6.9.		200 KVA 11500/420V Pole mounted transformer							
6.10.		200 KVA 11500/420V Transformer with enclosed LV Compartment – Pole Mounted							
7.	KIOSKS AND ENCLOSURES					Each (Unit Price)	Each (Unit Price)	Each (Unit Price)	
7.1.	Polyethyle	ene Kiosk (Specifications, Par. B 8.1)							
7.1.1		2 Way double door kiosk with busbars. Must have integrated hinges. ("Greenbro" or Compatible)							
7.1.2		4 Way double door kiosk with busbars. Must have integrated hinges ("Greenbro" or Compatible)							
7.1.3	02K002	6 Way double door kiosk with busbars. Must have integrated hinges. ("Greenbro" or Compatible)		48					
7.1.4	02K003	9 Way double door kiosk with busbars. Must have integrated hinges. ("Greenbro" or Compatible)		48					
7.1.5	02K001	12 Way double door kiosk with busbars. Must have integrated hinges. ("Greenbro" or Compatible)		24					
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7.2.	Polyethyl	ene Kiosk (Pearly Beach) (Specifications, Par. B 8.	2)						
7.2.1		2 Way double door kiosk with busbars. Must have integrated hinges. ("Greenbro" or Compatible)							
7.2.2		4 Way double door kiosk with busbars. Must have integrated hinges ("Greenbro" or Compatible)							
7.2.3		6 Way double door kiosk with busbars. Must have integrated hinges. ("Greenbro" or Compatible)							
7.2.4		9 Way double door kiosk with busbars. Must have integrated hinges. ("Greenbro" or Compatible)							
7.2.5		12 Way double door kiosk with busbars. Must have integrated hinges. ("Greenbro" or Compatible)							
7.2.6		Key: Anti vandal Stainless Left-hand Thread							
7.3.	Polyethyl	ene Enclosures (Specifications, Par. B8.3)							
7.3.1	02K100	AP1 Polyethylene, Pole Mount Enclosed / Stainless Steel Pole Mount Brackets / Mounting Board / Neutral Bar.		12					
7.3.2		SMB2 polyethylene, Stainless steel pole mount brackets, one row din rail		60					
7.4.	Glass Fib	er Enclosures							
7.4.1		2 Way double door kiosk with busbars							
7.4.2		4 Way double door kiosk with busbars							
7.4.3		6 Way double door kiosk with busbars	-						

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Item #	OM stock code	Description	Lead Time (Weeks)	Est. Qty. Contract period	Manufacturer & Model / Type	Indicate Quantity / Bag / Drum / Roll / Packet	Kleinmond Tender Price Excluding VAT	Hermanus Tender Price Excluding VAT	Gansbaai Tender Price Excluding VAT
7.4.4		9 Way double door kiosk with busbars							
7.4.5		12 Way double door kiosk with busbars							
8.	11 KV SF	6 RMU & METERING UNITS (Specifications Par. B	9.)				Each (unit Price)	Each (Unit Price)	Each (Unit Price)
8.1.		SF6 RMU Circuit breakers for coastal areas ("SCHNEIDER" or "ABB" or Compatible)							
8.2.		SF6 RMU Circuit breakers with metering unit for coastal areas ("SCHNEIDER" or "ABB" or Compatible)							
9.	STREETL	GHT POLES					Each (unit Price)	Each (Unit Price)	Each (Unit Price)
9.1.		4.2m Steel Pole (Specifications Par. B 10.1)							
9.2.		5.7m Steel Pole (Specifications Par. B 10.1)							
9.3.		7.2m Steel Pole (Specifications Par. B 10.1)							
9.4.		10m Steel Pole (Specifications Par. B 10.1)							
9.5.		11.5m Steel Pole (Specifications Par. B 10.1)							
9.6.		7.2m Concrete Pole (Specifications Par. B 10.2)							
9.7.		3.6m Heavy Duty GRP Pole complete with Spigot, Baseplate, Glandplate and MCB 5A/5kA ("BEKA K18.76.30" or similar)							
9.8.		4.5m Heavy Duty GRP Pole complete with Spigot, Baseplate, Glandplate and MCB 5A/5Ka ("BEKA K18.76.30" or similar)							
9.9.		9m Wooden Gum – Creosote Treated		20					
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10.	CABLE TE	ERMINATIONS AND JOINTS					Each (Unit Price)	Each (Unit Price)	Each (Unit Price)
10.1.	MV HEAT	SHRINK TERMINATIONS & JOINTS PILC GSTA 6	.35/11 KV	TABLE 19 C	CABLE (Specification	s Par. B13.1)			
10.1.1	02T100	16mm² - 35mm² Heat Shrink Indoor 650mm² Termination with earth kid as per SANS 1332/2013		12					
10.1.2		35mm² - 70mm² Heat Shrink Outdoor 650mm² Termination with earth kid as per SANS 1332/2013							
10.1.3	02T101	50mm² - 95mm² Heat Shrink Indoor 650mm² Termination with earth kid as per SANS 1332/2013		25					
10.1.4		95mm² - 120mm² Heat Shrink Outdoor 650mm² Termination with earth kid as per SANS 1332/2013							
10.1.5	02T102	120mm² - 185mm² Heat Shrink Indoor 650mm² Termination with earth kid as per SANS 1332/2013		20					
10.1.6	02T200	16mm² - 35mm² Heat Shrink Outdoor 1200mm² Termination with earth kid as per SANS 1332/2013		20					
10.1.7	02T201	50mm² - 95mm² Heat Shrink Outdoor 1200mm² Termination with earth kid as per SANS 1332/2013		20					

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10.1.8	02T202	120mm² - 185mm² Heat Shrink Outdoor 1200mm² Termination with earth kid as per SANS 1332/2013		20					
10.1.9	02J100	16mm² - 35mm² Heat Shrink Joint Outdoor 1200mm² Joint as per SANS 1332/2013		45					
10.1.10	02J101	50mm² - 95mm² Heat Shrink Joint Outdoor 1200mm² Joint as per SANS 1332/2013		45					
10.1.11	02J102	120mm² - 185mm² Heat Shrink Joint Outdoor 1200mm² Joint as per SANS 1332/2013		25					
10.1.12	02C013	Cable Compound (12.7KG)		12					
10.2.	SINGLE C	ORE BUNDLE CONDUCTOR 11KV – JOINTS AND	TERMINA1	ΓΙΟΝS (Spe	cifications Par. B13.	1)			
10.2.1		Inline Joint: 16 – 35mm (SJXU 21A10) (Bundle conductor) PEX							
10.2.2		Inline Joint: 50 - 70mm (SJXU 22A10) (Bundle conductor) PEX							
10.2.3		Inline Joint: 95 – 150mm (SJXU 22R10) (Bundle conductor) PEX							
10.2.4		Single Core Termination: Outdoor 16 – 25mm; STXB 21R12 PEX							
10.2.5		Single Core Termination: Outdoor 35 – 70mm; STXB 22R12 PEX							
10.2.6		Single Core Termination: Outdoor 95 – 150mm; STXB 23R12							
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10.3.	LOW VOL	TAGE HEAT SHRINK JOINTS (Specifications Par.	. B13.1)						
10.3.1		Heat Shrink Low Voltage Joint SJLA 4mm – 16mm							
10.3.2		Heat Shrink Low Voltage Joint SJLA 25mm - 50mm							
10.3.3		Heat Shrink Low Voltage Joint SJLA 70mm – 120mm							
10.3.4		Heat Shrink Low Voltage Joint SJLA 120mm - 240mm							
10.4.	HEAT SHRINK JOINTS MV (Specifications Par. B13.1)								
10.4.1		Heat Shrink Joint 3 Core PILC (SJPA 21 A31)							
10.4.2		Heat Shrink Joint 3 Core PILC (SJPA 22 A31							
10.4.3		Heat Shrink Joint 3 Core PILC (SJPA 23 A31							
10.5.	LOW VOL	TAGE RESIN FILL CABLE JOINTS (Specifications	s Par. B13	3.2)					
10.5.1		Joint Kit:P0 (91-A0)							
10.5.2	02S001	Joint Kit:P1 (91-A1)		80					
10.5.3	02S002	Joint Kit:P2 (91-A2)		900					
10.5.4		Joint Kit:P2.5 (91-A3)							
10.5.5	028003	Joint Kit:P3 (91-A4)		20					
10.5.6		Joint Kit:P3.5 (91-A4,5)							
10.5.7	02S006	Joint Kit:P4 (91-A5)		45					

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10.6.	CAST IRC	ON JOINTS							
10.6.1	02J001	Joint: 1001 Cast Iron Complete		3					
10.6.2	02J002	Joint: 1002 Cast Iron Complete		3					
10.6.3	02J003	Joint: 1003 Cast Iron Complete		6					
11.	CIRCUIT I	BREAKERS (Specifications Par. B 14)					Each (unit Price)	Each (Unit Price)	Each (Unit Price)
11.1.		Circuit Breakers 100 Amp – J25S Hydraulic Magnetic ("CBI" or Compatible) Frame size 105x210mm							
11.2.	02C071	Circuit Breakers 125 Amp – J25S Hydraulic Magnetic ("CBI" or Compatible) Frame size 105x210mm		2					
11.3.	02C073	Circuit Breakers 150 Amp – J25S Hydraulic Magnetic ("CBI" or Compatible) Frame size 105x210mm		3					
11.4.		Circuit Breakers 175 Amp – J25S Hydraulic Magnetic ("CBI" or Compatible) Frame size 105x210mm							
11.5.	02C074	Circuit Breakers 200 Amp – J25S Hydraulic Magnetic ("CBI" or Compatible) Frame size 105x210mm		2					
11.6.		Circuit Breakers 225 Amp – J25S Hydraulic Magnetic ("CBI" or Compatible) Frame size 105x210mm							
11.7.	02C072	Circuit Breakers 250 Amp – J25S Hydraulic Magnetic ("CBI" or Compatible) Frame size 105x210mm		50					

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11.8.		Circuit Breakers 300 Amp – L25B Hydraulic Magnetic ("CBI" or compatible)							
11.9.		Circuit Breakers 350 Amp – L25B Hydraulic Magnetic ("CBI" or compatible)							
11.10.		Circuit Breakers 400 Amp – L25B Hydraulic Magnetic ("CBI" or compatible)							
11.11.		Circuit Breakers 450 Amp – L25B Hydraulic Magnetic ("CBI" or compatible)							
11.12.		Circuit Breakers 500 Amp – L25B Hydraulic Magnetic ("CBI" or compatible)							
11.13.		Circuit Breakers 550 Amp – L25B Hydraulic Magnetic ("CBI" or compatible))							
11.14.		Circuit Breakers 600 Amp – L25B Hydraulic Magnetic ("CBI" or compatible)							
11.15.		Circuit Breaker Shroud Triple							
11.16.	02C051	Circuit Breaker: 3 Phase 20AMP Orange Toggle (3 X 26mm)		12					
11.17.		Circuit Breaker: 3 Phase 20AMP Red Toggle (3 X 26mm)							
11.18.	02C052	Circuit Breaker: 3 Phase 30AMP Orange Toggle (3 X 26mm)		12					
11.19.		Circuit Breaker: 3 Phase 30AMP Red Toggle (3 X 26mm)							
11.20.	02C53	Circuit Breaker: 3 Phase 40AMP Orange Toggle (3 X 26mm)		12					

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11.21.		Circuit Breaker: 3 Phase 40AMP Red Toggle (3 X 26mm)							
11.22.	02C054	Circuit Breaker: 3 Phase 50AMP Orange Toggle (3 X 26mm)							
11.23.		Circuit Breaker: 3 Phase 50AMP Red Toggle (3 X 26mm)							
11.24.	02C055	Circuit Breaker: 3 Phase 60AMP Orange Toggle (3 X 26mm)		12					
11.25.		Circuit Breaker: 3 Phase 60AMP Red Toggle (3 X 26mm)							
11.26.	02C056	Circuit Breaker: 3 Phase 70AMP Orange Toggle (3 X 26mm)		12					
11.27.		Circuit Breaker: 3 Phase 70AMP Red Toggle (3 X 26mm)							
11.28.	02C057	Circuit Breaker: 3 Phase 80AMP Orange Toggle (3 X 26mm)		12					
11.29.		Circuit Breaker: 3 Phase 80AMP Red Toggle (3 X 26mm)							
11.30.	02C058	Circuit Breaker: 3 Phase 90AMP Orange Toggle (3 X 26mm)		12					
11.31.		Circuit Breaker: 3 Phase 90AMP Red Toggle (3 X 26mm)							
11.32.	02C059	Circuit Breaker: 3 Phase 100AMP Orange Toggle (3 X 26mm)		12					
11.33.		Circuit Breaker: 3 Phase 100AMP Red Toggle (3 X 26mm)							
11.34.	02C045	Circuit Breaker: S/ Phase 30AMP Orange Toggle (1 X 26mm)		12					
11.35.		Circuit Breaker: S/ Phase 30AMP Red Toggle (1							
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		X 26mm)							
11.36.		Circuit Breaker: S/ Phase 35 AMP Orange Toggle (1 X 26mm)							
11.37.	02C047	Circuit Breaker: S/ Phase 40AMP Orange Toggle (1 X 26mm)		12					
11.38.		Circuit Breaker: S/ Phase 40AMP Red Toggle (1 X 26mm)							
11.39.	02C048	Circuit Breaker: S/ Phase 50AMP Orange Toggle (1 X 26mm)							
11.40.		Circuit Breaker: S/ Phase 60AMP Red Toggle (1 X 26mm)							
11.41.	02C049	Circuit Breaker: S/ Phase 63AMP Orange Toggle (1 X 26mm)		200					
11.42.	02C050	Circuit Breaker: S/ Phase 70AMP Orange Toggle (1 X 26mm)		12					
11.43.	02C026	Circuit Breaker: S/ Phase 80AMP Orange Toggle (1 X 26mm)		1200					
11.44.		Circuit Breaker: S/ Phase 80AMP Red Toggle (1 X 26mm)							
11.45.	02C028	Circuit Breaker: S/ Phase 100AMP Orange Toggle (1 X 26mm)		12					
11.46.		Circuit Breaker: S/ Phase 100AMP Red Toggle (1 X 26mm)							
11.47.	02C007	Circuit Breaker: SAM QA-1(13) 5AMP		126					
11.48.	02C041	Circuit Breaker: SAM QA-1(13) 10AMP		250					
11.49.	02C043	Circuit Breaker: SAM QA-1(13) 20AMP		48					

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11.50.		Shrouds & Clips: Single Phase (SF1) (1 X 26mm) 25 – 60 Amp							
11.51.		Shrouds & Clips: Single Phase (SF1) (1 X 26mm) 70 – 100 Amp							
11.52.		Shrouds & Clips: Three Phase (SF1) (3 X26mm) 25 – 60 Amp							
11.53.		Shrouds & Clips: Three Phase (SF1) (3 X26mm) 70 – 100 Amp							
11.54.		Shrouds: No 2							
12.	STRIKER	PIN FUSES					Each (unit Price)	Each (Unit Price)	Each (Unit Price)
12.1.	02F100	Striker Pin Fuse 36 Amp 254mm		3					
12.2.	02F101	Striker Pin Fuse 45 Amp 254mm		3					
12.3.		Striker Pin Fuse 10 Amp 254mm ("BUSSMAN" or similar)							
12.4.		Striker Pin Fuse 20 Amp 254mm ("BUSSMAN" or similar)							
12.5.	02F099	Striker Pin Fuse 31.5 Amp 254mm ("BUSSMAN" or similar)		3					
12.6.	02F102	Striker Pin Fuse 63 Amp 254mm ("BUSSMAN" or similar)		3					
12.7.	02F103	Striker Pin Fuse 80 Amp 254mm ("BUSSMAN" or similar)		3					
12.8.		Striker Pin Fuse 90 Amp 254mm ("BUSSMAN" or similar)							
12.9.	02F104	Striker Pin Fuse 100 Amp 254mm ("BUSSMAN" or similar)		3					

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12.10.	02F200	Striker Pin Fuse 36 Amp 360mm Long ("BUSS-MAN" or similar)		3					
12.11.	02F201	Striker Pin Fuse 45 Amp 360mm ("BUSSMAN" or similar)		3					
12.12.	02F015	Striker Pin Fuse 50 Amp 360mm ("BUSSMAN" or similar)		3					
12.13.	02F202	Striker Pin Fuse 63 Amp 360mm ("BUSSMAN" or similar)		3					
12.14.	02F203	Striker Pin Fuse 80 Amp 360mm ("BUSSMAN" or similar)		3					
12.15.	02F204	Striker Pin Fuse 90 Amp 360mm ("BUSSMAN" or similar)		3					
12.16.	02F205	Striker Pin Fuse 100 Amp 360mm ("BUSSMAN" or similar)		3					
12.17.		Striker Pin Fuse 50 Amp - 50kA 80N Medium UN 17.5kV TDMEJ 50 Amp-34/7 – Size 550mm x 50mm x 45mm ("BUSSMAN" or similar)							
12.18.		Fuse: 20 Amp 11 KV H.T							
12.19.		Fuse: 100 Amp 12KV (120HFMA100)							
12.20.		Fuselink: 1 Amp 12KV HRC							
12.21.	G0103F09	Fuselink: 2 Amp K-Speed		30					
12.22.	G0103F10	Fuselink: 5 Amp Standard		30					
12.23.	02F069	Fuselink: 6 Amp Type-K Standard		30					
12.24.	02F070	Fuselink: 10 Amp Type-K Standard		30					

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12.25.	02F071	Fuselink: 15 Amp Type-K Standard		30					
12.26.	02F072	Fuselink : 20 Amp Type-K Standard		30					
12.27.		Fuselink : 25 Amp K-Speed		30					
12.28.	02F073	Fuselink : 30 Amp Type-K Standard		30					
12.29.		Fuselink : 40 Amp K-Speed		30					
12.30.	02F074	Fuselink : 40 Amp Type-K Standard		30					
12.31.	02F075	Fuselink : 50 Amp Type-K Standard		30					
12.32.	02F076	Fuselink : 65 Amp Type-K Standard		30					
12.33.	02F077	Fuselink : 80 Amp Type-K Standard		10					
12.34.	02F021	Fuselink :10 0amp Type-K Standard		10					
12.35.		Fuses: 20 - 63 Amp 11KV							
12.36.	G0102B14	Fuse: 20A KEBXO		12					
12.37.	G0102F12	Fuse: 36A KEBXO H.S		12					
12.38.	G0102B15	Fuse: 40A KEBXO		12					
12.39.	G0102F13	Fuse: 45A KEBXO H.S		12					
12.40.	G0102B16	Fuse: 63A KEBXO		12					
12.41.	G0102F14	Fuse: 80A KEBXO H.S		12					
12.42.	G102F15	Fuse: 90A KEBXO H.S		12					

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13.	CURRENT	TRANSFORMERS					Each (unit Price)	Each (Unit Price)	Each (Unit Price)
13.1.	02M011	Current Transformer: 150/5 (32mm Ring) CL1		6					
13.2.	02M012	Current Transformer: 200/5 (32mm Ring) CL1							
13.3.	02M013	Current Transformer: 250/5 (32mm Ring) CL1		3					
13.4.	02M031	Current Transformer: 250/5 (36mm Ring) CL1		3					
13.5.	02M014	Current Transformer: 300/5 (36mm Ring) CL1		3					
13.6.	02M015	Current Transformer: 350/5 (36mm Ring) CL1							
13.7.	02M016	Current Transformer: 400/5 (36mm Ring) CL1							
13.8.	02M018	Current Transformer: 500/5 (65mm Ring )CL1							
13.9.	02M019	Current Transformer: 600/5 (65mm Ring) CL1							
13.10.	02M020	Current Transformer: 700/5 (65mm Ring) CL1							
13.11.	02M021	Current Transformer: 800/5 (65mm Ring) CL1							
13.12.	02M022	Current Transformer: 1000/5 (65mm Ring) CL1							
13.13.	02M300	Metering Test Block, Front connected 13way HTB001							
13.14.		Metering Test Block, Rear connected							

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14.	LUGS & F	ERRULES					Each (unit Price)	Each (Unit Price)	Each (Unit Price)
14.1.	02F034	Crimping Ferrule: 2.5mm Copper		27					
14.2.		Crimping Ferrule: 4mm Copper							
14.3.	02F033	Crimping Ferrule: 6mm Copper		152					
14.4.	02F095	Crimping Ferrule: 10mm Copper		135					
14.5.	02F048	Crimping Ferrule: 16mm Copper		1412					
14.6.	02F035	Crimping Ferrule: 25mm Copper		90					
14.7.	02F036	Crimping Ferrule: 35mm Copper		83					
14.8.	02F037	Crimping Ferrule: 50mm Copper		63					
14.9.	02F038	Crimping Ferrule: 70mm Copper		114					
14.10.	02F039	Crimping Ferrule: 95mm Copper		56					
14.11.	02F040	Crimping Ferrule:120mm Copper		1					
14.12.	02F041	Crimping Ferrule:150mm Copper		1					
14.13.	02F042	Crimping Ferrule:185mm Copper		12					
14.14.	02F043	Crimping Ferrule:240mm Copper							
14.15.	02F044	Crimping Ferrule:300mm Copper							
14.16.	02L070	Crimping Lugs: 2.5X 4mm Copper							

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14.17.	02L069	Crimping Lugs: 2.5X 5mm Copper							
14.18.	02L068	Crimping Lugs: 2.5X 6mm Copper		160					
14.19.	02L029	Crimping Lugs: 2.5X 8mm Copper		40					
14.20.	02L067	Crimping Lugs: 4X 5mm Copper							
14.21.	02L066	crimping lugs: 4X 6mm Copper							
14.22.	02L065	Crimping Lugs: 6X 5mm Copper		20					
14.23.	02L064	Crimping Lugs: 6X 6mm Copper		35					
14.24.	02L063	Crimping Lugs: 6X 8mm Copper		30					
14.25.	02L043	Crimping Lugs: 6x10mm Copper		40					
14.26.	02L062	Crimping Lugs: 10X 5mm Copper		5					
14.27.	02L044	Crimping Lugs: 10X 6mm Copper		5					
14.28.	02L045	Crimping Lugs: 10X 8mm Copper		10					
14.29.	02L046	Crimping Lugs: 16X 6mm Copper		488					
14.30.	02L021	Crimping Lugs: 16X 8mm Copper		184					
14.31.	02L017	Crimping Lugs: 16x10mm Copper		118					
14.32.	02L049	Crimping Lugs: 16x12mm Copper		5					
14.33.	02L050	Crimping Lugs: 16x16mm Copper							

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14.34.	02L051	Crimping Lugs: 25X 6mm Copper		10					
14.35.	02L013	Crimping Lugs: 25X 8mm Copper		80					
14.36.	02L019	Crimping Lugs: 25x10mm Copper		65					
14.37.	02L054	Crimping Lugs: 25x12mm Copper		4					
14.38.	02L055	Crimping Lugs: 25x16mm Copper		3					
14.39.	02L020	Crimping Lugs: 35X 8mm Copper							
14.40.	02L021	Crimping Lugs: 35x10mm Copper		30					
14.41.	02L058	Crimping Lugs: 35x12mm Copper		33					
14.42.	02L111	Crimping Lugs: 35x16mm Copper		10					
14.43.	02L059	Crimping Lugs: 50X 8mm Copper		20					
14.44.	02L023	Crimping Lugs: 50x10mm Copper		42					
14.45.	02L061	Crimping Lugs: 50x12mm Copper		6					
14.46.	02L024	Crimping Lugs: 50x16mm Copper							
14.47.	02L025	Crimping Lugs: 70X 8mm Copper		49					
14.48.	02L026	Crimping Lugs: 70x10mm Copper		117					
14.49.	02L027	Crimping Lugs: 70x12mm Copper		68					
14.50.	02L028	Crimping Lugs: 70x16mm Copper		10					

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14.51.	02L030	Crimping Lugs: 95X 8mm Copper		21					
14.52.	02L031	Crimping Lugs: 95x10mm Copper		34					
14.53.	02L032	Crimping Lugs: 95x12mm Copper		46					
14.54.	02L033	Crimping Lugs: 95x20mm Copper		3					
14.55.	02L034	Crimping Lugs:120X 8mm Copper		1					
14.56.	02L035	Crimping Lugs:120x10mm Copper		41					
14.57.	02L036	Crimping Lugs:120x12mm Copper		13					
14.58.	02L037	Crimping Lugs:150x10mm Copper							
14.59.	02L038	Crimping Lugs:150x12mm Copper							
14.60.	02L039	Crimping Lugs:150x16mm Copper							
14.61.	02L040	Crimping Lugs:185x12mm Copper		16					
14.62.	02L041	Crimping Lugs:240x12mm Copper							
14.63.	02L042	Crimping Lugs:300x16mm Copper							
14.64.	02L083	Crimping Lugs: 25mm x 10mm Aluminium							
14.65.		Crimping Lugs: 25mm x 12mm Aluminium							
14.66.	02L082	Crimping Lugs: 35mm x 10mm Aluminium							
14.67.	02L081	Crimping Lugs: 35mm x 12mm Aluminium							

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14.68.	02L079	Crimping Lugs: 50mm x 10mm Aluminium		8					
14.69.	02L078	Crimping Lugs: 50mm x 12mm Aluminium							
14.70.	02L077	Crimping Lugs: 70mm x 10mm Aluminium		2					
14.71.	02L076	Crimping Lugs: 70mm x 12mm Aluminium							
14.72.	02L074	Crimping Lugs: 95mm x 10mm Aluminium		5					
14.73.	02L0073	Crimping Lugs: 95mm x 12mm Aluminium							
14.74.		Crimping Lugs: 120mm x 10mm Aluminium							
14.75.	02L072	Crimping Lugs: 120mm x 12mm Aluminium		1					
14.76.		Crimping Lugs: 150mm x 10mm Aluminium							
14.77.	02L071	Crimping Lugs: 150mm x 12mm Aluminium							
14.78.		Crimping Lugs: 185mm x 12mm Aluminium							
14.79.	02L084	Crimping Lugs: 25mmx12mm Orange Bundle Conductor							
14.80.	02L085	Crimping Lugs: 35mmx12mm Red Bundle Conductor							
14.81.	02L086	Crimping Lugs: 50mmx12mm Yellow Bundle Conductor							
14.82.	02L087	Crimping Lugs: 70mmx12mm White Bundle Conductor							
14.83.	02L088	Crimping Lugs: 95mmx12mm Grey Bundle Conductor							

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14.84.		Crimping Lugs: 54.6mm Neutral Bundle							
14.85.	02F025	Crimping Ferrule: 25mm Aluminium							
14.86.	02F026	Crimping Ferrule: 35mm Aluminium							
14.87.	02F027	Crimping Ferrule: 50mm Aluminium							
14.88.	02F028	Crimping Ferrule: 70mm Aluminium		2					
14.89.	02F029	Crimping Ferrule: 95mm Aluminium		2					
14.90.	02F030	Crimping Ferrule: 120mm Aluminium							
14.91.	02F031	Crimping Ferrule: 150mm Aluminium							
14.92.		Crimping Ferrule: 185mm Aluminium							
14.93.	02F047	Crimping Ferrule: 35-35mm Copper/Alum (Bi-Metal)							
14.94.	02F046	Crimping Ferrule: 50-50mm Copper/Alum (Bi-Metal)							
14.95.	02F045	Crimping Ferrule: 70-70mm Copper/Alum (Bi-Metal)							
14.96.	02F088	Crimping Ferrule: 95mmx95mmCopper/Alum (Bi-Metal)							
14.97.	02F062	Crimping Ferrule: 16mm Blue (MJPB)							
14.98.	02F052	Crimping Ferrule: 25mm Orange Bundle Conductor							
14.99.	02F058	Crimping Ferrule: 35mm Red Bundle Conductor		6					

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14.100.	02F054	Crimping Ferrule: 50mm Yellow Bundle Conductor							
14.101.	02F055	Crimping Ferrule: 70mm White Bundle Conductor							
14.102.	02F056	Crimping Ferrule: 95mm Grey Bundle Conductor							
14.103.	02F092	Crimping Ferrule: 54.6mm Neutral Bundle							
14.104.		Crimping Ferrule: 35mm Weak Back		50					
14.105.		Crimping Ferrule: 50mm Weak Back		50					
14.106.		Crimping Ferrule: 70mm Weak Back		50					
14.107.		Crimping Ferrule: 95mm Weak Back		50					
14.108.		Crimping Ferrule: 120mm Weak Back		50					
14.109.		Shear off lug BLMT 25/95-13 & 17 ("Tank" or similar)		50					
14.110.		Shear off lug BLMT 35/150-13 & 17 ("Tank" or similar)		50					
14.111.		Shear off lug BLMT 95/240-13 & 17 ("Tank" or similar)		50					
14.112.		Shear off lug BLMT 185/400-13 & 17 ("Tank" or similar)		50					
14.113.		Shear off ferrule BSM25/95 ("Tank" or similar)		50					
14.114.		Shear off ferrule BSM35/150 ("Tank" or similar)		50					
14.115.		Shear off ferrule BSM95/240 ("Tank" or similar)		50					
14.116.		Shear off ferrule BSM185/400 ("Tank" or similar)		50					
15. INSULATORS Each (unit Price) Each (Unit Price) Each						Each (Unit Price)			
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Item #	OM stock code	Description	Lead Time (Weeks)	Est. Qty. Contract period	Manufacturer & Model / Type	Indicate Quantity / Bag / Drum / Roll / Packet	Kleinmond Tender Price Excluding VAT	Hermanus Tender Price Excluding VAT	Gansbaai Tender Price Excluding VAT
15.1.	Silicone In	sulators							
15.1.1		6 DISC 480mm							
15.1.2		7 DISC 620mm; 520mm							
15.1.3		8 DISC 620mm; 490mm							
15.1.4		8 DISC 620mm; 500mm							
15.1.5		8 DISC 620mm; 620mm							
15.2.	2. Porcelain Insulators								
15.2.1	021010	Porcelain; 22kV intermediate complete with pin ,4kN with creepage 31mm/kV							
15.3.	Flexible B	pot							
15.3.1		Boots: Flexible Elastomeric Insulating Bushing Boot 17.5KV - RCAB 4120 (46-70 mm)	1	10					
15.3.2		RCAB or RICS 3133 Flexible boot							
16.	GENERAL						Each (unit Price)	Each (Unit Price)	Each (Unit Price)
16.1.	02A002	Airdac Strain Clamps for 10-16mm		45					
16.2.		Airdac Suspension Plate							
16.3.	02B004	Band It Buckles: 12.7mm (100'S)		15					
16.4.		Band It Buckles: 15.8mm (100'S)							
16.5.	02B005	B005 Band It Strap: 12.5X0.7mmx30m 33							
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16.6.		Band It Strap: 15.8X0.7Mmx30m							
16.7.	02T017	Barrier Tape: 75mmx500mx50mic - Red / White		30					
16.8.	G02T002	Danger Tape: 300mmx60 MIC – Orange		3					
16.9.		Orange Barrier Netting – 1.2m x 30m							
16.10.		Wooden Droppers (gum): ± 30mm x 1.2m - natural							
16.11.	02B041	Bundle Tie Straps: 200mm – Black							
16.12.	K02T004	Cable Ties:104mm x 2.5mm – Black		1					
16.13.	K02T004A	Cable Ties:200mm x 4,7mm – Black		5					
16.14.	K02T004B	Cable Ties:305mm x 4,7mm – Black		7					
16.15.	02C114	Clamp: Dead End							
16.16.	02C109	Clamp: MV Gland							
16.17.	02C113	Contactor: 230V 50/60HZ Magnetic(RAB-35T10) Or Compatible		30					
16.18.	G0102F05	Dropout Fuse Unit Type 36MZL 11/22kV 100amp 7.2kA Interrupting 360mm creepage 150kV BIL Fuse cut-out, complete with fuse tube assembly and mounting bracket. ("KARG" or similar)		36					
16.19.	02E001	Electro Flasher Unit: Model R1F 230V ("Omron" or Compatible)		12					
16.20.	02F022	Fluorescent Ballast: 4FT		1					
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Item #	OM stock code	Description	Lead Time (Weeks)	Est. Qty. Contract period	Manufacturer & Model / Type	Indicate Quantity / Bag / Drum / Roll / Packet	Kleinmond Tender Price Excluding VAT	Hermanus Tender Price Excluding VAT	Gansbaai Tender Price Excluding VAT
16.21.	02F023	Fluorescent Ballast: 5FT							
16.22.	02F024	Fluorescent Ballast: 6FT							
16.23.	02F078	Fluorescent Lamp Holder							
16.24.	K02S009	Fluorescent starters (FSU)		52					
16.25.	02F081	Fluorescent Tubes: 4FT (36w)							
16.26.		Fluorescent Tubes: 5FT (58w)							
16.27.	02F004	Fluorescent Tubes: 6FT'							
16.28.	02G023	Glands & Shrouds: No 1 BW		6					
16.29.	02G061	Glands & Shrouds: No 3 BW							
16.30.		Glands & Shrouds: No 5 BW							
16.31.	02G020	Glands & Shrouds: No. 2 BW		2					
16.32.		Glands: No. 0 (PVC)		12					
16.33.		Glands: No. 1 (PVC)							
16.34.	G0102B06	Glands: No. 2 (PVC)		3					
16.35.	G0103F06	Gloves: Rubber – Various sizes 1100 Volt		2					
16.36.		Gloves: Leather outer RGXSC-C – various sizes ("Regeltex" or similar)							
16.37.		Rubber Gloves – Cotton inners – various sizes							

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	ОМ		Lead	Est. Qty.	Manuela atuman 0	Indicate Quantity /	Kleinmond	Hermanus	Gansbaai
Item #	stock code	Description	Time (Weeks)	Contract period	Manufacturer & Model / Type	Bag / Drum / Roll / Packet	Tender Price Excluding VAT	Tender Price Excluding VAT	Tender Price Excluding VAT
16.38.		Gutter Bolts: 6 x 75mm							
16.39.	02T014	Insulation Tape: Black (+33) ("3M Scotch" or similar) (Specifications Par. B11.1)		1000					
16.40.	02T016	Insulation Tape: Blue (No.35) ("3M Scotch" or similar) (Specifications Par. B11.2)		450					
16.41.	G0102D12	Insulation Tape: Green (No.35) ("3M Scotch" or similar) (Specifications Par. B11.2)		20					
16.42.	02T015	Insulation Tape: Red (No.35) ("3M Scotch" or similar) (Specifications Par. B11.2)		450					
16.43.	02T003	Insulation Tape: White (No.35) ("3M Scotch" or similar) (Specifications Par. B11.2)		450					
16.44.		Insulation Tape: Yellow (No.35) ("3M Scotch" or similar) (Specifications Par. B11.2)		50					
16.45.	G0102C09	K-Clamps: 16mm		300					
16.46.	G0102C06	K-Clamps: 20mm		300					
16.47.	G0102C10	K-Clamps: 32mm		300					
16.48.	G0102C07	K-Clamps: 40mm		200					
16.49.		Lamp Fitting: Cheesecake Ceiling Light							
16.50.		Lamp Fitting: Slimline OD01A							
16.51.		Lamp: 220V White Bulkhead							
16.52.		Lamp: 50W Deco Cover							
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16.53.		Lamp: 50W Dura							
16.54.		Lamp: 50W Waco							
16.55.	G0101E03	Lightning Arrestors 11 KV		9					
16.56.	02L011	Line Taps:16mm (mo.6)		300					
16.57.	02L010	Line Taps: 25mm (mo 4)		300					
16.58.	02L008	Line Taps: 35mm (mo 2)		300					
16.59.	02L006	Line Taps: 50mm (mo 0)		300					
16.60.	02L009	Line Taps: 70mm (mo 3/0)		300					
16.61.	02L007	Line Taps: 100mm		100					
16.62.	G0102C05	Line Taps: 150mm (mo 5/8)		100					
16.63.	02P008	Pigtail Bolts: M 16 X 380							
16.64.		Miracle tool spray – Momar or similar (Specifications Par. B 15.)		200					
16.65.		Oil spill kit: One man splil kit (Specifications Par. B 16.1.)		12					
16.66.		Oil Cape (Specifications Par. B 16.2)							
16.67.		Rootsorb 25 kg (Specifications Par. B 16.3)		12					
16.68.		TSW Asbestos Encapsulation (Specifications Par. B 16.4)		12					

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16.69.		Orcasorb (Specifications Par. B 16.5)							
16.70.	02A003	Pigtail Screws		50					
16.71.		Pipe: 40mm x 4m Conduit Bosal Galv.							
16.72.	02P001	Pipe: 110mm x 6m Plasduct		420					
16.73.	G0102D02	Plugtops: 16A White PVC		6					
16.74.	02C007	Pole Bracket: CS14							
16.75.	02P003	Pole Mount Box + Vert. Bracket SPB1		60					
16.76.	G0102B13	Pole Top Make Offs (5X8 PLP)		2					
16.77.	02T001	Rubber Tape: 34mm x 3.2mm x 1.6m ("Pratley" or similar) (Specifications Par. B 12.)		300					
16.78.		Rubber Tape: 25mm x 0.75mm x 9.15m ("Pratley" or similar) (Specifications Par. B 12.)		120					
16.79.	K02S001	Saddles: 20mm Galvanized							
16.80.	K02S002	Saddles: 40mm Galvanized							
16.81.	02P031	Saddles: PVC 20mm							
16.82.		Cable clips: 14mm round							
16.83.	G0102B11	Solderless Earth Connection							
16.84.	02B038	Strain Clamp Bundle: LV Insulated Neutral							

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16.85.	02B039	Suspension Assembly Bundle: Insulated Neutral							
16.86.	02B040	Suspension Clamp Bundle: LV Insulated Neutral							
16.87.	K02S001	Switch: Earth Leakage 63A		8					
16.88.		Earth Leakage Shroud							
16.89.		Tubes: Halogen 240 X 1500							
16.90.	02J006	Wiping Metal S5		54					
16.91.	G0103F08	Wire:16mm Bare Copper		1000					
16.92.	K02W002	House Wire:16mm Red PVC		200					
16.93.		House Wire:16mm White PVC							
16.94.	K02W001	House Wire:16mm Black PVC		100					
16.95.		House Wire:16mm Blue PVC							
16.96.		House Wire:16mm Green/Yellow PVC							
16.97.		House Wire: 1.5mm Red PVC							
16.98.		House Wire: 1.5mm White PVC							
16.99.		House Wire: 1.5mm Black PVC							
16.100.		House Wire: 1.5mm Blue PVC							
16.101.		House Wire: 1.5mm Green/Yellow PVC							

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16.102.		House Wire: 2.5mm Red PVC							
16.103.		House Wire: 2.5mm White PVC							
16.104.		House Wire: 2.5mm Black PVC							
16.105.		House Wire: 2.5mm Blue PVC							
16.106.		House Wire: 2.5mm Green/Yellow PVC							
16.107.		Ready Boards with Light ("CBI" or similar)							
16.108.		Guy Grips – AL Blue 1250mm							
16.109.	G0102B12	Guy Grips – AL Green 1900mm							
16.110.		Guy Grips – AL Yellow 920mm							
16.111.		Guy Grips – AL Yellow 1100mm							
16.112.		Double switch socket outlet, 4 x 4 WITH cover							
16.113.		PVC Wonder box 4 x 4							
16.114.		Connector Blocks 5 Amp							
16.115.		Connector Blocks 10 Amp							
16.116.		Connector Blocks 15 Amp							
17.	BATTERIE	IES (Specifications Par. B 17)  Each (unit Price) Each (Unit Price) Each (Unit Price)						Each (Unit Price)	
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Item #	OM stock code	Description	Lead Time (Weeks)	Est. Qty. Contract period	Manufacturer & Model / Type	Indicate Quantity / Bag / Drum / Roll / Packet	Kleinmond Tender Price Excluding VAT	Hermanus Tender Price Excluding VAT	Gansbaai Tender Price Excluding VAT
17.1.		Type AAA: Alkaline Coppertop Penlight Batteries (per pack of 4)							
17.2.	44B002	Type AA: Alkaline Coppertop Penlight Batteries (per pack of 4)		1000					
17.3.	44B003	Type C: Alkaline Coppertop Medium Batteries (per pack of 2		30					
17.4.	44B005	Type D: Alkaline Coppertop Torch Batteries (per pack of 2)		240					
17.5.	44B004	Type PM3: Alkaline Coppertop 9Volt Batteries		150					

SIGNATURE	NAME (PRINT)		DATE
CAPACITY		NAME OF FIRM	

Reference No:	SC 1478/2014	Page 164 of 178
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#### **MUNICIPALITY**

#### 19. MBD 7.1. - CONTRACT FORM - PURCHASE OF GOODS

#### NOTE:

- This form must be completed in duplicate by both the successful bidder (Part 1) and the purchaser (Part 2). Both forms
  must be signed in the original so that the successful bidder and the purchaser will be in possession of originally signed
  contracts for their respective records.
- 2. NO correction fluid/tape may be used.
- 2.1. In the event of a mistake having been made, it shall be crossed out in ink and be accompanied by an initial at each and every alteration.

#### PART 1 (To be completed by the Bidder.)

- 1. I hereby undertake to supply all or any of the goods and/or works described in the attached bidding documents to the Overstrand Municipality in accordance with the requirements and specifications stipulated in tender number SC1478/2014 FOR THE SUPPLY AND DELIVERY OF ELECTRICAL INVENTORY ITEMS FOR A CONTRACT PERIOD ENDING 30 JUNE 2017, at the price/s quoted. My offer(s) remain(s) binding upon me and open for acceptance by the purchaser during the validity period indicated and calculated from the closing time of bid.
- 2. The following documents shall be deemed to form and be read and construed as part of this agreement:

Bidding documents, viz

- (a) Invitation to bid
- (b) Tax clearance certificate
- (c) Pricing schedule(s)
- (d) Technical Specification(s)
- (e) Preference claims in terms of the Preferential Procurement Regulations 2001
- (f) Declaration of interest
- (g) Special Conditions of Contract; and
- (h) General Conditions of Contract.
- 3. I confirm that I have satisfied myself as to the correctness and validity of my bid; that the price(s) and rate(s) quoted cover all the goods and/or works specified in the bidding documents; that the price(s) and rate(s) cover all my obligations and I accept that any mistakes regarding price(s) and rate(s) and calculations will be at my own risk.
- 4. I accept full responsibility for the proper execution and fulfilment of all obligations and conditions devolving on me under this agreement as the principal liable for the due fulfilment of this contract.
- 5. I declare that I have no participation in any collusive practices with any bidder or any other person regarding this or any other bid.
- 6. I confirm that I am duly authorised to sign this contract.

SIGNATURE	NAME (PRINT)	
CAPACITY	DATE	
NAME OF FIRM		
WITNESS 1:	WITNESS 2:	
DATE:		

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		3



#### **MUNICIPALITY**

#### **CONTRACT FORM - PURCHASE OF GOODS/WORKS**

#### PART 2 (To be completed by the Overstrand Municipality.)

1.	l,			, in my capacity as,				
	accept your	bid under reference number		, dated,				
	for the supply of goods/works indicated hereunder and/or further specified in the annexure(s).							
2.	An official or	rder indicating delivery instructions is	forthcoming.					
3.	3. I undertake to make payment for the goods/works delivered in accordance with the terms and conditions of the contract, within 30 (thirty) days after receipt of an invoice accompanied by the delivery note.							
4.	I confirm	n that I am duly authorized to sign this	contract.					
SIG	NED AT	on this	day of	20				
то	BE COMPLETE	ED BY THE OVERSTRAND MUNICIPALITY						
SIG	NATURE:		OFFICIAL STAMP:					
NAI	ME (PRINT):							
WIT	NESS 1:							
WIT	NESS 2:							



#### **MUNICIPALITY**

#### 20. DECLARATION BY TENDERER

I / We acknowledge that I / we am / are fully acquainted with the contents of the conditions of tender of this tender document and that I / we accept the conditions in all respects.						
I / We agree that the laws of the Republic of South Africa shall be applicable to the contract resulting from the acceptance of *my / our tender and that I / we elect <i>domicillium citandi</i> et executandi (physical address at which legal proceedings may be instituted) in the Republic at:						
		-				
	responsibility for the proper execume / us under this agreement as					
/ our tender; that that the price(s) co	e confirm I / we satisfied myself / on the price quoted cover all the wor cover all my / our obligations under garding price and calculations will be considered.	k / items specified ra resulting conti	d in the tender documents and ract and that I / we accept that			
I / We furthermore confirm that my / our offer remains binding upon me / us and open for acceptance by the Purchases / Employer during the validity period indicated and calculated from the closing date of the bid.						
SIGNATURE		NAME (PRINT)				
CAPACITY DATE						
NAME OF FIRM						
WITNESS 1		WITNESS 2				

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# PART C - DATABASE REGISTRATION

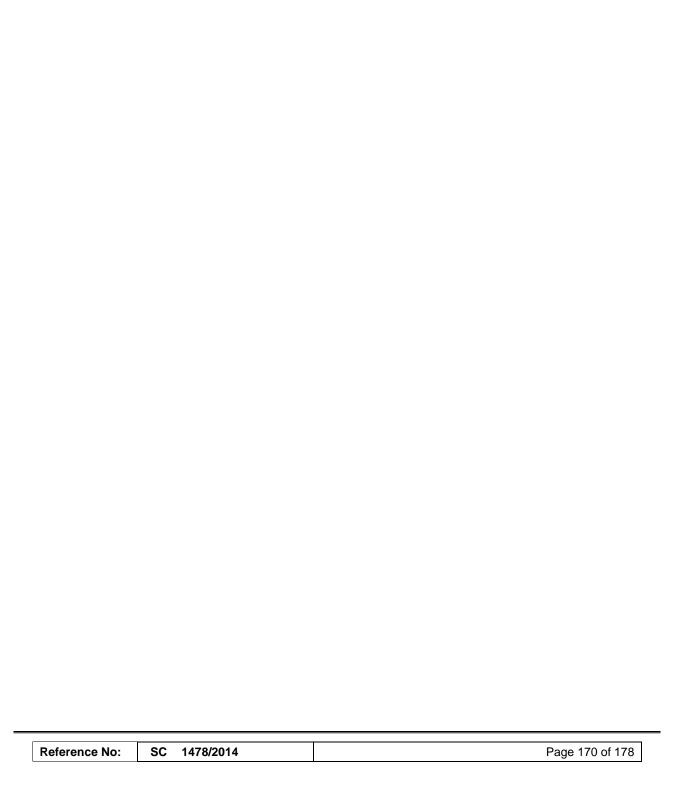
A	If you are a bidder, DULY REGISTERED as a Preferred Supplier on the Supply Chain Management Database of the Overstrand Municipality, COMPLETE THIS SECTION			
SCM DATABASE REGISTRATI		ON NUMBER	SC	
NAI	ME OF FIRM			
SIGNATURE			CAPACITY	
NAME (PRINT)				

В	If you are a bidder, NOT DULY REGISTERED as a Preferred Supplier on the Supply Chain Management Database of the Overstrand Municipality, it is compulsory to complete and attach the following forms:
1	Database Registration Form
2	Questionnaire For Preferential Procurement Policy
3	Declaration By Supplier
4	National Small Business Act No. 102 Of 1996 Classification
5	Documents Required
6	Nature Of Operations, Products Or Services
7	Credit Order Instruction



	FORMS REMOVED & HANDED TO DATA	BASE OFFICIAL		
1	Database Registration Form	Yes	No	
2	Questionnaire For Preferential Procurement Policy	Yes	No	
2.1	BBBEE Certificate / Letter from Auditor			
3	Declaration By Supplier	Yes	No	
4	National Small Business Act No. 102 Of 1996 Classification	Yes	No	
5	Nature Of Operations, Products Or Services	Yes	No	
6	Credit Order Instruction	Yes	No	
7	Documents Required:			
7.1	Copy of Company Registration Documentation	Yes	No	
7.2	Tax Clearance Certificate	Yes	No	
7.3	PAYE	Yes	No	
7.4	UIF Certificate / proof	Yes	No	
7.5	WCA Certificate / Letter of Good Standing	Yes	No	
7.6	Copies of ID documents of Directors / Members / Shareholders / Partners.			
8.	LIST ANY OTHER FORMS REMOVED AND SUBMITTED TO DATABASE OFFICIAL:			
1				
	m that I have removed the forms as indicated above from t	the tender documen	t and forward	led it
		the tender documen		led it
	Supplier Database Official  Removed			led it
to the S	Removed  lame			led it

Reference No:
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#### DATABASE REGISTRATION FORM

VAT/BTW REG. NO: 4140106396 OM-C1 www.overstrand.gov.za HERMANUS HANGKLIP-KLEINMOND STANFORD GANSBAAL Magnoliastraat 1 Magnolia Street

☑ 20 7200 **ONERSTRAND** Hoofstraat Main Road ⊠ 26 7220 Queen Victoriastraat 15 Queen Victoria Street 5de Laan 39 5th Avenue Privaatsak X3 Private Bag 7195 ⊠ 84 7210 Tel. 028 313 8152 Faks/Fax. 028 313 8182 028 271 8100 Tel. 028 384 0111 Faks/Fax. 028 384 0241 Tel. 028 341 0640 Faks/Fax. 028 271 4100 Faks/Fax. 028 341 0445 KREDITEURE: Wet op die Raamwerk vir Voorkeurverkrygingsbeleid, 2000 (Wet No. 5 van 2000) (Goewermentskennisgewing No.97 van 03 Februarie 2000 – Staatskoerant Nr. 20854); Voorkeurverkrygingsregulasies (No. R.502 van 8 Junie 2011) uitgevaardig ingevolge bogemelde Wet (Staatskoerant Nr. 34350); Registrasie op databasis Wet Op Plaaslike Regering: Munisipale Finansiële Bestuur No. 56 Van 2003; Munisipale Voorsieningskanaalbestuurregulasies (Nr. 868 van 30 Mei ingevolge: 2005 - Staatskoerant Nr. 27636) Preferential Procurement Policy Framework Act No. 5 Of 2000 (Government Notice No.97 van 03 February 2000 - Government Gazette No. 20854); **CREDITORS:** Preferential Procurement Regulations (No. R.502 of 8 June 2011) promulgated in terms of abovementioned Act (Government Gazette No. 34350); Registration on data base in Local Government: Municipal Finance Management Act No. 56 of 2003; Municipal Supply Chain Management Regulations (No. 868 of 30 May 2005 – terms of: Government Gazette No. 27636) Ubume benkqubo ekhethekileyo yokufumana Umthetho ongunombolo 5 ka-2000 (Isaziso sikaRhulumente esingunombolo 97 we-3 kaFebruwari 2000-ABANTU ENINAMATYALA KUBO: Iphepha-ndaba lombuso likaRhulumente unombolo 20854), Imithetho yenkqubo ekhethekiuleyo yokufumana (Nombolo R502 ka-Juni 2011) umthetho Ubhaliso kwindawo ekugcinwa owaziswe ngokubhekiselele ngumthetho ongasentla (Iphepha-ndaba lombuso likaRhulumente elingunombolo 34350; Umasipala wenginggi: Umthetho kuyo iindawo ezaziwa ngento wokulawula ezemali kamasipala ongunombolo 56 ka -2003; Ummiselo weNgqubo yoLawulo lweTyathanga loKubonelela KaMasipala (Inombolo ngokuphathelele. 868 ve 30 Meyi 2005- Isaziso sika Rhulumente -Nombolo 27636) Handelsnaam van onderneming Trade name of enterprise Igama lokushishina loshishino Posadres / Postal address Idilesi yeposi Plaasnaam/Besigheid straat adres / Name of Farm/Business street address / Igama lefama/idilesi yesitrato soshishino Aard van bedrywigheid wat beoefen word / Nature of activities conducted / Uhlobo lwemisebenzi eyenziwayo necandelo Openhare Sektor / Ander: Klub Trust Tipe onderneming (Merk met X) / Eenmansaak / Sole Vennootskap Maatskappy/Beslote Korporasie Public Sector / ens. / Other: Club, Type of enterprise (Mark with X) / 2 3 4 5 Proprietor/ Ushishino Partnership/ / Company /Close Corporation / Icandelo lomntu Trust, etc. / Ezinve lomntu omnye Uthelelwand Inkampani/mbumba evalekileyo Uhlobo loshishino (Phawula ngo-X) Total number of years the Enterprise has been in business CIDB nommer / CIDB number / inombolo ye-CIDB (Construction Industry Development Board) BTW nommer / VAT number/ inombolo ye-VAT Inkomstebelastingverwysingsnommer van persoon/onderneming in 1. / Income Tax reference number of person/enterprise in 1. / Inombolo yesalathiso serhafu yengeniso yomntu/yoshishino olubalulwa ku-1 Indien u nie vir enige van bogenoemde geregistreer is nie, meld redes: / If you are not registered for any of the above, furnish reasons: / Xa ungazibhaleli nayiphi na into engaphezulu, nika izizathu: Besonderhede van verantwoordelike persoon of eienaar / Particulars of responsible person or owner / liinkcukacha zomntu othatha uxanduva okanye zomnini Van / Surname / Ifani Voornaam / First name / Amagama Hoedanigheid / Designation / Ubume emsebenzini Besonderhede van skakelbeampte / Particulars of liaison officer / linkcukacha zomntu womanyano (Umntu onika iimbuyiselo) Voorletters en van / Initials and surname / Oonobumba bokuqala bamagama nefani Hoedanigheid/Designation/Ubume omsebenzi Selfoon / Cell phone / Iselfoni Telefoon nr./Telephone no. /inombolo yefoni Faksnr. / Fax no. / Inombolo yeFeksi e-pos adres / e-mail address / I-imeyile English Meld taalvoorkeur / Indicate language preference **Afrikaans** Ek verklaar dat die inligting wat hierin verstrek is, waar en juis is. / I declare that the information herein furnished, is true and correct. / Ndixela ukuba ulwazi olunikiweyo apha luyinyaniso kwaye lulungile Handtekening van persoon verantwoordelik vir hierdie verklaring / Signature of person responsible for this declaration / Usayino lomntu othathela uxanduva le ngxelo. Naam / Name / Igama Hoedanigheid / Designation / Ubume emsebenzini Datum / Date / Umhla PLEASE ATTACH A LIST OF SERVICES / COMMODITIES THAT YOU CAN SUPPLY

**Reference No:** 

SC

1478/2014

#### PREFERENTIAL PROCUREMENT REGULATIONS 2011

#### 4. POINTS AWARDED FOR B-BBEE STATUS LEVEL OF CONTRIBUTION

a. In terms of Regulation 5 (2) and 6 (2) of the Preferential Procurement Regulations, preference points must be awarded to a bidder for attaining the B-BBEE status level of contribution in accordance with the table below:

B-BBEE Status Level of Contributor	Number of points (90/10 system)	Number of points (80/20 system)
1	10	20
2	9	18
3	8	16
4	5	12
5	4	8
6	3	6
7	2	4
8	1	2
Non-compliant contributor	0	0

- 1.2. Bidders who qualify as EMEs in terms of the B-BBEE Act must submit a certificate issued by an Accounting Officer as contemplated in the CCA or a Verification Agency accredited by SANAS or a Registered Auditor. Registered auditors do not need to meet the prerequisite for IRBA's approval for the purpose of conducting verification and issuing EMEs with B-BBEE Status Level Certificates.
- 1.3. Bidders other than EMEs must submit their original and valid B-BBEE status level verification certificate or a certified copy thereof, substantiating their B-BBEE rating issued by a Registered Auditor approved by IRBA or a Verification Agency accredited by SANAS.
- 1.4. A trust, consortium or joint venture, will qualify for points for their B-BBEE status level as a legal entity, provided that the entity submits their B-BBEE status level certificate.
- 1.5. A trust, consortium or joint venture will qualify for points for their B-BBEE status level as an unincorporated entity, provided that the entity submits their consolidated B-BBEE scorecard as if they were a group structure and that such a consolidated B-BBEE scorecard is prepared for every separate bid.
- 1.6. Tertiary institutions and public entities will be required to submit their B-BBEE status level certificates in terms of the specialized scorecard contained in the B-BBEE Codes of Good Practice.
- 1.7. A person will not be awarded points for B-BBEE status level if it is indicated in the bid documents that such a bidder intends sub-contracting more than 25% of the value of the contract to any other enterprise that does not qualify for at least the points that such a bidder qualifies for, unless the intended sub-contractor is an EME that has the capability and ability to execute the sub-contract.
- 1.8. A person awarded a contract may not sub-contract more than 25% of the value of the contract to any other enterprise that does not have an equal or higher B-BBEE status level than the person concerned, unless the contract is sub-contracted to an EME that has the capability and ability to execute the sub-contract.

#### 2. BID DECLARATION

2.1. Bidders who claim points in respect of B-BBEE Status Level of Contribution must complete the following:

	E	B-BBEE STATUS LEVEL OF CONTRIBUTION CLAIMED IN TERMS OF PARAGRAPH	IS 1.3.1.2 AND 5.1
		B-BBEE Status Level of Contribution as reflected on the B-BBEE Certificate	
4.	.1.1.1.	Points claimed in respect of Level of Contribution (maximum of 10 or 20 points)	

(Points claimed in respect of paragraph 6.1 must be in accordance with the table reflected in paragraph 5.1 and must be substantiated by means of a B-BBEE certificate issued by a Verification Agency accredited by SANAS or a Registered Auditor approved by IRBA or an Accounting Officer as contemplated in the CCA).

3	Persentasie aandeelhouding van persone geklassifiseer as <b>jeug</b> . (18 – 35 Jaar oud) / Percentage of shareholding of persons in the business classified as <b>youth</b> . (18 – 35 Years old) / Ipersenti labantu abanezabelo kwinkonzo zoshishino ababizwa ngokuba <b>lulutsha</b> (18 – 35 Yeminyaka)		%
4	Is u besigheid geleë binne die jurisdiksie van die munisipaliteit?  Is your business established within the area of jurisdiction of the Municipality?  Ingaba ishishini lakho limi kwingingqi elawulwa nguMasipala wesithili?		In/Ngaphakathi
7			Uit/Out/Ngaphandle

Hiermee sertifiseer ek/ons die ondergetekende en die getuienisse dat bogenoemde inligting korrek is. / I/We hereby certify that the abovementioned information is correct signed by myself/ourselves and the witnesses. / Mna/Thina siqinisekisa ukuba ezi nkcukacha zingasentla zilungile kwaye zisayinwe ndim/sithi kunye namangqina

Getuie / As Witness / Njengengqina
3, 3, 3,

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#### **DECLARATION BY SUPPLIER**

- 1. This document serves as a declaration to be used by the municipality in ensuring that when goods and services are being procured, all reasonable steps are taken to combat the abuse of the supply chain management system. No Registration will be accepted from persons in the service of the state\*.
- 2.(a) Any prospective supplier, having a kinship with persons in the service of the state, including a blood relationship, may in terms of current legislation register on the Municipality's Database. In view of possible allegations of favouritism, should a resulting bid, or part thereof, be awarded to suppliers connected with or related to persons in the service of the state, it is required that the supplier or his/her authorised representative declare their position in relation to the evaluating/adjudicating authority and/or take an oath declaring his/her interest.
- **2.(b)** The request for registration on the Municipality's database may be rejected if the supplier, or any of its directors/members/partners have:
  - abused the municipality's supply chain management system or committed any improper conduct in relation to such system;
  - 2. been convicted for fraud or corruption during the past five years;
  - 3. willfully neglected, reneged on or failed to comply with any government, municipal or other public sector contract during the past five years;
  - 4. being a person whose tax matters are not cleared by the South African Revenue Services; or
  - 5. been listed in the Register for Tender Defaulters in terms of section 29 of the Prevention and Combating of Corrupt Activities Act (No 12 of 2004).

	Activities Act (No 12 of 2004).		
3.	In order to give effect to the above, the following questionnaire must be completed and signed before the complete of the comp	ore a Co	ommissioner of
3.1	Print full Name:		
3.2	Company/CC Registration or ID Number:		
3.3	Are you presently in the service of the state? *	YES	NO
3.3.1	If so, furnish particulars.		
3.4	Have you been in the service of the state for the past twelve months?	YES	NO
3.4.1	If so, furnish particulars.		
3.5	Do you, have any relationship (family, friend, other) with persons in the service of the state and who may be involved with the evaluation and or adjudication of any prospective bid?	YES	NO
3.5.1	If so, furnish particulars.		
3.6	Are you, aware of any relationship (family, friend, other) between a supplier and any persons <i>in the service of the state</i> who may be involved with the evaluation and or adjudication of any bid?	YES	NO
3.6.1	If so, furnish particulars.		
3.7	Are any of your company's directors, managers, principle shareholders or stakeholders in the service of the state?	YES	NO
3.7.1	If so, furnish particulars.		
3.8	Is any spouse, child or parent of your company's directors, managers, principle shareholders or stakeholders <i>in the service of the state?</i>	YES	NO
3.8.1	If so, furnish particulars.		
3.9	Is the supplier or any of its directors/partners listed on the National Treasury's database as a company or person prohibited from doing business with the public sector?	YES	NO
3.9.1	If so, furnish particulars.		

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3.10	Is the supplier or any of its directors listed on the Register for Tender Defaulters in terms of section 29 of the Prevention and Combating of Corrupt Activities Act (No 12 of 2004)?								
3.10.1	If so, furnish particulars.								
3.11		rectors convicted by a court of lavica) for fraud or corruption during			YES	NO			
3.11.1	If so, furnish particulars.				1				
3.12		directors owe any municipal rate nicipal entity, or to any other mur ree months?			YES	NO			
3.12.1	If so, furnish particulars.								
3.13		supplier and the municipality / mu the past five years on account			YES	NO			
3.13.1	If so, furnish particulars.								
I, THE UNDERSIGNED,, CERTIFY THAT THE INFORMATION FURNISHED ON THIS DECLARATION FORM IS CORRECT. I ACCEPT THAT THE STATE MAY ACT AGAINST ME SHOULD THIS DECLARATION PROVE TO BE FALSE.									
	Signature	Position			Date				
(a) i. ii. iii. (b) (c) (d)	Regulations: "in the service of the state" me a member of – any municipal council; any provincial legislature; or the national Assembly or the national Cc a member of the board of directors of an an official of any municipality or municipa an employee of any national or provincia Finance Management Act, 1999 (Act No.	eans to be –  puncil of provinces; by municipal entity; al entity; al department, national or provincial public 1 of 1999); any national or provincial public entity; or	•	itutional institution w			Public		
(a) i. ii. iii. (b) (c) (d)	Regulations: "in the service of the state" me a member of – any municipal council; any provincial legislature; or the national Assembly or the national Cc a member of the board of directors of an an official of any municipality or municipal an employee of any national or provincia Finance Management Act, 1999 (Act No. a member of the accounting authority of	eans to be —  puncil of provinces; y municipal entity; al entity; al department, national or provincial public 1 of 1999); any national or provincial public entity; or egislature.	, 	itutional institution w	ithin the r	neaning of the			
(a) i. ii. (b) (c) (d) (e) (f) a	Regulations: "in the service of the state" me a member of – any municipal council; any provincial legislature; or the national Assembly or the national Co a member of the board of directors of an an official of any municipality or municipa an employee of any national or provincia Finance Management Act, 1999 (Act No. a member of the accounting authority of n employee of Parliament or a provincial le  COMMISSIONER O  and sworn to before me atday of	pans to be –  pouncil of provinces; y municipal entity; al entity; al entity; al of 1999); any national or provincial public any national or provincial public entity; or egislature.  PFOATHS, on this	, 		ithin the r	neaning of the			
(a) i. ii. (b) (c) (d) (e) (f) a.  Signed a  by the E stands th his/her k	Regulations: "in the service of the state" me a member of – any municipal council; any provincial legislature; or the national Assembly or the national Cc a member of the board of directors of an an official of any municipality or municipal an employee of any national or provincial Finance Management Act, 1999 (Act No. a member of the accounting authority of an employee of Parliament or a provincial le	pans to be –  pouncil of provinces; y municipal entity; al entity; al entity; al department, national or provincial public 1 of 1999); any national or provincial public entity; or egislature.  PFOATHS , on this, on this, that he/she knows and under- true and correct to the best of objection to taking the prescribed	, 		ithin the r	neaning of the			
(a) i. ii. (b) (c) (d) (e) (f) a  Signed a  by the E stands th his/her k oath, and	Regulations: "in the service of the state" me a member of – any municipal council; any provincial legislature; or the national Assembly or the national Co a member of the board of directors of an an official of any municipality or municipa an employee of any national or provincia Finance Management Act, 1999 (Act No. a member of the accounting authority of an employee of Parliament or a provincial lee  COMMISSIONER O  and sworn to before me at	pans to be –  pouncil of provinces; y municipal entity; al entity; al entity; al entity; al of 1999); any national or provincial public entity; or egislature.  PFOATHS , on this, on this, that he/she knows and under- true and correct to the best of objection to taking the prescribed nding on his/her conscience.	, 		ithin the r	neaning of the			
(a) i. ii. (b) (c) (d) (e) (f) a  Signed a  by the E stands th his/her k oath, and	Regulations: "in the service of the state" me a member of — any municipal council; any provincial legislature; or the national Assembly or the national Cc a member of the board of directors of an an official of any municipality or municipa an employee of any national or provincia Finance Management Act, 1999 (Act No. a member of the accounting authority of an employee of Parliament or a provincial legister of the accounting authority of an employee of Parliament or a provincial legister of the accounting authority of the employee of Parliament or a provincial legister of the accounting authority of the member of the accounting authority of the employee of Parliament or a provincial legister of the accounting authority of the member of the accounting authority of the employee of Parliament or a provincial legister of the accounting authority of the employee of Parliament or a provincial legister of the accounting authority of the employee of Parliament or a provincial legister of the accounting authority of the employee of Parliament or a provincial legister of the accounting authority of the employee of Parliament or a provincial legister of the accounting authority of the employee of Parliament or a provincial legister of the accounting authority of the employee of Parliament or a provincial legister of the accounting authority of the employee of Parliament or a provincial legister of the accounting authority of the employee of Parliament or a provincial legister of the accounting authority of the employee of the accounting authority of the accounting authority of the employee of the accounting authority of the accounting aut	pans to be –  pouncil of provinces; y municipal entity; al entity; al entity; al entity; al of 1999); any national or provincial public entity; or egislature.  PFOATHS , on this, on this, that he/she knows and under- true and correct to the best of objection to taking the prescribed nding on his/her conscience.	, 		ithin the r	neaning of the			
(a) i. ii. (b) (c) (d) (e) (f) a.  Signed a  by the E stands th his/her k oath, and COMMIS Position:	Regulations: "in the service of the state" me a member of – any municipal council; any provincial legislature; or the national Assembly or the national Co a member of the board of directors of an an official of any municipality or municipa an employee of any national or provincia Finance Management Act, 1999 (Act No. a member of the accounting authority of an employee of Parliament or a provincial lee  COMMISSIONER O  and sworn to before me at	pans to be —  puncil of provinces; y municipal entity; al entity; al department, national or provincial public .1 of 1999); any national or provincial public entity; or egislature.  PF OATHS	, 		ithin the r	neaning of the			

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			,

#### National Small Business Act No. 102 of 1996 Classification

# 1. Indicate your Economic Sector - Give full description in 1.4 on page 1

# 2. Indicate the size of your Business if the National Small Business Act applies to your enterprise.

	_					
Sector or sub-sectors in accordance the Standard Industrial Classificati	Size of class	Total full- time equivalent of paid employees	Total annual turnover	Total gross asset value (fixed property excluded)	Indicate the category of your business	
Please indicate your Sector	"X"		Less than:	Less than:	Less than:	"X"
All Tiers of Government		Not	Not	Nat applicable	Not	Not
00001 - 09999		applicable	applicable	Not applicable	applicable	applicable
		Medium	100	R 5 m	R 5 m	
Agriculture		Small	50	R3m	R 3 m	
		Very small	10	R 0.50 m	R 0.50 m	
11001 - 14999		Micro	5	R 0.20 m	R 0.10 m	
l		Medium	200	R 39 m	R 23 m	
Mining and Quarrying		Small	50	R 10 m	R 6 m	
04004 00000		Very small	20	R 4 m	R 2 m	
21001 - 29999	$\vdash$	Micro	5	R 0.20 m	R 0.10 m	
Manufacturing		Medium	200 50	R 51 m R 13 m	R 19 m R 5 m	
Manufacturing		Small Very small	20	R 13 m	R 2 m	
30001 30000		Micro	5	R 0.20 m	R 0.10 m	
30001 - 39999		Medium	200	R 0.20 m	R 19 m	
Electricity, Gas and Water		Small	50	R 13 m	R 5 m	
Electricity, Gas and Water		Very small	20	R 5.10 m	R 1.90 m	
41001 - 42999		Micro	5	R 0.20 m	R 0.10 m	
41001 - 42999		Medium	200	R 26 m	R 5 m	
Construction		Small	50	R 6 m	R 1 m	
		Very small	20	R 3 m	R 0.50 m	
50001 - 50999		Micro	5	R 0.20 m	R 0.10 m	
		Medium	200	R 64 m	R 10 m	
Wholesale Trade, Commercial		Small	50	R 32 m	R 5 m	
Agents and Allied Services		Very small	20	R6m	R 0.60 m	
58001 - 61999		Micro	5	R 0.20 m	R 0.10 m	
Retail and Motor Trade and Repair		Medium	200	R 39 m	R 6 m	
Services		Small	50	R 19 m	R 3 m	
Services		Very small	20	R 4 m	R 0.60 m	
62101 - 63500		Micro	5	R 0.20 m	R 0.10 m	
Catering, Accommodation and		Medium	200	R13 m	R 3 m	
other Trade		Small	50	R6m	R1m	
		Very small	20	R 1.50 m	R 0.90 m	
64101 - 64299		Micro	5	R 0.20 m	R 0.10 m	
Transport, Storage and		Medium	200	R26 m	R 6 m	
Communications		Small	50	R13 m	R 3 m	
		Very small	20	R3m	R 0.60 m	
71001 - 75999	$\Box$	Micro	5	R 0.20 m	R 0.10 m	
Finance and Business Commisses		Medium	200	R 26 m	R 5 m	
Finance and Business Services		Small	50	R 13 m	R 3 m	
04004 00000		Very small	20	R 3 m	R 0.50 m	
81001 - 88999	$\blacksquare$	Micro	5	R 0.20 m	R 0.10 m	
Community, Social and Personal		Medium	200	R 13 m	R 6 m	
Services		Small Voncemall	50 20	R 6 m R 1 m	R 3 m R 0.60 m	
91001 - 99999		Very small Micro	5	R 0.20 m	R 0.60 m	
91001 - 88888		IVIICIO	Ü	N 0.20 III	IN U. 1U III	

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#### NATURE OF OPERATIONS, PRODUCTS OR SERVICES

Please list the products/services provided by your enterprise under the appropriate headings. Indicate the PRIMARY and/or SECONDARY function applicable to your business by ticking the appropriate box  $\sqrt{ }$  and (i.e. nature of operations, products or services): **SECONDARY FUNCTION: PRIMARY FUNCTION: PRODUCTS PRODUCTS SERVICES SERVICES LABOUR LABOUR EQUIPMENT EQUIPMENT** 

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#### KREDIETBEVEL INSTRUKSIE / CREDIT ORDER INSTRUCTION / UMYALELO NGOTYALO MALI

om alle krediteure deur middel van direkte nicipa bankoorplasings te vereffen. Verskaf of dir meegaande inligting en verkry asb. U bank- plete					is the policy of the Overstrand Mu- cipality to pay all creditors by means direct bank transfers. Please com- ete this information and acquire your inker's confirmation.				ans I om- e our I	j -													
BESOI	NDERHEDE VAN	FIRN	//A/INSTA	NSIE	/ DET	AILS O	F FIR	M/IN	ISTIT	UTION	l / IIN	NKCUK	ACH	A ZE	FEM	U/IZI	<b>(</b> 0:						
Naam /	/ Name / Igama																						
Adres	/ Address /																						
Idilesi																							
	NDERHEDE VAN A ZEBHANKI YAN					IG IS A	s vo	LG /	DE1	AILS (	OF N	/IY/OUI	R BAN	IK A	CCO	UNT	ARE	AS	FOL	LOW	VS /	IINK	CU-
NAAM \	VAN BANK / NAME (	OF BA	ANK / IGAN	1A LEE	BHANK	(1													T				
NAAM \	VAN TAK / NAME OF	BRA	NCH / IGA	MA LE	SEBE	LEBHAI	ΝKI																
REKEN	ING NR / ACCOUN	T NO	/ INOMBO	LO YE	_AKHA	AWUNTI																	
TAKKO	DE / BRANCH COD	E/IK	HOWUDI Y	ESEB	E											•		•	•	•			
TIPE RI	EKENING / TYPE OF	ACC	COUNT / U	HLOB	O LWE	_AKHAV	VUNT	l															
	Tjekro	ekeni	ng					Trans	smissi	erekeni	na						S	paar	reker	nina			
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	I-akhawur Verban	_					l-a			okuggith	isela						khawui						
4 =	Bond		_		5 =				ie in d Not in	ebruik) Luse)			6	=			ubskrig ubscrig						
	I-akhawui	nti yel	bhondi							nziswai						_							
Ek/ons versoek en magtig hiermee die Overstrand Munisipaliteit om enige bedrae wat my/ons mag toeval, in my/ons bankrekening te krediteer.  Ek/ons verstaan dat 'n betalingsadvies deur die Overstrand Munisipaliteit in die normale wyse verskaf sal word wat die datum sal aantoon wanneer die fondse beskikbaar sal wees, asook besonderhede van die betaling.  Ek/ons onderneem verder om die Overstrand Munisipaliteit vroegtydig in kennis te stel van enige verandering in my/ons bankbesonderhede en erken dat hierdie magtiging slegs deur my/ons met dertig dae kennis gekanselleer kan word deur middel van voorafbetaalde geregistreerde pos.  I/we hereby request and authorise the Overstrand Municipality to pay any amounts that may accrue to me/us to the credit of my/our bank account.  I/we understand that a payment advice will be supplied by the Overstrand Municipality in the normal way that will indicate the date on which funds will be available in my/our bank account and details of payment.  I/we further undertake to inform the Overstrand Municipality in advance of any change in my/our bank in a payment advice will be supplied by the Overstrand Municipality in advance of any change in my/our bank account and details and accept that this authority may only be cancelled by me/us by giving thirty days notice by prepaid registered post.  GEMAGTIGDE HANDTEKENING / AUTHORISED SIGNATURE / USAYINO OLUGUNYAZISIWEYO							yonti vunti so se nanel umb kcuka iir ndiza	nke yeb emali ka k nla e acha nkcuk	imali hanki i eh- waye ekuh- zent- kacha anika														
NAME	LETTERS EN VA / OONOBUMBA E NEFANI					\- -																	
	FOONNOMMER A BOLO YEFOWUN		EPHON	E NU	MBEF	₹/						DAT	UM / ILA	DAT	E/								
VIR BANKGEBRUIK ALLEENLIK / FOR BANK USE ONLY / KUSETYENZISWA YIBHANKI KUPHELA																							
se bar korrek I/we he indicat -Ndi/Si kwimiy	Ek/ons sertifiseer hiermee dat die besonderhede van ons kliënt se bankrekening soos aangedui op die krediet bevel instruksie korrek is:  I/we hereby certify that the details of our clients bank account as indicated on the credit order instruction is correct:  -Ndi/Siqinisekisa ukuba iinkcukacha zabaxhasi bethu ezibhalwe kwimiyalelo yokudiphozitha imali ilungile  AMPTELIKE DATUMSTEMPEL / OFFICIAL DATE STAMP / - ISITAMPU SOMHLA ESISESIKWENI:																						
GEMA	AGTIGDE HAND <sup>-</sup> LUs. /		ENING / /	_		_	GNAT	ΓUR	E														

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#### **DOCUMENTS REQUIRED**

DOCUMENTS REQUIRED	SOLE PROPRIETOR	CC'S AND PRIVATE COMPANIES	PARTNER-SHIPS	PUBLIC COMPANY	BUSINESS TRUST	NON PROFIT ORGANIZATIONS (NPO)	WHERE TO GET DOCUMENTS
COMPANY REGISTRATION CERTIFIED COPIES	N/A	Certificate of incorporation CK1/CK2	Partnership agreement	Certificate of Incorporation CM3	Trust agree- ment	Certificate of Incorporation Section 21	Registrar of CC's & Com- panies
PROOF OF OWNERSHIP CERTIFIED COPIES	N/A	Shareholding CK1/CK2	Partnership agreement	Shareholding CM3	Trustees details: Letter of Authority	Auditor's letter no shareholding	Registrar of CC'S & Companies
PROOF OF BANKING	Bank statement/ cancelled cheque	Bank statement/ cancelled cheque	Bank statement/ cancelled cheque	Bank statement/ cancelled cheque	Bank statement/ cancelled cheque	Bank statement/ cancelled cheque	Branch of bank at which Account is.
TAX CLEARANCE CERTIFICATE	For the Owner or the business	For the company / cc	For each individual shareholder	For the company	For the trust	For the NPO	SARS
P.A.Y.E	If staff are employed	If staff are employed	SARS				
VAT REGIS- TRATION	Yes	Yes	Yes	Yes	Yes	Yes	SARS
U.I.F Certificate	YES	YES, if staff remuneration	YES, if staff remuneration	Department of Labour			
Workman's Compensation	YES, if staff remuneration	YES, if staff remuneration	YES ,if staff remuneration	YES, if staff remuneration	YES, if staff remuneration	YES, if staff remuneration	Department of Labour
Security Officer's Board	If applicable  –for security  industry	If applicable  -for security  industry	If applicable -for security industry	If applicable -for security industry	If applicable  -for security  industry	If applicable  -for security  industry	Security Service Regulatory Authority
Proof of Disability	If owner is disabled	If Shareholder is disable	If Shareholder is disabled	If Shareholder is disable	If Shareholder is disable	If Shareholder is disabled	
Proof of Identity CERTIFIED	Owner	Directors / Members	Partners	Directors	Trustees	Directors	

FOR OFFICE USE ONLY:							
BUSINESS NAME							
DATE RECEIVED		DATE CAPTURED					
ACCEPTED							
DATABASE REGISTRA- TION NUMBER							

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