
# TENDER NO.: SC 2099/2020

# SUPPLY AND DELIVERY OF ELECTRICAL ITEMS FOR A CONTRACT PERIOD ENDING 30 JUNE 2023

## PROCUREMENT DOCUMENT

| | |
|---|---|
| **NAME OF TENDERER:** | |
| **Total Bid Price (Inclusive of VAT)** *(refer to pages 153 - 210)*: | |

**MAY 2020**

**PREPARED AND ISSUED BY:**

Directorate: Finance:
Supply Chain Management Unit
Overstrand Municipality
PO Box 20, Hermanus, 7200

**CONTACT FOR ENQUIRIES REGARDING SPECIFICATIONS:**

**C Roets**

**Manager: Contract and Logistics Management**

Tel. Number: **028 313 8951**

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**PAGE NUMBER**

# MBD 1 – INVITATION TO BID

**YOU ARE HEREBY INVITED TO BID FOR REQUIREMENTS OF THE OVERSTRAND MUNICIPALITY**

| 1. TENDER DETAILS | | | | | | |
|---|---|---|---|---|---|---|
| TENDER NUMBER: | SC 2099/2020 | | | | | |
| TENDER TITLE: | Supply and Delivery of Electrical items for a contract period ending 30 June 2023 | | | | | |
| CLOSING DATE: | 19 June 2020 | | | CLOSING TIME: | 12H00 | |
| SITE MEETING: | DATE: | N/A | TIME: | N/A | COMPULSORY: | N/A |
| SITE MEETING ADDRESS: | N/A | | | | | |
| CIDB GRADING REQUIRED: | N/A | LEVEL AND CATEGORY: | | N/A | | |
| BID BOX NO: | 4 | SITUATED AT: Overstrand Municipal Building, Magnolia Avenue, Hermanus. The bid box is generally open 24 hours a day, 7 days a week. | | | | |
| OFFER TO BE VALID FOR AT LEAST: | | 90 DAYS | | FROM THE CLOSING DATE OF BID. | | |

| 2. BIDDER'S DETAILS | | | |
|---|---|---|---|
| LEGAL NAME OF ORGANISATION | | | |
| TRADE NAME (if different from legal name) | | | |
| POSTAL ADDRESS | | | |
| | | | |
| STREET ADDRESS | | | |
| | | | |
| NAME OF CONTACT PERSON | | | |
| TELEPHONE NUMBER | | CELL NUMBER | |
| E-MAIL ADDRESS | | | |
| COMPANY REGISTRATION NUMBER | | | |
| OVERSTRAND MUNICIPALITY SUPPLIER DATABASE REGISTRATION NUMBER | | | |

| 3. BIDDING PROCEDURE ENQUIRIES MAY BE DIRECTED TO THE SUPPLY CHAIN MANAGEMENT UNIT | | | |
|---|---|---|---|
| CONTACT PERSON | L du Preez | TELEPHONE NUMBER | 028 313 8147 |
| | | Email address | ldupreez@overstrand.gov.za |
| CONTACT PERSON | J Aplon | TELEPHONE NUMBER | 028 313 5021 |
| | | Email address | japlon@overstrand.gov.za |
| TECHNICAL INFORMATION REGARDING THIS QUOTATION MAY BE OBTAINED FROM: | | | |
| CONTACT PERSON | C Roets | TELEPHONE NUMBER | 028 313 8951 |
| | | Email address | croets@overstrand.gov.za |

| 4. TAX COMPLIANCE REQUIREMENTS | |
|---|---|
| TAX CLEARANCE STATUS PIN | |
| TAX CLEARANCE EXPIRY DATE | |
| INCOME TAX NUMBER | |
| VAT REGISTRATION NUMBER | |

a) Bidders must ensure compliance with their tax obligations.
b) Bidders are required to submit their unique personal identification number (pin) issued by SARS to enable the organ of state to view the taxpayer's profile and tax status.
c) Application for the tax compliance status (TCS) certificate or pin 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 www.sars.gov.za
d) Foreign suppliers must complete the pre-award questionnaire in part B.3.
e) Bidders may also submit a printed TCS certificate together with the bid.
f) In bids where consortia / joint ventures / sub-contractors are involved, each party must submit a separate TCS certificate / pin / CSD number.

| | | | | |
|---|---|---|---|---|
| Are you the accredited representative **in South Africa for the goods /services /works offered? If yes, enclose proof** | **Yes** | | **No** | |
| Are you a foreign based supplier for **the goods /services /works offered? If yes, answer the questions in par. 6 below.** | **Yes** | | **No** | |

| **5. QUESTIONNAIRE TO BIDDING FOREIGN SUPPLIERS** | | | | |
|---|---|---|---|---|
| **a)** Is the entity a resident of the republic of South Africa (RSA)? | **Yes** | | **No** | |
| b) Does the entity have a branch in the RSA? | **Yes** | | **No** | |
| c) Does the entity have a permanent establishment in the RSA? | **Yes** | | **No** | |
| d) Does the entity have any source of income in the RSA? | **Yes** | | **No** | |
| e) Is the entity liable in the RSA for any form of taxation? | **Yes** | | **No** | |
| **If the answer is "No" to all of the above, then it is not a requirement to register for a tax compliance status system pin code from the South African revenue service (SARS) and if not register as per 2.3 above.** | | | | |

| **6. SUPPLIER DATABASE OF THE OVERSTRAND MUNICIPALITY** | | | | |
|---|---|---|---|---|
| a) Are you registered as a supplier/services provider on the Supplier Database of the Overstrand Municipality? | **Yes** | | **No** | |
| b) If so, please provide you Supplier Database Registration number with the Overstrand Municipality | | | | |
| c) If not, please note that you will be required to be registered on the Supplier Database of the Overstrand Municipality before any award can be made to you. Please find a copy of the Supplier Database Registration forms contained in this document. | | | | |

**PLEASE NOTE:**

1. **Mailed, telegraphic or faxed bids will not be accepted.**
2. **Bids may only be submitted on the Bid Documentation provided by the Municipality (not to be re-typed).**
3. **Bids must be delivered by the stipulated time to the correct box and address. Late bids will not be accepted for consideration.**
4. **Tender box deposit slot is 28cm x 2.5cm.**
5. **This bid is subject to the Preferential Procurement Policy Framework Act and the Preferential Procurement Regulations, 2017, the National Treasury General Conditions of Contract (GCC) (2010) and, if applicable, any other special conditions of contract.**

| **7. CAPACITY UNDER WHICH THIS BID IS SIGNED** | |
|---|---|
| NAME OF PERSON DULY AUTHORISED TO SIGN THIS OFFER | |
| SIGNATURE | |
| DATE | |

**NB: FAILURE TO PROVIDE ANY OF THE ABOVE PARTICULARS MAY RENDER THE BID INVALID.**

**NO BIDS WILL BE CONSIDERED FROM PERSONS IN THE SERVICE OF THE STATE**

## 2. 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:**

| | | | | | |
|---|---|---|---|---|---|
| 1. | **Authority to Sign a Bid -** Is the form duly completed and is a **certified copy** of the **resolution** attached? | **Yes** | | **No** | |
| 2. | **Tax Clearance Certificate -** Provide Tax Compliance Status PIN and Income Tax no. – **MBD 1** | **Yes** | | **No** | |
| 3. | **MBD 4** (Declaration of Interest) - Is the form duly completed and signed? | **Yes** | | **No** | |
| 4. | **MBD 6.1** (Preference Points claim form for purchases/services) - Is the form duly completed and signed?<br>Is a **CERTIFIED** copy of the **B-BBEE Certificate or** the **original B-BBEE Certificate** attached? | **Yes** | | **No** | |
| 5. | **MBD 8** (Declaration of Past Supply Chain Practices) - Is the form duly completed and signed? | **Yes** | | **No** | |
| 6. | **MBD 9** (Certificate of Independent Bid Determination) - Is the form duly completed and signed? | **Yes** | | **No** | |
| 7. | **MBD 15** (Certificate of Payment of Municipal Accounts) - Is the form duly completed and signed?<br>Are the **Identity numbers**, **residential addresses** and **municipal account numbers** of **ALL** members, partners, directors, etc. provided on the form as requested? | **Yes** | | **No** | |
| 8. | **MBD16** (Key Performance Indicators) - Is the form duly completed and signed? | **Yes** | | **No** | |
| 9. | **OHASA** (Occupational Health and Safety) - Is the form duly completed and signed?<br>Is a valid **Letter of Good Standing** from the Compensation Commissioner attached? | **Yes** | | **No** | |
| 10. | **Indemnity -** Is the form duly completed and signed? | **Yes** | | **No** | |
| 11. | **Specifications -** Is the form duly completed and signed? | **Yes** | | **No** | |
| 12. | **Schedule of Work Experience of Tenderer -** Is the form duly completed and signed? | **Yes** | | **No** | |
| 13. | **Pricing Schedule -** Is the form duly completed and signed? | **Yes** | | **No** | |
| 14. | **MBD 7.2** (Contract form – Services) - Is the form duly completed and signed? | **Yes** | | **No** | |
| 15. | **DATA BASE REGISTRATION -** Is the form duly completed and signed?<br>Are **ALL** the supporting documents attached? | **Yes** | | **No** | |

## 3. TENDER NOTICE & INVITATION TO TENDER

**TENDER NO. SC 2099/2020**

**Supply and Delivery of Electrical items for a contract period ending 30 June 2023**

Tenders are hereby invited for the **Supply and Delivery of Electrical items for a contract period ending 30 June 2023**.

Tender documents, in English, are obtainable from **Monday**, **18 May 2020**, at the offices of the Supply Chain Management Unit, Overstrand Municipality, Magnolia Avenue, Hermanus from Ms Rita Neethling; Tel. 028 313 8064, between 08h30 and 15h30 upon payment of a **tender participation fee of R800-00 per set.** Alternatively the document may be downloaded free of charge from the website: www.overstrand.gov.za . Due to the lockdown regulations, bidders are encouraged to download the tender document from our municipal website.

Sealed tenders, with **"Tender No. SC 2099/2020: Supply and Delivery of Electrical items for a contract period ending 30 June 2023"** clearly endorsed on the envelope, must be deposited in **Tender Box No. 4** at the offices of the Overstrand Municipality, Magnolia Avenue, Hermanus. Bids may only be submitted on the bid documentation issued by Overstrand Municipality.

Only locally produced or locally manufactured steel products (100%), pre-paid and post-paid electricity meters (70%), Smart meters (50%), electrical and telecom cables (90%) and transformers and shunt reactors (90%) with a stipulated minimum threshold for local production and content will be considered.

Pre-Qualification criteria for preferential procurement in terms of Regulation 4 of the Preferential Procurement Regulations 2017, is applicable, therefore only tenderers who are an Exempted Micro Enterprises (EME's), or Qualifying Small Enterprises (QSE), and a B-BBEE status level 1-4 contributor, may respond to this tender.

The closing date and time of the tender is on **19 June 2020** at **12h00** and tenders will be opened in public immediately thereafter in the Supply Chain Management Committee Room, Hermanus Administration.

Please refer enquiries to **Mr. C Roets** at email: croets@overstrand.gov.za and/or telephone number: **028 313 8951**.


# PART A – ADMINISTRATIVE REQUIREMENTS IN TERMS OF THE SUPPLY CHAIN MANAGEMENT POLICY

## 4. AUTHORITY TO SIGN A BID

**TYPE OF ENTERPRISE (Please indicate with an "X" and complete the indicated section below)**

| | | | |
|---|---|---|---|
| **1** | Company (Pty) Ltd. & Ltd. | | Please complete **section 1** below |
| **2** | Close Corporation (CC) | | Please complete **section 2** below |
| **3** | Sole Proprietor | | Please complete **section 3** below |
| **4** | Partnership | | Please complete **section 4** below |
| **5** | Consortium, Club, Trust, etc. | | Please complete **section 5** below |
| **6** | Joint Venture | | Please complete **section 6** below |

### 1. COMPANIES - (PTY) LTD. & LTD.

1.1. If a bidder is a **COMPANY ((Pty) Ltd. OR Ltd.)**, 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. A valid resolution must be signed by:

1.2.1. Majority directors; or

1.2.2. Chairman of the Board; or

1.2.3. Company Secretary

| **PARTICULARS OF RESOLUTION BY THE BOARD OF DIRECTORS OF THE COMPANY** | |
|---|---|
| **Date resolution was taken** | |
| **Resolution signed by (name and surname)** | |
| **Capacity** | |
| **Name and surname of delegated authorised signatory** | |
| **Capacity** | |
| **Specimen signature** | |
| **Full name and surname of ALL director(s)** | |
| | |
| | |
| | |
| | |
| | |

| | | | | |
|---|---|---|---|---|
| **Is a copy of the resolution attached?** | | **YES** | | **NO** |
| SIGNED ON BEHALF OF COMPANY / CC: | | DATE: | | |
| PRINT NAME: | | | | |
| WITNESS 1: | | WITNESS 2: | | |

## 2. CLOSE CORPORATION (CC)

2.1. 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.

2.2. A valid resolution must be signed by:

2.2.1. Majority members; or

2.2.2. Member with majority shareholding but only if such shareholding is more than 50%; or

2.2.3. Company Secretary.

| **PARTICULARS OF RESOLUTION BY THE MEMBERS OF THE CLOSE CORPORATION** | |
|---|---|
| **Date resolution was taken** | |
| **Resolution signed by (name and surname)** | |
| **Capacity** | |
| **Name and surname of delegated authorised signatory** | |
| **Capacity** | |
| **Specimen signature** | |
| **Full name and surname of ALL director(s) / member (s)** | |
| | |
| | |
| | |
| | |
| | |

| **Is a copy of the resolution attached?** | | **YES** | | **NO** | |
|---|---|---|---|---|---|
| SIGNED ON BEHALF OF COMPANY / CC: | | DATE: | | | |
| PRINT NAME: | | | | | |
| WITNESS 1: | | WITNESS 2: | | | |

## 3. SOLE PROPRIETOR (SINGLE OWNER BUSINESS) & NATURAL PERSON

I, _____, the undersigned, hereby confirm that I am the sole owner of the business trading as _____.

**OR**

I, _____ , the undersigned, hereby confirm that I am submitting this bid in my capacity as natural person.

| SIGNATURE: | | DATE: | |
|---|---|---|---|
| PRINT NAME: | | | |
| WITNESS 1: | | WITNESS 2: | |

**4. PARTNERSHIP**

We, the undersigned partners in the business trading as _____

hereby authorize Mr / Ms _____ to sign this bid as well as any contract resulting from the bid and any other documents and correspondence in connection with this bid and /or contract for and on behalf of the abovementioned partnership.

**The following particulars in respect of every partner must be furnished and signed by every partner:**

| **Full name of partner** | **Signature** |
|---|---|
| | |
| | |
| | |
| | |
| | |

| | | | |
|---|---|---|---|
| SIGNED ON BEHALF OF PARTNERSHIP: | | DATE: | |
| PRINT NAME: | | | |
| WITNESS 1: | | WITNESS 2: | |

**5. CONSORTIUM / CLUB / TRUST / ETC.**

We, the undersigned consortium partners, hereby authorize_____

(Name of entity) to act as lead consortium partner and further authorize Mr / Ms _____

to sign this offer as well as any contract resulting from this bid and any other documents and correspondence in connection with this bid and / or contract for and on behalf of the consortium.

**The following particulars in respect of each consortium member must be provided and must be signed by each member:**

| **Full Name of consortium member** | **Role of consortium member** | **% Participation** | **Signature** |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

| | | | |
|---|---|---|---|
| SIGNED ON BEHALF OF PARTNERSHIP: | | DATE: | |
| PRINT NAME: | | | |
| WITNESS 1: | | WITNESS 2: | |

## 6. JOINT VENTURE

We, the undersigned, are submitting this bid offer in joint venture and hereby authorize Mr / Ms _____

_____

authorized signatory of the Company / Close Corporation / Partnership (name) _____

_____,

acting in the capacity of lead partner, to sign all documents in connection with the bid offer and any contract resulting from it on our behalf.

| **1. LEAD PARTNER (Whom the Municipality shall hold liable for the purpose of the tender)** | | | |
|---|---|---|---|
| Name of firm | | | |
| Address | | | |
| | | Tel. No. | |
| Signature | | Designation | |
| **2. 2nd PARTNER** | | | |
| Name of firm | | | |
| Address | | | |
| | | Tel. No. | |
| Signature | | Designation | |
| **3. 3rd PARTNER** | | | |
| Name of firm | | | |
| Address: | | | |
| | | Tel. No. | |
| Signature | | Designation | |
| **4. 4th PARTNER** | | | |
| Name of firm | | | |
| Address: | | | |
| | | Tel. No. | |
| Signature | | Designation | |

**NOTE: A copy of the Joint Venture Agreement indicating clearly the percentage contribution of each partner to the Joint Venture, is to be submitted with the bid.**

**A board resolution, authorising each signatory who signed above to do so, is to be submitted with the bid.**

# 5. 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 anything 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.

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.

| INITIALS | |
|---|---|

**4. STANDARDS**

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.

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.

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.

| INITIALS | |
|---|---|

**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.

**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 blueprints, 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 than 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.

**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

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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 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.

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

23.8 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.

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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.

**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.

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.

*36. General Conditions of Contract (revised July 2010)*

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# 6. GENERAL CONDITIONS OF TENDER

## 1. GENERAL

1.1 All bids must be submitted in **handwriting and in non-erasable (black or blue) ink** on the official forms supplied by the municipality.

1.1.1 Under no circumstances, whatsoever may the bid forms be retyped or redrafted.

1.2 Subject to the provisions of clause 1.3 of this document, no alterations / corrections to the information in the document (including pricing) may be performed by pasting another page over it with glue.

1.2.1 The use of correction fluid / tape is prohibited.

1.3 Notwithstanding the provisions of clause 1.2 of this document, alterations and/or corrections may only be effected as follows:

1.3.1 By striking a straight line in black ink through the incorrect information in such a manner that the information that has been struck through remains legible; writing, the altered or corrected information as appropriate (under, above or next to the information to be corrected), and initialling in the margin next to each and every alteration or correction.

1.3.2 All corrections/alterations to the Pricing Schedule / Bill of Quantities (BoQ) and / or any pricing not effected in accordance with clause 1.3.1 above, will be rejected.

1.4 Bids submitted must be complete in all respects.

1.4.1 The bidder is advised to check the number of pages and to satisfy himself that none are missing or duplicated.

1.4.2 The bidder must ensure that his/her bid document is securely bound.

1.4.2.1 All supporting documents must be submitted by either stapling it to the relevant form in the bid document, or by submitting a bound annexure containing all supporting documents.

1.4.2.2 The Municipality will not take any responsibility for missing / lost pages, in cases where the bidder submit loose pages (not securely attached to the bid document or annexure with supporting documents).

## 2. PRICING

2.1 Rates and prices offered by the bidder must be written onto the pricing schedule or form of offer of this document by hand, completed in full and originally signed by the duly authorised signatory.

2.2 All prices shall be quoted in South African currency, and be **INCLUSIVE of Value Added Tax (VAT)**.

2.3 Bid prices must include all expenses, disbursements and costs (e.g. transport, accommodation etc.) which may be required for the execution of the bidder's obligations in terms of the Contract. Bid prices shall cover the cost of all general risks, liabilities and obligations set forth or implied in the Contract, as well as overhead charges and profit (in the event that the bid is successful), unless otherwise specified.

2.4 All bid prices will be final and binding.

2.5 A bid will not be invalidated if the amount in words and the amount in figures do not correspond, in which case the amount in words shall be read out at the bid opening and shall be deemed to be the bid amount; therefore, where there is a discrepancy between the amount in figures and the amount in words, the amount in words shall apply

2.6 Where the value of an intended contract will exceed R1,000,000.00 (R1 million) it is the bidder's responsibility to be registered with the South African Revenue Service (SARS) for VAT purposes in order to be able to issue tax invoices. The municipality will deem the price above R 1 000 000,00 (R1 million) to be VAT inclusive even if it is indicated that no VAT is charged. Please ensure that provision is made for VAT in these instances.

2.6.1 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. The VAT registration number of the Overstrand Municipality is 4140106396.

2.6.2 If a bidder becomes a registered VAT vendor during the contract period, the prices/rates as per the initial award will be considered to be inclusive of VAT and no price adjustment(s) will be allowed.

## 3. FORWARD EXCHANGE RATE COVER

3.1 In the event of price(s) based on the exchange rate, the successful bidder(s) will be required to obtain exchange rate cover in order to protect the Municipality against exchange rate variations.

3.2 The bidder must provide proof of forward exchange rate cover within 14 days after an order was placed.

3.3 If proof that forward exchange rate cover was taken out within 14 days after the order was placed but is not submitted to the Municipality along with the invoice, the contract price adjustment will not be accepted and the contract may be cancelled.

## 4. SUBMITTING A BID:

4.1 Sealed bids, with the **"Bid Number and Title"** clearly endorsed on the envelope, must be deposited in the relevant **bid box** as indicated in the notice of the bid, **on or before the closing date and time** of the bid.

4.1.1 Any bid received without the **"Bid Number and / or Title"** clearly endorsed on the envelope will not be opened and read out during the bid opening session and will not be considered

4.2 The bid boxes are at the entrance of the Main Cash Hall, Hermanus Municipal Offices, 1 Magnolia Avenue, Hermanus.

4.3 A specific bid box is provided for each bid to be deposited into and no bid will be considered which, subsequent to the closing date and time for that specific bid, is found in another box.

4.4 The bid box deposit slot is 28cm x 2.5cm.

4.5 Mailed, telegraphic, e-mailed or faxed bids **will not be accepted**.

## 5. BID OPENING

5.1 Bids shall be opened in public at the Hermanus Municipal Offices as soon as possible subsequent to the closing time for the receipt of bids.

5.2 Where practical, prices will be read out at the time of opening bids.

5.3 The Municipality will record in a register (which is open to public inspection) and publish on its website, the details of bids received by the closing date and time.

5.4 Any bid received after the appointed time for the closing of bids **shall not be considered** but shall be filed unopened with the

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other bids received, which bid(s) can be returned to the bidder at his request and cost.

**6. EVALUATION AND ADJUDICATION CRITERIA:**

6.1 Relevant specifications;

6.2 Value for money;

6.3 Capacity and capability of bidders to execute the contract;

6.4 PPPFA & associated regulations; and

6.5 Any other objective criteria.

**7. REQUIREMENTS OF A VALID BID:**

7.1 The following duly completed documents and / or information must be submitted with the submission of the bid. Failure to comply with this requirement will invalidate the bid. The bid will not be considered and no further correspondence will be entered into with regard to the following matters:

7.1.1 The tender has not been completed in non-erasable handwritten ink,

7.1.2 Non-submission of a valid Tax Clearance Certificate and / or PIN,

7.1.3 Incomplete Pricing Schedule or Bill of Quantities,

7.1.4 A Form of Offer not signed in non-erasable ink,

7.1.5 Bid submissions with material alterations / corrections not in compliance with Clause 1.2 and 1.3 above will be rejected.

7.2 The Municipality may, after the closing date, request additional information or clarification of tenders in writing, which will include the following;

7.2.1 To obtain a copy of the most recent municipal account(s) from the recommended bidder;

7.2.2 To clarify or verify pricing where the prices are unclear or an obvious mistake has been detected, e.g. a total price was given instead of a unit price or vice versa;

7.2.3 To obtain the personal income tax number(s) from the recommended bidder;

7.2.4 To obtain a valid Tax Clearance Certificate and / or PIN if the certificate has expired or become inactive after the closing date of the tender;

7.2.5 To clarify or obtain outstanding information on the MBD 6.2 form if incomplete or partially completed.

7.2.6 To obtain a valid letter of good standing from the Workmen's Compensation Commissioner, the latest assessment and proof of payment thereof;

7.2.7 To obtain a valid and original B-BBEE certificate or sworn affidavit to verify preference points claimed by a bidder where the bidder submitted only a copy of the B-BBEE certificate or sworn affidavit with the bid submission.

7.2.7.1 If a bidder fails to submit a B-BBEE certificate or a sworn affidavit with the bid submission, the Municipality will not request or allow the bidder to submit it afterwards.

**8. TEST FOR RESPONSIVENESS:**

8.1 A Bid will be considered non-responsive if:

8.1.1 the bid is not in compliance with the specifications;

8.1.2 the bidder has not fully completed and signed where required, all the returnable documents as listed in the bid document; and/or

8.1.3 the bidder has failed to clarify or submit any supporting documentation within 3 business days of being requested to do so in writing.

8.2 The Municipality reserves the right to accept or reject:

8.2.1 any variation, deviation, bid offer, or alternative bid offer; may cancel the bidding process and reject all bid offers at any time before the formation of a contract. The MUNICIPALITY shall not accept or incur any liability to a bidder for such cancellation and/or rejection, and will only provide written reasons for such action upon receipt of a written request to do so;.

8.2.2 a bid offer which does not, in the Municipality's opinion, materially and/or substantially deviate from the terms, conditions and specifications of the bid document.

8.2.3 the whole bid or part of a bid or any item or part of any item, or to accept more than one bid (in the event of a number of items being offered), and the Municipality is not obliged to accept the lowest or any bid.

8.3 The Municipality has the right to summarily disqualify any bidder who, either at the date of submission of a bid or at the date of its award, is indebted to the Municipality in respect of any municipal rates and taxes or municipal service charges for more than three months. However, an agreement signed by the bidder whereby the bidder agrees that a percentage or fixed amount at the discretion of the municipality, be deducted from payments due to him/her for this bid, until the debt is paid in full, will also be accepted by the Municipality.

**9. INCORRECT INFORMATION**

Where a contract has been awarded on the strength of the information furnished by the bidder which after the conclusion of the relevant agreement, is proven to have been incorrect, the municipality may, in addition to any other legal remedy it has or may have, recover from the contractor all costs, losses or damages incurred or sustained by the municipality as a result of the award of the contract.

**10. WITHDRAWAL OF BID DURING AND AFTER THE SCM PROCESS:**

10.1 When a bidder withdraws his/her bid during the SCM bidding process, it must be in writing, prior to the award of the bid, of which Overstrand holds the right to accept or reject with or without a claim for any damages.

10.2 When a bidder withdraws or cancels the contract after award of the bid to the particular winner of the bid, the awarded bidder will be held responsible for any damages or administrative expenses incurred prior to the award of the bid.

**11. INVOICES**

11.1 All invoices must be forwarded to the following address:

Overstrand Municipality

PO Box 20

Hermanus, 7200

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11.2 **Legal requirements for invoices**

Please ensure that your tax invoices complies with the requirements as stipulated by SARS (VAT Act No 89 of 1991), i.e.:

11.2.1 **Ordinary invoice (not VAT Registered)**

(a) The word '***INVOICE***' to be displayed in a prominent place

(b) Official invoice number and date of transaction

(c) Trade name, legal name, registration number (if any) and address of supplier

(d) The Official order number of Overstrand Municipality is compulsory – non-compliance will result in non-payment

(e) The Municipality's name and postal address (PO Box 20, Hermanus, 7200)

(f) Accurate description of goods and / or services supplied / provided.

(g) Unit of measurement of goods or services supplied

(h) Price

11.2.2 **VAT/Tax invoice (VAT registered)** An example of a valid Tax Invoice is attached as **Annexure C**.

(a) Word '***TAX INVOICE***' to be displayed in a prominent place

(b) Trade, legal name and registration number(if any) of supplier

(c) Address and VAT number of supplier

(d) The official invoice number and date of invoice

(e) The Official order number of Overstrand Municipality is compulsory – non-compliance will result in non-payment

(f) The Municipality's name and postal address (PO Box 20, Hermanus, 7200) and VAT registration number (4140106396)

(g) Accurate description of goods and / or services supplied / provided.

(h) Unit of measurement of goods or services supplied

**(i)** Price and VAT amount

## 12. PAYMENT TERMS

12.1 It is the policy of the Overstrand Municipality to pay all creditors by means of electronic bank transfers.

12.2 Creditors will be paid within 30 days after receipt of an invoice and statement for the month in question, detailing all invoices during that month and reflecting the total amount due by the Municipality. In exceptional circumstances, the Municipality may, at its discretion, deviate from the above.

12.3 In order to qualify for a weekly payment, a supplier must be registered as a **Survivalist Enterprise / Micro Enterprise**[1] on the Municipality's supplier database. It must however be noted, that a weekly payment is not a right in terms of this Policy. Survivalist and Micro enterprises may request such payments which may then be made at the discretion of the Municipality. These weekly payments will be reviewed after a period of 12 months of doing business with the Municipality, as it may be assumed that the enterprise will, by that stage be self-sustainable. It is the obligation of the supplier to arrange earlier payments with the creditors department.

## 13. PRECEDENCE OF TERMS AND CONDITIONS

13.1 Precedence of terms and conditions in documentation during the bidding process and after award, resulting in an formal agreement:

13.1.1 The following legislative and legal precedence will apply to documentation during the bidding process subsequent to the award of a bid to a bidder:

13.1.1.1 Municipal Financial Management Act 56 of 2003

13.1.1.2 Municipal Supply Chain Management Regulations

13.1.1.3 Supply Chain Management policy

13.1.1.4 Specifications of the bid document

13.1.1.5 Special Conditions of Contract

13.1.1.6 General Conditions of Contract

13.1.1.7 Service Level Agreements/ Service Delivery Agreements

13.1.1.8 Memorandum of Understanding/ Memorandum of Agreements

[1] **SURVIVALIST ENTERPRISES / MICRO ENTERPRISES ARE DEFINED AS FOLLOWS:**

**Survivalist enterprises** are generally defined as businesses set up by people unable to find a paid job or get into an economic sector of their choice. Income generated from these activities usually falls far short of even a minimum income standard, with very little capital invested, virtually no skills training in the particular field and only limited opportunities for growth into a viable business. This category is characterised by poverty and the attempt to survive.

**Micro enterprises** are very small businesses, often involving only the owner, some family members and at the most one or two paid employees. They usually lack 'formality' in terms of business licenses, value-added tax (VAT) registration, formal business premises, operating permits and accounting procedures. Most of them have a limited capital base and only rudimentary technical or business skills among their operators. However, many micro enterprises advance into viable small businesses. Earning levels of micro enterprises differ widely, depending on the particular sector, the growth phase of the business and access to relevant support.

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## 7. MBD 4 – DECLARATION OF INTEREST

**1.** No bid will be accepted from persons in the service of the state[2].

**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:

| | | |
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| **3.1.** | Full name of bidder or his or her representative | |
| **3.2.** | Identity number | |
| **3.3.** | Position occupied in the company (director, shareholder [3] 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 | | No | |
| 3.7.1. | If so, furnish particulars: | | | | |
| | | | | | |
| **3.8.** | Have you been in the service of the state for the past twelve months? | Yes | | No | |
| 3.8.1. | If so, furnish particulars: | | | | |
| | | | | | |
| **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: | | | | |
| | | | | | |
| **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: | | | | |
| | | | | | |
| **3.11.** | Are any of the company's directors, managers, principal shareholders or stakeholders in the service of the state? | Yes | | No | |
| 3.11.1. | If so, furnish particulars: | | | | |
| | | | | | |

[2] *MSCM Regulations: "in the service of the state" means to be –*

*(a) a member of –*
*i. any municipal council;*
*ii. any provincial legislature; or*
*iii. the National Assembly or the National Council of Provinces;*
*(b) a member of the board of directors of any municipal entity;*
*(c) an official of any municipality or municipal entity;*
*(d) 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);*
*(e) a member of the accounting authority of any national or provincial public entity; or*
*(f) an employee of Parliament or a provincial legislature.*

[3] *"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.*

| | | | | | |
|---|---|---|---|---|---|
| **3.12.** | Is any spouse, child or parent of the company's directors, managers, principal shareholders or stakeholders in the service of the state? | Yes | | No | |
| 3.12.1. | If so, furnish particulars: | | | | |
| | | | | | |
| **3.13.** | Do you or any of the directors, trustees, managers, principal shareholders, or stakeholders of this company have any interest in any other related companies or business whether or not they are bidding for this contract? | Yes | | No | |
| 3.13.1. | If so, furnish particulars: | | | | |
| | | | | | |

**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[4] employee number** (Only to be completed if in the service of the State) |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

**NB:**

- **PLEASE ATTACH CERTIFIED COPY(IES) OF ID DOCUMENT(S)**
- **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 | | | |

[4] ***MSCM Regulations: "in the service of the state" means to be –***

1. *a member of –*
   - *i. any municipal council;*
   - *ii. any provincial legislature; or*
   - *iii. the National Assembly or the National Council of Provinces;*
2. *a member of the board of directors of any municipal entity;*
3. *an official of any municipality or municipal entity;*
4. *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.*

## 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 required to prepare annual financial statements for auditing? | **YES** | | **NO** | |
| 1.1. If yes, submit audited annual financial statements for the past three years or since the date of establishment if established during the past three years. | | | | |
| 2. Do you have any outstanding undisputed commitments for municipal services towards a municipality or any other service provider in respect of which payment is overdue for more than 30 days? | **YES** | | **NO** | |
| 2.1. If no, this serves to certify that the bidder has no undisputed commitments for municipal services towards a municipality or other service provider in respect of which payment is overdue for more than 30 days.<br>2.2. If yes, provide particulars. | | | | |
| | | | | |
| 3. Has any contract been awarded to you by an organ of state during the past five years, including particulars of any material non-compliance or dispute concerning the execution of such contract? | **YES** | | **NO** | |
| 3.1. If yes, furnish particulars | | | | |
| | | | | |
| 4. Will any portion of goods or services be sourced from outside the Republic, and, if so, what portion and whether any portion of payment from the municipality / municipal entity is expected to be transferred out of the Republic? | **YES** | | **NO** | |
| 4.1. If yes, furnish particulars | | | | |
| | | | | |

**CERTIFICATION**

I, the undersigned (name) _____ , 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 | | DATE | |
| NAME (PRINT) | | | |
| CAPACITY | | | |
| NAME OF FIRM | | | |

## 9. MBD 6.1 – PREFERENCE POINTS CLAIM FORM IN TERMS OF THE PREFERENTIAL PROCUREMENT REGULATIONS

This preference form must form part of all bids invited. It contains general information and serves as a claim form for preference points for Broad Based Black Economic Empowerment (B-BBEE) Status Level of Contribution.

**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, 2017.**

### 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 R50 000 000 (all applicable taxes included); and

1.1.2. the 90/10 system for requirements with a Rand value above R50 000 000 (all applicable taxes included).

1.2. The value of this bid is estimated to not exceed R50 000 000 (all applicable taxes included) and therefore the 80/20 preference point 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 |
|---|---|
| **PRICE** | 80 |
| **B-BBEE STATUS LEVEL OF CONTRIBUTION** | 20 |
| **Total points for Price and B-BBEE must not exceed** | **100** |

1.5. Failure on the part of a bidder to submit proof of B-BBEE Status level of contributor together with the bid, will be interpreted to mean that preference points for B-BBEE status level of contribution are not claimed.

1.6. The purchaser 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 purchaser.

### 2. DEFINITIONS

2.1. **"B-BBEE"** means broad-based black economic empowerment as defined in section 1 of the Broad-Based Black Economic Empowerment Act;

2.2. "**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;

2.3. **"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;

2.4. **"Broad-Based Black Economic Empowerment Act"** means the Broad-Based Black Economic Empowerment Act, 2003 (Act No. 53 of 2003) as amended by Act No 46 of 2013;

2.5. **"EME"** means an Exempted Micro Enterprise as defined by Codes of Good Practice issued in terms of section 9 (1) of the Broad-Based Black Economic Empowerment Act, 2003 (Act No. 53 of 2003);

2.6. **"functionality"** means the ability of a tenderer to provide goods or services in accordance with specifications as set out in the tender documents;

2.7. **"prices"** includes all applicable taxes less all unconditional discounts;

2.8. **"proof of B-BBEE status level of contributor "** means:

2.8.1. Original B-BBEE Status level certificate issued by an authorized body or person or a certified copy thereof;

2.8.2. An original sworn affidavit as prescribed by the B-BBEE Codes of Good Practice;

2.8.3. Any other requirement prescribed in terms of the B-BBEE Act;

2.9. **"QSE"** means a Qualifying Small Enterprise as defined by Codes of Good Practice issued in terms of section 9 (1) of the Broad-Based Black Economic Empowerment Act,

2.10. **"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;

2.11. **"sub-contract"** means the primary contractor's assigning, leasing, making out work to, or employing.

## 3. POINTS AWARDED FOR PRICE

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

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

**80/20** **or** **90/10**

$$Ps = 80\left(1 - \frac{Pt - P\min}{P\min}\right) \quad \text{or} \quad Ps = 90\left(1 - \frac{Pt - P\min}{P\min}\right)$$

**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.*

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

4.1. In terms of Regulation 6(2) and 7(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 | 6 | 14 |
| 4 | 5 | 12 |
| 5 | 4 | 8 |
| 6 | 3 | 6 |
| 7 | 2 | 4 |
| 8 | 1 | 2 |
| Non-compliant contributor | 0 | 0 |

## 5. BID DECLARATION

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

| | | |
|---|---|---|
| 5.1.1. | **B-BBEE STATUS LEVEL OF CONTRIBUTION CLAIMED IN TERMS OF PARAGRAPHS 1.4 AND 4.1** | |
| 5.1.2. | B-BBEE Status Level of Contributor | |
| 5.1.3 | Points claimed in respect of Level of Contribution (maximum of 10 or 20 points) | |

5.2. (Points claimed in respect of paragraphs 5.1 and 6.1 must be in accordance with the table reflected in paragraph 4.1 and must be substantiated by means of a B-BBEE certificate issued by a Verification Agency accredited by SANAS, or an original sworn affidavit where applicable.)

## 6. SUB-CONTRACTING

| | | | | | |
|---|---|---|---|---|---|
| 6.1. | **Will any portion of the contract be sub-contracted? (Tick applicable box)** | Yes | | No | |
| | If yes, indicate: | | | | |
| i. | what percentage of the contract will be subcontracted | % | | | |
| ii. | the name of the sub-contractor | | | | |
| | | | | | |
| iii. | the B-BBEE status level of the sub-contractor | | | | |
| iv. | whether the sub-contractor is an EME or QSE (Tick applicable box) | Yes | | No | |
| **v.** | **Specify, by ticking the appropriate box, if sub-contracting with an enterprise in terms of Preferential Procurement Regulations, 2017:** | | | | |
| | **Designated Group: An EME or QSE which is at least 51% owned by:** | **EME √** | **QSE √** | | |
| a. | Black people | | | | |
| b. | Black people who are youth | | | | |
| c. | Black people who are women | | | | |
| d. | Black people with disabilities | | | | |
| e. | Black people living in rural or underdeveloped areas or townships | | | | |
| f. | Cooperative owned by black people | | | | |
| g. | Black people who are military veterans | | | | |
| | **OR** | | | | |
| h. | Any EME | | | | |
| i. | Any QSE | | | | |

## 7. DECLARATION WITH REGARD TO COMPANY/FIRM

| | | | |
|---|---|---|---|
| 7.1. | Name of company/firm | | |
| 7.2. | VAT registration number | | |
| 7.3. | Company registration number | | |
| 7.4. | TYPE OF COMPANY/FIRM<br>(Tick applicable box) | Partnership / Joint Venture / Consortium | |
| | | One person business / sole proprietor | |
| | | Close Corporation (CC) | |
| | | Company ((Pty) Ltd. / Ltd.) | |
| | | Company (Ltd.) | |
| 7.5. | Describe principal business activities | | |
| | | | |
| | | | |

| | | |
|---|---|---|
| | | |

| | | | |
|---|---|---|---|
| 7.6. | Company Classification<br>(Tick applicable box) | Manufacturer | |
| | | Supplier | |
| | | Professional service provider | |
| | | Other service providers, e.g. transporter, etc. | |
| 7.7. | **Municipal information** | | |
| i. | Municipality where business is situated | | |
| ii. | Registered municipal account number | | |
| iii. | Stand number | | |

| | | |
|---|---|---|
| 7.8. | Total number of years the company/firm has been in business | |

7.9. 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-BBEE status level of contributor indicated in paragraphs 1.4 and 5.1 of the foregoing certificate, qualifies the company/ firm for the preference(s) shown and I / we acknowledge that:

7.9.1. The information furnished is true and correct;

7.9.2. The preference points claimed are in accordance with the General Conditions as indicated in paragraph 1 of this form;

7.9.3. In the event of a contract being awarded as a result of points claimed as shown in paragraphs 1.4 and 5.1, the contractor may be required to furnish documentary proof to the satisfaction of the purchaser that the claims are correct;

7.9.4. If the B-BBEE status level of contributor 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 –

a) disqualify the person from the bidding process;

b) recover costs, losses or damages it has incurred or suffered as a result of that person's conduct;

c) 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;

d) recommend that the bidder or contractor, its shareholders and directors, or only the shareholders and directors who acted on a fraudulent basis, be restricted 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

e) forward the matter for criminal prosecution.

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

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

**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, 2017; and
- South African Bureau of Standards (SABS) approved technical specification number SATS 1286:2011 (Edition 1)[5] 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.

**1. General Conditions**

1.1 Preferential Procurement Regulations, 2017 (Regulation 8) makes provision for the promotion of local production and content.

1.2 Regulation 8.(2) 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.

1.3 Where necessary, for bids referred to in paragraph 2.1 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.

1.4 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.

1.5 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.

1.6 A bid may be disqualified if:

(a) this Declaration Certificate and the Annex 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 (Annex C, D and E) have been audited and certified as correct.

**2. Definitions**

2.1 **"bid"** includes written price quotations, advertised competitive bids or proposals;

2.2 **"bid price"** price offered by the bidder, excluding value added tax (VAT);

2.3 **"contract"** means the agreement that results from the acceptance of a bid by an organ of state;

2.4 **"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;

2.5 **"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, partnership or individual).

2.6 **"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

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

as landing costs, dock duties, import duty, sales duty or other similar tax or duty at the South African port of entry;

2.7 **"local content"** means that portion of the bid price which is not included in the imported content, provided that local manufacture does take place;

2.8 **"stipulated minimum threshold"** means that portion of local production and content as determined by the Department of Trade and Industry; and

2.9 **"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.

**3. 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 | 90% |
| 2. | Meters | 70% |
| 3. | Street Light Poles | 100% |
| 4. | Miniature Sub Stations | 90% |
| 5. | Transformers | 90% |

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

| YES | | NO | |
|---|---|---|---|

4.1 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.

The relevant rates of exchange information is accessible on **www.reservebank.co.za.**

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.**

**5.** Were the Local Content Declaration Templates (Annexure C, D and E) audited and certified as correct?

(***Tick applicable box***)

| YES | | NO | |
|---|---|---|---|

5.1 If yes, provide the following particulars:

| | | |
|---|---|---|
| a) | Full name of auditor: | |
| b) | Practice number: | |
| c) | Telephone and cell number: | |
| d) | Email address: | |

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

**6.** 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: | | | |
| | | | |

MUNISIPALITEIT 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. SC2099/2019: SUPPLY AND DELIVERY OF ELECTRICAL ITEMS TO THE OVERSTRAND MUNICIPALITY FOR A CONTRACT PERIOD ENDING 30 JUNE 2023**

**NB**

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 http://www.thedti.gov.za/industrial_development/ip.jsp. 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 Annexure (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 3.1 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.**

4. 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, 2017 promulgated under the Preferential Policy Framework Act (PPPFA), 2000 (Act No. 5 of 2000).

| | SIGNATURE | DATE |
|---|---|---|
| **TENDERER** | | |
| **WITNESS 1:** | | |
| **WITNESS 2:** | | |

MUNISIPALITEIT OVERSTRAND MUNICIPALITY

| ANNEXURE C | | | | SATS 1286.2011 |
|---|---|---|---|---|
| **Local Content Declaration – Summary Schedule** | | | | |
| *(C1)* Tender No. | SC2099/2019 | | | NOTE: VAT to be excluded from all calculations |
| *(C2)* Tender Description | SUPPLY AND DELIVERY OF ELECTRICAL ITEMS TO THE OVERSTRAND MUNICIPALITY FOR A CONTRACT PERIOD ENDING 30 JUNE 2023 | | | |
| *(C3)* Designated product(s) | Cables, Transformers, Mini Sub Stations | | | |
| *(C4)* Tender Authority | OVERSTRAND MUNICIPALITY | | | |
| *(C5)* Name of Tendering Entity | | | | |
| *(C6)* Tender Exchange Rate | Currency | | Rate | |
| *(C7 )*Specified local content % | 90% | | | |

| | | Calculation of local content | | | | | | Tender summary | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| *Tender Item No's* | *List of Items* | *Tender Price – each* | *Exempted imported value* | *Tender value net of exempted imported content* | *Imported value* | *Local value* | *Local content % (per item)* | *Tender Quantity* | *Total tender value* | *Total exempted imported content* | *Total imported content* |
| *(C8)* | *(C9)* | *(C10)* | *(C11)* | *(C12)* | *(C13)* | *(C14)* | *(C15)* | *(C16)* | *(C17)* | *(C18)* | *(C19)* |
| 6.1. | **PVC INSULATED COPPER CONDUCTOR ; PVC BEDDED SWA PVC SHEATHED; 600/1000 VOLT CABLE TO SANS 1507** | | | | | | | | | | |
| 6.1.1 | 16 MM² X 2 CORE | | | | | | | 4551 | | | |
| 6.1.2 | 6 MM² X 2 CORE | | | | | | | 2900 | | | |
| 6.1.3 | 6 MM² X 3 CORE | | | | | | | 3500 | | | |
| 6.1.4 | 16 MM²X2CORE CU PVC SWA | | | | | | | 500 | | | |
| 6.1.5 | 16 MM² X 2 CORE + 2 CORE STRANDED PILOT | | | | | | | 1491 | | | |
| 6.1.6 | 16 MM² X 4 CORE | | | | | | | 1464 | | | |
| 6.1.7 | 25 MM² X 4 CORE | | | | | | | 1182 | | | |
| 6.1.8 | 70 MM² X 4 CORE | | | | | | | 1161 | | | |
| 6.1.9 | 95 MM² X 4 CORE | | | | | | | 276 | | | |
| 6.1.10 | 1,5 MM² X 2 CORE | | | | | | | 12 | | | |
| 6.1.11 | 2,5 MM² X 2 CORE | | | | | | | 12 | | | |
| 6.1.12 | 4 MM² X 2 CORE | | | | | | | 12 | | | |
| 6.1.13 | 6 MM² X 4 CORE | | | | | | | 12 | | | |

| | | Calculation of local content | | | | | | Tender summary | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| *Tender Item No's* | *List of Items* | *Tender Price – each* | *Exempted imported value* | *Tender value net of exempted imported content* | *Imported value* | *Local value* | *Local content % (per item)* | *Tender Quantity* | *Total tender value* | *Total exempted imported content* | *Total imported content* |
| *(C8)* | *(C9)* | *(C10)* | *(C11)* | *(C12)* | *(C13)* | *(C14)* | *(C15)* | *(C16)* | *(C17)* | *(C18)* | *(C19)* |
| 6.1.14 | 10 MM² X 2 CORE | | | | | | | 12 | | | |
| 6.1.15 | 10 MM² X 4 CORE | | | | | | | 12 | | | |
| 6.1.16 | 16 MM² X 4 CORE + 2 CORE STRANDED PILOT | | | | | | | 12 | | | |
| 6.1.17 | 35 MM² X 4 CORE | | | | | | | 12 | | | |
| 6.1.18 | 50 MM² X 4 CORE | | | | | | | 12 | | | |
| 6.1.19 | 120 MM² X 4 CORE | | | | | | | 12 | | | |
| 6.1.20 | 150 MM² X 4 CORE | | | | | | | 12 | | | |
| 6.1.21 | 185 MM² X 4 CORE | | | | | | | 12 | | | |
| 6.2. | **PVC insulated ALUMINIUM conductor; PVC bedded SWA PVC sheathed; 600/1000 Volt cable to SANS 1507 (Specifications: Paragraph B 1)** | | | | | | | | | | |
| 6.2.1 | 185 mm² x 4 core | | | | | | | 10 | | | |
| 6.2.2 | 150 mm² x 4 core | | | | | | | 10 | | | |
| 6.2.3 | 120 mm² x 4 core | | | | | | | 10 | | | |
| 6.2.4 | 95 mm² x 4 core | | | | | | | 10 | | | |
| 6.2.5 | 70 mm² x 4 core | | | | | | | 10 | | | |
| 6.2.6 | 50 mm² x 4 core | | | | | | | 10 | | | |
| 6.2.7 | 35 mm² x 4 core | | | | | | | 10 | | | |
| 6.2.8 | 25 mm² x 4 core | | | | | | | 10 | | | |
| 6.3. | **Paper insulated COPPER conductor cable; PVC served 6,35/11KV table 19 ; PILC GSTA to SANS 97 (Specifications: Paragraph B 1)** | | | | | | | | | | |
| 6.3.1 | 185 mm² x 3 core | | | | | | | 10 | | | |
| 6.3.2 | 120 mm² x 3 core | | | | | | | 10 | | | |
| 6.3.3 | 95 mm² x 3 core | | | | | | | 10 | | | |
| 6.3.4 | 70 mm² x 3 core | | | | | | | 10 | | | |
| 6.3.5 | 35 mm² x 3 core | | | | | | | 10 | | | |

| | | Calculation of local content | | | | | | Tender summary | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| *Tender Item No's* | *List of Items* | *Tender Price – each* | *Exempted imported value* | *Tender value net of exempted imported content* | *Imported value* | *Local value* | *Local content % (per item)* | *Tender Quantity* | *Total tender value* | *Total exempted imported content* | *Total imported content* |
| *(C8)* | *(C9)* | *(C10)* | *(C11)* | *(C12)* | *(C13)* | *(C14)* | *(C15)* | *(C16)* | *(C17)* | *(C18)* | *(C19)* |
| 6.3.6 | 25 mm² x 3 core | | | | | | | 10 | | | |
| | **Paper insulated ALUMINIUM conductor cable; PVC served 6,35/11KV table 19 ; PILC GSTA to SANS 97 (Specifications: Paragraph B 1)** | | | | | | | | | | |
| 6.3.7 | 300 mm² x 3 core | | | | | | | 10 | | | |
| 6.3.8 | 240 mm² x 3 core | | | | | | | 10 | | | |
| 6.3.9 | 185 mm² x 3 core | | | | | | | 10 | | | |
| 6.3.10 | 120 mm² x 3 core | | | | | | | 10 | | | |
| 6.3.11 | 95 mm² x 3 core | | | | | | | 10 | | | |
| 6.3.12 | 70 mm² x 3 core | | | | | | | 10 | | | |
| 6.4. | **INSULATED AERIAL CABLE Copper split concentric Airdac** | | | | | | | | | | |
| 6.4.1 | 10 mm² copper split concentric Airdac plus stranded pilot cable | | | | | | | 1000 | | | |
| 6.4.2 | 16 mm² copper split concentric Airdac plus stranded pilot cable | | | | | | | 1000 | | | |
| 6.5. | **XLPE-insulated ALUMINIUM ABC- conductor to SABS 1418 Part 1 and 2/1986 with core identification (LV)** | | | | | | | | | | |
| 6.5.1 | 3x120 + 54,6 + 25 mm² | | | | | | | 10 | | | |
| 6.5.2 | 3x95 + 54,6 + 25 mm² | | | | | | | 10 | | | |
| 6.5.3 | 3x70 + 54,6 + 25 mm² | | | | | | | 10 | | | |
| 6.5.4 | 3x35 + 54,6 + 25 mm² | | | | | | | 10 | | | |
| 6.6. | **XLPE- insulated ALUMINIUM ABC- conductor to Sans 1713 and TYPE B 6.35/11KV with core identification (MV)** | | | | | | | | | | |
| 6.6.1 | AL 120mm2 3C XLPE IS(0.15) PVC(UV) + HSSW 7/3.60mm PVC(UV) ABC SANS 1713 TYPE B 6.35/11kV | | | | | | | 10 | | | |
| 6.6.2 | AL 35mm2 3C XLPE IS(0.15) PVC(UV) + HSSW 7/3.00mm PVC(UV) ABC SANS 1713 TYPE B 6.35/11kV | | | | | | | 10 | | | |

| | | Calculation of local content | | | | | | Tender summary | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| *Tender Item No's* | *List of Items* | *Tender Price – each* | *Exempted imported value* | *Tender value net of exempted imported content* | *Imported value* | *Local value* | *Local content % (per item)* | *Tender Quantity* | *Total tender value* | *Total exempted imported content* | *Total imported content* |
| *(C8)* | *(C9)* | *(C10)* | *(C11)* | *(C12)* | *(C13)* | *(C14)* | *(C15)* | *(C16)* | *(C17)* | *(C18)* | *(C19)* |
| 6.6.3 | AL 70mm2 3C XLPE IS(0.15) PVC(UV) + HSSW 7/3.00mm PVC(UV) ABC SANS 1713 TYPE B 6.35/11kV | | | | | | | 10 | | | |
| 6.6.4 | AL 95mm2 3C XLPE IS(0.15) PVC(UV) + HSSW 7/3.00mm PVC(UV) ABC SANS 1713 TYPE B 6.35/11kV | | | | | | | 10 | | | |
| 6.7. | **OVERHEAD CONDUCTOR** | | | | | | | | | | |
| 6.7.1 | OAK (359A) 100MM ALUMINIUM OVERHEAD CONDUCTOR (ABERDARE OR SIMILAR) | | | | | | | 10 | | | |
| 5 | **GENERAL A** | | | | | | | | | | |
| 5.1. | HOUSE WIRE: 1.5MM BLUE PVC (PLEASE PROVIDE A PRICE PER METER) | | | | | | | 100 | | | |
| 5.2. | HOUSE WIRE: 1.5MM GREEN/YELLOW PVC (PLEASE PROVIDE A PRICE PER METER) | | | | | | | 100 | | | |
| 5.3. | HOUSE WIRE: 1.5MM RED PVC (PLEASE PROVIDE A PRICE PER METER) | | | | | | | 100 | | | |
| 5.4. | HOUSE WIRE: 1.5MM WHITE PVC (PLEASE PROVIDE A PRICE PER METER) | | | | | | | 100 | | | |
| 5.5. | HOUSE WIRE: 2.5MM BLACK PVC (PLEASE PROVIDE A PRICE PER METER) | | | | | | | 100 | | | |
| 5.6. | HOUSE WIRE: 2.5MM BLUE PVC (PLEASE PROVIDE A PRICE PER METER) | | | | | | | 100 | | | |
| 5.7. | HOUSE WIRE: 2.5MM GREEN/YELLOW PVC (PLEASE PROVIDE A PRICE PER METER) | | | | | | | 100 | | | |

| | | Calculation of local content | | | | | | Tender summary | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| *Tender Item No's* | *List of Items* | *Tender Price – each* | *Exempted imported value* | *Tender value net of exempted imported content* | *Imported value* | *Local value* | *Local content % (per item)* | *Tender Quantity* | *Total tender value* | *Total exempted imported content* | *Total imported content* |
| *(C8)* | *(C9)* | *(C10)* | *(C11)* | *(C12)* | *(C13)* | *(C14)* | *(C15)* | *(C16)* | *(C17)* | *(C18)* | *(C19)* |
| 5.8. | HOUSE WIRE: 2.5MM RED PVC (PLEASE PROVIDE A PRICE PER METER) | | | | | | | 100 | | | |
| 5.9. | HOUSE WIRE: 2.5MM WHITE PVC (PLEASE PROVIDE A PRICE PER METER) | | | | | | | 100 | | | |
| 5.10 | 1MM TWIN AND EARTH (100M ROLL) | | | | | | | 100 | | | |
| 5.11 | 2.5 X 2C WHITE SURFIX (100M ROLL) | | | | | | | 100 | | | |
| 19. | **GENERAL B** | | | | | | | | | | |
| 19.42 | House Wire:16mm Black PVC **(PLEASE PROVIDE A PRICE PER METER)** | | | | | | | 100 | | | |
| 19.43 | House Wire:16mm Blue PVC **(PLEASE PROVIDE A PRICE PER METER)** | | | | | | | 100 | | | |
| 19.44 | House Wire:16mm Green/Yellow PVC **(PLEASE PROVIDE A PRICE PER METER)** | | | | | | | 100 | | | |
| 19.45 | House Wire:16mm Red PVC **(PLEASE PROVIDE A PRICE PER METER)** | | | | | | | 100 | | | |
| 19.46 | House Wire:16mm White PV C**(PLEASE PROVIDE A PRICE PER METER)** | | | | | | | 100 | | | |
| 19.70 | Panel Wire: 2.5mm Black **(PLEASEPROVIDE A PRICE PER METER)** | | | | | | | 100 | | | |
| 19.71 | Panel Wire: 2.5mm Blue **(PLEASE PROVIDE A PRICE PER METER)** | | | | | | | 100 | | | |
| 19.72 | Panel Wire: 2.5mm Brown **(PLEASE PROVIDE A PRICE PER METER)** | | | | | | | 100 | | | |

| | | Calculation of local content | | | | | | Tender summary | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| *Tender Item No's* | *List of Items* | *Tender Price – each* | *Exempted imported value* | *Tender value net of exempted imported content* | *Imported value* | *Local value* | *Local content % (per item)* | *Tender Quantity* | *Total tender value* | *Total exempted imported content* | *Total imported content* |
| *(C8)* | *(C9)* | *(C10)* | *(C11)* | *(C12)* | *(C13)* | *(C14)* | *(C15)* | *(C16)* | *(C17)* | *(C18)* | *(C19)* |
| 19.73 | Panel Wire: 2.5mm Green/Yellow **(PLEASE PROVIDE A PRICE PER METER)** | | | | | | | 100 | | | |
| 19.74 | Panel Wire: 2.5mm Grey **(PLEASE PROVIDE A PRICE PER METER)** | | | | | | | 100 | | | |
| 19.75 | Panel Wire: 2.5mm Orange **(PLEASE PROVIDE A PRICE PER METER)** | | | | | | | 100 | | | |
| 19.76 | Panel Wire: 2.5mm Pink **(PLEASE PROVIDE A PRICE PER METER)** | | | | | | | 100 | | | |
| 19.77 | Panel Wire: 2.5mm Purple **(PLEASE PROVIDE A PRICE PER METER)** | | | | | | | 100 | | | |
| 19.78 | Panel Wire: 2.5mm Red **(PLEASE PROVIDE A PRICE PER METER)** | | | | | | | 100 | | | |
| 19.79 | Panel Wire: 2.5mm White **(PLEASE PROVIDE A PRICE PER METER)** | | | | | | | 100 | | | |
| 19.80 | Panel Wire: 2.5mm Yellow **(PLEASE PROVIDE A PRICE PER METER)** | | | | | | | 100 | | | |
| 19.106 | Wire:16mm Bare Copper **(PLEASE PROVIDE A PRICE PER METER AND NOT PER KG.)** | | | | | | | 100 | | | |
| 5.1. | 1mm Twin And Earth (100m Roll) | | | | | | | 100 | | | |
| 5.2. | 2.5 X 2c White Surfix (100m Roll) | | | | | | | 100 | | | |
| 8 | **MINIATURE SUB-STATION – NB: COPPER WINDING ONLY SEE ITEM #8 IN SPECIFICATIONS** | | | | | | | | | | |
| 8.1. | 315A 11500/420V. MINIATURE SUBSTATION AS PER SPECIFICATION INCLUDING LV CIRCUIT BREAKERS | | | | | | | 2 | | | |
| 8.2. | 500 KVA 11500/420V. MINIATURE SUBSTATION AS PER SPECIFICATION INCLUDING LV CIRCUIT BREAKERS | | | | | | | 2 | | | |
| 8.3. | 630 KVA 11500/420V. MINIATURE SUBSTATION AS PER | | | | | | | 2 | | | |

| | | Calculation of local content | | | | | | Tender summary | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| *Tender Item No's* | *List of Items* | *Tender Price – each* | *Exempted imported value* | *Tender value net of exempted imported content* | *Imported value* | *Local value* | *Local content % (per item)* | *Tender Quantity* | *Total tender value* | *Total exempted imported content* | *Total imported content* |
| *(C8)* | *(C9)* | *(C10)* | *(C11)* | *(C12)* | *(C13)* | *(C14)* | *(C15)* | *(C16)* | *(C17)* | *(C18)* | *(C19)* |
| | SPECIFICATION INCLUDING LV CIRCUIT BREAKERS | | | | | | | | | | |
| 8.4. | 800 KVA 11500/420V. MINIATURE SUBSTATION AS PER SPECIFICATION INCLUDING LV CIRCUIT BREAKERS | | | | | | | 2 | | | |
| 8.5. | 200 KVA 11500/420V. MINIATURE SUBSTATION AS PER SPECIFICATION INCLUDING LV CIRCUIT BREAKERS | | | | | | | 2 | | | |
| 8.6. | 400 KVA 11500/420V. MINIATURE SUBSTATION AS PER SPECIFICATION INCLUDING LV CIRCUIT BREAKERS | | | | | | | 2 | | | |
| 8.7. | 1000 KVA 11500/420V. MINIATURE SUBSTATION AS PER SPECIFICATION INCLUDING LV CIRCUIT BREAKER. | | | | | | | 2 | | | |
| **10.** | **POLE MOUNTED TRANSFORMERS – NB: COPPER WINDING SEE ITEM #9 IN SPECIFICATIONS** | | | | | | | | | | |
| 10.1. | 25 KVA 11500/420V POLE MOUNTED TRANSFORMER | | | | | | | 2 | | | |
| 10.2. | 50 KVA 11500/420V POLE MOUNTED TRANSFORMER | | | | | | | 2 | | | |
| 10.3. | 200 KVA 11500/420V TRANSFORMER WITH ENCLOSED LV COMPARTMENT – POLE MOUNTED (SPECIFICATIONS, PAR. 6) | | | | | | | 2 | | | |
| 10.4. | 100 KVA 11500/420V POLE MOUNTED TRANSFORMER | | | | | | | 2 | | | |
| 10.5. | 200 KVA 11500/420V POLE MOUNTED TRANSFORMER | | | | | | | 2 | | | |
| **13.** | **12 KV INDOOR AND OUTDOOR METAL-ENCLOSED RING MAIN UNITS, METERING RING MAIN UNITS AND COMPACT SWITCHGEAR SEE ITEM #11 - 16 IN SPECIFICATIONS** | | | | | | | | | | |

| | | Calculation of local content | | | | | | Tender summary | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| *Tender Item No's* | *List of Items* | *Tender Price – each* | *Exempted imported value* | *Tender value net of exempted imported content* | *Imported value* | *Local value* | *Local content % (per item)* | *Tender Quantity* | *Total tender value* | *Total exempted imported content* | *Total imported content* |
| *(C8)* | *(C9)* | *(C10)* | *(C11)* | *(C12)* | *(C13)* | *(C14)* | *(C15)* | *(C16)* | *(C17)* | *(C18)* | *(C19)* |
| 13.1. | SF6 RMU CIRCUIT BREAKERS FOR COASTAL AREAS ("ABB" OR COMPATIBLE) | | | | | | | 2 | | | |
| 13.2. | SF6 RMU CIRCUIT BREAKERS WITH METERING UNIT FOR COASTAL AREAS "ABB" OR COMPATIBLE) | | | | | | | 2 | | | |
| | | | | | | | | | | | |

| | | | |
|---|---|---|---|
| | ***(C20)* Total tender value** | | |
| | ***(C21)* Total Exempt imported content** | | |
| | ***(C22) Total Tender value net of exempt imported content*** | | |
| SIGNATURE OF TENDERER AS PER LOCAL CONTENT DECLARATION | ***(C23)* Total Imported content** | | |
| | ***(C24)* Total local content** | | |
| DATE | ***(C25)* Average local content % of tender** | | |

MUNISIPALITEIT MUNICIPALITY

## ANNEXURE D — SATS 1286.2011

## Imported Content Declaration – Supporting Schedule to Annexure C

| | | | | | |
|---|---|---|---|---|---|
| (D1) | **Tender No.** | SC2099/2019 | | | |
| (D2) | **Tender Description** | SUPPLY AND DELIVERY OF ELECTRICAL ITEMS TO THE OVERSTRAND MUNICIPALITY FOR A CONTRACT PERIOD ENDING 30 JUNE 2023 | | | |
| (D3) | **Designated product(s)** | Cables, Transformers, Mini Sub Stations | | | |
| (D4) | **Tender Authority** | OVERSTRAND MUNICIPALITY | | | |
| (D5) | **Tendering Entity's Name** | | | | |
| (D6) | **Tender Exchange Rate** | **Currency** | | **Rate** | |

**NOTE: VAT to be excluded from all calculations**

| A. Exempted imported content | | | | Calculation of imported content | | | | | | Summary | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Tender item no's | Description of imported content | Local supplier | Overseas supplier | Foreign currency value as per Commercial Invoice | Tender Exchange Rate | Local value of imports | Freight costs to port of entry | All locally incurred landing costs & duties | Total landed cost | Tender Quantity | Exempted imported value |
| *(D7)* | *(D8)* | *(D9)* | *(D10)* | *(D11)* | *(D12)* | *(D13)* | *(D14)* | *(D15)* | *(D16)* | *(D17)* | *(D18)* |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | *(D19)* Total exempt imported value | |
| | | | | | | | | | | This total must correspond with Annex C – C21 | |

| B. Imported directly by the Tenderer | | | | Calculation of imported content | | | | | | Summary | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Tender item no's | Description of imported content | Unit of measure | Overseas supplier | Foreign currency value as per Commercial Invoice | Tender Exchange Rate | Local value of imports | Freight costs to port of entry | All locally incurred landing costs & duties | Total landed cost | Tender Quantity | Total imported value |
| *(D20)* | *(D21)* | *(D22)* | *(D23)* | *(D24)* | *(D25)* | *(D26)* | *(D27)* | *(D28)* | *(D29)* | *(D30)* | *(D31)* |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | *(D32)* Total imported value by tenderer | |

MUNISIPALITEIT MUNICIPALITY

| ANNEXURE D - Continued | SATS 1286.2011 |
|---|---|
| **Imported Content Declaration – Supporting Schedule to Annexure C** | |

**NOTE:** VAT to be excluded from all calculations

| C. Imported by a 3rd party and supplied to the Tenderer | | | | Calculation of imported content | | | | | | Summary | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Description of imported content | Unit of measure | Local supplier | Overseas supplier | Foreign currency value as per Commercial Invoice | Tender Exchange Rate | Local value of imports | Freight costs to port of entry | All locally incurred landing costs & duties | Total landed cost | Quantity imported | Total imported value |
| *(D33)* | *(D34)* | *(D35)* | *(D36)* | *(D37)* | *(D38)* | *(D39)* | *(D40)* | *(D41)* | *(D42)* | *(D43)* | *(D44)* |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | *(D45)* Total imported value by 3rd party | |

| D. Other foreign currency payments | | | Calculation of foreign currency payments | | Summary of Payments |
|---|---|---|---|---|---|
| Type of payment | Local supplier making the payment | Overseas beneficiary | Foreign currency value paid | Tender rate of exchange | Local value of payments |
| *(D46)* | *(D47)* | *(D48)* | *(D49)* | *(D50)* | *(D51)* |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | *(D52)* Total of foreign currency payments declared by tenderer and/or 3rd party | |
| | | | | *(D53)* Total o imported content and foreign currency payments – *(D32)*, *(D45)* and *(D52)* above | |

SIGNATURE OF TENDERER AS PER LOCAL CONTENT DECLARATION

DATE

**This total must correspond with Annex C – (C23)**

MUNISIPALITEIT MUNICIPALITY

| ANNEX E | SATS 1286.2011 |
|---|---|
| **Local content Declaration – Summary 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 | | |

| LOCAL PRODUCTS (Goods, Services and Works) | | |
|---|---|---|
| Description of items purchased | Local suppliers | Value |
| *(E6)* | *(E7)* | *(E8)* |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| *(E9)* Total local products (Goods, service and works) | | |

*(E10)* **Manpower costs** (Tenderer's own manpower cost)

*(E11)* **Factory overheads** (Rental, depreciation & amortization, utility costs, consumables, etc.)

*(E12)* **Administration overheads and mark-up** (Marketing, insurance, financing interest, etc.)

**(E13) Total local content**

**This total must correspond with Annex C – C24**

SIGNATURE OF TENDERER AS PER LOCAL CONTENT DECLARATION

DATE

MUNISIPALITEIT MUNICIPALITY

| ANNEXURE C | | | | | | | | | | | SATS 1286.2011 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Local Content Declaration – Summary Schedule** | | | | | | | | | | | |
| ***(C1)* Tender No.** | **SC2099/2019** | | | | | | | | | | **NOTE:** **VAT to be excluded from all calculations** |
| ***(C2)* Tender Description** | **SUPPLY AND DELIVERY OF ELECTRICAL ITEMS TO THE OVERSTRAND MUNICIPALITY FOR A CONTRACT PERIOD ENDING 30 JUNE 2023** | | | | | | | | | | |
| ***(C3)* Designated product(s)** | Street Poles | | | | | | | | | | |
| ***(C4)* Tender Authority** | **OVERSTRAND MUNICIPALITY** | | | | | | | | | | |
| ***(C5)* Name of Tendering Entity** | | | | | | | | | | | |
| ***(C6)* Tender Exchange Rate** | **Currency** | | | **Rate** | | | | | | | |
| ***(C7 )*Specified local content %** | 100% | | | | | | | | | | |
| 5.11.1 | **STREETLIGHT STEEL POLES** | | | | | | | | | | |
| a. | 4.2m Steel Pole | | | | | | | 10 | | | |
| b. | 5.7m Steel Pole | | | | | | | 10 | | | |
| c. | 7.2m Steel Pole | | | | | | | 10 | | | |
| d. | 10m Steel Pole | | | | | | | 10 | | | |
| e. | 11.5m Steel Pole | | | | | | | 10 | | | |
| f. | 14.5m Steel Pole | | | | | | | 10 | | | |

| | | | |
|---|---|---|---|
| ***(C20)* Total tender value** | | | |
| ***(C21)* Total Exempt imported content** | | | |
| ***(C22) Total Tender value net of exempt imported content*** | | | |
| ***(C23)* Total Imported content** | | | |
| ***(C24)* Total local content** | | | |
| ***(C25)* Average local content % of tender** | | | |

SIGNATURE OF TENDERER AS PER LOCAL CONTENT DECLARATION

DATE

MUNISIPALITEIT MUNICIPALITY

# ANNEXURE D

SATS 1286.2011

## Imported Content Declaration – Supporting Schedule to Annexure C

| | | | | | |
|---|---|---|---|---|---|
| (D1) | **Tender No.** | SC2099/2019 | | | |
| (D2) | **Tender Description** | SUPPLY AND DELIVERY OF ELECTRICAL ITEMS TO THE OVERSTRAND MUNICIPALITY FOR A CONTRACT PERIOD ENDING 30 JUNE 2023 | | | |
| (D3) | **Designated product(s)** | Street Poles | | | |
| (D4) | **Tender Authority** | OVERSTRAND MUNICIPALITY | | | |
| (D5) | **Tendering Entity's Name** | | | | |
| (D6) | **Tender Exchange Rate** | **Currency** | | **Rate** | |

**NOTE: VAT to be excluded from all calculations**

| A. Exempted imported content | | | | Calculation of imported content | | | | | | Summary | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Tender item no's | Description of imported content | Local supplier | Overseas supplier | Foreign currency value as per Commercial Invoice | Tender Exchange Rate | Local value of imports | Freight costs to port of entry | All locally incurred landing costs & duties | Total landed cost | Tender Quantity | Exempted imported value |
| *(D7)* | *(D8)* | *(D9)* | *(D10)* | *(D11)* | *(D12)* | *(D13)* | *(D14)* | *(D15)* | *(D16)* | *(D17)* | *(D18)* |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | *(D19)* Total exempt imported value | |

This total must correspond with Annex C – C21

| B. Imported directly by the Tenderer | | | | Calculation of imported content | | | | | | Summary | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Tender item no's | Description of imported content | Unit of measure | Overseas supplier | Foreign currency value as per Commercial Invoice | Tender Exchange Rate | Local value of imports | Freight costs to port of entry | All locally incurred landing costs & duties | Total landed cost | Tender Quantity | Total imported value |
| *(D20)* | *(D21)* | *(D22)* | *(D23)* | *(D24)* | *(D25)* | *(D26)* | *(D27)* | *(D28)* | *(D29)* | *(D30)* | *(D31)* |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | *(D32)* Total imported value by tenderer | |

MUNISIPALITEIT MUNICIPALITY

## ANNEXURE D - Continued SATS 1286.2011

## Imported Content Declaration – Supporting Schedule to Annexure C

**NOTE: VAT to be excluded from all calculations**

| C. Imported by a 3rd party and supplied to the Tenderer | | | | Calculation of imported content | | | | | | Summary | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Description of imported content | Unit of measure | Local supplier | Overseas supplier | Foreign currency value as per Commercial Invoice | Tender Exchange Rate | Local value of imports | Freight costs to port of entry | All locally incurred landing costs & duties | Total landed cost | Quantity imported | Total imported value |
| *(D33)* | *(D34)* | *(D35)* | *(D36)* | *(D37)* | *(D38)* | *(D39)* | *(D40)* | *(D41)* | *(D42)* | *(D43)* | *(D44)* |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | *(D45)* Total imported value by 3rd party | |

| D. Other foreign currency payments | | | Calculation of foreign currency payments | | Summary of Payments |
|---|---|---|---|---|---|
| Type of payment | Local supplier making the payment | Overseas beneficiary | Foreign currency value paid | Tender rate of exchange | Local value of payments |
| *(D46)* | *(D47)* | *(D48)* | *(D49)* | *(D50)* | *(D51)* |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | *(D52)* Total of foreign currency payments declared by tenderer and/or 3rd party | |
| | | | | *(D53)* Total o imported content and foreign currency payments – *(D32)*, *(D45)* and *(D52)* above | |

**This total must correspond with Annex C – (C23)**

SIGNATURE OF TENDERER AS PER LOCAL CONTENT DECLARATION

DATE

MUNISIPALITEIT MUNICIPALITY

| ANNEX E | SATS 1286.2011 |
|---|---|
| **Local content Declaration – Summary 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 | | |

| LOCAL PRODUCTS (Goods, Services and Works) | | |
|---|---|---|
| Description of items purchased | Local suppliers | Value |
| *(E6)* | *(E7)* | *(E8)* |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | *(E9)* Total local products (Goods, service and works) | |

*(E10)* **Manpower costs** (Tenderer's own manpower cost)

*(E11)* **Factory overheads** (Rental, depreciation & amortization, utility costs, consumables, etc.)

*(E12)* **Administration overheads and mark-up** (Marketing, insurance, financing interest, etc.)

**(E13) Total local content**

**This total must correspond with Annex C – C24**

SIGNATURE OF TENDERER AS PER LOCAL CONTENT DECLARATION

DATE

**MUNISIPALITEIT** **MUNICIPALITY**

| ANNEXURE C | | | | SATS 1286.2011 |
|---|---|---|---|---|
| **Local Content Declaration – Summary Schedule** | | | | |
| *(C1)* Tender No. | SC2099/2019 | | | NOTE: VAT to be excluded from all calculations |
| *(C2)* Tender Description | SUPPLY AND DELIVERY OF ELECTRICAL ITEMS TO THE OVERSTRAND MUNICIPALITY FOR A CONTRACT PERIOD ENDING 30 JUNE 2023 | | | |
| *(C3)* Designated product(s) | Meters | | | |
| *(C4)* Tender Authority | OVERSTRAND MUNICIPALITY | | | |
| *(C5)* Name of Tendering Entity | | | | |
| *(C6)* Tender Exchange Rate | Currency | | Rate | |
| *(C7 )*Specified local content % | 70% | | | |

| | | Calculation of local content | | | | | | Tender summary | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| *Tender Item No's* | *List of Items* | *Tender Price – each* | *Exempted imported value* | *Tender value net of exempted imported content* | *Imported value* | *Local value* | *Local content % (per item)* | *Tender Quantity* | *Total tender value* | *Total exempted imported content* | *Total imported content* |
| *(C8)* | *(C9)* | *(C10)* | *(C11)* | *(C12)* | *(C13)* | *(C14)* | *(C15)* | *(C16)* | *(C17)* | *(C18)* | *(C19)* |
| 5.6 | **PLC METERS SEE ITEM #1 IN SPECIFICATIONS** | | | | | | | | | | |
| 5.6.1 | MULTI FREQUENCY 1 PHASE DIN RAIL G3 -PLC METER:E460S (SMART (LANDIS OR COMPATIBLE) | | | | | | | 10 | | | |
| 5.6.2 | MULTI FREQUENCY 3 PHASE DIN RAIL G3-PLC METER:E460S (LANDIS OR COMPATIBLE) | | | | | | | 10 | | | |
| 5.6.3 | CUSTOMER INTERFACE UNIT: P160 PLC CUSTOMER INTERFACE UNIT (STAND-ALONE) (LANDIS OR COMPATIBLE) | | | | | | | 10 | | | |
| 5.6.4 | MULTI FREQUENCY 1 PHASE BS G3 – PLC METER E460S (LANDIS OR COMPATIBLE) | | | | | | | 10 | | | |
| 5.6.5 | MULTI FREQUENCY 3 PHASE BS G3 – PLC METER E460S (LANDIS OR COMPATIBLE) | | | | | | | 10 | | | |
| 5.6.6 | E650 SERIES 3 – ZXD400AT/CT METER (LANDIS OR COMPATIBLE) | | | | | | | 10 | | | |

**MUNISIPALITEIT** **MUNICIPALITY**

| | | Calculation of local content | | | | | | Tender summary | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| *Tender Item No's* | *List of Items* | *Tender Price – each* | *Exempted imported value* | *Tender value net of exempted imported content* | *Imported value* | *Local value* | *Local content % (per item)* | *Tender Quantity* | *Total tender value* | *Total exempted imported content* | *Total imported content* |
| *(C8)* | *(C9)* | *(C10)* | *(C11)* | *(C12)* | *(C13)* | *(C14)* | *(C15)* | *(C16)* | *(C17)* | *(C18)* | *(C19)* |
| 5.6.7 | E65C CU-U52 – MODEM (LANDIS OR COMPATIBLE) | | | | | | | 10 | | | |
| 5.6.8 | SG101 IS AN INDUSTRIAL GPRS/EDGE/3G MODEM (LANDIS OR COMPATIBLE) | | | | | | | 10 | | | |
| 5.6.9 | COVERT GSM MULTIBAND OMNI-DIRECTIONAL ANTENNA (824-960MHZ AND 1710-2200MHZ) (LANDIS OR COMPATIBLE) | | | | | | | 10 | | | |
| 5.6.10 | THE SG106; INDUSTRIAL GPRS/EDGE/3G MODEM FOR LANDIS+GYR E460S (LANDIS OR COMPATIBLE) | | | | | | | 10 | | | |
| 5.7 | **SPLIT SINGLE PHASE DIN RAIL MOUNT POWER LINE COMMUNICATIONS ELECTRICITY METER (Ontec or compatible) SEE ITEM #1 IN SPECIFICATIONS** | | | | | | | | | | |
| 5.7.1 | SPLIT SINGLE PHASE DIN RAIL MOUNT POWER LINE COMMUNICATIONS ELECTRICITY METER (ONTEC OR COMPATIBLE) | | | | | | | 10 | | | |
| 5.7.2 | MULTI FREQUENCY SINGLE PHASE SPLIT DIN-RAIL MOUNTED PLC PREPAYMENT METER – MCU (ONTEC SIENNA OR COMPATIBLE) | | | | | | | 10 | | | |
| 5.7.3 | ACE 9000 PLC CIU STANDARD, COMMON BASE KEYPAD (ONTEC OR COMPATIBLE) | | | | | | | 10 | | | |
| 5.7.4 | ACE 9000 PLC CIU STAND-ALONE, KEYPAD (ONTEC OR COMPATIBLE) | | | | | | | 10 | | | |
| 5.7.5 | ACE 9000 PLC CIU RELAY KEYPAD (ONTEC OR COMPATIBLE) | | | | | | | 10 | | | |

**MUNISIPALITEIT** **MUNICIPALITY**

| | | Calculation of local content | | | | | | Tender summary | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| *Tender Item No's* | *List of Items* | *Tender Price – each* | *Exempted imported value* | *Tender value net of exempted imported content* | *Imported value* | *Local value* | *Local content % (per item)* | *Tender Quantity* | *Total tender value* | *Total exempted imported content* | *Total imported content* |
| *(C8)* | *(C9)* | *(C10)* | *(C11)* | *(C12)* | *(C13)* | *(C14)* | *(C15)* | *(C16)* | *(C17)* | *(C18)* | *(C19)* |
| 5.8 | **RADIO FREQUENCY (RF) METERS WITH BUILT IN ANTENNAS (Conlog or Similar Approved)** | | | | | | | | | | |
| 5.8.1 | USER INTERFACE UNIT (UIU) (CONLOG OR COMPATIBLE) | | | | | | | 10 | | | |
| 5.8.2 | RF DATA CONCENTRATOR UNIT (CONLOG OR COMPATIBLE) | | | | | | | 10 | | | |
| 5.8.3 | RF COMMON BASE ED & ECU KEYPAD (CONLOG OR COMPATIBLE) | | | | | | | 10 | | | |
| 5.8.4 | SPLIT METER: W BEC 44 (09) RADIO FREQUENCY (CONLOG OR COMPATIBLE) | | | | | | | 10 | | | |
| 5.8.5 | SPLIT METER: W BEC 44 (10) DIN RAIL , MEASUREMENT CONTROL UNIT ( MCU ) (CONLOG OR COMPATIBLE) | | | | | | | 10 | | | |
| 5.8.6 | SPLIT METER: BEC 62-THREE PHASE RADIO FREQUENCY (CONLOG OR COMPATIBLE) | | | | | | | 10 | | | |
| 5.8.7 | WIRELESS USER INTERFACE UNIT (WUIU) (CONLOG OR COMPATIBLE) | | | | | | | 10 | | | |
| 5.8.8 | WIRELESS CUSTOMER INTERFACE UNIT COMMON BASE RADIO FREQUENCY (CONLOG OR COMPATIBLE) | | | | | | | 10 | | | |
| 5.8.9 | WIRELESS METER INTERFACE WMI(09) (CONLOG OR COMPATIBLE) | | | | | | | 10 | | | |
| 5.8.10 | RF SIGNAL EXTENDER (CONLOG OR COMPATIBLE) | | | | | | | 10 | | | |

**MUNISIPALITEIT** OVERSTRAND **MUNICIPALITY**

| | | Calculation of local content | | | | | | Tender summary | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| *Tender Item No's* | *List of Items* | *Tender Price – each* | *Exempted imported value* | *Tender value net of exempted imported content* | *Imported value* | *Local value* | *Local content % (per item)* | *Tender Quantity* | *Total tender value* | *Total exempted imported content* | *Total imported content* |
| *(C8)* | *(C9)* | *(C10)* | *(C11)* | *(C12)* | *(C13)* | *(C14)* | *(C15)* | *(C16)* | *(C17)* | *(C18)* | *(C19)* |
| 5.8.11 | ANTENNA: WIRELESS METER INTERFACE WMI(09) (CONLOG OR COMPATIBLE) | | | | | | | 10 | | | |
| 5.9 | **THREE PHASE PROGRAMMABLE ENERGY AND DEMAND METER SEE ITEM #1 IN SPECIFICATIONS** | | | | | | | | | | |
| 5.9.1 | METER: ENERMAX + METER E+MA-153000110V, 3 WIRE (ENERMAX" OR COMPATIBLE) | | | | | | | 10 | | | |
| 5.9.2 | METER: ENERMAX + METER E+MA-454000 220V / 400V, 4 WIRE("ENERMAX" OR COMPATIBLE) | | | | | | | 10 | | | |
| 5.9.3 | EXPANSION MODULE: E+EA-GPRS 04 WITH RS485 AND GSM / GPRS. UNDER-GLASS TO FIT ENERMAX PLUS METER VERSION 50V228 (ENERMAX" OR COMPATIBLE) | | | | | | | 10 | | | |
| 5.9.4 | ENERMAX INTELLIGENT DEVICE MANAGER (IDM) (ENERMAX" OR COMPATIBLE) | | | | | | | 10 | | | |
| 5.10 | **OTHER METERS** | | | | | | | | | | |
| 5.10.1 | BLANK COVER FOR COMMON BASE | | | | | | | 10 | | | |
| 5.10.2 | BASE FOR S/PHASE PREPAID COMPATIBLE METER | | | | | | | 10 | | | |
| 5.10.3 | SINGLE PHASE PREPAYMENT METERS STS COMPATIBLE, COMMON BASE | | | | | | | 10 | | | |
| 5.10.4 | THREE PHASE PREPAYMENT METERS STS COMPATIBLE, SPLIT (WIRED) – 100 AMP | | | | | | | 10 | | | |

**MUNISIPALITEIT** **MUNICIPALITY**

| | | | |
|---|---|---|---|
| | ***(C20)* Total tender value** | | |
| | ***(C21)* Total Exempt imported content** | | |
| | ***(C22) Total Tender value net of exempt imported content*** | | |
| 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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**MUNISIPALITEIT** Municipality • U-Masipala • Municipality OVERSTRAND **MUNICIPALITY**

## ANNEXURE D — SATS 1286.2011

## Imported Content Declaration – Supporting Schedule to Annexure C

| | | | | | |
|---|---|---|---|---|---|
| (D1) | **Tender No.** | SC2099/2019 | | | |
| (D2) | **Tender Description** | SUPPLY AND DELIVERY OF ELECTRICAL ITEMS TO THE OVERSTRAND MUNICIPALITY FOR A CONTRACT PERIOD ENDING 30 JUNE 2023 | | | |
| (D3) | **Designated product(s)** | Meters | | | |
| (D4) | **Tender Authority** | OVERSTRAND MUNICIPALITY | | | |
| (D5) | **Tendering Entity's Name** | | | | |
| (D6) | **Tender Exchange Rate** | **Currency** | | **Rate** | |

**NOTE: VAT to be excluded from all calculations**

| A. Exempted imported content | | | | Calculation of imported content | | | | | | Summary | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Tender item no's | Description of imported content | Local supplier | Overseas supplier | Foreign currency value as per Commercial Invoice | Tender Exchange Rate | Local value of imports | Freight costs to port of entry | All locally incurred landing costs & duties | Total landed cost | Tender Quantity | Exempted imported value |
| *(D7)* | *(D8)* | *(D9)* | *(D10)* | *(D11)* | *(D12)* | *(D13)* | *(D14)* | *(D15)* | *(D16)* | *(D17)* | *(D18)* |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | *(D19)* Total exempt imported value | |
| | | | | | | | | | | This total must correspond with Annex C – C21 | |

| B. Imported directly by the Tenderer | | | | Calculation of imported content | | | | | | Summary | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Tender item no's | Description of imported content | Unit of measure | Overseas supplier | Foreign currency value as per Commercial Invoice | Tender Exchange Rate | Local value of imports | Freight costs to port of entry | All locally incurred landing costs & duties | Total landed cost | Tender Quantity | Total imported value |
| *(D20)* | *(D21)* | *(D22)* | *(D23)* | *(D24)* | *(D25)* | *(D26)* | *(D27)* | *(D28)* | *(D29)* | *(D30)* | *(D31)* |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | *(D32)* Total imported value by tenderer | |

MUNISIPALITEIT MUNICIPALITY

## ANNEXURE D - Continued SATS 1286.2011

## Imported Content Declaration – Supporting Schedule to Annexure C

**NOTE: VAT to be excluded from all calculations**

| C. Imported by a 3rd party and supplied to the Tenderer | | | | Calculation of imported content | | | | | | Summary | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Description of imported content | Unit of measure | Local supplier | Overseas supplier | Foreign currency value as per Commercial Invoice | Tender Exchange Rate | Local value of imports | Freight costs to port of entry | All locally incurred landing costs & duties | Total landed cost | Quantity imported | Total imported value |
| *(D33)* | *(D34)* | *(D35)* | *(D36)* | *(D37)* | *(D38)* | *(D39)* | *(D40)* | *(D41)* | *(D42)* | *(D43)* | *(D44)* |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | *(D45)* Total imported value by 3rd party | |

| D. Other foreign currency payments | | | Calculation of foreign currency payments | | Summary of Payments |
|---|---|---|---|---|---|
| Type of payment | Local supplier making the payment | Overseas beneficiary | Foreign currency value paid | Tender rate of exchange | Local value of payments |
| *(D46)* | *(D47)* | *(D48)* | *(D49)* | *(D50)* | *(D51)* |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | *(D52)* Total of foreign currency payments declared by tenderer and/or 3rd party | |
| | | | | *(D53)* Total o imported content and foreign currency payments – *(D32)*, *(D45)* and *(D52)* above | |

**This total must correspond with Annex C – (C23)**

SIGNATURE OF TENDERER AS PER LOCAL CONTENT DECLARATION

DATE

MUNISIPALITEIT MUNICIPALITY

| ANNEX E | SATS 1286.2011 |
|---|---|
| **Local content Declaration – Summary 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 | | |

| LOCAL PRODUCTS (Goods, Services and Works) | | |
|---|---|---|
| Description of items purchased | Local suppliers | Value |
| *(E6)* | *(E7)* | *(E8)* |
| | | |
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| | | |
| *(E9)* Total local products (Goods, service and works) | | |

| | |
|---|---|
| *(E10)* **Manpower costs** (Tenderer's own manpower cost) | |
| *(E11)* **Factory overheads** (Rental, depreciation & amortization, utility costs, consumables, etc.) | |
| *(E12)* **Administration overheads and mark-up** (Marketing, insurance, financing interest, etc.) | |
| **(E13) Total local content** | |
| **This total must correspond with Annex C – C24** | |

SIGNATURE OF TENDERER AS PER LOCAL CONTENT DECLARATION

DATE

## 12. 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?<br>*(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)?<br>*(To access this Register enter the National Treasury's website, www.treasury.gov.za, 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: | | |
| 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? | **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? | **Yes** | **No** |
| 4.5.1 | If so, furnish particulars: | | |

**5. CERTIFICATION**

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.

| | | | |
|---|---|---|---|
| SIGNATURE: | | NAME (PRINT): | |
| CAPACITY: | | DATE: | |
| NAME OF FIRM: | | | |

## 13. 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).[6] 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;
   5.2. could potentially submit a bid in response to this bid invitation, based on their qualifications, abilities or experience; and
   5.3. provides the same goods and services as the bidder and/or is in the same line of business as the bidder
6. 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[7] will not be construed as collusive bidding.
7. In particular, without limiting the generality of paragraphs 6 above, there has been no consultation, communication, agreement or arrangement with any competitor regarding:
   7.1. prices;
   7.2. geographical area where product or service will be rendered (market allocation)
   7.3. methods, factors or formulas used to calculate prices;
   7.4. the intention or decision to submit or not to submit, a bid;
   7.5. the submission of a bid which does not meet the specifications and conditions of the bid; or
   7.6. bidding with the intention not to win the bid.
8. 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.
9. 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.
10. 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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| CAPACITY | | DATE | |
| NAME OF FIRM | | | |

[6] *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.*

[7] *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.*

MUNISIPALITEIT MUNICIPALITY

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

**DECLARATION IN TERMS OF PARAGRAPH 38(1)(d)(i) OF THE SUPPLY CHAIN MANAGEMENT POLICY OF THE OVERSTRAND MUNICIPALITY** (To be signed in the presence of a Commissioner of Oaths)

I, _____, _____ (full name and ID no.), hereby acknowledge that the Municipality may reject the tender of the tenderer if any municipal rates and taxes or municipal service charges owed by the bidder or any of its directors/members/partners to the Overstrand Municipality, or to any other municipality or municipal entity, are in arrears for more than 3 (three) months.

I declare that I am duly authorised to act on behalf of _____ (name of the firm) and hereby declare, that to the best of my personal knowledge, neither the firm nor any director/member/partner of said firm is in arrears on any of its municipal accounts with any municipality in the Republic of South Africa, for a period longer than 3 (three) months.

I further hereby certify that the information set out in this schedule and/or attachment(s) hereto is true and correct. The bidder acknowledges that failure to properly and truthfully complete this schedule may result in the tender being disqualified, and/or in the event that the tenderer is successful, the cancellation of the contract.

| PHYSICAL BUSINESS ADDRESS(ES) OF THE TENDERER | MUNICIPAL ACCOUNT NUMBER |
|---|---|
| | |

**Further details of the bidder's director(s) / shareholder(s) / partner(s) / member(s), etc.:**

| Director / partner / member | Physical residential address of the director / partner / member | Municipal account number(s) |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

**PLEASE NOTE:**

1. **Copies of all municipal accounts, not older than 3 months, to be submitted with the bid.**
2. **If the entity or any of its directors/shareholders/partners/members, etc. rents/leases premises a copy of the rental/lease agreement is to be submitted with this bid.**

| | | |
|---|---|---|
| | | |
| **Signature** | **Position** | **Date** |

**COMMISSIONER OF OATHS**

Signed and sworn to before me at _____,

on this _____ day of _____ 20____

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 OATHS:-**

**Signature:**

_____

Print name:

_____

**Apply official stamp of authority on this page:**

## 15. 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. | Acceptable quality of work(s) performed / goods delivered |

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.

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

## 16. SECTION 37(2) OF THE OCCUPATIONAL HEALTH AND SAFETY ACT, NO 85 OF 1993

**INTRODUCTION**

In terms of section 16(1) of the Occupational Health and Safety Act, 1993 (Act 85 of 1993) the Chief Executive Officer is responsible as far as is reasonably practicable to ensure that the duties of his employer as contemplated in the Act are properly discharged. This responsibility is also, in terms of section 37(2) of the Act, 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 in the process of being executed will be conducted and if found not to be in compliance with the said agreement, a notice of non-compliance will be issued. All work will be stopped, reasons for non-compliance must be given including the corrective action that will be taken to rectify the situation must be stipulated.

| **COMPENSATION FOR OCCUPATIONAL INJURIES AND DISEASES ACT, 1993 (ACT 130 OF 1993)** | |
|---|---|
| **Overstrand Municipality** has legal duty in terms of Section 89 of the said Act to ensure that all contractors with whom agreements are entered into for the execution of work are registered as employers in accordance with the provisions of this Act and that all the necessary 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 Commissioner: | |
| **NOTE: A copy of the latest receipt together with a copy of the relevant assessment OR a copy of a valid Letter of Good Standing to be handed in, in this regard.** | |

**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 Safety Act, 1993 (Act 85 of 1993) as amended.

I, _____,

representing the MANDATARY do hereby acknowledge that _____

*(mandatary)* is an employer in its own right with duties as prescribed in the Occupational Health and Safety Act, 1993 (Act 85 of 1993) as amended and agree to ensure that all work that will be performed, any article or substance that will be produced, processed, used, handled, stored or transported and plant and machinery that will be used, will be done in accordance with the provisions of the said Act.

I furthermore agree to comply with the Health and Safety requirements and to liaise with the Municipality should I, for whatever reason, be unable to perform in terms of this Agreement.

| **SIGNED ON BEHALF OF MANDATORY** | | | |
|---|---|---|---|
| DATE: | | PLACE: | |
| PRINT NAME: | | | |
| CAPACITY: | | | |
| SIGNATURE: | | | |

| **SIGNED ON BEHALF OF THE MUNICIPALITY** | | | |
|---|---|---|---|
| DATE: | | PLACE: | |
| PRINT NAME: | | | |
| CAPACITY: | | | |
| SIGNATURE: | | | |

## 17. INDEMNITY

Given by (name of company) _____

of (registered address of company) _____

a company with limited liability registration number _____

registered in terms of Laws of the Republic of South Africa (hereinafter the contractor), represented by

(name of representative) _____

in his capacity as (designation) _____

of the contractor, and duly authorised by a resolution dated _____ /20____.

**WHEREAS** the contractor entered into a contract with the municipality dated _____/20___.

**AND WHEREAS** the Municipality requires an indemnity from the contractor.

**NOW THEREFORE** the contractor hereby indemnifies and holds harmless the Municipality in respect of all loss and/or damage that may be incurred or sustained by the contractor 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 instituted 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 including all legal fees and costs that may be incurred by the Municipality in examining, resisting or settling any such claims.

| | |
|---|---|
| SIGNATURE OF CONTRACTOR: | |
| DATE: | |
| SIGNATURE OF WITNESS 1: | |
| DATE: | |
| SIGNATURE OF WITNESS 2: | |
| DATE: | |


# PART B – SPECIFICATIONS AND PRICING SCHEDULE

## 18. SPECIFICATIONS

### 1 INTRODUCTION / BACKGROUND

The successful bidder / bidders will be expected to supply and deliver Electrical items to Overstrand Municipality (OM) for the contract period ending 30 June 2023.

1.1 The submission of a tender signifies complete acceptance of the conditions contained in these instructions, the Form of Offer and the annexures.
1.2 Together with each tender submitted, it is requested that the lead times, manufacturer and calculations (pricing schedule) be submitted on a USB memory stick in a Microsoft Excel spread sheet which will be available on the Overstrand web site, at (http://www.overstrand.gov.za)
1.3 Should there be any inconsistencies in the pricing between the USB prices and the pricing entered in the tender document itself the hand written price will be deemed to be correct.
1.4 The USB memory stick will not be returned.
1.5 In order to provide the day to day electrical needs of OM it is necessary to request bidders to tender for the supply and delivery of Electrical goods. It is also necessary to understand the following.
1.6 Where Brand names are used it is to indicate a quality standard required.

### 2 SCOPE

2.1 **Time**
2.2 Lead times must be indicated on the pricing schedule and delivery must take place within the lead times specified, to give effect to the obligations in the agreement.

2.3 **Pricing**
2.3.1 Prices must include delivery and off-loading at the respective stores mentioned in 3.5 below and must Include VAT.
2.3.2 Should there be any inconsistencies between the excluding amount and the including vat amount the excluding amount will be deemed to be correct.
2.3.3 Prices should be fixed for a period ending 30 June 2023, subject to price movement agreed to in writing following the selected Price Adjustment Mechanism. Should excessive increases occur, the municipality will reserve the right to obtain other quotations and/or cancel the contract?

2.4 **Price Movements / Escalations**
2.4.1 General Items; industry escalation will be considered on 85 % of your offer e.g. If your offer is R100 incl vat and the industry escalation is 6% then the 6% will be escalated on R85 of your offer.
2.4.2 Cable, Variation factors and Base rates for commodities on all cable sizes tendered on must be submitted along with your offer to bid.
2.4.3 Miniature substations, transformers and steel products where SEIFSA calculations will be used to determine and confirm escalated prices, escalations will only be considered when calculation is submitted with invoicing on delivery of items. The base rates and base month must be submitted with the tender submission.

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2.5 **Quality and quantities:**

2.5.1 Quality test: The Municipality may from time to time test the quality of the products and non-compliance may result in the termination of the contract. Should the Municipality suffer any losses due to substandard quality products (as agreed to) the supplier will be held responsible.

2.5.2 All product items should carry (minimum of one year) guarantees or warrantees. Defects will be replaced at the expense of the supplier. The supplier will be responsible for the delivery cost of replacement goods.

2.5.3 The quantities as indicated in the pricing schedule are only estimates which will be used in order to evaluate the bid. The OM will not be bound to the estimated quantities as this will be an "as and when" tender.

2.5.4 OM reserves the right to reject restrictions on limited quantities provided by bidders.

2.5.5 Non-compliance with the agreed delivery time, quality, quantity and prices agreed (escalation type indicated) could lead to breach of contract and the supplier will be liable for any expenses incurred as a result thereof.

2.6 OM reserves the right to request bidders to submit samples in the evaluation period if so required.

2.7 OM reserves the right to make use of other suppliers. Where the supplier is in breach of contract, in failing to keep to the agreed delivery times and/or when emergencies arise and the supplier does not carry stock. The supplier will be responsible for the difference in cost, when OM needs to procure from another supplier.

## 3 GENERAL

3.1 Supply and delivery of electrical items to OM for the period ending 30 June 2023.

3.2 Two bidders will be identified for award, to ensure that if the first bidder fails to perform according to the tender conditions, the second bidder will be used from which to procure the goods. The first will be held responsible for the cost difference. OM will not be obligated to place orders with the second bidder, when performance of the first bidders is of an acceptable standard.

3.3 Notwithstanding the above OM reserves the right to award products / items individually or per category of products / items.

3.4 OM reserves the right to claim any damages caused by the bidder for the withdrawal of a bid after the award has taken place. This claim, due to withdrawal, will include administration and advertisement expenses.

3.5 **Deliveries:**

3.5.1 The delivery address will be indicated on the official order as one of the following:

3.5.1.1 Municipal Store, 9 Mussel road, HERMANUS

3.5.1.2 Municipal Store, 13th Street, KLEINMOND

3.5.1.3 Municipal Store, Voortrekker Road, GANSBAAI

3.5.2 Delivery of products to the designated delivery addresses as indicated above must include the off-loading thereof at the supplier's own risk and cost.

3.5.3 Delivery must take place on normal business days between 08h00 and 15h00. (excluding lunch hour 13h00 to 13h45) Non-compliance hereto, could lead to the rejection of the delivery and OM will not be held responsible for any cost incurred.

3.5.4 Bidders must supply and ensure the availability of their own labour for the offloading of the products at the designated Municipal Stores.

3.6 **Minimum validity period**

3.6.1 The tender/quotation must be valid, irrevocable and open for acceptance for a minimum period of 90 days after closing date.

3.6.2 Notwithstanding the minimum period for validity of bids as set out in paragraph 3.4.1 above, bids shall be deemed to remain valid until formal acceptance by the municipality of an offer at any time after the minimum validity period, unless the municipality is notified in writing of anything to the contrary by the bidder

3.7 **Invoicing and delivery notes**

3.7.1 All deliveries should be accompanied by at least a delivery note. OM reserves the right to reject the delivery without a delivery note.

3.7.2 Preferably an invoice or pro-forma invoice must accompany all deliveries.

3.7.3 Incorrect invoicing will delay payment and the supplier will be held responsible for correction and resubmission of correct invoices and statements. Settlement discounts on early payments will be

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| NAME OF FIRM | | | |

reserved if payment is delayed due to incorrect invoicing by the supplier (if applicable and to the agreed settlement discount).

3.8 **Incorrect Information**

3.8.1 Where a contract has been awarded on the strength of the information furnished by the Bidder which, after the conclusion of the relevant agreement, is proved to have been incorrect. The Municipality may, in addition to any other legal remedy it may have, recover from the contractor all costs, losses or damages incurred or sustained by the Municipality as a result of the award of the contract.

3.9 **COIDA**

The successful bidder must be COIDA compliant before the execution of any work in terms of the contractual obligations and for the duration of the contract. A letter of good standing in terms of COIDA or latest assessment and proof of payment thereof or proof of registration (only in cases of a new registration) will suffice.

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## 4 Pre-Qualification criteria

Pre-Qualification criteria for preferential procurement in terms of Regulation 4 of the Preferential Procurement Regulations 2017, is applicable, therefore only tenderers who are an Exempted Micro Enterprises (EME's), or Qualifying Small Enterprises (QSE), and a B-BBEE status level 1-4 contributor, may respond to this tender

## 5 LOCAL CONTENT

5.1 It is a requirement of this tender that various items adhere to the local content requirements as set out by the Department of Trade and Industry – See MBD 6.2 for details.

5.2 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.

5.3 **Exemption**

5.3.1 Where the minimum threshold for local content cannot be met for various reasons, bidders must apply for exemption for each bid (tender / formal quotation).

**5.3.2** After checking with the industry, the dti will decide whether to grant an exemption or not.

5.3.3 In the official request (signed letter), the following information should be included: • Procuring entity/government department/ state owned company. • Tender/bid number. • Closing date. • Item(s) for which the exemption is being requested for. • Description of the goods, services or works for which the requested exemption item will be used for and the local content that can be met. • Reason(s) for the request. • Supporting letters from local manufacturers and suppliers.

5.3.4 The turnaround time in response to exemption letters for all designated products is five working days with the exception of rail and boats/vessels which is seven working days.

5.3.5 Requests for exemption letters must be directed to: Dr Tebogo Makube Chief Director: Industrial Procurement Tel: 012 394 3927 E-mail: tmakube@thedti.gov.za

**NB - Exemption letters are tender specific and applications are not transferrable.**

5.4 **Minimum local content contained in these specifications are as follows**

| | OM stock code | Description | Stipulated minimum threshold as a % |
|---|---|---|---|
| 5.5 | **CABLES** | | |
| 5.5.2 | **PVC insulated COPPER conductor ; PVC bedded SWA PVC sheathed; 600/1000 Volt cable to SANS 1507 (Specifications: Paragraph B 1)** | | |
| a. | 02C085 | 95 mm² x 4 core | 90% |
| b. | 02C082 | 70 mm² x 4 core | 90% |
| c. | 02C035 | 25 mm² x 4 core | 90% |
| d. | 02C039 | 16 mm² x 4 core | 90% |
| e. | 02C015 | 16 mm² x 2 core | 90% |
| f. | G0103F05 | 16 mm² x 2 core + 2 core Stranded Pilot | 90% |
| g. | 02C038 | 6 mm² x 2 core | 90% |
| h. | 02C037 | 6 mm2 x 3 core | 90% |
| i. | Non Stock | 185 mm² x 4 core | 90% |
| j. | Non Stock | 150 mm² x 4 core | 90% |
| k. | Non Stock | 120 mm² x 4 core | 90% |
| l. | Non Stock | 50 mm² x 4 core | 90% |
| m. | Non Stock | 35 mm² x 4 core | 90% |
| n. | Non Stock | 10 mm² x 4 core | 90% |
| o. | Non Stock | 6 mm² x 4 core | 90% |
| p. | Non Stock | 10 mm² x 2 core | 90% |
| q. | Non Stock | 4 mm² x 2 core | 90% |
| r. | Non Stock | 2,5 mm² x 2 core | 90% |

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| | | | |
|---|---|---|---|
| s. | Non Stock | 1,5 mm² x 2 core | 90% |
| t. | Non Stock | 16 mm² x 4 core + 2 core Stranded Pilot | 90% |
| 5.5.3 | **PVC insulated ALUMINIUM conductor; PVC bedded SWA PVC sheathed; 600/1000 Volt cable to SANS 1507 (Specifications: Paragraph B 1)** | | |
| u. | Non Stock | 185 mm² x 4 core | 90% |
| v. | Non Stock | 150 mm² x 4 core | 90% |
| w. | Non Stock | 120 mm² x 4 core | 90% |
| x. | Non Stock | 95 mm² x 4 core | 90% |
| y. | Non Stock | 70 mm² x 4 core | 90% |
| z. | Non Stock | 50 mm² x 4 core | 90% |
| aa. | Non Stock | 35 mm² x 4 core | 90% |
| bb. | Non Stock | 25 mm² x 4 core | 90% |
| 5.5.4 | **Paper insulated COPPER conductor cable; PVC served 6,35/11KV table 19 ; PILC GSTA to SANS 97 (Specifications: Paragraph B 1)** | | |
| cc. | Non Stock | 185 mm² x 3 core | 90% |
| dd. | Non Stock | 120 mm² x 3 core | 90% |
| ee. | Non Stock | 95 mm² x 3 core | 90% |
| ff. | Non Stock | 70 mm² x 3 core | 90% |
| gg. | Non Stock | 35 mm² x 3 core | 90% |
| hh. | Non Stock | 25 mm² x 3 core | 90% |
| 5.5.5 | **Paper insulated ALUMINIUM conductor cable; PVC served 6,35/11KV table 19 ; PILC GSTA to SANS 97 (Specifications: Paragraph B 1)** | | |
| ii. | Non Stock | 300 mm² x 3 core | 90% |
| jj. | Non Stock | 240 mm² x 3 core | 90% |
| kk. | Non Stock | 185 mm² x 3 core | 90% |
| ll. | Non Stock | 120 mm² x 3 core | 90% |
| mm. | Non Stock | 95 mm² x 3 core | 90% |
| nn. | Non Stock | 70 mm² x 3 core | 90% |
| 5.5.6 | **INSULATED AERIAL CABLE Copper split concentric Airdac** | | |
| oo. | 02C012 | 10 mm² copper split concentric Airdac plus stranded pilot cable | 90% |
| pp. | G0103F04 | 16 mm² copper split concentric Airdac plus stranded pilot cable | 90% |
| 5.5.7 | **XLPE-insulated ALUMINIUM ABC- conductor to SABS 1418 Part 1 and 2/1986 with core identification (LV)** | | |
| qq. | Non Stock | 3x120 + 54,6 + 25 mm² | 90% |
| rr. | Non Stock | 3x95 + 54,6 + 25 mm² | 90% |
| ss. | Non Stock | 3x70 + 54,6 + 25 mm² | 90% |
| tt. | Non Stock | 3x35 + 54,6 + 25 mm² | 90% |
| 5.5.8 | **XLPE- insulated ALUMINIUM ABC- conductor to Sans 1713 and TYPE B 6.35/11KV with core identification (MV)** | | |
| uu. | 02C200 | AL 70mm2 3C XLPE IS(0.15) PVC(UV) + HSSW 7/3.00mm PVC(UV) ABC SANS 1713 TYPE B 6.35/11kV | 90% |
| vv. | Non Stock | AL 120mm2 3C XLPE IS(0.15) PVC(UV) + HSSW 7/3.60mm PVC(UV) ABC SANS 1713 TYPE B 6.35/11kV | 90% |
| ww. | Non Stock | AL 95mm2 3C XLPE IS(0.15) PVC(UV) + HSSW 7/3.00mm PVC(UV) ABC SANS 1713 TYPE B 6.35/11kV | 90% |
| xx. | Non Stock | AL 35mm2 3C XLPE IS(0.15) PVC(UV) + HSSW 7/3.00mm PVC(UV) ABC SANS 1713 TYPE B 6.35/11kV | 90% |
| yy. | G0103F08 | Wire:16mm Bare Copper | 90% |
| zz. | K02W001 | House Wire:16mm Black PVC | 90% |
| aaa. | K02W002 | House Wire:16mm Red PVC | 90% |
| bbb. | Non Stock | House Wire:16mm Blue PVC | 90% |

| | | | |
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| SIGNATURE | | NAME (PRINT) | |
| CAPACITY | | DATE | |
| NAME OF FIRM | | | |

| | | | |
|---|---|---|---|
| ccc. | Non Stock | House Wire:16mm White PVC | 90% |
| ddd. | Non Stock | House Wire:16mm Green/Yellow PVC | 90% |
| eee. | Non Stock | House Wire: 1.5mm Red PVC | 90% |
| fff. | Non Stock | House Wire: 1.5mm White PVC | 90% |
| ggg. | Non Stock | House Wire: 1.5mm Black PVC | 90% |
| hhh. | Non Stock | House Wire: 1.5mm Blue PVC | 90% |
| iii. | Non Stock | House Wire: 1.5mm Green/Yellow PVC | 90% |
| jjj. | Non Stock | House Wire: 2.5mm Red PVC | 90% |
| kkk. | Non Stock | House Wire: 2.5mm White PVC | 90% |
| lll. | Non Stock | House Wire: 2.5mm Black PVC | 90% |
| mmm. | Non Stock | House Wire: 2.5mm Blue PVC | 90% |
| nnn. | Non Stock | House Wire: 2.5mm Green/Yellow PVC | 90% |
| ooo. | Non Stock | Panel Wire: 2.5mm Red | 90% |
| ppp. | Non Stock | Panel Wire: 2.5mm Black | 90% |
| qqq. | Non Stock | Panel Wire: 2.5mm Blue | 90% |
| rrr. | Non Stock | Panel Wire: 2.5mm White | 90% |
| sss. | Non Stock | Panel Wire: 2.5mm Green/Yellow | 90% |
| ttt. | Non Stock | Panel Wire: 2.5mm Brown | 90% |
| uuu. | Non Stock | Panel Wire: 2.5mm Grey | 90% |
| vvv. | Non Stock | Panel Wire: 2.5mm Orange | 90% |
| www. | Non Stock | Panel Wire: 2.5mm Pink | 90% |
| xxx. | Non Stock | Panel Wire: 2.5mm Purple | 90% |
| yyy. | Non Stock | Panel Wire: 2.5mm Yellow | 90% |
| zzz. | Non Stock | 1mm Twin And Earth (100m Roll) | 90% |
| aaaa. | Non Stock | 2.5 X 2c White Surfix (100m Roll) | 90% |

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| SIGNATURE | | NAME (PRINT) | |
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| | OM Stock code | METERS Description | Stipulated minimum threshold as a % | | |
|---|---|---|---|---|---|
| | | | Prepaid Electricity Meters | Postpaid Electricity Meters | SMART Meters |
| 5.6 | **PLC METERS SEE ITEM #1 IN SPECIFICATIONS** | | | | |
| 5.6.1 | 02M047 | MULTI FREQUENCY 1 PHASE DIN RAIL G3 -PLC METER:E460S (SMART (LANDIS OR COMPATIBLE) | 70% | 70% | 70% |
| 5.6.2 | 02M046 | MULTI FREQUENCY 3 PHASE DIN RAIL G3-PLC METER:E460S (LANDIS OR COMPATIBLE) | 70% | 70% | 70% |
| 5.6.3 | 02M045 | CUSTOMER INTERFACE UNIT: P160 PLC CUSTOMER INTERFACE UNIT (STAND-ALONE) (LANDIS OR COMPATIBLE) | 70% | 70% | 70% |
| 5.6.4 | 02M047 | MULTI FREQUENCY 1 PHASE BS G3 – PLC METER E460S (LANDIS OR COMPATIBLE) | 70% | 70% | 70% |
| 5.6.5 | Non Stock | MULTI FREQUENCY 3 PHASE BS G3 – PLC METER E460S (LANDIS OR COMPATIBLE) | 70% | 70% | 70% |
| 5.6.6 | Non Stock | E650 SERIES 3 – ZXD400AT/CT METER (LANDIS OR COMPATIBLE) | 70% | 70% | 70% |
| 5.6.7 | Non Stock | E65C CU-U52 – MODEM (LANDIS OR COMPATIBLE) | 70% | 70% | 70% |
| 5.6.8 | Non Stock | SG101 IS AN INDUSTRIAL GPRS/EDGE/3G MODEM (LANDIS OR COMPATIBLE) | 70% | 70% | 70% |
| 5.6.9 | Non Stock | COVERT GSM MULTIBAND OMNI-DIRECTIONAL ANTENNA (824-960MHZ AND 1710-2200MHZ) (LANDIS OR COMPATIBLE) | 70% | 70% | 70% |
| 5.6.10 | Non Stock | THE SG106; INDUSTRIAL GPRS/EDGE/3G MODEM FOR LANDIS+GYR E460S (LANDIS OR COMPATIBLE) | 70% | 70% | 70% |
| 5.7 | **SPLIT SINGLE PHASE DIN RAIL MOUNT POWER LINE COMMUNICATIONS ELECTRICITY METER (Ontec or compatible) SEE ITEM #1 IN SPECIFICATIONS** | | | | |
| 5.7.1 | 02M046 | SPLIT SINGLE PHASE DIN RAIL MOUNT POWER LINE COMMUNICATIONS ELECTRICITY METER (ONTEC OR COMPATIBLE) | 70% | 70% | 70% |
| 5.7.2 | Non Stock | MULTI FREQUENCY SINGLE PHASE SPLIT DIN-RAIL MOUNTED PLC PREPAYMENT METER – MCU (ONTEC SIENNA OR COMPATIBLE) | 70% | 70% | 70% |
| 5.7.3 | 02M045 | ACE 9000 PLC CIU STANDARD, COMMON BASE KEYPAD (ONTEC OR COMPATIBLE) | 70% | 70% | 70% |
| 5.7.4 | 02M047 | ACE 9000 PLC CIU STAND-ALONE, KEYPAD (ONTEC OR COMPATIBLE) | 70% | 70% | 70% |
| 5.7.5 | Non Stock | ACE 9000 PLC CIU RELAY KEYPAD (ONTEC OR COMPATIBLE) | 70% | 70% | 70% |
| 5.8 | **RADIO FREQUENCY (RF) METERS WITH BUILT IN ANTENNAS (Conlog or Similar Approved)** | | | | |
| 5.8.1 | G0101E010 | USER INTERFACE UNIT (UIU) (CONLOG OR COMPATIBLE) | 70% | 70% | 70% |
| 5.8.2 | 02M060 | RF DATA CONCENTRATOR UNIT (CONLOG OR COMPATIBLE) | 70% | 70% | 70% |
| 5.8.3 | Non Stock | RF COMMON BASE ED & ECU KEYPAD (CONLOG OR COMPATIBLE) | 70% | 70% | 70% |
| 5.8.4 | G0101E05 | SPLIT METER: W BEC 44 (09) RADIO FREQUENCY (CONLOG OR COMPATIBLE) | 70% | 70% | 70% |
| 5.8.5 | Non Stock | SPLIT METER: W BEC 44 (10) DIN RAIL , MEASUREMENT CONTROL UNIT ( MCU ) (CONLOG OR COMPATIBLE) | 70% | 70% | 70% |
| 5.8.6 | Non Stock | SPLIT METER: BEC 62-THREE PHASE RADIO FREQUENCY (CONLOG OR COMPATIBLE) | 70% | 70% | 70% |

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| | OM Stock code | METERS Description | Stipulated minimum threshold as a % | | |
|---|---|---|---|---|---|
| | | | Prepaid Electricity Meters | Postpaid Electricity Meters | SMART Meters |
| 5.8.7 | 02M052 | WIRELESS USER INTERFACE UNIT (WUIU) (CONLOG OR COMPATIBLE) | 70% | 70% | 70% |
| 5.8.8 | Non Stock | WIRELESS CUSTOMER INTERFACE UNIT COMMON BASE RADIO FREQUENCY (CONLOG OR COMPATIBLE) | 70% | 70% | 70% |
| 5.8.9 | Non Stock | WIRELESS METER INTERFACE WMI(09) (CONLOG OR COMPATIBLE) | 70% | 70% | 70% |
| 5.8.10 | Non Stock | RF SIGNAL EXTENDER (CONLOG OR COMPATIBLE) | 70% | 70% | 70% |
| 5.8.11 | 02M055 | ANTENNA: WIRELESS METER INTERFACE WMI(09) (CONLOG OR COMPATIBLE) | 70% | 70% | 70% |
| 5.9 | **THREE PHASE PROGRAMMABLE ENERGY AND DEMAND METER SEE ITEM #1 IN SPECIFICATIONS** | | | | |
| 5.9.1 | 02M010 | METER: ENERMAX + METER E+MA-153000110V, 3 WIRE (ENERMAX" OR COMPATIBLE) | | | |
| 5.9.2 | 02M009 | METER: ENERMAX + METER E+MA-454000 220V / 400V, 4 WIRE("ENERMAX" OR COMPATIBLE) | | | |
| 5.9.3 | 02M060 | EXPANSION MODULE: E+EA-GPRS 04 WITH RS485 AND GSM / GPRS. UNDER-GLASS TO FIT ENERMAX PLUS METER VERSION 50V228 (ENERMAX" OR COMPATIBLE) | | | |
| 5.9.4 | Non Stock | ENERMAX INTELLIGENT DEVICE MANAGER (IDM) (ENERMAX" OR COMPATIBLE) | | | |
| 5.10 | | **OTHER METERS** | | | |
| 5.10.1 | Non Stock | BLANK COVER FOR COMMON BASE | 70% | 70% | 70% |
| 5.10.2 | 02M101 | BASE FOR S/PHASE PREPAID COMPATIBLE METER | 70% | 70% | 70% |
| 5.10.3 | 02M100 | SINGLE PHASE PREPAYMENT METERS STS COMPATIBLE, COMMON BASE | 70% | 70% | 70% |
| 5.10.4 | 02M005 | THREE PHASE PREPAYMENT METERS STS COMPATIBLE, SPLIT (WIRED) – 100 AMP | 70% | 70% | 70% |

| 5.11 | OM Stock code | Description | Stipulated minimum threshold as a % |
|---|---|---|---|
| 5.11.1 | **STREETLIGHT STEEL POLES** | | |
| a. | Non Stock | 4.2m Steel Pole | 100% |
| b. | Non Stock | 5.7m Steel Pole | 100% |
| c. | Non Stock | 7.2m Steel Pole | 100% |
| d. | Non Stock | 10m Steel Pole | 100% |
| e. | Non Stock | 11.5m Steel Pole | 100% |
| f. | Non Stock | 14.5m Steel Pole | 100% |

| | OM Stock code | Description | Stipulated minimum threshold as a % |
|---|---|---|---|
| 8 | **MINIATURE SUB-STATION – NB: COPPER WINDING ONLY SEE ITEM #8 IN SPECIFICATIONS** | | |
| 8.1. | | 315A 11500/420V. MINIATURE SUBSTATION AS PER SPECIFICATION INCLUDING LV CIRCUIT BREAKERS | 90% |

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| 8.2. | | 500 KVA 11500/420V. MINIATURE SUBSTATION AS PER SPECIFICATION INCLUDING LV CIRCUIT BREAKERS | 90% |
| 8.3. | | 630 KVA 11500/420V. MINIATURE SUBSTATION AS PER SPECIFICATION INCLUDING LV CIRCUIT BREAKERS | 90% |
| 8.4. | | 800 KVA 11500/420V. MINIATURE SUBSTATION AS PER SPECIFICATION INCLUDING LV CIRCUIT BREAKERS | 90% |
| 8.5. | | 200 KVA 11500/420V. MINIATURE SUBSTATION AS PER SPECIFICATION INCLUDING LV CIRCUIT BREAKERS | 90% |
| 8.6. | | 400 KVA 11500/420V. MINIATURE SUBSTATION AS PER SPECIFICATION INCLUDING LV CIRCUIT BREAKERS | 90% |
| 8.7. | | 1000 KVA 11500/420V. MINIATURE SUBSTATION AS PER SPECIFICATION INCLUDING LV CIRCUIT BREAKER. | 90% |
| **10.** | **POLE MOUNTED TRANSFORMERS – NB: COPPER WINDING SEE ITEM #9 IN SPECIFICATIONS** | | |
| 10.1. | | 25 KVA 11500/420V POLE MOUNTED TRANSFORMER | 90% |
| 10.2. | | 50 KVA 11500/420V POLE MOUNTED TRANSFORMER | 90% |
| 10.3. | | 200 KVA 11500/420V TRANSFORMER WITH ENCLOSED LV COMPARTMENT – POLE MOUNTED (SPECIFICATIONS, PAR. 6) | 90% |
| 10.4. | | 100 KVA 11500/420V POLE MOUNTED TRANSFORMER | 90% |
| 10.5. | | 200 KVA 11500/420V POLE MOUNTED TRANSFORMER | 90% |
| **13.** | **12 KV INDOOR AND OUTDOOR METAL-ENCLOSED RING MAIN UNITS, METERING RING MAIN UNITS AND COMPACT SWITCHGEAR SEE ITEM #11 - 16 IN SPECIFICATIONS** | | |
| 13.1. | | SF6 RMU CIRCUIT BREAKERS FOR COASTAL AREAS (“ABB” OR COMPATIBLE) | 90% |
| 13.2. | | SF6 RMU CIRCUIT BREAKERS WITH METERING UNIT FOR COASTAL AREAS “ABB” OR COMPATIBLE) | 90% |

6. **EVALUATION AND ADJUDICATION**

6.1. It must be noted that items will be awarded separately, where and if possible.

6.2. The estimated quantities will be used for evaluation purposes only and must not be seen as actual quantities to be awarded.

8. **FUNCTIONALITY CRITERIA**

N/A

9. **Variation and Business Continuity after award of the tender:**

In the event that any item awarded on this tender is for whatever reason discontinued then Overstrand Municipality may request the successful bidder to supply an equivalent with proven matching functionality and quality. The price of the replacement goods/product may not be more than 5 (five) percent higher than the original items price awarded excluding escalations that might have occurred on the original item awarded and has now been discontinued.

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10. **Special Conditions**

10.1. Sections 19 and 20 on the pricing schedule are used on a daily basis by the in-house electrician of Overstrand Municipality. The successful bidder must purchase these items from within the municipal boundary; the award on these items will also be made to one bidder for these sections.

10.2. In the event that the successful bidder can prove that a certain item on schedule 19 and 20 cannot be supplied from within the municipal boundaries, then written concession must be obtained from the municipality to allow supply from outside the municipal boundary.

11. **Preference of documentation and terms and conditions after award of the tenders:**

11.1. Any terms and/or condition in contradiction of the Municipal Finance Management Act, 56 of 2003, will be deemed as null and void from origin.

11.2. The documentation in the bid as well as documentation signed by both parties after the award of the bid will take preference as follows:

11.3. General Conditions of Tender

11.4. General Conditions of Contract

11.5. Specifications and Pricing Schedule

11.6. Any special conditions of contract as stipulated by OM (if applicable)

11.7. Service Level Agreement/s (SLA); Service Delivery Agreements (SDA); License Agreements; Memorandum of Agreement/s (MOA) and/or Memorandum of Understanding (MOU).

12. **INFORMATION TO BE PROVIDED BY THE BIDDER**

12.1. Samples

12.1.1. Samples to be submitted on paint and chokes.

12.1.2. Samples must be clearly marked with the bidders name and the tender number.

12.1.3. Samples must be handed it in at the Hermanus Municipal stores before or on the closing date of tender for technical evaluation purposes.

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## 1. B TECHNICAL REQUIREMENTS

| | | |
|---|---|---|
| | **Meters** | |
| 1.1. | **RF Meters (Conlog or compatible)** | |
| 1.1.1. | **Single Phase integrated RF split configuration Meter**   | |
| 1.1.1.1. | **General Information** | |
| 1.1.1.1.1. | Type | Single phase, 2 wire, direct connected wireless prepayment meter |
| 1.1.1.1.2. | Compatible networks | Single phase, 2-wire, earthed neutral |
| 1.1.1.1.3. | Compliance | IEC 62052-11<br>IEC 62053-21<br>IEC 62055-21<br>IEC 62055-31<br>IEC 62055-41 |
| 1.1.1.2. | **Electrical ratings** | |
| 1.1.1.2.1. | Accuracy | kWh Class 1 (IEC 62053-21) |
| 1.1.1.2.2. | Voltage measurement ($U_n$) | 230 VAC |
| 1.1.1.2.3. | Frequency | 50 ± 5% |
| 1.1.1.2.4. | Extended operating voltage | 0.5 Un to 1.15 Un |
| 1.1.1.2.5. | Load switching voltage range | 0.5 Un to 1.15 Un |
| 1.1.1.2.6. | Voltage circuit burden | 1.1 W and < 9 VA @ 230 V |
| 1.1.1.2.7. | Current circuit burden | VA @ Base reference current $I_b$ (actual value 0.015) |
| 1.1.1.2.8. | Current measurement | $I_b$ 5 A; Imax 100 A. |
| 1.1.1.2.9. | Protective class | Class II double insulated |
| 1.1.1.3. | **MCU Enclosure** | |
| 1.1.1.3.1. | Mounting | Rail mounting, with locking clip compatible with 35 mm DIN standard rail |
| 1.1.1.3.2. | IP Rating | IP54, suitable for installation in a pole-top or outdoor kiosk housing |
| 1.1.1.3.3. | Maximum Dimensions | 148mm x 40.7mm x 78.5mm |
| 1.1.1.3.4. | Material | UV stable polycarbonate |
| 1.1.1.3.5. | Resistance to heat and fire | As per IEC 60695-2-1 (glow-wire) |
| 1.1.1.3.6. | Resistance to spread of fire | UL94-VO rated @ 1.5mm |
| 1.1.1.4. | **Terminals** | |
| 1.1.1.4.1. | **Live Circuit** | |
| 1.1.1.4.2. | Type | Moving-cage terminal |
| 1.1.1.4.3. | Material | Mild steel/clear passivate |
| 1.1.1.4.4. | Maximum Cable Size | 25 $mm^2$ |
| 1.1.1.4.5. | **Neutral Circuit** | |
| 1.1.1.4.6. | Type | Mild steel/ clear passivate |

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| 1.1.1.4.7. | Material | Moving-cage terminal |
| 1.1.1.4.8. | Maximum Cable Size | 16 $mm^2$ |
| 1.1.1.5. | **Sealing** | |
| 1.1.1.5.1. | Enclosure | Factory sealed, no user serviceable parts |
| 1.1.1.5.2. | Security sealing of terminals | Security seal compatible with stainless steel wire and ferrule seal |
| 1.1.1.6. | **Operating environment** | |
| 1.1.1.6.1. | Area of application | Indoor / Outdoor in a suitable outdoor rated kiosk or enclosure |
| 1.1.1.6.2. | Operating temperature range | -10 °C to 60 °C |
| 1.1.1.6.3. | Storage temperature range | -25 °C to 70 °C |
| 1.1.1.6.4. | Relative humidity | Maximum 95% non-condensing |
| 1.1.1.7. | **Operation** | |
| 1.1.1.7.1. | General | Credit store with decrement-on-use |
| 1.1.1.7.2. | Credit entry mechanism | Keypad; encrypted numeric tokens |
| 1.1.1.7.3. | Credit encryption method | 20-digit STS |
| 1.1.1.8. | **Metrological performance** | |
| 1.1.1.8.1. | Measurement direction | Forward and reverse detection and metering |
| 1.1.1.8.2. | Consumption indicator | Visible LED |
| 1.1.1.8.3. | Latch and Power status | Visible LED |
| 1.1.1.8.4. | Communications Link Status | Visible LED |
| 1.1.1.8.5. | Crystal Display (LCD) | 7 digits + icons; icon information, numeric information |
| 1.1.1.8.6. | Accurate metering range | 0.05 $I_b$ to $I_{max}$ |
| 1.1.1.8.7. | Starting current | $I_b$ |
| 1.1.1.8.8. | Meter constant (LED flash rate) | 1000 imp / kWh |
| 1.1.1.8.9. | Short circuit current | 30 x $I_{max}$ for one half cycle at rated frequency |
| 1.1.1.8.10. | Base current (Ib) | 5 A |
| 1.1.1.8.11. | Maximum current ( Imax) | 100 A |
| 1.1.1.9. | **Disconnection Device** | |
| 1.1.1.9.1. | Type | Single pole latching contactor, 100 A. |
| 1.1.1.10. | **Insulation; Over voltage and Surge Protection** | |
| 1.1.1.10.1. | Insulation system classification<br>Insulation level | Protective class II<br>4 kV rms for 1 minute |
| 1.1.1.10.2. | Over voltage withstand | 1.9 Un for 48 hours |
| 1.1.1.10.3. | Impulse voltage | 6 kV |
| 1.1.1.11. | **Surge immunity** | |
| 1.1.1.11.1. | Voltage impulse withstand | In excess of 6 kV, 1.2/50µs (IEC 62052-11) |
| 1.1.1.11.2. | Current impulse withstand | 5kA/20 µs |
| 1.1.1.11.3. | Electromagnetic compatibility | 15 kV air discharge |
| 1.1.1.11.4. | Electrostatic discharge | 80 MHz to 2 GHz @ 10V/m with load 80 MHz to 2 GHz @ 30V/m no load |
| 1.1.1.11.5. | Immunity to HF fields | 4 kV |
| 1.1.1.11.6. | Immunity to FTB Radio interference | Complies with requirements for CISPR 22 |
| 1.1.1.11.7. | Specification Compliance | IEC 61000-4-2; IEC 61000-4-3; IEC 61000-4-4; IEC 61000-4-6 CISPR 22 |
| 1.1.1.12. | **Communication Circuitry** | |
| 1.1.1.12.1. | Type | RF wireless communications between MCU and UIU. Meter operation is independent of UIU function |
| 1.1.1.12.2. | Transmission frequency | 433.05 to 434.79MHz SRD band |
| 1.1.1.12.3. | Maximum Power Output | 10mW ERP (10dBm) |
| 1.1.1.13. | **Electromagnetic compatibility** | |
| 1.1.1.13.1. | Electrostatic discharge (enclosure) | 15kV, air discharge (IEC62055-31 § 7.8.2 and IEC62052-11 § 7.5.2) |
| 1.1.1.13.2. | Electrostatic discharge (battery holder) | 8kV, (IEC62055-31 § 7.8.2 and IEC62052-11 § 7.5.2) |
| 1.1.1.13.3. | Communication Distance | metres line of sight |
| 1.1.1.14. | **Alternate Communications ports** | |
| 1.1.1.14.1. | Direct probe port | STS101-1 compliant |

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| 1.1.1.14.2. | USB port | STS101-1 compliant |
| 1.1.2. | **RF CIU Keypad (TYPE RF)**  | |
| 1.1.2.1. | **General Information** | |
| 1.1.2.1.1. | Type | RF Wireless |
| 1.1.2.2. | **Communication Circuitry** | |
| 1.1.2.2.1. | Type | RF wireless communications between MCU and CIU. Meter operation is independent of CIU function |
| 1.1.2.2.2. | Transmission frequency | 433.05 to 434.79MHz SRD band |
| 1.1.2.2.3. | Maximum Power Output | 10mW ERP (10dBm) |
| 1.1.2.3. | **Electromagnetic compatibility** | |
| 1.1.2.3.1. | Electrostatic discharge (enclosure) | 15kV, air discharge (IEC62055-31 § 7.8.2 and IEC62052-11 § 7.5.2) |
| 1.1.2.3.2. | Electrostatic discharge (battery holder) | 8kV, (IEC62055-31 § 7.8.2 and IEC62052-11 § 7.5.2) |
| 1.1.2.3.3. | Communication Distance | Minimum 100 metres line of sight<br>Provision to be made for range extension in the case of building or foliage interference |
| 1.1.2.4. | **Operating Environment** | |
| 1.1.2.4.1. | Operating Temperature Range | -10 ◦C to 60 ◦C |
| 1.1.2.4.2. | Storage Temperature Range | -25 ◦C to 70 ◦C |
| 1.1.2.4.3. | Relative Humidity | Maximum 95% non-condensing |
| 1.1.2.5. | **UIU Enclosure** | |
| 1.1.2.5.1. | Type | Wall mounted |
| 1.1.2.5.2. | Rating | IP 54 |
| 1.1.2.5.3. | Material | UV stable polycarbonate/ABS blend with flame retardant |
| 1.1.2.5.4. | Type | Language-independent |
| 1.1.2.5.5. | Components | Pictographic/Numeric LCD display, keypad, rate of consumption indicator, audio feedback |
| 1.1.2.5.6. | 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 |
| 1.1.2.5.7. | Minimum character size | 10mm |
| 1.1.2.5.8. | Keypad | 12-key, international standard layout including “information” and “backspace” keys, telephone type configuration with four rows and 3 columns, tactile feedback and Braille assist. |
| 1.1.2.5.9. | Buzzer | Feedback on key press, Token Accept and Reject melodies, low-credit alarms as a factory-programmable option |
| 1.1.2.5.10. | Rate enunciation | Pictorial enunciation using a bargraph or equivalent or a flashing icon depicting the rate of consumption |
| 1.1.2.6. | **Power source** | |
| 1.1.2.6.1. | Type | Double AA Alkaline |
| 1.1.2.6.2. | Operational life | Minimum of 2 years operational life |
| 1.1.2.7. | **Sealing** | |
| 1.1.2.7.1. | Enclosure | Factory sealed, no user serviceable parts |

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| 1.1.3. | **Wireless Extender**  | |
| 1.1.3.1. | **Electrical ratings** | |
| 1.1.3.1.1. | Operating voltage range | 85 VAC - 265 VAC |
| 1.1.3.1.2. | Frequency | 50/60 Hz |
| 1.1.3.2. | **Battery ratings** | |
| 1.1.3.2.1. | Battery type | Li Po (Lithium Polymer) > 1.8Ah Rechargeable |
| 1.1.3.2.2. | Battery voltage | 3.6 volts |
| 1.1.3.2.3. | Battery operating voltage range | 3.3 V to 4.2 V |
| 1.1.3.3. | **Solar panel electrical ratings** | |
| 1.1.3.3.1. | Voltage at maximum output | 5 V |
| 1.1.3.3.2. | Current at maximum output | 410 mA |
| 1.1.3.4. | **Charging options** | Powered via the mains source (85 VAC - 265 VAC / 50/60 Hz) Battery powered via PV solar panel |
| 1.1.3.5. | **Mounting** | DIN rail, wall mount and pole top mounting |
| 1.1.3.6. | **Communication** | RF:433MHz < 10mW ERP |
| 1.1.3.7. | **RF communication distance** | ~ 150m to the wUIU |
| 1.1.3.8. | **Devices supported** | Up to 24 devices |
| 1.1.3.9. | **Environmental** | **WEX** **Solar panel** |
| 1.1.3.9.1. | Operating temperature | -10 C to +55 C -40 C to 85 C |
| 1.1.3.9.2. | Storage temperature | -25 C to +75 C |
| 1.1.3.9.3. | Humidity | 95% non-condensing |
| 1.1.3.9.4. | Operating Altitude | 0 to 2500m above sea level |
| 1.1.3.9.5. | IP rating | IP55 |
| 1.1.3.9.6. | Insulation class | Double insulation |
| 1.1.3.10. | **Protection** | Heat shield |
| 1.1.3.11. | **Standards** | IEC 61000-4-2 STS 101-1 IEC 61000-4-3 CISPR 22 IEC 60950-1 NRS 049-1:201 IEC 62051 ISO 14001 IEC 62056-21 ISO 9001 IEC 62055-52 OHSAS 18001 SANS 60529/ IEC 60529 SANS 60950 SANS 62055-51/ IEC 62055-51 SANS 62056-21/ IEC 62056-21 SANS 62055-41/ IEC 62055-41 SANS 300 220-1/ETSI EN 300 220-1 |
| 1.1.3.12. | **Packaging** | |
| 1.1.3.12.1. | Units per carton | 1 |
| 1.1.3.12.2. | Carton weight (incl. box) P | 600g |

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| Capacity | | Date | |
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| 1.1.4. | **Wireless Meter Interface**  | | |
| 1.1.4.1. | **Connectivity** | Meter: current loop or galvanically isolated | |
| | | WMI: RF modem | |
| 1.1.4.2. | **Electrical rating** | **Current Loop** | **Galvanically isolated** |
| 1.1.4.2.1. | Current loop (mA) - continuous | 3 | 2 |
| 1.1.4.2.2. | Operating voltage range (Vdc) | 20 | 13 |
| 1.1.4.3. | **Communication** | RF type: 433.05MHz to 434.790MHz (SRD band within the 10mW) | |
| 1.1.4.4. | **RF communication distance** | Line of sight: 100m Built up environment: 50m | |
| 1.1.4.5. | **Insulation** | | |
| 1.1.4.5.1. | Insulation system classification | Mechanical | |
| 1.1.4.5.2. | Impulse | 6kV | |
| 1.1.4.5.3. | AC Voltage | 4kV (RMS) for 1 minute | |
| 1.1.4.6. | **Terminals** | Type: Drop wire Maximum Size: 0.7 | |
| 1.1.4.7. | **Mounting** | 35mm DIN mount 12,7mm bandit strapping | |
| 1.1.4.8. | **Environmental** | | |
| 1.1.4.8.1. | Operating temperature | -10 °C to +55°C | |
| 1.1.4.8.2. | Storage temperature | -25°C to +70°C | |
| 1.1.4.8.3. | Humidity | 95% non-condensing | |
| 1.1.4.8.4. | IP rating | IP 65 | |
| 1.1.4.9. | **Standards** | IEC 61000-4-2 IEC 61000-4-3 IEC 61000-4-4 IEC 61000-4-5 IEC 60950-1 CISPR22 Class B | |
| 1.1.4.10. | **Packaging** | | |
| 1.1.4.10.1. | Packed box dimensions | 305mmx90mmx85mm | |
| 1.1.4.10.2. | Carton weight (incl box) | 0.300kg packed weight (300g) | |

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| Capacity | | Date | |
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| 1.1.5. | **Three Phase integrated RF split configuration Meter**  | |
| 1.1.5.1. | **General Infomation** | |
| 1.1.5.2. | **Type** | Three phase, 4-wire, direct connected prepayment meter |
| 1.1.5.3. | **Compatible networks** | Three phase, 4-wire, earthed neutral |
| 1.1.5.4. | **Compliance** | IEC 62052-11 IEC 60068-2-6<br>IEC 62053-21 SANS 1524-1<br>IEC 62055-41 ISO 14001:2004<br>IEC 62056-21 ISO 9001:2008<br>IEC 60068-2-27 ISO 18001: 2007 |
| 1.1.5.5. | **Electrical ratings** | |
| 1.1.5.5.1. | Accuracy | kWh Class 1 (IEC 62053-21) |
| 1.1.5.5.2. | Voltage range | 110 VAC - 127 VAC / 220 VAC – 230 VAC |
| 1.1.5.5.3. | Frequency range | 50 / 60 Hz ± 5% |
| 1.1.5.5.4. | Meter operating voltage range | 0.5 Un to 1.15 Un |
| 1.1.5.5.5. | Load switching voltage range | 0.5 Un to 1.15 Un |
| 1.1.5.5.6. | Voltage circuit burden | 1.07 W and 9.26 VA @ 230V |
| 1.1.5.5.7. | Current circuit burden | □□□VA @ Base reference current $I_b$ |
| 1.1.5.5.8. | Current measurement | $I_b$ □□10 A; $I_{max}$ □□100 A. |
| 1.1.5.5.9. | Protective class | Class II double insulated |
| 1.1.5.6. | **MCU Enclosure** | |
| 1.1.5.6.1. | Mounting | BS Footprint (BS7856) |
| 1.1.5.6.2. | IP Rating | IP54, suitable for installation in a pole-top or outdoor kiosk housing |
| 1.1.5.6.3. | Maximum Dimensions | 343.8 mm x 177.2 mm x 72.4 mm |
| 1.1.5.6.4. | Material | ABS |
| 1.1.5.6.5. | Resistance to heat and fire | As per IEC 60695-2-1 (glow-wire) |
| 1.1.5.7. | **Terminals** | |
| 1.1.5.7.1. | **Live Circuit**<br>Type<br>Material<br>Maximum Cable Size | <br>Moving-cage terminal<br>Mild steel/clear passivate<br>25 $mm^2$ |

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| 1.1.5.7.2. | **Neutral Circuit**<br>Type<br>Material<br>Maximum Cable Size | <br>Moving-cage terminal<br>Mild steel/ clear passivate<br>25 $mm^2$ |
| 1.1.5.8. | **Sealing** | |
| 1.1.5.8.1. | Enclosure | Factory sealed, no user serviceable parts |
| 1.1.5.8.2. | Security sealing of terminals | Security seal compatible with plastic or stainless steel wire and ferrule seal |
| 1.1.5.9. | **Operating environment** | |
| 1.1.5.9.1. | Area of application | Indoor / Outdoor in a suitable outdoor rated kiosk or enclosure |
| 1.1.5.9.2. | Operating temperature range | -10 °C to 60 °C |
| 1.1.5.9.3. | Storage temperature range | -25 °C to 70 °C |
| 1.1.5.9.4. | Relative humidity | Maximum 95% non-condensing |
| 1.1.5.10. | **Operation** | |
| 1.1.5.10.1. | General | Credit store with decrement-on-use |
| 1.1.5.10.2. | Credit entry mechanism | Keypad; encrypted numeric tokens |
| 1.1.5.10.3. | Credit encryption method | 20-digit STS |
| 1.1.5.11. | **Metrological performance** | |
| 1.1.5.11.1. | Measurement direction | Forward and reverse detection and metering |
| 1.1.5.11.2. | Consumption indicator | Visible LED |
| 1.1.5.11.3. | Latch and Power status | Visible LED |
| 1.1.5.11.4. | Liquid Crystal Display (LCD) | 7 digits + icons; icon information, numeric information |
| 1.1.5.11.5. | Meter constant (LED flash rate) | 1000 imp / kWh |
| 1.1.5.11.6. | Accurate metering range | 0.05 $I_b$ to $I_{max}$ |
| 1.1.5.11.7. | Starting current | 0.004 $I_b$ Class 1 / 0.005 $I_b$ Class 2 |
| 1.1.5.11.8. | Short circuit current | 30 x $I_{max\ for}$ one half cycle at rated frequency |
| 1.1.5.11.9. | Base current (Ib) | 10 A |
| 1.1.5.11.10. | Maximum current (Imax) | 100 A |
| 1.1.5.12. | **Disconnection Device** | |
| 1.1.5.12.1. | Type | Single pole latching contactor, 100 A |
| 1.1.5.13. | **Insulation; Over voltage and Surge Protection** | |
| 1.1.5.13.1. | Insulation system classification | Protective class II |
| 1.1.5.13.2. | Insulation level | 4 kV rms for 1 minute |
| 1.1.5.13.3. | Over voltage withstand | 1.9 Un for 48 hours |
| 1.1.5.13.4. | Impulse voltage | 6 kV |
| 1.1.5.14. | **Surge immunity** | |
| 1.1.5.14.1. | Voltage impulse withstand | In excess of 6 kV, 1.2/50 s (IEC 62052-11) |
| 1.1.5.14.2. | Current impulse withstand | 5kA/20 s |

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| 1.1.5.14.3. | Electromagnetic compatibility<br>Electrostatic discharge<br>Immunity to HF fields<br>Immunity to FTB<br>Radio interference<br>Specification Compliance | 15 kV air discharge<br>80 MHz to 2 GHz @ 10V/m with load 80 MHz to 2 GHz @ 30V/m no load<br>4 kV<br>Complies with requirements for CISPR 22<br>IEC 61000-4-2; IEC 61000-4-3; IEC 61000-4-4; IEC 61000-4-6<br>CISPR 22 |
| 1.1.5.15. | **Communication Circuitry** | |
| 1.1.5.15.1. | Type | RF |
| 1.1.5.15.2. | Rated Impulse Voltage | Peak Voltage 6 kV (1,2/50□s) waveform<br>(According to IEC 62052-11 protective class II) |
| 1.1.5.15.3. | Insulation properties | 4 kVrms (1 Minute)<br>(According to IEC 62052-11 protective class II) |
| 1.1.5.15.4. | Communication Distance | 100 metres |
| 1.1.5.16. | **Alternate Communications ports** | |
| 1.1.5.16.1. | Optical communications | IEC62056-21 |
| 1.1.5.16.2. | Direct probe port | STS101-1 compliant |
| 1.1.5.16.3. | Flags port | IEC 62056-21 |
| 1.1.6. | **Single Phase integrated PLC split configuration Meter**<br>  | |
| 1.1.6.1. | **Number of phases:** | 1 |
| 1.1.6.2. | **Voltage rating:** | |
| 1.1.6.2.1. | - nominal voltage (Un) | 230VAC |
| 1.1.6.2.2. | - nominal voltage range | Un-20%, Un+15% |
| 1.1.6.2.3. | - minimum start up voltage | 120VAC |
| 1.1.6.2.4. | - minimum operating voltage | 110VAC |
| 1.1.6.3. | **Frequency rating:** | 50Hz ± 5% |
| 1.1.6.4. | **Accuracy class:** | Class 1 |
| 1.1.6.5. | **Current rating:** | |

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| 1.1.6.5.1. | -base current (Ib) | 5A |
| 1.1.6.5.2. | - maximum current (Imax) | 100A |
| 1.1.6.5.3. | - minimum starting current | Class 1: 20mA (0.004 x Ib) |
| 1.1.6.5.4. | Measurement type: | Direct connection - shunt |
| 1.1.6.5.5. | Maximum withstand voltage (48 hrs): | 420VAC |
| 1.1.6.6. | **Short circuit withstand:** | 3.0kA |
| 1.1.6.7. | **RF immunity** | 30V/m |
| 1.1.6.8. | **Power consumption (supply burden):** | |
| 1.1.6.8.1. | - nominal | 2W & 10VA |
| 1.1.6.9. | **Status indicators:** | |
| 1.1.6.9.1. | - load/power status | LED |
| 1.1.6.9.2. | - MCU/ CIU communications- | LED |
| 1.1.6.9.3. | - rate | LED – 1000 pulses/kWh |
| 1.1.6.10. | **Disconnection switch:** | |
| 1.1.6.10.1. | - type | 100A |
| 1.1.6.10.2. | - utilization category | UC2 |
| 1.1.6.11. | **PLC Communication interface** | Application layer – specification 01-0117-6001 with 128 bit XXTEA encryption: CIU to MCU pairing |
| 1.1.6.11.1. | - category | Mac layer –G3-PLC MAC (IEEE 802.15.4) |
| 1.1.6.11.2. | - frequency band | Physical layer - G3-PLC PHY (CENELEC A) Orthogonal Frequency-Division Multiplexing (OFDM) modulation |
| 1.1.6.11.3. | - compliance specification | > 150m |
| 1.1.6.11.4. | - range (line of sight) | > 150m |
| 1.1.6.12. | **VTC Protocol :** | |
| 1.1.6.12.1. | - direct port | IEC62055-52 |
| 1.1.6.12.2. | - USB port | IEC62055-52 |
| 1.1.6.12.3. | - PLC port | G3-PLC |
| 1.1.6.12.4. | Optical | IEC62056-21<br>IEC62056-6-1<br>IEC62056-6-2<br>DLMS/COSEM |
| 1.1.6.13. | Environmental | |
| 1.1.6.13.1. | Operating temperature range : | -10°C to +55°C |
| 1.1.6.13.2. | Storage temperature range: | -25°C to +70°C |
| 1.1.6.13.3. | Humidity: | 95% non-condensing |
| 1.1.6.13.4. | PCB protection | Conformal Coating mandatory to protect against ingress of insects, dust and humidity.<br>Lead free manufacture is mandatory |
| 1.1.6.14. | **Mechanical** | |
| 1.1.6.15. | **Footprint:** | DIN Rail Mounted |

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| 1.1.6.15.1. | Dimensions (h x w x d): with terminal cover | 140.0 x 64.0 x 64 |
| 1.1.6.16. | Materials: | |
| 1.1.6.17. | - terminal block | |
| 1.1.6.17.1. | - terminals | Mild Steel – Clear Passivated |
| 1.1.6.17.2. | - top cover | PC GF10 |
| 1.1.6.17.3. | - base | PC GF10 |
| 1.1.6.18. | Terminal cover: | Live In and Neutral In protection<br>Live Out and Neutral Out protection |
| 1.1.6.19. | Security seals: | |
| 1.1.6.19.1. | - terminal cover | Stainless steel stranded wire with crimping seal and plastic cover |
| 1.1.6.19.2. | - meter housing | Sacrificial plastic covers |
| 1.1.6.20. | Terminals: | |
| 1.1.6.20.1. | - type & size | Cage clamps (Live and Neutral, 16mm²) |
| 1.1.6.21. | Wiring footprint: | 4 terminal bottom entry |
| 1.1.6.22. | IP Rating (Ingress Protection): | IP54 |
| 1.1.6.23. | Insulation class: | Double insulation |
| 1.1.6.24. | Packaging: | |
| 1.1.6.24.1. | - units per box | 10 |
| 1.1.7. | **PLC CIU Keypad (TYPE PLC)**  | |
| 1.1.7.1. | **Battery type** | 2 x Alkaline |
| 1.1.7.1.1. | Typical battery life | More than 3 years, based on normal operating conditions |
| 1.1.7.1.2. | Connection mode (Phase, wires) | 1 Phase, 2 wire, |
| 1.1.7.1.3. | Insulation protection class | Class II |
| 1.1.7.2. | **Voltage ratings** | |
| 1.1.7.2.1. | Nominal voltage (-20% +15%) | 230 V AC |
| 1.1.7.2.2. | Supply frequency (±5%) | 50 Hz |
| 1.1.7.2.3. | Nominal power consumption | 2 W / 10 VA |

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| 1.1.7.2.4. | Limit range of operation | 1.8 times the normal voltage for 48 hours |
| 1.1.7.2.5. | Withstand range of operation | 1.9 times the nominal voltage for 48 hours |
| 1.1.7.3. | **Status indicators** | Rate LED (1 000 imp/kWh) |
| 1.1.7.4. | **Current ratings** | |
| 1.1.7.4.1. | Current Consumption | 120mA |
| 1.1.7.5. | **Displayed Information** | |
| 1.1.7.5.1. | Previously entered STS tokens | Token accept / reject |
| 1.1.7.5.2. | Available credit | Meter status register |
| 1.1.7.5.3. | Low credit warning | Consumption data |
| 1.1.7.5.4. | Status of consumer's AC supply | Zero credit |
| 1.1.7.5.5. | | Overload conditions |
| 1.1.7.6. | **Display** | |
| 1.1.7.6.1. | Number of digits: | 7 major / 3 minor |
| 1.1.7.6.2. | Type: | Liquid crystal display |
| 1.1.7.7. | **Keypad** | |
| 1.1.7.7.1. | Columns x rows: | 3 x 4 – standard telephone layout |
| 1.1.7.7.2. | Key press feedback: | tactile / silicon rubber keys |
| 1.1.7.7.3. | Accessibility: | visually impaired friendly – braille texture on key 5<br>Must support 1 000 000 key presses |
| 1.1.7.7.4. | Audible feedback | (Optional) |
| 1.1.7.7.5. | | Key presses |
| 1.1.7.7.6. | | Token acceptance / rejection |
| 1.1.7.7.7. | | Low credit warning |
| 1.1.7.8. | **Environmental** | |
| 1.1.7.8.1. | Operating temperature | -10°C to +55°C |
| 1.1.7.8.2. | Storage temperature | -25°C to +70°C |
| 1.1.7.8.3. | Humidity | 95% non-condensing |
| 1.1.7.8.4. | IP rating | IP52 |
| 1.1.7.9. | **Insulation protection class** | Class II |
| 1.1.7.10. | **Installation** | |
| 1.1.7.10.1. | Footprint | Wall mounted or loose |
| 1.1.7.10.2. | Insulation class | Double insulation |
| 1.1.7.11. | **Communication** | |
| 1.1.7.11.1. | Protocol | PLC<br>Application layer – specification 01-0117-6001 with 128 bit XXTEA CIU to MCU pairing<br>Mac layer –G3-PLC MAC (IEEE 802.15.4)<br>Physical layer - G3-PLC PHY (CENELEC A)<br>Orthogonal Frequency-Division Multiplexing (OFDM) modulation |

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| 1.1.8. | **Data Concentrator Unit Enclosure**<br>  | |
| 1.1.8.1. | Area of application | Indoors |
| 1.1.8.2. | Mounting | DIN rail Wall mountable |
| 1.1.8.3. | IP Rating | IP 51 |
| 1.1.8.4. | Maximum Dimensions | 163mm x 130mm x 93mm |
| 1.1.8.5. | **Communication interface** | |
| 1.1.8.5.1. | Wireless Network Connectivity | Plug-in Communication module<br>A GSM plug in communications module capable of GPRS communications. |
| 1.1.8.5.2. | RF | A radio frequency interface (433MHz) for communication with metering devices including the RF extenders and field service terminals units. |
| 1.1.8.5.3. | Wired Network Connectivity | RJ45 Ethernet interface for connection to a network |
| 1.1.8.6. | **Sealing** | |
| 1.1.8.6.1. | Enclosure | Mainboard access via the front cover |
| 1.1.8.6.2. | Security sealing of terminals | Security seal compatible with stainless steel wire and ferrule seal |
| 1.1.9. | **RF Common base ED keypad**<br>  | |
| 1.1.9.1. | **General information** | |
| 1.1.9.1.1. | Battery type | Lithium |

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| 1.1.9.1.2. | Typical battery life | In excess of 10 years, based on normal operating conditions | |
| 1.1.9.1.3. | Current rating | ED | ECU |
| 1.1.9.1.4. | Maximum current (Imax) | 100A | 20A |
| 1.1.9.2. | **Communication** | | |
| 1.1.9.2.1. | RF type | 433.05MHz to 434.790MHz (SRD band within the 10mW) | |
| 1.1.9.2.2. | Maximum distance (line of sight) | Up to 100m | |
| 1.1.9.2.3. | Maximum distance (built up area) | Up to 50m | |
| 1.1.9.3. | **Displayed Information** | | |
| 1.1.9.3.1. | Previously entered STS tokens | | |
| 1.1.9.3.2. | Token accept / reject | | |
| 1.1.9.3.3. | Available credit | | |
| 1.1.9.3.4. | Meter status register | | |
| 1.1.9.3.5. | Low credit warning | | |
| 1.1.9.3.6. | Variety of consumption data | | |
| 1.1.9.4. | **Display** | | |
| 1.1.9.4.1. | Number of digits | | |
| 1.1.9.4.2. | Type | | |
| 1.1.9.4.3. | Minimum character size | | |
| 1.1.9.4.4. | Rate enunciation | Pictorial enunciation using a bar graph or equivalent or a flashing icon depicting the rate of consumption | |
| 1.1.9.5. | **Interface** | | |
| 1.1.9.5.1. | Keypad | 12-key, international standard layout including “information” and “backspace” keys, telephone type configuration with four rows and 3 columns | |
| 1.1.9.5.2. | Audible feedback | Key presses<br>Token acceptance / rejection<br>Low credit warning | |
| 1.1.9.6. | **Installation** | | |
| 1.1.9.6.1. | Footprint | Common wall base | |
| 1.1.9.6.2. | Insulation class | Double insulation | |
| 1.1.9.6.3. | Environmental | ED | ECU |
| 1.1.9.6.4. | IP Rating | IP 55 | IP 51 |
| 1.1.9.7. | **Standards** | IEC 61000-4-2, ISO 14001, IEC 61000-4-3, ISO 9001, IEC 61000-4-4, OHSAS 18001, IEC 61000-4-5, CISPR 22, IEC 60950-1, SANS 767-1 (ECU version), SANS 300 220-1 / ETSI EN300 220-1 | |

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| **1.10.** | **ENERMAX PLUS METERS:** SPECIFICATION FOR ELECTRONIC PROGRAMMABLE 3 AND 4 WIRE BULK CONSUMPTION ELECTRICITY METERS (ENERMAX PLUS METERS (or Compatible) |
| 1.10.1. | **General** |
| 1.10.2. | 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. |
| 1.10.3. | 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. |
| 1.10.4. | IEC 62052-11 compliance |
| 1.10.5. | Voltage operating range: 80% - 115% of nominal |
| 1.10.6. | Current operating range: 200% of nominal |
| 1.10.7. | Short circuit 0,5 seconds 20 x Imax |
| 1.10.8. | Burden < 3 VA |

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| 1.10.9. | Internal clock accuracy: 0,5 seconds/day | |
| 1.10.10. | Internal battery replaceable: power down life min 8 years | |
| 1.10.11. | Auxiliary terminals: 3 input, 3 output solid state | |
| 1.10.12. | LCD Display: dot matrix | |
| 1.10.13. | Program for PC: latest version to be provided free of charge | |
| 1.10.14. | Extraction of meter program file and report and instantaneous phase or diagrams | |
| 1.10.15. | Extraction of billing data for at least 32 months and 8 channels 30 minute profile data for 175 days | |
| 1.10.16. | Selectable instantaneous parameters for profile recording including voltages, currents, import and export active and reactive power, power factor, frequency and temperature | |
| 1.10.17. | Profile data storage based on instantaneous, sum, min., max. or average | |
| 1.10.18. | Block demand programmable 1 – 60 minutes | |
| 1.10.19. | Firmware upgrading via optical port | |
| 1.10.20. | Time of use metering up to 12 seasons, 8 day types, 16 rates, 64 switching times per day and 128 exclusion days. | |
| 1.10.21. | **Electrical** | |
| 1.10.22. | **Accuracy** | |
| 1.10.22.1. | IEC 62053-22 Class 0.5 (Wh) | |
| 1.10.22.2. | IEC 62053-23 Class 2.0: (varh) | |
| 1.10.23. | **Models** | |
| 1.10.23.1. | 1A or 5A CT selectable | |
| 1.10.23.2. | E+MA-454000 (4wire 230V L-N) | |
| 1.10.23.3. | E+MA-153000 (3wire 110V L-L). | |
| 1.10.23.4. | Whole current 100A | |
| 1.10.24. | **Functions** | |
| 1.10.24.1. | Fully programmable | |
| 1.10.24.2. | Multi-function | |
| 1.10.24.3. | Powerful tariff structure | |
| 1.10.24.4. | Multiple rates for Energy & Demand | |
| 1.10.24.5. | Full functions, import & export | |
| 1.10.24.6. | User configured Menu's & displays. | |
| 1.10.24.7. | Profiling Wh, varh, Amps, Volts | |
| 1.10.25. | **Additional input/output** | |
| 1.10.25.1. | 8 outputs | |
| 1.10.25.2. | 8 inputs | |
| 1.10.25.3. | 4 inputs & 4 outputs | |
| 1.10.26. | **Communications** | |
| 1.10.27. | RS232/485: RS232 local with on-board RS485 port (Multi-drop) | |
| 1.10.27.1. | GPRS: Remote communication with on-board RS485 port (Multi-drop) | |
| 1.10.27.2. | Ethernet LAN: Remote communication with on-board RS485 port (Multi-drop | |
| 1.10.28. | **Environmental** | |
| 1.10.28.1. | IEC 62052-11 compliant | |
| 1.10.28.2. | Temperature range: operation -25ºC to 55 ºC | |
| 1.11. | **Elster A1700 METERS: SPECIFICATION FOR ELECTRONIC PROGRAMMABLE 3 AND 4 WIRE BULK CONSUMPTION ELECTRICITY METERS Elster or Compatible)** | |
| 1.11.1. | Current Range | CT operated – 5-6A, 5-10A, 1-2A, 1-1.2A<br>Direct connected – 10-100A (widest range) |
| 1.11.2. | Reference Voltage 57.5 - 240V (3 phase 4 wire) | 100 - 415V (3 phase 3 wire) |
| 1.11.3. | Frequency | 50Hz or 60Hz |
| 1.11.4. | **Burden** | |
| 1.11.4.1. | Voltage Circuits (230V) | Single element - 1.92W, 4.17VA<br>Two/three element - 1.12W, 2.45VA |
| 1.11.4.2. | Current Circuits | CT operated – 0.12VA @ 5A/phase, 0.02VA @1A/phase<br>Direct connected – 0.2VA @ 100A/phase |

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| 1.11.4.3. | Insulation | 4kV RMS 50Hz |
| 1.11.4.4. | Impulse Withstand | 12kV 1.2/50ms 50ohm source |
| 1.11.4.5. | Display | 2 line, 16 character dot matrix<br>Liquid crystal display<br>8mm digits |
| 1.11.4.6. | Baud Rates | 1200, 2400, 4800, 9600 |
| 1.11.4.7. | Product Life | 15 years |
| 1.11.4.8. | Certified Product Life | 10 years (by OFGEM) |
| 1.11.4.9. | Temperature | 25° C to + 55° C (Operational range)<br>-25° C to + 70° C (Optional operating range)<br>-25° to + 70° C (Storage) |
| 1.11.4.9.1. | 13.2.4.10 Humidity | Annual mean 75% (for 30 days spread over one year, 95%) |
| 1.11.4.9.2. | Pulse Width / Value | Programmable |
| 1.11.4.9.3. | Relay Specification | 240V a.c.<br>100mA<br>1 x 5A relay (option, module only) |
| 1.11.4.9.4. | Dimensions | 279mm (high) x 170mm (wide) x 81mm (deep) |
| 1.11.4.9.5. | Weight | 1500 grams |
| 1.11.4.9.6. | Specifications | IEC62052-11 and IEC62053-21, -22, -23 |
| 1.11.4.9.7. | EC Directive 2004/22/EC (MID) | Class A, B or C |
| 1.11.4.9.8. | Case | IP53 to IEC60529:1989 |
| 1.11.5. | **Additional Information** | |
| 1.11.5.1. | On-site training to be supplied free of charge when required by the OM | |
| 1.11.5.2. | Software as well as any updates to be supplied free of charge to the OM over the course of the contract period. | |
| 1.11.5.3. | Normative references | |
| 1.11.5.4. | IEC 62051 | Electricity metering – Glossary of terms |
| 1.11.5.5. | IEC 62052-11 | Electricity metering - General requirements, Tests and test conditions - Part 11: Metering equipment |
| 1.11.5.6. | IEC 62053-21 | Electricity metering equipment (ac.) – Part 21: Particular requirements – Static meters for active energy (classes 1 and 2) |
| 1.11.5.7. | IEC 62055-21 | Electricity metering – Payment systems – Part 21: Framework for standardization |
| 1.11.5.8. | IEC 62055-31 | Electricity payment metering systems – Part 31: Particular requirements – Static payment meters for active energy (classes 1 & 2) |
| 1.11.5.9. | IEC 62055-41 | Electricity metering – Payment systems – Part 41: Standard transfer specification (STS ) – Application layer protocol for one-way token carrier systems |
| 1.11.5.10. | IEC 62055-51 | Electricity metering – Payment systems – Part 51: Standard transfer specification – Physical layer protocol for one-way numeric and magnetic card token carriers |
| 1.11.5.11. | 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 |
| 1.11.5.12. | IEC 62056-21 | Electricity metering – Data exchange for meter reading, tariff and load control – Part 21:Direct local data exchange |
| 1.11.5.13. | BS 7856 | Code of practice for Design of alternating current, watt-hour meters for active energy (classes 1 and 2) |
| 1.11.5.14. | SANS 1524-1 | Electricity payment systems - Part 1: Payment meters |
| 1.11.5.15. | SANS 1524-1-1 | Electricity payment systems - Part 1-1: Mounting and terminal requirements for payment meters |
| 1.11.5.16. | SANS 1524-1-2 | Electricity payment systems - Part 1-2: Specification for surge arresters for the protection of electricity dispensers |
| 1.11.5.17. | SANS 1524-4 | Electricity payment systems - Part 4: National prepayment electricity meter cards |
| 1.11.5.18. | SANS 15417 | Information technology: Automatic identification and data capture techniques - Code 128 bar code symbology specification |
| 1.11.5.19. | STS 101-1 | Interface specification - STS 101-1: Standard transfer specification (STS) – Physical layer mechanical and electrical interface for virtual token carriers |

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| 1.11.5.20. | STS 201-15.1.0 | Companion specification - STS 201-15.1.0: Standard transfer specification (STS) – Meter function object: Register Table for electricity payment meters |
| 1.11.5.21. | DSP 34-749 | Eskom specification: Standard for sealing metering equipment |
| 1.11.5.22. | DSP 34-1527 | Eskom specification: Procedure for producing software process assessment documents |
| 1.11.5.23. | DSP34-1635 | Eskom Specification: Particular requirements for prepayment meters |
| 1.11.5.24. | RES/RR/00/11740 | Eskom specification: Accelerated Environmental Stress Test for Pre-payment metering; Electricity metering equipment – Data exchange for meter reading, tariff and load control – Part21: Direct local data exchange |
| 1.11.5.25. | ISO 14001 | Environmental Management |
| 1.11.5.26. | ISO 9001 | Quality Management Systems |
| 1.11.5.27. | IEC 61000-4-2 | Electromagnetic compatibility (EMC) - Part 4-2: Testing and measurement techniques - Electrostatic discharge immunity test |
| 1.11.5.28. | IEC 61000-4-3 | Electromagnetic compatibility (EMC) - Part 4-3: Testing and measurement techniques - Radiated, radio-frequency, electromagnetic field immunity test |
| 1.11.5.29. | IEC 61000-4-4 | Electromagnetic compatibility (EMC) - Part 4-4: Testing and measurement techniques - Electrical fast transient/burst immunity test |
| 1.11.5.30. | IEC 61000-4-5 | Electromagnetic compatibility (EMC) - Part 4-5: Testing and measurement techniques - Surge immunity test |
| 1.11.5.31. | CISPR 22 CLASS B | Information Technology Equipment |
| 1.11.5.32. | EN 300 220 | Electromagnetic compatibility and Radio spectrum Matters (ERM); Short Range Devices (SRD); Radio equipment to be used in the 25 MHz to 1 000 MHz frequency range with power levels ranging up to 500 mW; Part 1: Technical characteristics and test methods |
| 1.11.5.33. | IEC 60950-1 | Information technology equipment - Safety - Part 1: General requirements |
| 1.11.6. | **Definitions and abbreviations** | |
| 1.11.6.1. | Administrator Mode | See Dispenser mode |
| 1.11.6.2. | Consumption Limit | Limit restricting the total consumption allowed in a 24 hour period |
| 1.11.6.3. | Critical Load Reduction | Load restriction that can be imposed on a consumer by a Utility on demand |
| 1.11.6.4. | Cyclic Redundancy Check | A method implemented to allow data to be validated for authentication |
| 1.11.6.5. | Decryption | The process of transforming encrypted information into something readable |
| 1.11.6.6. | Direct Probe | Probe used for meter interrogation which complies with STS201-15-1 |
| 1.11.6.7. | Disconnection Device | The device with the measurement unit which controls connection and disconnection of the load |
| 1.11.6.8. | Dispenser Mode | Mode in which the meter will allow free prescribed amounts of credit in a 24 hour period |
| 1.11.6.9. | Emergency Credit | Operating mode whereby the user is allowed to operate in arrears with possible punitive measures being imposed |
| 1.11.6.10. | Encryption Algorithm | 2-digit number used to uniquely identify which algorithm is to be used for encrypting token data |
| 1.11.6.11. | Encryption | The process of transforming information (referred to as plaintext) using an algorithm (called cipher) to make it unreadable |
| 1.11.6.12. | Flags Probe | Probe used for meter interrogation which complies with IEC62056-21 |
| 1.11.6.13. | Galvanic Isolation | The principle of isolating functional electrical systems so that there is no current flow from one section to another |
| 1.11.6.14. | Hand Held Unit | Product used to extract information from a prepayment meter |
| 1.11.6.15. | Icon | Graphic used in the place of words |
| 1.11.6.16. | Instantaneous Power | Power averaged over a 5s interval |
| 1.11.6.17. | Interrogator Kit | Product used to extract information from a prepayment meter |
| 1.11.6.18. | Key Expiry Number | A number that is associated with a validity period for the Vending Key |
| 1.11.6.19. | Key Revision Number | 1-digit number in the range 1 to 9, which is associated with a version of the Vending Key and with the corresponding meter Key |
| 1.11.6.20. | Key Roll Over | Element within a key change token pair that is used in conjunction with the STS base date |

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| 1.11.6.21. | Key Type | 1-digit number in the range 0 to 3 associated with a property of the Vending Key and thus also with the corresponding Meter Key which defines the purpose for which the key can be used |
| 1.11.6.22. | Life Line | Operating mode following emergency credit whereby the user is allowed to operate in arrears with possible punitive measures being imposed |
| 1.11.6.23. | Line / Load Reversal | Condition whereby the LINE and LOAD wiring is swapped |
| 1.11.6.24. | Line | Incoming supply |
| 1.11.6.25. | Load Limit | Programmable limit at which power limiting occurs |
| 1.11.6.26. | Load | Outgoing supply |
| 1.11.6.27. | Manufacturer Code | 2-digit number that uniquely identifies the manufacturer of a prepayment meter |
| 1.11.6.28. | Measurement Unit | Metrological portion of a prepayment electricity meter that may also include a disconnection device, accounting registers and other control functions |
| 1.11.6.29. | 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 |
| 1.11.6.30. | Meter Key | Unique key used by a prepayment meter to decrypt STS tokens |
| 1.11.6.31. | Optical Probe | LED which the meter uses to perform a data dump |
| 1.11.6.32. | Over Current Trip | Trip event that occurs when the measured average current is greater than a pre-set limit |
| 1.11.6.33. | Over Temperature Trip | Trip event that occurs when the measured average temperature is greater than a pre-set limit |
| 1.11.6.34. | Over Voltage Trip | Trip event that occurs when the measured average voltage is greater than a pre-set limit |
| 1.11.6.35. | Power Limiting | Automatic load disconnection when the average power measured is greater than a pre-set limit |
| 1.11.6.36. | Scheduled load Reduction | Load restriction that can be imposed on a consumer by a Utility on a scheduled basis |
| 1.11.6.37. | Serial Number | Number that is associated with the metrological part of the payment meter |
| 1.11.6.38. | Software Version | Revision number associated with a particular release of software |
| 1.11.6.39. | Supply Burden | Power that is being used by the meter to run that is not measured |
| 1.11.6.40. | Supply Group Code within the supply or distribution domain | Unique 6-digit number allocated to a utility that identifies a subgroup of payment meters |
| 1.11.6.41. | Tariff Index | A 2-digit number associated with a particular tariff that is allocated to a particular customer |
| 1.11.6.42. | Token Carrier | Any device or media used to transport and present token information to prepayment meters |
| 1.11.6.43. | Token Identifier | Unique time-based identifier for each token |
| 1.11.6.44. | Unbalanced Power Limiting | Unbalanced Load Limit: Programmable limit at which unbalanced power limiting occurs |
| 1.11.6.45. | | Automatic load disconnection when the average power measured between any two phases is greater than a pre-set limit |
| 1.11.6.46. | Under Voltage Trip | Trip event that occurs when the measured average voltage is less than a pre-set limit |
| 1.11.6.47. | User Interface Unit | The part of a prepayment meter that contains interfaces which allow interaction with the meter. Usually associated with the end customer |
| 1.11.6.48. | 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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| **1.12.** | **ENERMAX INTELLIGENT DEVICE MANAGER (IDM)** | |
| 1.12.1. | **AUX POWER** | |
| | Type: EM-IDM-404<br>- Voltage range<br>- Burden: | 3 x 57-230Vac to neutral.<br>50Vdc to 110Vdc.<br><1.0W <2.0VA. |
| 1.12.2. | **COMMUNICATIONS** | |
| 1.12.2.1. | - Wireless: | GPRS or LAN, ZigBee (internal or external antenna). |
| 1.12.3. | **ELECTRICAL COMPLIANCE** | |
| 1.12.3.1. | - Insulation withstand: | IEC62052-11 (7.4) & (7.3.1 to 7.3.3). |
| 1.12.3.2. | - Impulse voltage: | Test with accordance specified in IEC 60060-1. |
| 1.12.3.3. | *- Electrostatic discharges:* | *IEC62052-11 (7.5.2) Contact discharged: 8kV.* |
| 1.12.3.4. | - Electromagnetic RF Fields: | IEC62052-11 (7.5.3).<br>80 MHz–2 GHz tested to IEC61000-4-3, 10 and 30 V/m.<br>Radio Interference Suppression, IEC/CISPR 22 Class B |
| 1.12.3.5. | - Fast Transient Burst: | IEC62052-11 (7.5.4). 4kV. |
| 1.12.3.6. | - Surge immunity | IEC62052-11 (7.5.6). IEC62052-11 (7.5.6). 4kV. |
| 1.12.3.7. | - Real Time Clock: | IEC62054-21 (7.5.2.2 & 7.5.2.3). Accuracy @ 25 Deg C: 0.5s/day.<br>Synchronizing crystal or line frequency. |
| 1.12.3.8. | Battery: | (Only for real-time-clock support during power down).<br>Replaceable 3V Lithium, Battery model CR2032.<br>IDM powered-down total period, eight years. |
| 1.12.4. | **ENVIRONMENTAL COMPLIANCE** | |
| 1.12.4.1. | - Shock and Vibration: | IEC62052-11 (5.2.2.2) & (5.2.2.3). |
| 1.12.4.2. | - Shock: | IEC 60068-2-27, Vibration: IEC 60068-2-6. |
| 1.12.4.3. | - Humidity: | IEC62052-11 (6.2 & 6.3.3). None condensing up to 95%. |
| 1.12.4.4. | - Temperature: | IEC62052-11 (6.1) & IEC 62053-22 (8.2).<br>Operation range: -25˚C to +55˚C.<br>Storage range: -25˚C to +70˚C.<br>Coefficient Range: -20˚C to+55˚C |
| 1.12.4.5. | - Housing: | IEC62052-11 (5.9).<br>Impermeability: IP51.<br>Materials: IEC62052-11 (5.9). |
| 1.12.5. | **HOUSING** | |
| 1.12.5.1. | - Dimensions: Width: | 170mm, Depth: 85mm, Height: 270mm.<br>With top mounting bracket in extended position add 22mm for total height. |
| 1.12.5.2. | - Mounting: | Mount IDM indoors on flat surface with three ≤6mm fixing screws.<br>Terminal cover secured with two wire sealable screws. |
| 1.13. | **EXPANSION MODULETO BE DESIGNED TO PLUG INTO THE ENERMAX+ IN ORDER TO EXPAND THE CAPACITY OF THE STANDARD METER TO INCLUDE GPRS/GSM AND RS485 COMMUNICATIONS WITH OTHER DEVICES.** | |
| 1.13.1. | **PRODUCT DESCRIPTION** | |
| 1.13.1.1. | Plug-in communication module with: | |
| 1.13.1.2. | - One GRPS/GSM port. | |
| 1.13.1.3. | - One RS485 port. | |
| 1.13.2. | **PUTTING INTO SERVICE** | |
| 1.13.2.1. | 1. Plugging in and out while power applied to the meter is **not** advised, it can result in data corruption. Remove power **before plugging in** the module. Ensure clip is engaged to secure. | |
| 1.13.2.2. | 2. When the RS485 connections are used, set the RS485 links to suit the application, (shown elsewhere in this document). | |
| 1.13.2.3. | 3. Ensure the meter has been configured to accept a communications expansion module in the meter docking bay to be used and the correct setting to suit the application requirements has been configured. | |
| 1.13.2.4. | 4. Use the EMANPLUS PC software program to configure the setup for the expansion module. | |
| 1.13.2.5. | 1. GPRS: used for computer remote communication. | |

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| 1.13.2.6. | 2. RS485: used for remote connection and multi-dropping between meters with a total cable length of 1.2km from first meter. | | |
| 1.13.3. | **LOGON BAUD RATES** | | |
| 1.13.3.1. | 1. **Remote logon board rate**: The meter expansion module 'modem' port setup and external modem (when used) must both be configured for the same board rate, including the parity & data bits. | | |
| 1.13.3.2. | 2. **Operation/dedicated baud rate:** | | |
| 1.13.3.3. | a. When the module receives a RS485 logon at 2400 7E1, the onboard modem will power down. | | |
| 1.13.3.4. | i. The modem will stay in power down mode during this RS485 communication. | | |
| 1.13.3.5. | b. The re-initialisation timer will only start after the data flow has ceased. | | |
| 1.13.3.6. | i. Modem will now power up, followed by re-initialising. | | |
| 1.13.3.7. | 3. **Changing module settings**: Loading the new settings to the meter will not immediately change the settings in the module; this will only occur following the logoff of the communications session. | | |
| 1.13.3.8. | 4. **Module firmware upgrades**: The module must be plugged into the meter when updating the modules firmware via the RS485 port. | | |
| 1.13.3.9. | 5. **Modem SIM location:** The SIM holder is located on the underside of the expansion module, the holder can be opened by sliding the SIM cover to the OPEN position and lifting the end labelled LOCK, and then swing open on its hinges. | | |
| 1.13.3.10. | 6. See Menu 13 – 14 on meter for BAUD RATE details. | | |
| 1.13.4. | **LED INDICATORS** | | |
| 1.13.5. | **Modem led** | | |
| 1.13.6. | **MODEM RED LED ACTIVITY** | | |
| 1.13.6.1. | **Status** | **Meaning** | |
| 1.13.6.1.1. | OFF | Modem powered down | |
| 1.13.6.1.2. | Steady ON | Not registered on network | |
| 1.13.6.1.3. | Slow flash | 200ms ON, 2s OFF, modem on network | |
| 1.13.6.1.4. | Fast flash | 200ms ON, 2600ms OFF, modem communicating | |
| 1.13.6.1.5. | **RS485 led** | | |
| 1.13.6.1.6. | From power-up, the board mounted green LED will only operate following setup being loaded from the meter, taking ±5 seconds. | | |
| 1.13.6.1.7. | POWER-UP GREEN LED ACTIVITY | | |
| 1.13.6.2. | **Status** | **Meaning** | |
| 1.13.6.2.1. | ON | Ready for a comms session | |
| 1.13.6.2.2. | OFF | Setup incorrect or hardware failure | |
| 1.13.7. | **BATTERY** | | |
| 1.13.7.1. | PART NUMBER: | E+SB-LI3665. | |
| 1.13.7.2. | TYPE: | Li-ion | |
| 1.13.7.3. | RATING: | 3.6V, 650mAh. | |
| 1.13.7.4. | CHARGE TIME: | When put into service, allow up to10hrs for the battery to be fully charged. | |
| 1.13.7.5. | REPLACING: | Unplug and remove from double sided tape and replace, ensuring the plug is aligned with the latching guides. | |
| 1.13.7.6. | BATTERY LIFE: | 1 year after purchase. | |
| 1.13.8. | **SPECIFICATIONS** | | |
| 1.13.8.1. | - 25 x RS485 linked modules can be multidropped over a distance up to 1.2 km, depending on cable and line quality. | | |
| 1.13.8.2. | - Half duplex communication. | | |
| 1.13.8.3. | - Auto RX TX direction control. | | |
| 1.13.8.4. | - Data rate capacity: 115200 bps. | | |
| 1.13.8.5. | - ESD Protection: 8kV meets IEC1000-4-2. | | |
| 1.13.8.6. | - EIA RS485 Compliant over full CM range. | | |
| 1.13.8.7. | - Ethernet/485 is 2kV AC optically isolated from the internal meter hardware. | | |
| 1.13.9. | **METER SETTINGS** | | |
| 1.13.10. | **Expansion module setup – setup locations** | | |
| 1.13.10.1. | Using the EMAN PLUS SW configures the following... | | |
| 1.13.10.2. | **TEMPLATES** – These are small group of settings, and can be pre-set and used to complete a meter configuration. Use a communications "template" to configure the settings for the comms expansion module. | | |

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| 1.13.10.3. | **GROUP WIZARD** – This is a group of templates and settings. Select the pre-configured communications "template" to use in the "group wizard". |
| 1.13.10.4. | **METER WIZARD** - This is a group of "templates" or a "group wizard" with a group of templates already selected that can be applied to a meter. The "meter wizards" name is the meters serial number. |
| 1.13.10.5. | **Note** where some communication settings are specific to the individual meter; these settings are set in the "Meter info" section of the "meter wizard". This does not apply to the RS232/485 expansion module. |
| 1.13.10.6. | **RS232 Template**: Use a factory pre-set template or create a user communications template for the meter. |
| 1.13.10.7. | **Group or Meter Wizard**: In the wizard go to the TAB "Meter Config" and select the module plugged-in position to be either bay 1 or bay 2. |
| 1.13.10.8. | a. Select the module type "comms expansion". |
| 1.13.10.9. | b. Depending on which wizard the user is setting, at this point, 'all' the meters functions are selected for configuration. |
| 1.13.10.10. | c. In the wizard use "next " to page through the TAB's to select TAB "Comms expansion" (EM1 or EM2). |
| 1.13.10.11. | d. At this point, the user can enter the settings by hand or select a template that is preset for the expansion module. |
| 1.13.10.12. | When a full meter setup has been configured; save the wizard settings. |
| 1.13.10.13. | The above can be configured in the "group wizard" or "meter wizard", depending on the user's preference, but it is advised for best application to use the "group wizard", and then apply the "group wizard" in the "meter wizard". The "group wizard" is 99% of the meter configuration. The serial number will be "meter wizards" name for the complete meter configured. |
| 1.13.10.14. | On the "Eman plus" main screen Goto "Configure" (at the top) and set the comms scheme for the EMAN PLUS to use with the comms module. |
| 1.13.10.15. | **To program the meter**: The "meter wizard" with the serial number will need to be on the computer and when the TASK "Read/Write meter setup" is used the new meter settings will automatically be transferred to the meter & expansion module via the optical head. |
| 1.14. | **ALL METERS BELOW MUST BE ABLE TO OPERATE IN CREDIT MODE and have the Base Date 2014** |
| 1.15. | **E460 1ph DIN Rail G3-PLC Series 2 (MCA 110 CR D1.2 00 x S2)**<br>  |
| 1.15.1. | **General Overview** |
| 1.15.1.1. | Compatible network<br>Single phase, 2-wire |
| 1.15.1.2. | Enclosure format |
| 1.15.1.3. | Rail mount, with locking clip compatible with 35mm DIN standard rail or flush mounting using keyhole slot and bottom fixing screws. Long and short terminal covers supported |
| 1.15.2. | **IEC Specific Data** |
| 1.15.2.1. | Rated voltage (Un)<br>Wide-range: 110 to 240 Volts AC |
| 1.15.2.2. | Frequency<br>50Hz or 60Hz |
| 1.15.2.3. | Extended operating voltage range<br>80% to 120% Un |

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| 1.15.2.4. | Base current (Ib)<br>5 Amps |
| 1.15.2.5. | Maximum current (Imax)<br>80 Amps |
| 1.15.2.6. | Short circuit current<br>30 x Imax (≤10 ms according to IEC 62053-21) 2.5kA r.m.s. (Utilisation Category UC2 according to IEC 62055-31) |
| 1.15.2.7. | Meter constant (LED flash rate)<br>1000 impulses / kWh<br>1000 impulses / kVAh1 |
| 1.15.2.8. | Measurement Accuracy<br>Active energy, according to IEC62052-11/62053-21<br>Class 1<br>Reactive energy, according to IEC62053-23<br>Class 2 for Ib = 10A, Class 3 for Ib = 5A |
| 1.15.2.9. | Measurement behaviour<br>Starting current ≤ 0.004 Ib for Class 1 |
| 1.15.3. | **General Data** |
| 1.15.3.1. | Operating Behaviour |
| 1.15.3.2. | Power consumption in voltage circuit<br>Active power at Un (max) <2W<br>Apparent power at Un (max) <12VA |
| 1.15.3.3. | Power consumption in current circuit<br>Apparent power at Ib (max) <7VA |
| 1.15.4. | **Environmental Influences** |
| 1.15.4.1. | Area of application<br>Indoor meter (according to IEC62052-11) |
| 1.15.4.2. | Temperature range<br>Operation meter -10°C to +55°C<br>Storage -40°C to +70°C |
| 1.15.4.3. | Relative humidity<br>Maximum ≤ 95%; Annual mean 75% |
| 1.15.4.4. | Degree of Protection (according to IEC60529)<br>IP Rating IP54<br>Product is for indoor use and must be installed in a suitable enclosure when used outdoors. |
| 1.15.5. | **Electromagnetic Compatibility** |
| 1.15.5.1. | Electrostatic discharges (IEC61000-4-2)<br>Air discharge 15 kV |
| 1.15.5.2. | Electromagnetic RF fields (IEC 61000-4-3)<br>80 MHz to 2 GHz<br>10 V/m with load<br>30 V/m no load |
| 1.15.5.3. | Fast transient burst (IEC61000-4-4)<br>Current / voltage under load (IEC 62053-21) 4 kV |
| 1.15.5.4. | Radio interference suppression (IEC / CISPR 22)<br>Complies with requirements for CISPR 22 and CENELEC EN 50065-1 |
| 1.15.6. | **Insulation Strength** |
| 1.15.6.1. | Insulation System Classification<br>(According to IEC 62052-11) Protective Class II. |
| 1.15.6.2. | Insulation Level<br>4 kV rms @ 50Hz for 1 minute |
| 1.15.6.3. | Overvoltage withstand |
| 1.15.6.4. | Overvoltage withstand<br>440 Vac for 48 hours, 600 VDC for 1 minute |

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| 1.15.7. | **Surge Immunity** |
| 1.15.7.1. | Voltage impulse withstand (Differential)<br>Meets the requirements of IEC 62052-11 |
| 1.15.7.2. | Current impulse withstand<br>According to: IEC 62052-11, SANS 61643-1<br>With external arrestor<br>Withstand rating 30 kA, 8/20µs<br>Without external arrestor<br>Withstand rating 10 kA, 8/20µs |
| 1.15.8. | **Calendar Clock** |
| 1.15.8.1. | Normal operation<br>Accuracy (at +23°C) + 0.2 s/day |
| 1.15.8.2. | Reserve running Accuracy (at +23°C) <1 s/day<br>(EN 62054-21 requirement for time switches: 1.0s) |
| 1.15.8.3. | Operational Reserve<br>With super-capacitor minimum 36 hours<br>(RTC Synchronised by Data Concentrator) |
| 1.15.9. | **Outputs** |
| 1.15.9.1. | Optical Test output (Active or reactive)<br>Type Visible Red LED<br>Meter constant<br>1000 pulses/kWh<br>1000 pulses/kVAh |
| 1.15.10. | **Meter Faceplate Indications** |
| 1.15.10.1. | Meter Status Indication<br>Type Visible Yellow LED |
| 1.15.10.2. | Meter Load Switch Indication<br>Type Visible Red LED |
| 1.15.10.3. | PLC Status Indication<br>Type Visible Green LED |
| 1.15.11. | **Phase Connections** |
| 1.15.11.1. | Format<br>Type Bottom connect (Line, Neutral, Load) |
| 1.15.11.2. | Terminal Details<br>Material Mild steel, yellow passivated<br>Type Single (M8) moving-cage terminal<br>Diameter 8.5 mm<br>Maximum conductor cross-section 25mm2<br>Type of screw slotted (flat screw driver) |
| 1.15.12. | **Communication Interfaces** |
| 1.15.12.1. | Optical Communications Port<br>According to IEC 62056-21 |
| 1.15.12.2. | PLC Interface<br>Type OFDM G3-PLC<br>Narrowband Orthogonal Frequency Division Multiplexing (OFDM) for G3 networks in accordance with recommendation ITU-T G.9903 and CENELEC-A band plan<br>Refer - IEC61334-4-41, ISO/IEC13239/ EN 50065<br>Range Typically >200m |
| 1.15.12.3. | Load Switch |
| 1.15.12.4. | Contact Data<br>According to IEC 62055-31 for Utilisation Category UC2 |
| 1.15.13. | **Meter Enclosure Material** |
| 1.15.13.1. | Material (Housing)<br>Type: Polycarbonate, flame-retardant<br>Resistance to spread of fire |

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| | UL94-V0 rated @1.5mm. No toxic gases emitted:<br>'Green Material' |
| 1.15.13.2. | Material (Terminal block)<br>Type: Polycarbonate, flame-retardant, glass-filled<br>Resistance to heat and fire<br>Complies with 960°C glow-wire (IEC 60695-2-1) |
| 1.15.14. | **Weights & Dimensions** |
| 1.15.14.1. | Dimensions<br>135.5mm(H) x 50.3mm(W) x 110mm(D) (Short cover)<br>165.5mm(H) x 50.3mm(W) x 110mm(D) (Long cover) |
| 1.15.14.2. | Weight<br>Including packaging (excl. MOV) approx.450 grams<br>Including packaging (Incl. MOV) approx.455 grams |
| 1.15.15. | **Sealing** |
| 1.15.15.1. | Type<br>Meter enclosure Factory sealed for life<br>Terminal Cover Utility sealing wires (1 point)<br>Long and short cover |
| 1.15.16. | **Specifications Compliance & Approvals** |
| 1.15.16.1. | IEC 62053-21, IEC 62053-23, IEC62055-41(STS) and IEC62055-51 (STS) |
| 1.16. | **E460 3ph G3-PLC Meter**<br>  |
| 1.16.1. | **General Overview** |
| 1.16.1.1. | THE METER MUST BE ABLE TO OPERATE IN CREDIT MODE |
| 1.16.1.2. | Compatible network<br>Three phase, four-wire |
| 1.16.1.3. | Enclosure format<br>Three phase, asymmetrical terminal format. Short terminal standard, long cover optional |
| 1.16.2. | **IEC Specific Data** |
| 1.16.2.1. | Rated voltage (Un)<br>Wide-range: 3 X 120 to 240 Volts AC |
| 1.16.2.2. | Frequency<br>50Hz or 60Hz |
| 1.16.2.3. | Extended operating voltage range<br>Voltage (for Un = 230V), 50% to 120% Un i.e.>115V<br>Voltage (for Un = 120V), 80% to 120% Un i.e.>90V |
| 1.16.2.4. | Base current (Ib)<br>5 Amps |
| 1.16.2.5. | Maximum current (Imax)<br>100 Amps per phase |
| 1.16.2.6. | Short circuit current<br>30 x Imax (≤10 ms according to IEC 62053-21) 3kA r.m.s. (Utilisation Category UC3 according to IEC 62055-31) |
| 1.16.2.7. | Meter constant (LED flash rate)<br>1000 impulses / kWh<br>1000 impulses / kVAh1 |
| 1.16.2.8. | Measurement Accuracy |

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| | Active energy, according to IEC62052-11/62053-21 = Class 1<br>Reactive energy, according to IEC62053-23 = Class 3 for Ib = 5A |
| 1.16.2.9. | Measurement behaviour<br>Starting current (Active) ≤ 0.004 Ib for Class 1<br>Starting current (Reactive) <0.005 Ib for Class 2 |
| 1.16.3. | **General Data** |
| 1.16.4. | **Operating Behavior** |
| 1.16.4.1. | Power consumption in voltage circuit (with all three phases powered up)<br>Active power at Un 120V <1.2W<br>Active power at Un 230V <1.6W<br>Apparent power at Un 120V, 50Hz <4VA / phase<br>Apparent power at Un 230V, 50Hz <12.5VA / phase |
| 1.16.4.2. | Environmental Influences |
| 1.16.4.3. | Area of application<br>Indoor meter (according to IEC62052-11) |
| 1.16.4.4. | Temperature range<br>Operation meter -10°C to +55°C<br>Storage -40°C to +70°C |
| 1.16.4.5. | Relative humidity<br>Maximum ≤ 95%; Annual mean 75% |
| 1.16.4.6. | Degree of Protection (according to IEC60529)<br>IP Rating IP53<br>Product is for indoor use and must be installed in a suitable enclosure when used outdoors |
| 1.16.5. | **Electromagnetic Compatibility** |
| 1.16.5.1. | Electrostatic discharges (IEC61000-4-2)<br>Air discharge 15 kV |
| 1.16.5.2. | Electromagnetic RF fields (IEC 61000-4-3)<br>80 MHz to 2 GHz 10 V/m with load<br>30 V/m no load |
| 1.16.5.3. | Fast transient burst (IEC61000-4-4)<br>Current / voltage under load (IEC 62053-21) 4 kV |
| 1.16.5.4. | Radio interference suppression (IEC / CISPR 22)<br>Complies with requirements for CISPR 22 and CENELEC EN 50065-1 |
| 1.16.6. | **Insulation Strength** |
| 1.16.6.1. | Insulation System Classification<br>(According to IEC 62052-11) Protective Class II |
| 1.16.6.2. | Insulation Level<br>4 kV rms @ 50Hz for 1 minute |
| 1.16.6.3. | Overvoltage withstand |
| 1.16.6.4. | Overvoltage withstand<br>440 Vac for 48 hours, 600 VDC for 1 minute |
| 1.16.7. | **Surge Immunity** |
| 1.16.7.1. | Voltage impulse withstand (Differential)<br>Meets the requirements of IEC 62052-11 |
| 1.16.7.2. | Current impulse withstand<br>According to: IEC 62052-11, SANS 61643-1<br>With external arrestor<br>Withstand rating 30 kA, 8/20µs<br>Without external arrestor<br>Withstand rating 10 kA, 8/20µs |
| 1.16.8. | **Calendar Clock** |
| 1.16.8.1. | Normal operation<br>Accuracy (at +23°C) + 0.2 s/day |
| 1.16.8.2. | Reserve running<br>Accuracy (at +23°C) <1 s/day |

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| | (EN 62054-21 requirement for time switches: 1.0s) |
| 1.16.8.3. | Operational Reserve<br>With super-capacitor minimum 36 hours<br>(RTC Synchronised by Data Concentrator) |
| 1.16.9. | **Rate of Use Output** |
| 1.16.10. | Optical Test output (Active or reactive)<br>Type Visible Red LED<br>Meter constant 1000 pulses/kWh<br>1000 pulses/kVAh |
| 1.16.11. | **Meter Faceplate Indications** |
| 1.16.11.1. | Meter Status Indication<br>Type [Dual colour] Visible Yellow LED |
| 1.16.11.2. | PLC Status Indication<br>Type [Dual colour] Visible Green LED |
| 1.16.11.3. | Meter Load Switch Indication<br>Type LCD Icon |
| 1.16.12. | **Phase Connections** |
| 1.16.12.1. | Format Type Asymmetrical, 8 terminals |
| 1.16.12.2. | Terminal Details<br>Material of terminal Brass<br>Type Terminal with two screws<br>Diameter 9.5 mm<br>Minimum conductor cross-section 4.0 mm2<br>Maximum conductor cross-section 35.0 mm2<br>For wires with small conductor cross-sections (≤ 6 mm2), the connecting line must be placed carefully in the middle of the terminal, so that it cannot move sideways when tightening the terminal screws. When tightening, ensure that the connecting line remains between the copper inside the terminal and the screw. Stranded wires must be fitted with ferrules.<br>- Type of screw: · Steel zinc-plated Pozidrive combi screws (default)<br>- Screw dimensions M6 x 14<br>- Maximum screw head diameter ≤ 6.6 mm<br>- Cross-slot type Z, size 2 (ISO4757-1983)<br>- Slot width 0.8 mm<br>- Slot length min. 6 mm |
| 1.16.13. | **Communication Interfaces** |
| 1.16.13.1. | Optical Communications Port According to IEC 62056-21 |
| 1.16.13.2. | G3-PLC Interface<br>Frequency band CENELEC A<br>OFDM G3-PLC with COSEM/DLMS communication protocol according to EN50065-1 supporting the following OSI Layers:<br>· ITU-T G.9903 physical layer for modulation, adaptive tone mapping and notching<br>· MAC layer IEEE 802.15.4; time domain and collision management; CSMA/ARQ<br>· 6LoWPAN adaptation sub layer Plug and Play network management to choose “Best Path” (Full Mesh Support)<br>· IPv6 IETF RFC4291/4862 addressing and networking<br>· DLMS application layer 62056-53<br>· COSEM application model: 62056-61 (OBIS) and 62056-62 (interface classes) Range: Typically >200m with G3-PLC repeater functionality |
| 1.16.14. | **Load Switch** |
| 1.16.14.1. | Contact Data According to IEC 62055-31 for Utilisation Category UC3 |
| 1.16.15. | **Inputs and Outputs** |
| 1.16.15.1. | Pulse Input<br>Type S0<br>Terminals 30 (+) and 31 (-)<br>According to IEC 62053-31 class A<br>Configurable as pulse counter or alarm input |
| 1.16.15.2. | Output |

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| | Terminals 23 and 24<br>Type solid-state auxiliary load switch<br>Nominal voltage 230 VAC/DC<br>Maximum voltage 250 VAC/DC<br>Maximum switching current 90 mA | |
| 1.16.16. | **Meter Enclosure Material** | |
| 1.16.16.1. | Material (Housing)<br>Type: Polycarbonate, flame-retardant<br>Resistance to spread of fire<br>UL94-V0 rated @1.5mm. No toxic gases emitted: 'Green Material' | |
| 1.16.16.2. | Material (Terminal block)<br>Type: Polycarbonate, flame-retardant, glass-filled<br>Resistance to heat and fire - Complies with 960°C glow-wire (IEC 60695-2-1) | |
| 1.16.17. | **Weights & Dimensions** | |
| 1.16.17.1. | Dimensions<br>Width/Height/Depth 172.0 / 198.8 / 76.6 mm | |
| 1.16.17.2. | Weight<br>Including packaging approx.1.5kg | |
| 1.16.18. | **Sealing** | |
| 1.16.18.1. | Type<br>Meter enclosure Factory sealed<br>Terminal Cover Utility sealing wires (2 points)<br>Long and short (default) covers | |
| 1.16.19. | Specifications Compliance & Approvals | |
| 1.17. | **E460 1ph BS G3-PLC Meter**<br>  | |
| 1.17.1. | **General Overview** | **Power consumption in current circuit** |
| 1.17.1.1. | Compatible network | Apparent power at Ib (max) <7VA |
| 1.17.1.2. | Single phase, two-wire | **Environmental Influences** |
| 1.17.1.3. | Enclosure format | **Area of application** |
| 1.17.1.4. | Single phase BS, symmetrical terminal format. Short terminal standard, long cover optional | Indoor meter (according to IEC62052-11) |
| 1.17.2. | **IEC Specific Data** | **Temperature range** |
| 1.17.2.1. | Rated voltage (Un) | Operation meter -10°C to +55°C |

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| 1.17.2.2. | Wide-range: 120 to 240 Volts AC | Storage -40°C to +70°C |
| 1.17.2.3. | Frequency | Relative humidity |
| 1.17.2.4. | 50Hz or 60Hz | Maximum ≤ 95%; Annual mean 75% |
| 1.17.2.5. | Extended operating voltage range | **Degree of Protection (according to IEC60529)** |
| 1.17.2.6. | Voltage (for Un = 230V), 50% to 120% Un i.e.>115V | IP Rating IP542 |
| 1.17.2.7. | Voltage (for Un = 120V), 80% to 120% Un i.e.>96V | Product is for indoor use and must be installed in a suitable enclosure when used outdoors |
| 1.17.2.8. | Base current (Ib) | Electromagnetic Compatibility |
| 1.17.2.9. | 5 Amps | **Electrostatic discharges (IEC61000-4-2)** |
| 1.17.2.10. | Maximum current (Imax) | Air discharge 15 kV |
| 1.17.2.11. | 100 Amps | **Electromagnetic RF fields (IEC 61000-4-3)** |
| 1.17.2.12. | Short circuit current | 80 MHz to 2 GHz 10 V/m with load |
| 1.17.2.13. | 30 x Imax (≤10 ms according to IEC 62053-21) 3kA r.m.s. (Utilisation Category UC3 according to IEC 62055-31) | 30 V/m no load |
| 1.17.2.14. | Meter constant (LED flash rate) | **Fast transient burst (IEC61000-4-4)** |
| 1.17.2.15. | 1000 impulses / kWh | Current / voltage under load (IEC 62053-21) 4 kV |
| 1.17.2.16. | 1000 impulses / kVAh1 | **Radio interference suppression (IEC / CISPR 22)** |
| 1.17.2.17. | Measurement Accuracy | Complies with requirements for CISPR 22 and CENELEC EN 50065-1 |
| 1.17.2.18. | Active energy, according to IEC62052-11/62053-21 | **Insulation Strength** |
| 1.17.2.19. | Class 1 | **Insulation System Classification** |
| 1.17.2.20. | Reactive energy, according to IEC62053-23 | (According to IEC 62052-11) Protective Class II |
| 1.17.2.21. | Class 3 for Ib = 5A | **Insulation Level** |
| 1.17.2.22. | Measurement behaviour | 4 kV rms @ 50Hz for 1 minute |
| 1.17.2.23. | Starting current (Active) ≤ 0.004 Ib for Class 1 | **Overvoltage withstand** |
| 1.17.2.24. | Starting current (Reactive) <0.005 Ib for Class 3 | **Overvoltage withstand** |
| 1.17.3. | **General Data** | 440 Vac for 48 hours, 600 VDC for 1 minute |
| 1.17.4. | **Operating Behaviour** | **Surge Immunity** |
| 1.17.4.1. | Power consumption in voltage circuit | **Voltage impulse withstand (Differential)** |
| 1.17.4.2. | Active power at Un (max) < 2W | Meets the requirements of IEC 62052-11 |
| 1.17.4.3. | Apparent power at Un (max) <12VA | Remains between the copper inside the terminal and the screw. Stranded wires must be fitted with ferrules. |
| 1.17.4.4. | Current impulse withstand | - Type of screw: |
| 1.17.4.5. | According to: IEC 62052-11, SANS 61643-1 | • Steel zinc-plated slotted screws (default) |
| 1.17.4.6. | With external arrestor | **Communication Interfaces** |
| 1.17.4.7. | Withstand rating 30 kA, 8/20µs | Optical Communications Port |
| 1.17.4.8. | Without external arrestor | According to IEC 62056-21 |
| 1.17.4.9. | Withstand rating 10 kA, 8/20µs | dlms/COSEM compliant |
| 1.17.5. | **Calendar Clock** | G3-PLC Interface |
| 1.17.5.1. | Normal operation | Frequency band CENELEC A |
| 1.17.5.2. | Accuracy (at +23°C) + 0.2 s/day | OFDM G3-PLC with COSEM/DLMS communication protocol according to EN50065-1 supporting the following OSI Layers: |
| 1.17.5.3. | Reserve running | • ITU-T G.9903 physical layer for modulation, adaptive tone mapping and notching |
| 1.17.5.4. | Accuracy (at +23°C) <1 s/day | • MAC layer IEEE 802.15.4; time domain and collision management; CSMA/ARQ |
| 1.17.5.5. | (EN 62054-21 requirement for time switches: 1.0s) | • 6LoWPAN adaptation sub layer Plug and Play network management to choose “Best Path” (Full Mesh Support) |

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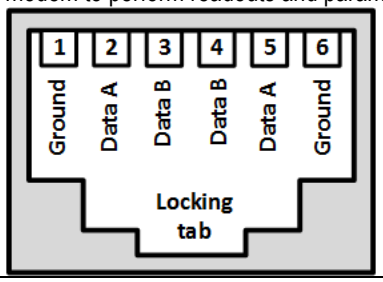
| 1.17.5.6. | Operational Reserve | • IPv6 IETF RFC4291/4862 addressing and networking |
| 1.17.5.7. | minimum 36 hours3 | • DLMS application layer 62056-53 |
| *1.17.5.8.* | *(RTC Synchronised by Data Concentrator)* | • COSEM application model: 62056-61 (OBIS) and 62056-62 (interface classes) |
| 1.17.6. | **Rate of Use Output** | |
| 1.17.6.1. | Optical Test output (Active or reactive) | Range: Typically >200m with G3-PLC repeater functionality |
| 1.17.6.2. | Type Visible Red LED | RS485 Communications Port 5 |
| 1.17.6.3. | Meter constant4 1000 pulses/kWh | Type: RJ11, RS485 bidirectional, asynchronous interface, galvanically isolated (Protective class II) |
| 1.17.6.4. | 1000 pulses/kVAh | Up to 32 meters can be connected to one line and then connected to an external modem to perform readouts and parameterising.   |
| 1.17.6.5. | Meter Faceplate Indications | Eskom Type B Communications Port |
| 1.17.6.6. | Meter Status Indication | According to Eskom Specification 240-76625601 |
| 1.17.6.7. | Type Visible Yellow LED | **Supply Control Switch** |
| 1.17.6.8. | PLC Status Indication | Contact Data |
| 1.17.6.9. | Type Visible Green LED | According to IEC 62055-31 for Utilisation Category UC3 |
| 1.17.6.10. | Meter Supply Control Switch Indication | Resistance to heat and fire - Complies with 960°C glow-wire (IEC 60695-2-1) |
| 1.17.6.11. | Type LCD Icon & Visible Red LED | **Weights & Dimensions** |
| 1.17.7. | **Phase Connections** | Dimensions6 |
| 1.17.7.1. | Format | Width/Height/Depth 135mm / 195 mm / 67 mm |
| 1.17.7.2. | Type Symmetrical, 4 terminals | Please also refer to dimensional drawings |
| 1.17.7.3. | Terminal Details | Weight |
| 1.17.7.4. | Material of terminal Mild Steel (Passivated) | approximately 0.8kg |
| 1.17.7.5. | Type Double screw (M6) cage terminal | **Sealing** |
| 1.17.7.6. | Diameter 9.5 mm | Type |
| 1.17.7.7. | Minimum conductor cross-section 4.0 mm2 | Meter enclosure Factory sealed with sealing wire |
| 1.17.7.8. | Maximum conductor cross-section 35.0 mm2 | Terminal Cover Utility sealing wires (1 points) |
| 1.17.7.9. | For wires with small conductor cross-sections (≤ 6 | Long and short (default) covers |
| 1.17.7.10. | mm2), the connecting line must be placed carefully in the middle of the terminal, so that it cannot move sideways when tightening the terminal screws. When tightening, ensure that the connecting line | Sealed for life option (sealing plugs / rear of meter) |
| 1.17.8. | **Inputs and Outputs** | **Specifications Compliance & Approvals7** |
| 1.17.9. | Pulse Input | IEC 62053-21, IEC62053-23, IEC62055-41 and IEC62055-51 (STS Compliance), dlms/COSEM |
| 1.17.10. | Type S0 | **Meter Enclosure Material** |

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| 1.17.11. | Terminals 30 (+) and 31 (-) | Material (Housing) |
| 1.17.12. | According to IEC 62053-31 class A | Type: Polycarbonate, flame-retardant |
| 1.17.13. | Configurable as pulse counter or alarm input | Resistance to spread of fire |
| 1.17.14. | Output | UL94-V0 rated @1.5mm. No toxic gases emitted: 'Green Material' |
| 1.17.15. | Terminals 23 and 24 | Material (Terminal block) |
| 1.17.16. | Type solid-state auxiliary load switch | Type: Polycarbonate, flame-retardant, glass-filled |
| 1.17.17. | Nominal voltage 230 VAC/DC | |
| 1.17.18. | Maximum voltage 250 VAC/DC | |
| 1.17.19. | Maximum switching current 90 mA | |
| 1.17.19.1. | IEC 62053-21, IEC62053-23, IEC62055-41 and IEC62055-51, dlms | |
| 1.18. | **P160 G3 PLC Customer Interface Unit**   | |
| 1.18.1. | **General Data** | |
| 1.18.1.1. | Supply Voltage 110-240 VAC wide ranging power supply | |
| 1.18.1.2. | Supply Frequency 50Hz or 60Hz | |
| 1.18.1.3. | Power consumption (Burden)<br><1.5 W / <12 VA @ 230VAC, 50Hz | |
| 1.18.1.4. | Maximum Rated Current<br><120mA @ 230VAC, 50Hz | |
| 1.18.1.5. | Protective Class<br>Double insulated – Protective Class 2 | |
| 1.18.1.6. | Supply Connection<br>Mains supply by means of integrated power cord. Variants are available with various international power plugs | |
| 1.18.1.7. | Battery<br>1 x 9 Volt (6LR61 type) battery | |
| 1.18.2. | **Communications Circuitry** | |
| 1.18.3. | Type<br>Narrowband OFDM G3-PLC Power Line Carrier | |
| 1.18.4. | Protocol<br>Device Language Message Specification (DLMS) | |
| 1.18.5. | Specification compliance<br>IEC 61334-4-41, IEC 61334-5-2, and EN 50065-1 | |
| 1.18.6. | **Operating Environment** | |
| 1.18.6.1. | Temperature Range<br>Operating -10°C to +55°C<br>Storage -40°C to +70°C | |
| 1.18.6.2. | Relative Humidity (IEC 62052-11)<br>Maximum ≤ 95%; Annual mean <75% | |
| 1.18.7. | **Enclosure** | |
| 1.18.7.1. | Type: Wall mounted with integrated AC power cord and sliding battery compartment | |
| 1.18.7.2. | Degree of Protection (IP Rating) IP 51 | |
| 1.18.7.3. | Material<br>UV Stable Polycarbonate/ABS blend with flame-retardant, Resistance to heat and fire | |

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| | Complies with 960°C glow-wire (IEC 60695-2-1)<br>Resistance to spread of fire = UL94-V0 rated @1.5mm.<br>No toxic gases emitted: 'Green Material' | |
| 1.18.7.4. | Dimensions<br>144mm(H) x 120mm(W) x 40.8mm(D) | |
| 1.18.7.5. | Weight<br>Including packaging1 approximately 350 g | |
| 1.18.7.6. | Sealing & Access Control | |
| 1.18.7.7. | Battery Compartment<br>Type Sliding compartment for battery replacement | |
| 1.18.7.8. | Customer Interface Unit Enclosure<br>Factory sealed- no user serviceable parts | |
| 1.18.8. | **Man-Machine Interface** | |
| 1.18.8.1. | Type<br>Pictographic/Numeric LCD display, keypad, multi-colour rate of consumption indicator and alert LED's and audible feedback | |
| 1.18.8.2. | Liquid Crystal Display (LCD)<br>Size 9cm2 (50mm (W) x 26mm (H))<br>8 digits in value field, 6 digits in the index field<br>Digit size: 8mm (H) x 4mm (W) | |
| 1.18.9. | **Compliance / Certification**<br>**Designed to conform to SANS / IEC60950** | |
| 1.18.9.1. | CIU, 16-key, including 12-key standard layout including "Information" and "Backspace" keys as well as separate additional smart user keys. | |
| 1.18.9.2. | Buzzer<br>Audible feedback on key press, token accept and reject melodies and alarms | |
| 1.18.9.3. | Rate of Consumption Indicator (Rate LED)<br>Multi-colour rate LED (colour indicates current credit level). Not for accuracy verification | |
| 1.18.9.4. | Alarm Indicator<br>Multi-colour LED indications for ease of use and additional audible warning of critically low credit status or other operational warnings. | |
| 1.18.10. | **Description** | **Specification** |
| 1.18.10.1. | User Interface | 12 Digit keypad with audio feedback |
| 1.18.10.2. | User Display | 8 Digit LCD with language independent icons |
| 1.18.10.3. | Consumption Display | Optional LED |
| 1.18.10.4. | Communication Circuitry | Cenelec A compliant PLC or similar |
| 1.18.10.5. | | The CIU shall implement a dynamic communication algorithm to minimize the interference from adjacent meters. |
| 1.18.10.6. | IP Rating | IP51 |
| 1.18.10.7. | Installation Type | Stand Alone – plugs into mains socket |
| 1.18.11. | **Customer Interface Unit (CIU) - STANDARD BASE** | |
| 1.18.11.1. | User Interface | 12 Digit keypad with audio feedback |
| 1.18.11.2. | User Display | 8 Digit LCD with language independent icons |
| 1.18.11.3. | Consumption Display | Optional LED |
| 1.18.11.4. | Communication Circuitry | Cenelec A compliant PLC or similar |
| 1.18.11.5. | | The CIU shall implement a dynamic communication algorithm to minimize the interference from adjacent meters. |
| 1.18.11.6. | IP Rating | IP51 |
| 1.18.11.7. | Installation Type | Standard Base plug in mount |
| 1.18.12. | **E650 Series 3 – ZMD405 AT/CT (bulk metering)** | |

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| Signature | | Name (print) | |
| Capacity | | Date | |
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| 1.18.13. | **General** | **Measurement Accuracy** |
| 1.18.13.1. | **Voltage** | ZxD405xT |
| 1.18.13.2. | Nominal voltage Un ZMD400xT | active energy, to IEC 62053-22 class 0.5 S |
| 1.18.13.3. | 3 x 58/100 V to 69/120 V | reactive energy, to IEC 62053-23 accuracy 1% |
| 1.18.13.4. | 3 x 110/190 V to 133/230 V | ZxD410xT |
| 1.18.13.5. | 3 x 220/380 V to 240/415 V | active energy, to IEC 62053-21 class 1 |
| 1.18.13.6. | extended operating voltage range 3 x 58/100 to 240/415 V | reactive energy, to IEC 62053-23 accuracy 1% |
| 1.18.13.7. | Nominal Voltage Un ZFD400xT | **Measurement Behaviour** |
| 1.18.13.8. | 3 x 100 to 120 V | Starting current ZxD405xT |
| 1.18.13.9. | 3 x 220 to 240 V | according to IEC 0.1% In |
| 1.18.13.10. | extended operating voltage range 3 x 100 to 415 V | typical 0.07% In |
| 1.18.13.11. | Voltage range 80 to 115% | 5\|\|1 A as 1 A meter |
| 1.18.14. | **Frequency** | Starting current ZxD410xT |
| 1.18.14.1. | Nominal frequency fn 50 or 60 Hz | according to IEC 0.2% In |
| 1.18.15. | tolerance ± 2% | typical 0.14% In |
| 1.18.16. | **IEC-specific Data** | 5\|\|1 A as 1 A meter |
| 1.18.17. | **Current** | The startup of the meter is controlled by the starting power and not by the starting current. |
| 1.18.17.1. | Nominal Current In 1 A, 2 A, 5 A, 5\|\|1 A | Starting power in M-circuit single phase |
| 1.18.17.2. | Maximal Current Imax | nominal voltage x starting current |
| 1.18.17.3. | metrological 1 A 2 A, 10 A | Starting power in F-circuit all phases |
| 1.18.17.4. | metrological 2 A 4 A | nominal voltage x starting current x √3 |
| 1.18.17.5. | metrological 5\|\|1 A 6 A | **MID-specific Data** |
| 1.18.17.6. | metrological 5 A 200% In or 400% In | **Current (for classes B and C)** |
| 1.18.17.7. | thermal 1 A, 2 A,5\|\|1 A 12 A | Rated current In 1.0 A, 2.0 A, 5.0 A |
| 1.18.17.8. | thermal 5 A 12 A or 24 A | Minimum current Imin 0.01 A, 0.02 A, 0.05 A |
| 1.18.17.9. | Short Circuit Current 0.5 s with 20 x Imax | Transitional current Itr 0.05, 0.1 A, 0.25 A |
| 1.18.17.10. | | Maximum current Imax 2.0 A, 4 A, 10.0 A or 20 A |
| 1.18.18. | **Measurement Accuracy** to EN 50470-3 | Fast transient burst test to IEC 61000-4-4 |
| 1.18.18.10. | ZxD400xT classes B and C | current and voltage circuits under load according to IEC 62053-21/23 4 kV |
| 1.18.19. | **Measurement Behaviour** | auxiliary circuits > 40 V 2 kV |
| 1.18.19.10. | Starting current Ist | Fast transient surge test to IEC 61000-4-5 |

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| 1.18.19.11. | class B: Ist 0.002, 0.01 A | current and voltage circuits 4 kV |
| 1.18.19.12. | class C: Ist 0.001, 0.005 A | auxiliary circuits > 40 V 1 kV |
| 1.18.20. | **General** | **Insulation Strength** |
| 1.18.21. | **Operating Behaviour** | Insulation strength 4 kV at 50 Hz during 1 min. |
| 1.18.21.10. | Voltage failure (Power Down) | Impulse voltage 1.2/50 µs to IEC 62052-11 |
| 1.18.21.11. | bridging time 0.5 s | current and voltage circuits 8 kV |
| 1.18.21.12. | data storage after another 0.2 s | auxiliary circuits 6 kV |
| 1.18.21.13. | switch off after approx. 2.5 s | Protection class II to IEC 62052-11 |
| 1.18.21.14. | Voltage restoration (Power Up) | **Calendar Clock** |
| 1.18.21.15. | function standby 3 phases after 2 s | Calendar type Gregorian or Persian (Jalaali) |
| 1.18.21.16. | function standby 1 phase after 5 s | Accuracy < 5 ppm |
| 1.18.21.17. | detection of energy direction and phase voltage | Backup time (power reserve) |
| 1.18.21.18. | after 2 to 3 s | with supercap > 20 days |
| 1.18.22. | **Power Consumption** | charging time for max. backup time 300 h |
| 1.18.22.10. | Power consumption per phase in voltage circuit | with battery (optional) 10 years |
| 1.18.22.11. | phase voltage 58 V 100 V 240 V | battery type CR-P2 |
| 1.18.22.12. | active power (typical) 0.4 W 0.5 W 0.7 W | **Display** |
| 1.18.22.13. | apparent power (typical) 0.8 VA 1.0 VA 1.7 VA | Characteristics |
| 1.18.22.14. | Power consumption per phase in current circuit | type LCD liquid crystal display |
| 1.18.22.15. | phase current 1 A 5 A 10 A | digit size in value field 8 mm |
| 1.18.22.16. | active power (typical) 5 mW 0.125 W 0.5 W | number of digits in value field up to 8 |
| 1.18.22.17. | apparent power (typical) 5 mVA 0.125 VA 0.5 VA | digit size in index field 6 mm |
| 1.18.23. | **Environmental Influences** | number of digits in index field up to 8 |
| 1.18.23.10. | Temperature range to IEC 62052-11 | **Inputs and Outputs** |
| 1.18.23.11. | operation –25 °C to +70 °C | Control inputs |
| 1.18.23.12. | storage –40 °C to +85 °C | control voltage US 100 to 240 VAC |
| 1.18.23.13. | Temperature coefficient | input current < 2 mA ohmic at 230 VAC |
| 1.18.23.14. | range –25 °C to +70 °C | Output contacts |
| 1.18.23.15. | average value (typical) ± 0.012% per K | type solid state relay |
| 1.18.23.16. | at cosϕ=1 (from 0.05 Ib to Imax) ± 0.02% per K | voltage 12 to 240 VAC/DC |
| 1.18.23.17. | at cosϕ=0.5 (from 0.1 Ib to Imax) ± 0.03% per K | max. current 100 mA |
| 1.18.23.18. | Impermeability to IEC 60529 IP51 | max. switching frequency (pulse length 20 ms) 25 Hz |
| 1.18.24. | **Electromagnetic Compatibility** | Optical test outputs active and reactive energy |
| 1.18.24.10. | Electrostatic discharges to IEC 61000-4-2 | type red LED |
| 1.18.24.11. | contact discharge 15 kV | number 2 |
| 1.18.24.12. | Electromagnetic RF fields to IEC 61000-4-3 | meter constant selectable |
| 1.18.24.13. | 80 MHz to 2 GHz 10 and 30 V/m | |
| 1.18.24.14. | Radio interference suppression according to IEC/CISPR 22 class B | |
| 1.18.25. | **Communication Interface** | Suspension triangle |
| 1.18.25.10. | Optical interface to IEC 62056-21 | height (with extended hook) 230 mm |

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| 1.18.25.11. | type serial, asynchronous, half-duplex | height (suspension eyelet open) 206 mm |
| 1.18.25.12. | max. transmission rate 9600 bps | height (suspension eyelet covered) 190 mm |
| 1.18.25.13. | protocols IEC 62056-21 and dlms | width 150 mm |
| 1.18.25.14. | Communication Units | Terminal cover |
| 1.18.25.15. | Exchangeable communication units for various applications. | short no free space |
| 1.18.26. | **Additional Power Supply (optional)** | standard 40 mm free space |
| 1.18.26.10. | On Extension Board 045x | long (opaque, transparent) 60 mm free space |
| 1.18.26.11. | nominal voltage range 100 to 240 VAC/DC | GSM 60 mm free space |
| 1.18.26.12. | tolerance 80 to 115% Un | ZxB-type 80 mm 80 mm free space |
| 1.18.26.13. | frequency 50 or 60 Hz | ZxB-type 110 mm 110 mm free space |
| 1.18.26.14. | max. power consumption 6.8 W | RCR/FTY adapter |
| 1.18.26.15. | On Extension Board 046x | **Material housing** |
| 1.18.26.16. | nominal voltage range 12 to 24 VDC | Polycarbonate, partly glass-fibre reinforced |
| 1.18.26.17. | tolerance 80 to 115% Un | **Connections** |
| 1.18.26.18. | max. power consumption 3.5 W | Phase connections |
| 1.18.27. | **Weight and Dimensions** | type screw type terminals |
| 1.18.27.10. | Weight approx. 1.5 kg | diameter 5.2 mm |
| 1.18.27.11. | External dimensions | recommended conductor cross section 4 to 6 mm2 |
| 1.18.27.12. | width 177 mm | screw head Pozidrive Combi No. 2 |
| 1.18.27.13. | height (with short terminal cover) 244 mm | screw dimensions M4 x 8 |
| 1.18.27.14. | height (with standard terminal cover) 281.5 mm | screw head diameter ≤ 5.8 mm |
| 1.18.27.15. | height (with extended hook) 305.5 mm | tightening torque < 1.7 Nm |
| 1.18.27.16. | depth 75 mm | Other connections<br>type screwless spring-type terminal<br>max. current of voltage outputs 1 A<br>max. voltage of inputs 250 V |
| 1.19. | **E65C CU-L52 MODEM – communication units -**<br>  | |

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| 1.19.1. | **Design** | Functions |
| 1.19.1.10. | Type GSM/UMTS RS485 Modem | Time window and time master functions |
| 1.19.1.11. | CU-U52 | SMS forwarding of alarm messages(only if fitted in meter) |
| 1.19.1.12. | Supported communication protocols | Modem initialisation and data flow control Hardware watchdog |
| *1.19.1.13.* | - IEC 62056-21 and DLMS | Communication monitoring and logging |
| *1.19.1.14.* | - TCP/IP | GSM/UMTS module |
| *1.19.1.15.* | - IPT (according to DIN 43863) | Type Telit UE910-EUD |

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| 1.19.2. | **Fitting** | Frequency bands |
| *1.19.2.10.* | - Directly in meter (E650 ZxD300/400xT or E850 ZxQ) | - GSM/GPRS/EDGE 900 and 1800 MHz<br>- UMTS/HSPA 900 and 2100 MHz |
| *1.19.2.11.* | - In CU adapter CU-ADP2 (for other meters) | Output power |
| 1.19.3. | **Features** | - 2 W/class 4 at GSM/EGSM 900 MHz |
| *1.19.3.10.* | - EMC conformance for the combination of meter and modem for electrical metering equipment and industrial environments | - 1 W/class 1 at GSM/EGSM 1800 MHz<br>- 0.5 W/class E2 at EDGE 900 MHz<br>- 0.4 W/class E2 at EDGE 1800 MHz |
| *1.19.3.11.* | - Two independent channels for meter access | - 0.25 W/class 3 at UMTS 900/2100 MHz |
| *1.19.3.12.* | - Configuration without additional software tools other than .MAP Service Tool | SIM card |
| *1.19.3.13.* | - Configuration using only an optical head. | SIM 1.8/3 V exchangeable from outside |
| *1.19.3.14.* | - Remote updatable firmware for the microcontroller | **RS485 interface** |
| 1.19.4. | **Power consumption** | Characteristics |
| 1.19.5. | **Maximum active/apparent power 4.0 W/7.3 VA** | Symmetrical, serial, asynchronous, bi-directional interface (master or slave depending on parameterisation) |
| 1.19.6. | **GSM/UMTS Modem** | Standard ISO-8482 |
| 1.19.7. | **Operating modes GSM or UMTS** | Maximum number of slaves 31 |
| 1.19.8. | **Standards and approvals** | Maximum transmission rate 57,600 bps |
| 1.19.8.10. | Complies with the essential requirements of the1995/5/EC directive (R&TTE) R&TTE Article 3.2 | Maximum line length<br>- Up to 250 m at max. 57,600 bps, max. 31 Slaves |
| *1.19.8.11.* | - ETSI EN 301 511 v9.0.2<br>-ETSI EN 301 908-1 v5.2.1<br>- ETSI EN 301 908-2 v5.2.1<br>R&TTE Article 3.1b | - Up to 550 m at max. 38,400 bps, max. 31 Slaves<br>- Up to 1000 m at max. 19,200 bps, max. 15 Slaves |
| *1.19.8.12.* | - ETSI EN 301 489-1 v1.9.2<br>- ETSI EN 301 489-7 v1.3.1<br>- ETSI EN 301 489-24 v1.5.1 | **LED displays**<br>LEDs RX and TX<br>Indication of data flow and field strength level |
| 1.19.8.13. | Health R&TTE Article 3.1a | LED CON |
| *1.19.8.14.* | - EC 62311:2008 | Indication of connection status |
| 1.19.8.15. | Safety IEC EN 62052-11:2003 (Electricity Metering Equipment) | LED MODE<br>Indication of operating mode (GSM, GPRS, UMTS) |
| *1.19.8.16.* | - 3GPP Release 7 Compliant | |
| *1.19.8.17.* | - GPRS class 10 (maximum) | |
| *1.19.8.18.* | - EGPRS class 33 (maximum) | |
| *1.19.8.19.* | - WCDMA up to 384 kbps down/uplink | |
| *1.19.8.20.* | - HSPA category 8 downlink/category 6 uplink | |
| 1.19.9. | **Covert GSM Multiband Omni-directional Antenna 824-960MHz and 1710-2200MHz** | |
| 1.19.10. | **ELECTRICAL:** | |
| 1.19.10.10. | Frequency in MHz: 824-960 & 1710–2200 | |
| 1.19.10.11. | Gain (Max): 2 dBi | |
| 1.19.10.12. | VSWR: < 2.5:1 | |
| 1.19.10.13. | Feed Power Handling: 10 W E-Plane 3 dB Beamwidth: 40° (± 5°) | |

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| 1.19.10.14. | H-Plane 3 dB Beamwidth: 360° |  |
| 1.19.10.15. | Front to Back: — | |
| 1.19.10.16. | Nominal Input Impedance: 50 Ohm<br>Polarisation: Linear (Vertical) | |
| 1.19.11. | **MECHANICAL:** | |
| 1.19.11.10. | Dimensions (L x W x D): 16 cm x 2,5 cm x 1 cm | |
| 1.19.11.11. | Packaged Weight: Weight: 15 g | |
| 1.19.12. | **ENVIRONMENTAL:** | |
| 1.19.12.10. | Wind Survival: 160 km/h | |
| 1.19.12.11. | Temperature Range (Operating): - 10° C to +50° C | |
| 1.19.12.12. | Thermal Shock: - 10° C to +50° C : 10 cycles | |
| 1.19.13. | **INCLUDED WITH PRODUCT:** | |
| 1.19.13.10. | Mounting Bracket: — | |
| 1.19.13.11. | Cable Length: 2M RG174 cable | |
| 1.19.13.12. | Connector: MMCX (m) | |

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| 1.20. | **SG101 IS AN INDUSTRIAL GPRS/EDGE/3G MODEM**<br>**The SG106; industrial GPRS/EDGE/3G modem for Landis+Gyr E460S single phase meter with BS terminal configuration. (or compatible)**<br>  | |
| 1.20.1. | **TECHNICAL SPECIFICATIONS** | **Description** |
| 1.20.2. | **Communication** | |
| 1.20.2.1. | Communication network | GSM/GPRS/EDGE/3G. Automatically connect to fastest network.<br>Dual SIM's for network redundancy<br>High sensitivity GPS 1.575 GHz with internal and external antenna (built-option) |
| 1.20.2.2. | Security | CHIP SIMs for theft prevention and/or Plastic nano SIMs 1.8V/3.3V.<br>Multiple security levels and firewall preventing unauthorized access. |
| 1.20.2.3. | Protocol | Transparent serial ports for pass through<br>MQTT and SMS to Device Management Software Application of mobile phone<br>Additional protocols can be implemented on request. |
| 1.20.3. | **Visual indications** | |
| 1.20.3.1. | Communication network | Tri-color (Red/Yellow/Green) GSM signal strength, network activity, TCP link status, TX/RX of IP connection. |
| 1.20.3.2. | External communication | RS485 TX/RX indication |
| 1.20.4. | **External interfaces** | |
| 1.20.4.1. | Communication network | GSM/GPRS/3G antenna connector SMA |
| 1.20.4.2. | External communication | 1 x RS485 serial port 2-wire A/B up to 32 E460 meters can be connected |
| 1.20.5. | **Power and Mechanical** | |
| 1.20.5.1. | Power source | Powered directly from the meter supply of 85Vac-265Vac |

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| 1.20.5.2. | Wiring interface | RJ12 connector for Serial port |
| 1.20.5.3. | Dimensions | Height: 64mm, Depth: 55mm, Width: 120mm |
| 1.20.5.4. | Housing | Polycarbonate certified for the specified operating environment.<br>IP54 against water and dust. |
| 1.20.5.5. | Mounting | 2 x screw holes for mounting inside the meter terminal cover |
| 1.20.6. | **Environmental** | |
| 1.20.6.1. | Temperature ranges | Operating: - 25ºC to +70ºC ambient, Storage: - 40ºC to +85ºC |
| 1.20.6.2. | Humidity range | 0 % to 95 % non-condensing |
| 1.20.7. | **Certification** | |
| 1.20.7.1. | EMC and Environmental | ETSI EN 301 489-1 : EMC and Radio spectrum Matters (ERM)<br>EN 55022/SANS 222/CISPR22 : Radiated Emission<br>SANS/IEC 61000-4-2 : Electrostatic discharge immunity<br>SANS/IEC 61000-4-3 : Radiated immunity<br>SANS/IEC 61000-4-6 : Immunity to conducted disturbances<br>SANS/IEC 60068-2: Environmental test. Temperature cycling, shock, vibration.<br>SANS/IEC 60529: Ingress Protection |
| 1.20.8. | Regulatory | ICASA, MTN, Vodacom |
| 1.20.9. | Quality System | ISO9001:2008 Design and production facility |
| 1.21. | **SG101 is an industrial GPRS/EDGE/3G modem for Landis+Gyr for E460S single phase Din Rail Meter (or compatible)**<br>  | |
| 1.21.1. | **Item Description** | |
| 1.21.2. | **Communication** | Communication network GSM/GPRS/EDGE/3G. Automatically connect to fastest network.<br>Dual SIM's for network redundancy (built-option)<br>High sensitivity GPS 1.575 GHz with internal and external antenna (built-option) |
| 1.21.2.1. | Security | CHIP SIM for theft prevention or Plastic micro SIM 1.8V/3.3V. (built-option)<br>Multiple security levels and firewall preventing unauthorized access. |
| 1.21.2.2. | Protocol | Transparent serial ports for pass through XML and SMS to Device Management Software Application DNP3.0 Level 2 to SCADA (built-option) Additional protocols can be implemented on request. |
| 1.21.2.3. | Visual indications | |
| 1.21.2.4. | Communication network | Tri-color (Red/Yellow/Green) GSM signal strength, network activity, TCP link status, TX/RX of IP connection, GPS activity and lock |
| 1.21.2.5. | External communication | RS232/RS485 TX/RX per port indication |
| 1.21.2.6. | Device health | Power supply health, battery status, inputs/outputs status |
| 1.21.3. | **External interfaces** | |
| 1.21.3.1. | Communication network | GSM/GPRS/3G antenna connector SMA |
| 1.21.3.2. | | GPS antenna connector MMCX (built-option) |
| 1.21.3.3. | External communication | 1 x RS232 full port TX, RX, CTS, RTS, DCD, GND<br>1 x RS232 TX, RX, GND<br>1 x RS485 2-wire A/B |

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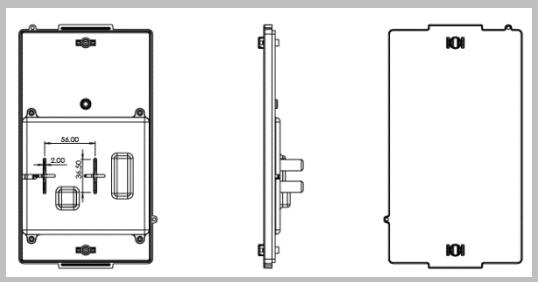
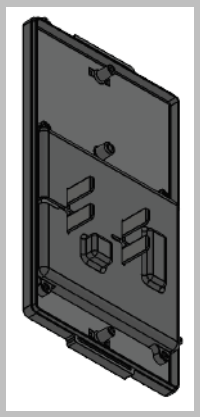
| | | Industry standard IEC 62056-21 optical serial port for local configuration |
| 1.21.3.4. | Discreet inputs/outputs | 2 x Digital Inputs<br>2 x Digital Outputs |
| 1.21.4. | **Power and Mechanical** | |
| 1.21.4.1. | Power source | Powered from the application e.g. meter auxiliary supply of 12Vdc, 300mA<br>External DC voltage supply of 6Vdc to 32Vdc<br>85Vac-264Vac DIN Rail Power supply (built-option) |
| 1.21.4.2. | Power backup capacity | Rechargeable battery with 2-3 hours full communication capacity (built-option)<br>5 days in low power mode, monitoring inputs with periodic health check<br>10 years in low power mode with external battery pack (built-option) |
| 1.21.4.3. | Wiring interface | Screw terminals for DIO and power, RJ45 for Serial port |
| 1.21.4.4. | Dimensions | Height: 101.4mm, Depth: 18-22mm, Width: 64mm |
| 1.21.4.5. | Housing | Polycarbonate certified for the specified operating environment IP51 against water and dust. |
| 1.21.4.6. | Mounting | DIN rail, back or side mount 2 x screw holes for panel mount |
| 1.21.5. | **Environmental** | |
| 1.21.5.1. | . Temperature ranges | Operating: - 25oC to +65oC ambient, Storage: - 40oC to +85oC |
| 1.21.5.2. | Humidity range | 0 % to 95 % non-condensing |
| 1.21.6. | **Certification** | |
| 1.21.6.1. | Protocol | DNP3.0 certified stack tested to Subset Level 2 (Firmware-option) |
| 1.21.6.2. | EMC | ETSI EN 301 489-1 : EMC and Radio spectrum Matters (ERM)<br>EN 55022/SANS 222/CISPR22 : Radiated Emission<br>SANS/IEC 61000-4-2 : Electrostatic discharge immunity<br>SANS/IEC 61000-4-3 : Radiated immunity<br>SANS/IEC 61000-4-6 : Immunity to conducted disturbances |
| 1.21.6.3. | Regulatory | ICASA, MTN, Vodacom |
| 1.21.6.4. | Quality System | ISO9001:2008 Design and production facility |
| 1.22. | **Blanking plates for Common base bases**<br>  <br>  | |

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| Capacity | | Date | |
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| 2. | **Meter Seals Overstrand** | |
| 2.1. | **Colours** | SP1-Yel Quick Seal Yellow, red, blue |
| 2.1.1. |  | |

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| 3. | **LIGHTING** | |
| 3.1. | **Acrylic art lighting cone art A-BFH45-04** |  |
| 3.2. | **FESTIVE ROPE LIGHTS 2 & 3 WIRE AND CONTROLLERS & ACCESSORIES (This section 3.2 will)be evaluated and awarded as one item)** | |
| 3.2.1. | **ROPE LIGHT TWO WIRE ROPE LIGHT** | |
| a. | No of wires 2 core | |
| b. | Diameter 13mm round | |
| c. | 1 x 50m roll | |
| d. | Voltage – 220/240 volt | |
| e. | Cutting line 1 meter | |
| f. | Maximum loading 100 m | |
| g. | Bulb specification 6.5 volt-0.07 amp-0.46 watt | |
| h. | Number of bulbs / unit 36 per meter | |
| i. | Power consumption 16.56 watts per meter | |
| 3.2.2. | **THREE WIRE ROPE LIGHT** | |
| a. | No of wires 3 core | |
| b. | Diameter 13mm round | |
| c. | Length per roll 50 meter | |
| d. | Voltage 220 / 240 volt | |
| e. | Cutting line 2 meter unit | |
| f. | Maximum loading 100m | |
| g. | Bulb specification 6.5 volt-0.06 amp-0.39 watt | |
| h. | Number of bulbs per unit 72 per meter | |
| i. | Power consumption 28.8 watt per meter | |

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| 3.3. | **COLOURS AS PER REQUIREMENT** | |
| a. | STANDARD COLOURS | Clear, Red, Yellow, Blue, Green, Aqua Blue, Hellfire, Dark Grey, Sakura Pink, Orange, Purple, Fluorescent Green, Fluorescent Orange, Fluorescent Pink |
| b. | PEARL COLOURS | White (pearl), Red, Yellow, Blue, Green (Sea), Orange, Pink |
| c. | MULTI COLOUR | Red, Green, Blue |
| 3.4. | **CONTROLLERS**. | |
| a. | WI5C 6 Function Heavy Duty Controllers Loading length 100 m - 220/240 volt - 15 amp (or compatible) | |
| b. | Function settings | |
| c. | Static | |
| d. | FW Chasing | |
| e. | Flashing | |
| f. | Fading | |
| g. | Scanning Automatic Cycling | |
| h. | Sound/ Activated Chasing/Automatic Cycling | |
| i. | WI310 – 13m X 3 Wire – 12 Meter Loading Length Mini Controllers 2 channel chasing movement Fast or slow moving setting1.2 AMP (or compatible) | |
| 3.5. | **FLEXI LIGHT ACCESSORIES** | |
| a. | M1&M2 - 2M BLACK POWER CORD WITH POWER CONNECTOR FOR MINI FLEXILIGHT. W/2 PINS- ROUND PLUG (or compatible) | |
| b. | F1&F2 - 2M BLACK POWER CORD WITH POWER CONNECTOR FOR INSTANT FLEXILIGHT. W/2 PINS-ROUND PLUG(or compatible) | |
| c. | C1&C2 - 2M BLACK POWER CORD WITH POWER CONNECTOR FOR CHASING FLEXILIGHT, W/2-PINS ROUND PLUG(or compatible) | |
| d. | M2 - POWER CONNECTOR MINI FLEXILIGHT(or compatible) | |
| e. | F2 - POWER CONNECTOR FOR INSTANT FLEXILIGHT(or compatible) | |
| f. | C2 - POWER CONNECTOR FOR CHASING FLEXILIGHT(or compatible) | |
| g. | M3 - SPLICE CONNECTOR FOR MINI FLEXILIGHT(or compatible) | |
| h. | F3 - SPLICE CONNECTOR FOR INSTANT FLEXILIGHT(or compatible) | |
| i. | C3 - SPLICE CONNECTOR FOR CHASING FLEXILIGHT(or compatible) | |
| j. | M4 - END CAP FOR MINI FLEXILIGHT (100PCS = 1 PKT) (or compatible) | |
| k. | F4 - END CAP FOR INSTANT FLEXILIGHT (100PCS = 1 PKT) (or compatible) | |
| l. | C4 END CAP FOR CHASING FLEXILIGHT (100PCS = 1PKT) (or compatible) | |
| m. | M9 - EASY SPLICE CONNECTOR FOR MINI FLEXILIGHT(or compatible) | |
| n. | F9 - EASY SPLICE CONNECTOR FOR INSTANT FLEXILIGHT(or compatible) | |
| o. | C9 - EASY SPLICE CONNECTOR FOR CHASING FLEXILIGHT(or compatible) | |

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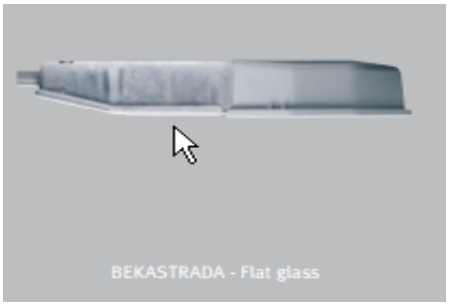
| 4. | **STREET LIGHTING LUMINAIRES TO SABS 1277 AND 1088 NB: BEKA COMPATIBLE (Item 3 on Pricing Schedule)**<br>**High wattage streetlight luminaire designed for lighting of group 'A' roads where efficiency, excellent optical control and ease of maintenance is required.**<br>**This section 4 will)be evaluated and awarded as one item** |
| 4.1. |  |

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| a. | BEKASTRADA FLAT GLASS VERSION |
| b. | The luminaire shall consist of a separate lamp, gear and spigot compartment. |
| c. | It shall be designed to operate 150/250/400W high-pressure sodium/metal halide tubular lamps. |
| d. | The luminaire shall bear the SABS 1277 mark and the SABS IEC 60598 safety mark. |
| e. | Luminaire spigot entries shall comply with SABS 1088 - Table 1. |
| f. | Side entry - 42mm ø x 125mm |
| g. | Bottom entry - 76mm ø x 75mm |
| h. | The luminaire shall have a degree of protection that complies with SABS |
| i. | 1222 and SABS 098: Part 1 - 1990 Code of Practice Table B-1: |
| j. | Lamp compartment: IP66 |
| k. | Control gear compartment: IP66 |
| l. | The IP ratings shall be certified by a SABS test report. |
| m. | The housing shall be robustly constructed, , hail proof, corrosion proof and vandal resistant. |
| j. | It shall be manufactured from filled ultra-violet stabilized engineering polymer and shall be grey in colour. |
| k. | 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. |
| l. | 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. |
| m. | It shall remain attached to the housing when hinged open. |
| n. | The gasket sealing the lamp compartment shall be made of silicon sponge rubber and shall be fitted into a tongue and groove arrangement. |
| o. | Reflectors shall be manufactured from 99,98% super pure deep anodized aluminium and shall not be subject to accidental misalignment. |
| p. | A special reflector system for tubular lamps shall ensure optimum high performance. |
| q. | 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. |
| r. | The separate control gear compartment shall be manufactured from high pressure die-cast 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. |
| s. | Access to the gear compartment shall be gained from underneath by loosening one captive stainless steel screw. |
| t. | 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. |
| u. | 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. |
| v. | All control gear components shall be removable and bear the relevant SABS mark. |
| w. | All internal wiring shall be Teflon® coated with protective sleeving to prevent damage by possible abrasion. |
| x. | All screws, bolts and metal parts shall be stainless steel or non-corrosive material. |
| y. | Ignitors, where applicable, shall be of the superposed pulse type |
| z. | The luminaire shall be power factor corrected to a minimum of 0,9 |
| aa. | The separate spigot compartment shall house the screw terminal block and wire clamp. |
| bb. | No access to the control gear compartment shall be required for installation, thus possible damage to the control gear shall be avoided. |
| cc. | An optional down facing miniature daylight switch shall be fitted into this compartment, giving it protection against UV and ensuring extended service. |

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| 4.2. | **BEKASTRADA**<br>**High wattage street light luminaire designed for lighting of group 'A' roads where efficiency, optical control and ease of maintenance are required.** |
| 4.2.1. |  |
| a. | The luminaire shall consist of a separate lamp, control gear and spigot compartment. |
| b. | The control gear housing shall be separated from the lamp housing for thermal reasons. |
| c. | It shall be designed to operate 250/400W mercury vapour and 150/250/ 400W high pressure sodium/metal halide lamps. |
| d. | The luminaire shall bear the SANS 475 mark and the SANS 60598-2-3 safety mark. |
| e. | Luminaire spigot entries shall comply with SANS 1088 - Table 1. |
| f. | Side entry - ø42mm x 125mm. |
| g. | Bottom entry - ø76mm x 75mm. |
| h. | The luminaire shall have a degree of protection that complies with SANS 60598-2-3. |
| i. | Lamp compartment: IP66 |
| j. | Gear compartment: IP66. |
| k. | The IP rating shall be certified by a SABS test report. |
| l. | 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. |
| m. | 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. |
| n. | 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.) |
| o. | It shall remain attached to the housing when hinged open. |
| p. | The gasket sealing the lamp compartment shall be made of silicon sponge rubber and shall be fitted into a tongue-and-groove arrangement. |
| q. | Reflectors shall be manufactured from 99.98% super pure deep anodized aluminium and shall not be subject to accidental misalignment. |
| r. | 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. |
| s. | The control gear compartment shall be manufactured from high pressure die cast aluminium to ensure excellent heat dissipation and optimum strength. |
| t. | 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. |
| u. | 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. |
| v. | 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. |
| w. | 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. |
| x. | The separate spigot compartment shall house the screw terminal block and wire clamp. |
| y. | No access to the control gear compartment shall be required for installation, thus possible damage to the control gear shall be avoided. |
| z. | An optional down facing miniature daylight switch can be fitted into this compartment, giving it protection against UV and ensuring extended service. |

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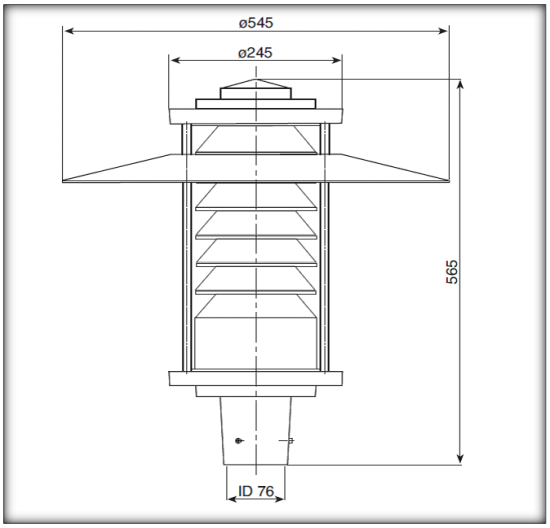
| 4.3. | **BEKA SHINE: DECORATIVE LED & HPS POST TOP** |
| 4.3.1. |  |
| a. | Only offers for Post Top Luminaires which are manufactured in South Africa and supported by the original South African manufacturer, with maintenance facilities and spare parts located in the Western Cape will be considered |
| b. | Tenderers shall submit a summary of the percentage of local content with their offered product. |
| c. | The LED luminaire shall be designed to meet the lighting criteria for Group 'B' roads as required. |
| d. | 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 |
| e. | Both the top cover and 545mm diameter glare shield shall be robustly constructed, weather-proof, hail-proof, corrosion proof and vandal resistant. |
| f. | 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. |
| g. | 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. |
| h. | 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. |
| i. | 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. |
| j. | Luminaire spigot entries shall comply with SABS 1088 - Table 1 for Type 2: 76mm Ø x 75mm |
| k. | The luminaire shall bear the SANS 60598-2-3 safety mark. |
| l. | The luminaire shall have a degree of protection that complies with SANS 60598-2-3: |
| m. | Lamp compartment: IP65 |
| n. | The IP rating is certified by an SABS test report. |
| o. | Minimum LED lifetime of 50 000 hours with guaranteed flicker free lighting. |
| p. | Effective high-power OSRAM LED, 4 500K at a colour rendering index >80. |
| q. | 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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| 4.4. | **LED STREET LIGHTS**<br>**THE LED LUMINAIRE SHALL BE DESIGNED TO MEET THE LIGHTING CRITERIA FOR GROUP 'A' ROADS.**<br>**THE LUMINAIRE SHALL BE DESIGNED IN ACCORDANCE WITH THE FOLLOWING REQUIREMENTS:** |
| a. |  |
| b. | Design life: In excess of 25 years |
| c. | 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. |
| d. | 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. |
| e. | The luminaire shall incorporate a surge protection device of 10kA minimum. |
| f. | Minimum IP rating of the light compartment, including driver compartment: IP66 |
| g. | The protector shall be smooth, for easy cleaning, and shall be manufactured of tempered glass (IK08) or high-impact acrylic (IK10). |
| h. | 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. |
| i. | 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. |
| j. | 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). |
| k. | 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. |
| l. | 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. |
| m. | LED drive current. |
| n. | LED manufacturer data that clearly correlates LED junction temperature and LED drive current to lumen maintenance. |
| o. | The LED datasheets, indicating the Byy, Lxx data, as provided by the LED manufacturer. |
| p. | Documentary evidence, confirming that the failure of one LED will not cause additional LED's to fail. |
| q. | Direct conduction & maximized surface for external heat exchange shall be provided. |
| r. | 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. |
| s. | 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. |
| t. | The control gear compartment shall be incorporated into the luminaire housing. |
| u. | The power supply connection must take place inside the luminaire |
| v. | The luminaire shall automatically disconnect the supply to the power supply once the luminaire is opened. |
| w. | The luminaire manufacturer shall be based in the Republic of South Africa |

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| 4.5. | **BEKAWAY**<br>**DESIGNED FOR RESIDENTIAL ROAD LIGHTING AND GENERAL AREA LIGHTING, WHERE BOTH VANDAL RESISTANCE, AND EFFICIENCY ARE REQUIRED.** |
| 4.5.1. |  |
| a. | 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. |
| b. | It shall be also available in a wall bracket version. |
| c. | The luminaire shall bear the SANS 475 performance mark and the SANS 60598-2-3 safety mark. |
| d. | Luminaire spigot entries shall comply with SANS 1088 - Table 1 for Type 2: ø76mm x 75mm. |
| e. | The luminaire shall have a degree of protection that complies with SANS 60598-2-3: Lamp compartment: IP65 |
| f. | The IP rating shall be certified by a SABS test report. |
| g. | 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. |
| h. | 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. |
| i. | The spigot base shall be manufactured from high pressure die cast aluminium and powder coated for added protection in the colour specified. |
| j. | The luminaire shall be secured to the pole by three M8 stainless steel grub screws |
| k. | 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. |
| l. | 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. |
| m. | It shall be smooth on the outside, but have internal prisms to reduce the direct glare component. |
| n. | A drip ridge shall be provided at the bottom edge to prevent direct rain water contact with the gasket. |
| o. | The control gear shall be incorporated inside the luminaire and mounted on a removable gear tray. |
| p. | It shall be suitable for operation with the specified rating of the lamp on a 230V +3%/-10% 50Hz single phase system. |
| q. | All screws, bolts and metal parts shall be stainless steel or anti-corrosion treated material. |
| r. | Ignitors, where applicable, shall be of the superposed pulse type |
| s. | The luminaire shall be power factor corrected to a minimum of 0,9 |

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| 4.6. | **BEKALANE**<br>**DESIGNED FOR THE LIGHTING OF RESIDENTIAL ROADS WHERE HIGH PERFORMANCE AND HIGH INGRESS PROTECTION IS REQUIRED.** |
| 4.6.1. |  |
| a. | The luminaire shall consist of a separate lamp, gear and spigot compartment. |
| b. | It shall be designed to operate 2*26W compact fluorescent, 80/125W mercury vapour and 70/100/150W high pressure sodium/metal halide lamps. |
| c. | The luminaire shall bear the SANS 475 performance mark and the SANS 60598-2-3 safety mark. |
| d. | Luminaire spigot entries shall comply with SANS 1088 - Table 1. |
| e. | Side entry - ø42mm x 125mm. |
| f. | Bottom entry - ø76mm x 75mm. |
| g. | The luminaire shall have a degree of protection that complies with SANS 60598-2-3. Lamp compartment: IP66 Gear compartment: IP66 |
| h. | The IP ratings shall be certified by SABS test reports. |
| i. | 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. |
| j. | 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. |
| k. | 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. |
| l. | It shall remain attached to the housing when hinged open. |
| m. | The gasket sealing the lamp compartment shall be made of silicon sponge rubber and shall be fitted into a tongue and groove arrangement. |
| n. | Reflectors shall be manufactured from 99, 98% super pure deep anodised aluminium and shall not be subject to accidental misalignment. |
| o. | 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. |
| p. | 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. |
| q. | Access to the gear compartment shall be gained from underneath by loosening one captive stainless steel screw (nylon in the double insulated version). |
| r. | 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. |
| s. | 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. |
| t. | 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. |
| u. | The luminaire shall be power factor corrected to a minimum of 0,9. |
| v. | The separate spigot compartment shall house the screw terminal block and wire clamp. |
| w. | No access to the control gear compartment shall be required for installation, thus possible damage to the control gear shall be avoided. |
| x. | An optional down-facing miniature daylight switch can be fitted into this compartment, giving it protection against UV and ensuring extended service. |

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| 4.7. | **BEKARAY** |
| 4.7.1. |  <br>**DESIGNED FOR DECORATIVE RESIDENTIAL ROAD LIGHTING AND GENERAL AREA LIGHTING.** |
| a. | 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. |
| b. | The luminaire shall bear the SANS 475 performance mark and the SANS 60598-2-3 safety mark |
| c. | Luminaire spigot entries shall comply with SANS 1088 - Table 1 for Type 2: ø76mm x 75mm. |
| d. | The luminaire shall have a degree of protection that complies with SANS 60598-2-3: Lamp compartment: IP65 |
| e. | The IP rating shall be certified by a SABS test report. |
| f. | 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. |
| g. | A silicon sponge gasket shall be fixed into a groove to seal the top cover against the diffuser to IP65 |
| h. | The spigot base shall be manufactured from high pressure die cast aluminium and powder coated for added protection in the colour specified. |
| i. | The luminaire shall be secured to the pole by three M8 stainless steel grub screws. |
| j. | The lamp holder shall comply with VC8011, be rated to withstand 240°C/5kV and prevent loosening of the lamp caused by vibrations. |
| k. | 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. |
| l. | A drip ridge shall be provided at the bottom edge to prevent direct rain water contact with the gasket.3 |
| m. | The control gear shall be incorporated inside the luminaire and mounted on a removable gear tray |
| n. | It shall be suitable for operation with the specified rating of the lamp on a 230V +3% /-10% 50Hz single phase system. |
| o. | 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. |
| p. | All screws, bolts and metal parts shall be stainless steel or of non-corrosive material. |
| q. | 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. |
| r. | The luminaire shall be power factor corrected to a minimum of 0,9 |

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| 4.8. | **BEKALUX** |
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| 4.8.1. |  <br>***DESIGNED FOR LIGHTING OF GROUP 'B' ROADS WHERE EFFICIENCY, EASE OF MAINTENANCE AND ECONOMY ARE REQUIRED*** |
| a. | 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. |
| b. | The luminaire shall bear the SANS 475 mark and the SANS 60598-2-3 safety mark. |
| c. | Luminaire spigot entries shall comply with SANS 1088 - Table 2. |
| d. | Side entry - ø42mm x 125mm long. |
| e. | Bottom entry - ø76mm x 75mm deep. |
| f. | The luminaire shall have a degree of protection that complies with SANS 60598-2-3. |
| g. | Lamp compartment: IP65 Control gear compartment: IP43 |
| h. | The IP rating shall be certified by a SABS test report. |
| i. | The housing shall be robustly constructed, weather-proof, hail-proof, corrosion proof and vandal resistant. |
| j. | 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 |
| k. | It shall remain attached to the housing when hinged open |
| l. | The gasket sealing the lamp compartment shall be made of silicon sponge rubber and shall be fitted into a tongue and groove arrangement. |
| m. | Reflectors shall be manufactured from 99,98% super pure deep anodised aluminium and shall not be subject to accidental misalignment |
| n. | The lamp holder shall comply with VC 8011, be rated to withstand 240° C and shall prevent loosening of the lamp caused by vibrations |
| o. | 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) |
| p. | 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 |
| q. | All control gear components shall be removable and shall bear the relevant SABS mark |
| r. | 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 |
| s. | 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.The luminaire shall be power factor corrected to a minimum of 0,85 |

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| 5. | **STREETLIGHT POLES** |
| 5.1. | **STEEL POLES**<br>**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:** |
| a. | 50 year mean return period |
| b. | Category 2, Class B structure |
| c. | Altitude: Sea level |
| d. | 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. |
| e. | 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 |
| f. | Tubular material used to be grade 300MPA to SABS 657, with welding conforming to SABS 1200H, minimum thickness 4mm |
| g. | The poles and all ancillary items are to be hot dipped galvanized to SABS 763 specification or finished as specified |
| 5.1.1. | **Base Plate** |
| a. | 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 |
| b. | For surface mounted poles, the size of the base plates to vary, to suit the height of the poles and luminaire configuration |
| c. | A single cable entry 100 x 500mm wide must be provided 400mm below ground level |
| d. | The planted streetlight poles to be supplied with a ground sleeve of 600mm long, either 3mm or 5mm thick or as required |
| e. | A flush mounted door to be supplied with the poles with allen cap locking method |
| f. | Single and double outreaches to be available with various overhangs and radius. Outreaches are either detachable or fixed to the pole shaft |
| g. | All luminaire spigots are to be in accordance with SABS 1088-1978 "Luminaire Entries and Spigots" with an Ø of 76mm |
| 5.1.2. | **CONCRETE POLES** |
| a. | Cable entry – 152mm x 152 x 51 – one entry only |
| b. | Switch boxes to have a wooden backboard with dimensions as detailed below and include a PVC plastic door with Allen screws |
| c. | 9.00m |
| d. | 407mm x 127mm x 140mm deep |
| e. | 4.50m – 7.20m |
| f. | 394mm x 114mm x 127mm deep |
| g. | Hot dipped galvanized epoxy coated spigots, Ø 76mm |
| h. | To be designed to comply with the Requirements of SABS 470 – 2003 |

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| 6. | **Solderless Earth Connection** |
| a. | Solderless Earthing for PILC Belted / Screened Cable |
| b. | EAKT 1669 Earthing Kit for 16-120mm Termination |
| c. | Diameter over lead sheath 28 – 39mm |

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| 7. | **CABLES PVC-INSULATED CABLES 600/1000 V GRADE**<br>**PLEASE NOTE: CABLE SHALL BE MANUFACTURED AND SUPPLIED IN ONE LENGTH TO THE LENGTHS SPECIFIED UNLESS THESE LENGTHS EXCEED THE STANDARD DRUM LENGTH** |
| 7.1. | **General** |
| a. | Cables shall be manufactured in accordance with SANS 1507, shall come only from fresh stocks, and shall be constructed as follows |
| b. | Unarmoured cables PVC-insulated/PVC-sheathed |
| c. | Armoured cables PVC-insulated/PVC-bedded/armoured/black extruded PVC outer sheath |
| d. | Single core cables PVC-insulated/unsheathed |
| e. | The conductors shall be of high conductivity annealed stranded copper and the cores may be shaped or circular |
| f. | The insulation shall be general purpose PVC, 600/1 000V Grade |

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| g. | 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 | |
| h. | 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 | |
| i. | Where specified, an earth continuity conductor shall be provided in the armouring in accordance with SANS 1507 | |
| j. | Cables to bear meter marking | |
| 7.2. | **PVC –Sheathed Aluminium Covered Cables** | |
| a. | Aluminium-covered cables shall comprise PVC-insulated copper conductors protected by an aluminium foil tape screen and a PVC sheath | |
| b. | Cable ends shall be made off with compression glands fitted with a neoprene ring to seal the end. | |
| c. | Aluminium sheathed cable shall be installed on surface only using matching saddles installed at suitable intervals to prevent sagging | |
| d. | Where exposed to sunlight, the cable shall have a stabilized black outer sheath | |
| 7.3. | **Paper-Insulated Cables** | |
| a. | Cables shall be manufactured in accordance with SANS 97 and shall come only from fresh stocks | |
| b. | The cable construction shall be impregnated paper-insulated/lead or lead alloy E sheathed/DSTA/PVC bedding /outer PVC sheath | |
| c. | The conductors shall be of high conductivity, annealed, stranded copper that may be shaped or circular | |
| d. | The conductor insulation shall consist of impregnated paper tapes, either pre-impregnated or mass-impregnated with a non-draining compound | |
| e. | 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 | |
| f. | Double steel tape armoured | |
| g. | The cable insulation shall be suitable for the supply voltage specified and the cable must be suitable for a system with an unearthed neutral | |
| 8. | **MINIATURE SUBSTATIONS** | |
| 8.1. | **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 mechanisms | 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. |
| 8.2. | **HIGH VOLTAGE COMPARTMENT** | |
| a. | Ring main Unit | ABB |
| b. | Approved types | ABB Safe Ring CCV 11kV |
| c. | Cable end boxes | Suitable for heat shrink terminations |
| d. | Fuse Ratings | As per mini substation manufacturer recommendations. |
| 8.3. | **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 |

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| e. | Voltage radio (centre tap) | 11500/420V |
| f. | Tap changer: Type<br>Range | Off-load, padlockable.<br>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 |
| 8.4. | **LOW VOLTAGE COMPARTMENT** | |
| 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 | A for 500 kVA |
| 8.5. | **MAIN LV CIRCUIT BREAKER:** | |
| a. | Up to 400kVA (600A) | Heinemann L20B |
| b. | 500kVA (800A) | Heinemann MB 25 |
| 8.6. | **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. |
| 8.7. | **STREETLIGHT CONTROL EQUIPMENT:** | |
| 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. |
| 8.8. | **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 70mm² copper connections between earth bolts and neutral and earth bars. |
| d. | Earth Conductor | Refer item 3.7.2 |

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| 8.9. | **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.)<br>"SS 41", "SS43" (at ring switches of HV ring main unit at SS 42)<br>"MAIN SWITCH" (at main switch in LV compartment)<br>'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<br>"CONNECTED TO 250/5" and (on reverse)<br>"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)<br>"STREET LIGHTS MAIN" (at 63A HRC fuses)<br>"VOLTMETER" (at 6A HRC street light control fuse)<br>"ON OFF PHOTOCELL" (at bypass switch)<br>"CABLE 8 – S/L18" (at street light circuit breaker of feeder no 8 to street light no 18) |
| 8.10. | **INSTALLATION REQUIREMENTS** | |
| 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 |
| 8.11. | **PAINT FOR MINIATURE SUBSTATIONS**<br>**Synlac industrial enamel 5000 series product code: sl 5000 series (or similar approved) A SAMPLE OF THE PROPOSED PRODUCT WILL BE TESTED IN THE TECHNICAL EVALUATION PHASE BEFORE AWARD. A 1 (ONE) LITER SAMPLE MUST BE SUBMITTED WITH THE BID. TEST WILL BE FOR COLOUR MATCH & APPLICATION** | |
| 8.11.1. | **Product Description** | **Mark with X to confirm compliance or not Complies** |
| a. | Premium quality, high gloss air drying industrial enamels | **YES** / **NO** |
| b. | **Colour** | Avocado green |
| c. | **Intended Uses** | Ideal for transformers,<br>May be over coated by itself or other alkyd based coatings. |
| d. | **Features** | High gloss |

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| | | Good exterior durability<br>Very good coverage | | | | |
| e. | **Product Information** | Appearance | Gloss | | | |
| | | Tinting | **TINT BASE (SLB 5000)** or compatible | | | |
| | | Generic type | Modified alkyd | | | |
| | | Solvent type | Aromatic and aliphatic hydrocarbon solvents | | | |
| | | Solids | Approx. 47 % by mass; 30 % by volume | | | |
| | | S G at 23°C | 1,01 kg/ℓ (typical) depending on colour | | | |
| | | Recommended DFT | Min.: 30 µm Max.: 50 µm | | | |
| | | Theoretical spreading rate | 7,5 m²/ at 40 µm DFT | | | |
| | | Supply viscosity at 23 °C | 62 – 65 KU (typical) – varies with addition of colorants | | | |
| | | Flash point | 23°C | | | |
| f. | **Drying time** | **Touch dry** | 30 Mins. at 23 °C | | | |
| | | **Recoating** | 2 *h* at 23 °C | | | |
| | | **Dry to handle** | 6 *h* at 23 °C | | | |
| g. | **Application Environment** | Surface Temperature | Ambient Temperature | Relative Humidity | | |
| | | Min.: 10 °C | Min.: 10 °C | Min: 10% | | |
| | | or 2 °C min. above dew point | | | | |
| | | Max.: 40 °C | Max.: 35 °C | Max.: 85 % | | |
| h. | Packaging 1L, 5L, 25L | | | | | |

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| 9. | **POLE MOUNTED TRANSFORMER** | | | |
| 9.1. | **POLE MOUNTED TRANSFORMER WITH ENCLOSED LV COMPARTMENT 'PINE NUT' FOR COASTAL SPECIFICATIONS** | | | |
| a. | **Transformer Spec** | **Details** | **Transformer Spec** | **Details** |
| b. | **Transformer Type** | SABS 780 | **LV Bushing Location** | Side Mounted |
| c. | **Reference** | New Design | **LV Bushing Type** | Porcelain |
| d. | **Rating** | Kva 100 | **Cable Box HV** | None |
| e. | **Cooling** | ONan | **Cable Box LV** | None |
| f. | **Phase** | 3 | **Corrosion Protection** | Zinc Spray GalvRads |
| g. | **Vector Group** | Dyn 11 | **Final Coat colour** | Avocado |
| h. | **HV Volts** | V 11500 | **Paint thickness** | pm 125 |
| i. | **LV Volts** | V 420 | **Thermometer Pocket** | No |
| j. | **Frequency** | Hz 50 | **Surge Arrestor Brackets** | Yes |
| k. | **Conducting material** | Lv/Hv Cu/CU | **Earthing facility** | Earth Boss |
| l. | **Impendance** | % SANS 780 | **Arcing Horns** | No |
| m. | **No Load Loss** | Watt SANS 780 | **Jacking Pads** | No |
| n. | **Load Loss** | Watt SANS 780 | **Fasteners** | Stainless Steel |
| o. | **Tappings** | % HV ±2.5±5.0 | **Oil Gauge** | None |
| p. | **Temp. Rise** | Deg C Oil/60/65 | **Pressure Valve** | None |
| q. | **Ambient** | Deg C 40 | **Valves** | None |
| r. | **Tank Construction** | Conventional Type – Welded Radiators | **Rollers** | None |
| s. | **Tank Material** | Mild Steel | **Thermometer (oil)** | None |
| t. | **Tank Type** | Welded Sealed | **Thermometer (winding)** | None |
| u. | **Base Type** | Flat Base | **Buchholz** | None |
| v. | **HV Bushing Location** | Side Mounted | **Main LV Compartment** | A None |
| w. | **HV Bushing Type** | Porcelain | **Feeders** | A None |
| x. | **POLE MOUNTED TRANSFORMER WITH ENCLOSED LV COMPARTMENT FOR COASTAL SPECIFICATIONS** | | | |
| y. | **Transformer Spec** | **Details** | **Transformer Spec** | **Details** |
| z. | **Transformer Type** | SABS 780 | **LV Bushing Location** | Side Mounted |
| aa. | **Reference** | New Design | **LV Bushing Type** | Porcelain |
| bb. | **Rating** | kVA 200 | **Cable Box HV** | None |
| cc. | **Cooling** | ONan | **Cable Box LV** | Air Box with Gear (hinged door) |
| dd. | **Phase** | 3 | **Corrosion Protection** | Zinc Spray &GalvRads |
| ee. | **Vector Group** | Dyn 11 | **Final Coat colour** | Avocado |
| ff. | **HV Volts** | V 11500 | **Paint thickness** | pm 125 |
| gg. | **LV Volts** | V 420 | **Thermometer Pocket** | No |
| hh. | **Frequency** | Hz 50 | **Surge Arrestor Brackets** | Yes |
| ii. | **Conducting material** | Lv/Hv Cu/CU | **Earthing facility** | Earth Boss |
| jj. | **Impendance** | % SANS 780 | **Arcing Horns** | No |
| kk. | **No Load Loss** | Watt SANS 780 | **Jacking Pads** | No |
| ll. | **Load Loss** | Watt SANS 780 | **Fasteners** | Stainless Steel |
| mm. | **Tappings** | % HV ±2.5±5.0 | **Oil Gauge** | None |
| nn. | **Temp. Rise** | Deg C Oil/60/65 | **Pressure Valve** | None |
| oo. | **Ambient** | Deg C 40 | **Valves** | None |

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| pp. | **Tank Construction** | Conventional Type – Welded Radiators | **Rollers** | None |
| qq. | **Tank Material** | Mild Steel | **Thermometer (oil)** | None |
| rr. | **Tank Type** | Welded Sealed | **Thermometer (winding)** | None |
| ss. | **Base Type** | Flat Base | **Buchholz** | None |
| tt. | **HV Bushing Location** | Side Mounted | **Main LV Compartment** | A 300 |
| uu. | **HV Bushing Type** | Porcelain | **Feeders** | A 3 X 150 |

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| 10. | **KIOSKS** |
| 10.1. | **POLYETHYLENE KIOSK AND POLE MOUNT ENCLOSURE SPECIFICATIONS**<br>**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**<br>Distribution Kiosks, Polyethylene: 2-Way,4-Way, 6-Way, 9-Way and 12-Way Single/Double Door Kiosks |
| a. | 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 |
| b. | The design of the unit to be such that all external surfaces are "rounded" to prevent buckling |
| c. | Shall be rigidly moulded and have high impact resistance and dielectric strength |
| d. | Kiosk wall thickness shall be at least 4mm throughout |
| e. | LLDPE powder used must be chemically resistant and resistant to deterioration from prolonged contact with soil and/or moisture |
| f. | Must be resistant to abrasion and heat and specifically treated with stabilising additives to provide enhanced UV breakdown resistance |
| g. | Materials used must be free from blow holes and defects |
| 10.2. | **Frame** |
| a. | Root must be moulded incorporating a self-supporting polyethylene equipment mounting panel, so as to decrease the likelihood of condensation |
| b. | The frame must contain a 19mm wooden block board inserted the whole width and length of the frame |
| 10.3. | **Colouring** |
| a. | All Kiosks shall be coloured "Light Grey – UV25." |
| 10.4. | **Doors & Hinges** |
| a. | Must be manufactured from polyethylene |
| b. | Danger labels on the doors must be of the mould-in graphic type |
| c. | Doors must open at least 130 degrees with hinges being an integral part of the moulding process |
| d. | No piano hinges will be accepted |
| e. | Doors to be removable on site for ease of installation, maintenance and replacement (where necessary) |
| f. | Stainless steel standard pad lockable facilities to be provided for both doors unless otherwise stated |
| g. | A polyethylene legend holder with card must be riveted to the inside of the consumer door |
| h. | All rivets, bolts, nuts, washers and set screws must be Stainless Steel |
| 10.5. | **Cable Termination** |
| a. | 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 |
| 10.6. | **Busbars** |
| a. | All kiosks must be fitted with phase busbars, earth bars and neutral bars |
| b. | All Busbars to be high conductivity tinned copper |
| c. | Phase Busbars are to be mounted horizontally on a moulded 3Ph staggered polyethylene Busbar holder |
| d. | Phase Busbars must be capable of accommodating 3 x 300mm cables (per phase) and must be heatshrink colour coded red, white, and blue |
| e. | A polyethylene Busbar shroud, which is enclosed on top and sides for safety, to be fitted over the phase Busbars |
| f. | The Busbar shroud is to include a mould-in graphics danger label, as well as a trafolite danger live Busbars label |
| g. | Busbars must be predrilled prior to tinning or galvanising |
| h. | Busbars must be fitted with close tolerance stainless steel bolts, nuts, spring and flat washers at all connecting points |

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| i. | Neutral and Earth bars are to be fitted to the consumer side of the kiosk and must extend through to the incoming side |
| j. | No interconnecting cables will be allowed |
| k. | Earth and Neutral bars to be connected by means of 70mm wire (green), bolted to Unistrut |
| l. | Phase, neutral and earth bar shall be dimensioned as detailed in table 1 |
| 10.7. | **POLYETHYLENE KIOSK AND POLE MOUNT ENCLOSURE SPECIFICATIONS (PEARLY BEACH)** |
| a. | 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 |
| b. | SABS Impact test |
| c. | SABS IP43 Rating |
| 10.8. | **Distribution Kiosks, Polyethylene: 2-Way,4-Way, 6-Way, 9-Way and 12-Way Single/Double Door Kiosks** |
| 10.8.1. | **Polyethylene** |
| a. | 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 |
| b. | The design of the unit to be such that all external surfaces are "rounded" to prevent buckling |
| c. | Shall be rigidly moulded and have high impact resistance and dielectric strength |
| d. | Kiosk wall thickness shall be at least 4mm throughout |
| e. | LLDPE powder used must be chemically resistant and resistant to deterioration from prolonged contact with soil and/or moisture |
| f. | Must be resistant to abrasion and heat and specifically treated with stabilising additives to provide enhanced UV breakdown resistance |
| g. | Materials used must be free from blow holes and defects |
| 10.9. | **Frame** |
| a. | Root must be moulded incorporating a self-supporting polyethylene equipment mounting panel, so as to decrease the likelihood of condensation |
| b. | The frame must contain a 19mm wooden block board inserted the whole width and length of the frame |
| 10.10. | **Colouring** |
| 1. | All Kiosks shall be coloured "Light Grey – UV25." |
| 10.11. | **Doors & Hinges** |
| a. | Must be manufactured from polyethylene |
| b. | Danger labels on the doors must be of the mould-in graphic type |
| c. | Doors must open at least 130 degrees with hinges being an integral part of the moulding process |
| d. | No piano hinges will be accepted |
| e. | Doors to be removable on site for ease of installation, maintenance and replacement (where necessary) |
| f. | Stainless steel Grade 304, Anti vandal lock M10 left hand thread |
| g. | Key anti vandal left-hand thread |
| h. | A polyethylene legend holder with card must be riveted to the inside of the consumer door |
| i. | All rivets, bolts, nuts, washers and set screws must be Stainless Steel |
| 10.12. | **Cable Termination** |
| a. | 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 |
| 10.13. | **Busbars** |
| a. | All kiosks must be fitted with phase busbars, earth bars and neutral bars |
| b. | All Busbars to be high conductivity tinned copper |
| c. | Phase Busbars are to be mounted horizontally on a moulded 3Ph staggered polyethylene Busbar holder |
| d. | Phase Busbars must be capable of accommodating 3 x 300mm cables (per phase) and must be heatshrink colour coded red, white, and blue |
| e. | A polyethylene Busbar shroud, which is enclosed on top and sides for safety, to be fitted over the phase Busbars |
| f. | The Busbar shroud is to include a mould-in graphics danger label, as well as a trafolite danger live Busbars label |
| g. | Busbars must be predrilled prior to tinning or galvanising |
| h. | Busbars must be fitted with close tolerance stainless steel bolts, nuts, spring and flat washers at all connecting points. |
| i. | Neutral and Earth bars are to be fitted to the consumer side of the kiosk and must extend through to the incoming side |

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| j. | No interconnecting cables will be allowed | | | | | |
| k. | Earth and Neutral bars to be connected by means of 70mm wire (green), bolted to Unistrut | | | | | |
| l. | Phase, neutral and earth bar shall be dimensioned as detailed in table 1 BELOW | | | | | |
| m. | **TABLE 1** | | | | | |
| i. | **Distribution Kiosk Type** | **Main & Neutral Busbars** | | | **Earth Bar** | |
| | | **Cross Section (mm)** | **Pre-drilling Requirements (Excl. Mountings) (mm diameter)** | | **Cross Section (mm)** | **Pre-drilling Requirements (Excl. Mountings) (mm diameter)** |
| | | | **Main Busbars** | **Neutral Busbar** | | |
| ii. | 2-Way | 25 x 6 (470A) | 2 x 6.5<br>2 x10.5 | 6 x 6.5<br>2 x 10.5 | 25 x 6 | 6 x 6.5<br>2 x 10.5 |
| iii. | 4-Way | 25 x 6 (470A) | 2 x 6.5<br>2 x10.5 | 6 x 6.5<br>2 x 10.5 | 25 x 6 | 6 x 6.5<br>2 x 10.5 |
| iv. | 6-Way | 25 x 6 (470A) | 3 x 6.5<br>3 x 10.5 | 9 x 6.5<br>3 x 10.5 | 25 x 6 | 9 x 6.5<br>3 x 10.5 |
| v. | 9-Way | 32 x 6 (560A) | 4 x 6.5<br>3 x 10.5 | 12 x 6.5<br>3 x 10.5 | 32 x 6 | 12 x 6.5<br>3 x 10.5 |
| vi. | 12-Way | 40 x 6 (680) | 6 x 6.5<br>3 x 10.5 | 12 x 6.5<br>3 x 10.5 | 40 x 6 | 12 x 6.5<br>3 x 10.5 |
| 10.14. | **POLE MOUNTED DISTRIBUTION/METERING ENCLOSURES Polyethylene** | | | | | |
| |   | | | | | |
| a. | 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 | | | | | |
| i. | The design of the unit to be such that all external surfaces are “rounded” to prevent buckling. Shall be rigidly moulded and have high impact resistance and dielectric strength. | | | | | |
| ii. | LLDPE used must be chemically resistant and resistant to deterioration from prolonged contact with soil and/or moisture | | | | | |
| iii. | Must be resistant to abrasion and heat and specifically treated with stabilising additives to provide enhanced UV breakdown resistance | | | | | |
| iv. | Materials used must be free from blow holes and defects | | | | | |
| v. | Shall have a 19mm wooden mounting block board | | | | | |
| vi. | 2 x stainless steel grade 304 pole mounting brackets shall be fitted | | | | | |
| b. | **Colouring** | | | | | |
| a. | All Boxes shall be coloured UV 25 “Dark Grey.” | | | | | |
| c. | **Doors & Hinge** | | | | | |
| a. | Must be manufactured from polyethylene | | | | | |
| b. | Danger labels on the door must be of the mould-in graphic type | | | | | |
| c. | 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 | | | | | |
| d. | No piano hinges will be accepted | | | | | |
| e. | All rivets, bolts, nuts, washers and set screws must be Stainless Steel | | | | | |
| f. | Locking device to be manufactured from Stainless steel and shall be lockable by padlock | | | | | |

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| d. | **Spec for: Type AP1 Pole mount enclosure** | | | | | |
| a. | "Neutral bar must be a 20 x 3 Insulator mounted Copper busbar | | | | | |
| b. | **BOX SIZES** | | | | | |
| c. | **H1** | **H2** | **W1** | **W2** | **D1** | **Working Depth** |
| d. | 490mm | 450mm | 490mm | 450mm | 220mm | 180mm |
| e. | **Specs for: Type SMB2 polyethylene, Stainless steel pole mount brackets, one row din rail** | | | | | |
| f. | **BOX SIZES** | | | | | |
| g. | **H1** | **H2** | **W1** | **W2** | **D1** | **Working Depth** |
| h. | 300mm | 240mm | 235mm | 175mm | 160mm | 115mm |

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| 11. | **12 KV INDOOR AND OUTDOOR METAL-ENCLOSED RING MAIN UNITS, METERING RING MAIN UNITS AND COMPACT SWITCHGEAR** | |
| 11.1.1. | **SCOPE OF SPECIFICATION** | |
| a. | This specification provides for the manufacture, testing, supply and delivery of 12 kV metal-enclosed ring main units for both indoor and outdoor installation | |
| 11.1.2. | **NORMATIVE REFERENCES** | |
| a. | 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 | |
| b. | BS 7215 | Separable insulated cable connector system above 1 kV and up to 36 kV |
| c. | 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 |
| d. | IEC 60255-1 | Measuring relays and protection equipment – Part 1: Common requirements |
| e. | IEC 60255-151 | Measuring relays and protection equipment – Part 151: Functional requirements for over / under current protection |
| f. | IEC 60376 | Specification of technical grade sulphur hexafluoride (SF6) for use in electrical equipment |
| g. | IEC 60787 | Application guide for the selection of high-voltage current-limiting fuses for transformer circuit applications |
| h. | 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 |
| i. | NRS 053 | Accessories for medium-voltage power cables (3,8/6,6 kV to 19/33 kV) |
| j. | 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) |
| k. | SANS 630 | Decorative high gloss enamel paint for interior and exterior use |
| l. | SANS 780 | Distribution transformers |
| m. | SANS 1091 | National colour standards for paint |
| n. | SANS 1186-1 | Symbolic safety signs Part 1: Standard signs and general requirements |
| o. | 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 |
| p. | SANS 1874 | Metal enclosed ring main units for rated ac voltages above 1 kV and up to and including 36 kV |
| q. | SANS 9001 | Quality management systems – Requirements |
| r. | SANS 60044-1 | Instrument transformers Part 1: Current transformers |
| s. | SANS 60044-2 | Instrument transformers Part 2: Inductive voltage transformers |
| t. | SANS 60137 | Insulated bushings for alternating voltages above 1 000 V |
| u. | SANS 60265-1 | High-voltage switches Part 1: Switches for rated voltages above 1 kV and less than 52 kV |
| v. | SANS 60270 | High-voltage test techniques - Partial discharge measurements |
| w. | SANS 60282-1 | High-voltage fuses Part 1: Current limiting fuses |
| x. | SANS 60529 | Degree of Protection provided by Enclosures (IP Code) |
| y. | SANS 60815-1 | Selection and dimensioning of high-voltage insulators intended for use in polluted conditions Part 1: Definitions, information and general principles |

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| z. | 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 |
| aa. | SANS 61243-5 | Live working – Voltage detectors Part 5: Voltage detecting systems (VDS) |
| bb. | SANS 62271-1 | High-voltage switchgear and control gear Part 1: Common specifications |
| cc. | SANS 62271-100 | High-voltage switchgear and control gear Part 100: Alternating-current circuit-breakers |
| dd. | SANS 62271-102 | High-voltage switchgear and control-gear – Alternating current disconnectors and earthing switches |
| ee. | SANS 62271-105 | High-voltage switchgear and control-gear – Alternating current switch-fuse combinations |
| ff. | 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 |
| gg. | SANS 62271-202 | High-voltage switchgear and control-gear – High voltage / low voltage prefabricated substation |
| hh. | 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 | |
| 11.1.3. | **GENERAL** | |
| i. | **Service Conditions** | |
| ii. | 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 | |
| iii. | 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 | |
| iv. | 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 | |
| v. | The highest ambient temperature commonly experienced is 40ºC and the lowest -5ºC. Relative humidity varies between 20% and 90% | |
| 11.1.4. | **Installation Conditions** | |
| i. | Ring main units for outdoor installation will be installed on a concrete plinth with suitable cut-outs for cable entry | |
| ii. | 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 | |
| 11.1.5. | **Compliance With Regulations** | |
| i. | 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 | |
| 11.1.6. | **Quality, Design And Execution** | |
| i. | 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 | |
| ii. | No departure shall be implemented without the prior approval of the Engineer | |
| iii. | The equipment shall comply with the particulars and guarantees stated in the Schedules | |
| iv. | The equipment offered shall comprise the Manufacturer's standard equipment, the reliability of which has been thoroughly proven in service | |
| v. | Only proven design and construction methods and principles will be acceptable | |
| vi. | 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 | |
| vii. | 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 | |

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| viii. | 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 |
| ix. | 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 |
| x. | The design and execution of the Work shall incorporate every practicable precaution and provision for:- |
| xi. | The safety of those who will operate and maintain the equipment |
| xii. | The satisfactory operation of the equipment under all conditions liable to be met in service, and |
| xiii. | To facilitate inspection, maintenance and repairs |
| xiv. | Features likely to require excessive maintenance shall be carefully avoided |
| xv. | Kiosks, cubicles and similar enclosed compartments shall be adequately ventilated to restrict condensation but shall at the same time be vermin proof |
| xvi. | Tenderers shall offer equipment of the highest possible quality to ensure highly reliable service and only proven designs will be accepted |
| 11.1.7. | **REQUIREMENTS**<br>**Configuration** |
| i. | The ring main units shall comprise a combination of non-automatic ring main switch disconnector, switch-fuse combination tee-off and/or circuit breaker tee-off modules, as specified, connected in series by a common busbar |
| ii. | The ring main units shall be non-extensible |
| iii. | 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 |
| iv. | 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 |
| 11.1.8. | **Ratings** |
| i. | Rated Voltage: The rated voltage of the ring main units and compact switchgear shall be 12 kV |
| ii. | Rated Insulation Level: The rated peak lightning impulse peak withstand voltage shall be 95 kV and the rated short duration power frequency withstand voltage 28 kV |
| iii. | Rated Normal Current |
| iv. | The rated normal current of the ring main switch disconnectors shall be 630 A |
| v. | The rated normal current of the switch-fuse combination tee-off and circuit breaker tee-off shall be 200 A |
| vi. | The rated normal current of the busbars, including all couplers and connectors, shall be the same as the ring main switch disconnectors |
| vii. | 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 |
| viii. | Rated Breaking Current and Short Circuit Breaking Current |
| ix. | The rated breaking current of the ring main switch-disconnector and circuit breaker modules shall be in accordance with the requirements of SANS 1874 |
| x. | The rated breaking current of the switch of the switch-fuse combination modules shall be 200 A, in accordance with SANS 60265-1 |
| xi. | The rated short circuit breaking current of the switch-fuse combination and circuit breaker tee-offs shall be 20 kA |
| xii. | Rated Short Circuit Making Current |
| xiii. | 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 |
| 11.1.9. | **Internal Arc Classification** |
| i. | 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 |
| ii. | 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 |

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| | ring main unit or assembled compact switchgear switchboard, including cable termination enclosures and any necessary pedestals or raising bases, as installed |
| iii. | 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 |
| 11.1.10. | **GENERAL REQUIREMENTS**<br>**Design and Construction of Switchgear** |
| i. | 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 |
| ii. | All primary components of the equipment shall be made and assembled by the same Manufacturer |
| iii. | Only units with proven service history shall be considered |
| iv. | All switching devices shall be operable from the front of the unit |
| v. | The ring main units and compact switchgear shall be provided with lifting eyes with a minimum diameter of 30 mm for lifting or slinging |
| 11.1.11. | **Insulating/Interrupting Medium** |
| i. | The ring main units and compact switchgear shall be SF6 insulated |
| ii. | Only new SF6 gas complying with the requirements of IEC 60376 shall be used |
| iii. | The gas-insulated switch compartments of the switchgear shall be factory sealed for life for a minimum maintenance-free lifespan of 30 years |
| iv. | The ring main units and compact switchgear shall not require routine gas replenishment during normal service |
| v. | 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 |
| vi. | The cartridge fuses on switch-fuse combination modules shall be air insulated |
| vii. | 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 |
| 11.1.12. | **Monitoring Facility for Insulating Medium** |
| i. | An SF6 gas monitoring gauge shall be provided to indicate safe and unsafe gas pressure and shall be visible from the front panel |
| 11.1.13. | **Degree of Protection** |
| i. | The degree of protection of the weather-proof kiosk for ring main units for outdoor installations shall be a minimum of IP 44, in accordance with SANS 60529 |
| ii. | 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 |
| 11.1.14. | **Accessibility of Compartments** |
| i. | The ring main unit and compact switchgear gas-insulated switch compartment shall be a non-accessible compartment in accordance with SANS 62271-200 |
| ii. | 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 |
| iii. | The compact switchgear air-insulated metering module shall be an interlock-controlled accessible compartment in accordance with SANS 62271-200 |
| iv. | The ring main unit and compact switchgear cable termination boxes shall be interlock-controlled accessible compartments in accordance with SANS 62271-200 |
| v. | 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 |
| 11.1.15. | **Partition Class** |
| i. | 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 |
| 11.1.16. | **Service Continuity Category** |
| i. | The ring main units and compact switchgear shall be Loss of Service Continuity (LSC) category LSC1 in accordance with SANS 62271-200 |
| 11.1.17. | **Cable Test Facilities** |

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| i. | 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 |
| ii. | 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 |
| iii. | 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 |
| iv. | 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 |
| v. | 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 |
| vi. | Phase colours and warning notices shall be permanently marked on test terminals, to approval |
| 11.1.18. | **Cable Earthing Facilities** |
| i. | 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 |
| ii. | Cable earthing facilities which require the use of loose equipment or attachments shall not be acceptable |
| iii. | Earthing facilities on the switch-fuse combination modules shall earth both sides of the fuse link |
| 11.1.19. | **Cable Live Indication** |
| i. | 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 |
| ii. | The VDS system shall provide permanent VDS indication and shall provide for electrical phasing between modules on the ring main units and compact switchgear through the use of universal phase comparators (UPCs |
| iii. | 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 |
| 11.1.20. | **Mechanism Locking Facilities** |
| i. | 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 |
| ii. | 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 |
| iii. | The operating control locking facilities shall be designed to be locked with mini-padlocks with 4 mm shackles |
| 11.1.21. | **General Interlocks** |
| i. | Positive mechanical interlocking shall be provided on the ring main units operating mechanisms in accordance with SANS 1874 |
| 11.1.22. | **RMU Rating Plate** |
| i. | The ring main units and compact switchgear shall be fitted with rating plates complying with the requirements of SANS 1874 |
| 11.1.23. | **Marking and Labelling** |
| i. | The ring main units and compact switchgear shall have markings and labeling as specified in SANS 1874 |
| ii. | Single line operating diagrams shall be clearly marked on the front panel of the units |
| iii. | All apparatus and interlocks shall be clearly labeled indicating their purpose, function and operating procedure |
| iv. | 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 |
| v. | 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 |
| vi. | Paper stick-on labels shall not be acceptable |
| vii. | 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”). |

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| viii. | 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 |
| ix. | 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 |
| 11.1.24. | **Earthing** |
| i. | 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 |
| ii. | 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 |
| iii. | Two stainless steel nuts and washers shall be provided on each earth connection terminal |
| iv. | 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 |
| v. | A minimum of 4 holes diameter suitable for an M12 bolt shall be provided in the earth bar for earth connections |
| vi. | 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 |
| 11.1.25. | **Painting and Protection against Corrosion** |
| i. | The ring main units and compact switchgear shall be painted and protected against corrosion in accordance with the requirements of SANS 1874 |
| ii. | The gas-insulated switch compartment shall be constructed from stainless steel |
| iii. | All other sheet steel work shall comprise an approved corrosion resistant metal |
| iv. | 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 |
| 11.1.26. | **SWITCH DISCONNECTOR MODULES** |
| a. | **General** |
| b. | Each switch disconnector shall be a three pole switch that complies with the requirements for general purpose switches of SANS 60265-1 |
| c. | Switch disconnectors shall be at least Class E2 M1 in accordance with SANS 60265-1 |
| 11.1.27. | **Operation** |
| a. | The operating mechanism of switch disconnectors shall provide independent manual closing and opening |
| 11.1.28. | **SWITCH-FUSE COMBINATION MODULES** |
| a. | **General** |
| b. | Each switch-fuse combination shall be a three phase unit that complies with the requirements of SANS 62271-105 and SANS 1874 |
| c. | 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 |
| d. | The switch-fuse combination shall be capable of supplying a transformer of 1 600 kVA rating |
| 11.1.29. | **Fuse-Links** |
| a. | 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 |
| b. | Fuse-link enclosures shall comply with the requirements of SANS 1874 |
| c. | 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 |
| d. | The preferred fuse-links for switch-fuse combination modules shall be DIN type fuses of length 442 mm |
| e. | The fuse-links will be supplied by others |
| 11.1.30. | **Fuse Compartment Interlocks** |
| a. | 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 |
| 11.1.31. | **Operating Mechanism** |
| a. | The operating mechanism of the switch-fuse combinations shall provide independent manual closing and stored energy tripping |
| 11.1.32. | **CIRCUIT BREAKER MODULES** |
| i. | **General** |
| b. | Circuit breakers shall be three pole devices complying with the requirements of SANS 62271-100 and SANS 1874 |

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| c. | Circuit breakers shall be Class C2 E2 M1 in accordance with SANS 62271-100 |
| d. | 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 |
| e. | The first-pole-to-clear factor shall be 1,5 in accordance with SANS 62271-100 |
| 11.1.33. | **Operation** |
| a. | The operating mechanism of the circuit breakers shall provide independent manual closing and stored energy tripping |
| b. | Circuit breakers shall have a trip-free mechanical switching mechanism |
| 11.1.34. | **Protection** |
| a. | 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 |
| b. | 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 |
| 11.1.35. | **Protection Relay (Standard)** |
| a. | 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 |
| b. | 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 |
| c. | 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 |
| d. | 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 |
| e. | 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 |
| f. | Protective relays fitted with an HMI for fault indication shall have battery back-up to maintain indication and functionality while the ring main unit is de-energized or the circuit breaker open |
| g. | 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 |
| h. | 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%. |
| i. | 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 |
| j. | 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%. |
| k. | 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 |
| l. | 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) |
| m. | 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 |
| 11.1.36. | **Protection Relay (Alternative)** |
| a. | Tenderers shall provide a price where detailed in the Pricing Schedule for an alternative protection relay as specified below |
| b. | 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) |
| c. | The alternative protection relay shall be self-powered and shall be specified as detailed for the standard protection relay above, with the following exceptions |
| d. | The relay shall be fitted with a battery powered HMI |

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| e. | 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 |
| f. | The relay shall provide load current indication per phase |
| g. | The relay shall provide separate protection operation indication for each phase and for earth faults |
| h. | 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 |
| 11.1.37. | **Protection Current Transformers / Sensors** |
| a. | Current transformers shall comply with the requirements of SANS 60044-1 |
| b. | 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 |
| c. | Full details of the protection relay and current transformers or current sensors shall be provided with the tender |
| 11.1.38. | **Protection Wiring and Testing Facilities** |
| a. | 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 |
| b. | 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 |
| c. | 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 |
| 11.1.39. | **METERING MODULES** |
| i. | **General** |
| b. | 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 |
| c. | The metering module shall be rated as specified for the compact extensible switchgear modules |
| d. | The metering module shall have an internal arc classification as specified for the compact switchgear for indoor installation |
| e. | 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 |
| f. | 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 |
| g. | The metering module metering compartment door shall be fitted with approved interlocks to prevent the opening of the door while the compartment is live |
| h. | 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 |
| 11.1.40. | **Meters** |
| a. | 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 OM's metering code for billing meters and plug ancillary devices |
| b. | Meters will be provided and mounted in separate remote cubicle by others |
| 11.1.41. | **Metering Current Transformers** |
| a. | The metering module shall be fitted with dual ratio metering current transformers for each phase |
| b. | The CTs shall comply with the requirements of SANS 60044-1 |
| c. | The CTs shall be dual ratio 100/50/5 A |
| d. | The CTs shall be rated for a burden of 10 VA on each ratio |
| e. | The CT accuracy class on each ratio shall be Class 0,5 |
| f. | 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 |
| g. | The CT star point shall be earthed via a solid link situated in the LV compartment of the metering unit |
| h. | 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 |

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| i. | 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 |

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| 11.1.42. | **Metering Voltage Transformers** |
| a. | Voltage transformers shall comply with the requirements of SANS 60044-2 |
| b. | The voltage transformers shall be three phase unearthed voltage transformers (UVTs) with the primary star point fully insulated, or shall be single phase VTs |
| c. | The VTs shall have a standard ratio of 11 000/110 V (3 phase UVTs) or 11000/√3 / 110/√3 (single phase EVTs) |
| d. | The VTs shall be rated for a burden of 25 VA per phase. |
| e. | 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 |
| f. | The VTs shall be discharge free and shall have a minimum voltage factor of 1,2 continuous and 1,9 for 30 s |
| g. | The VTs shall have a short circuit withstand capability in accordance with SANS 60044-2 |
| h. | 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 |
| i. | The VTs shall be fitted with fuses on both the HV and LV sides |
| j. | The fuses on the MV side shall be fitted on each phase and shall be easily accessible when the metering compartment door is open |
| k. | 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 |
| l. | 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 |
| m. | The secondary circuits of the voltage transformers shall be brought out to an approved test block without integral shorting facilities |
| n. | The voltage transformer secondary circuits shall be complete with one end terminated to the star point |
| o. | 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 |
| p. | Voltage transformers shall be guaranteed for a period of no less than 1 year |
| 11.1.43. | **Low Voltage Compartment** |
| a. | 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 |
| b. | 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) |
| c. | 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 |
| d. | 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 |
| e. | Terminal blocks and test blocks fitted in the LV compartment shall be of the Crompton Parkinson type, or equivalent to the Engineers approval |
| f. | The LV compartment shall be fitted with neon indication lamps for VT Live indication |
| g. | 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 |
| h. | 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 |
| i. | 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 |
| j. | All secondary wiring shall be of 2,5 mm2 PVC copper wire |
| k. | 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 |

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| 11.1.44. | **Busbars** |
| a. | **General** |
| i. | The busbars for ring main units shall be entirely incorporated within the gas-insulated switch compartment, and shall be non-extensible |
| ii. | The busbars for single and dual module compact switchgear shall be extensible at both sides of the module |
| iii. | Busbar extension shall be achieved through the use of busbar coupler inserts, or through the use of external busbars |
| iv. | 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 |
| v. | Full design and installation details for the busbar connections shall be provided with the tender documentation |
| 11.1.45. | **Busbar Couplers** |
| a. | Busbar couplers shall be fully insulated, screened and stress controlled |
| b. | 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 |
| c. | The busbar coupler design shall provide for variations in distance and alignment between adjacent panels, and shall be suitable for user installation |
| 11.1.46. | **Busbar Blanking Plugs** |
| a. | Busbar blanking plugs and metal blanking cover plates shall be provided for sealing busbars at the switchboard end |
| b. | Busbar blanking plugs shall be fully insulated and stress controlled |
| c. | 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 |
| d. | Busbar blanking plugs shall preclude ingress of moisture and shall be maintenance free for the service life of the switchgear |
| 11.1.47. | **External Bus Bars** |
| a. | External busbars shall be fully insulated, screened and stress controlled |
| b. | 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 |
| c. | 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 |
| d. | The compact switchgear shall be provided with protective covers to shroud the external busbars on all sides. |
| 12. | **CABLE TERMINATION ENCLOSURES, TERMINATIONS AND BUSHINGS** |
| 1. | **Cable Termination Enclosures and Terminations** |
| 12.1.1. | The ring main units shall be fitted with air filled cable termination enclosures complying with NRS 012 |
| 12.1.2. | 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 |
| 12.1.3. | The cable termination enclosures shall be suitable for Type 2 shrouded and Type 3 unscreened separable connector terminations in accordance with NRS 012 |
| 12.1.4. | 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 |
| 12.1.5. | Cable termination enclosures with cable bushings at staggered heights will not be accepted |
| 12.1.6. | Where ring core current transformers are required for the circuit breaker tee-off 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 |
| 12.1.7. | 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 |
| 12.1.8. | 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 |
| 12.1.9. | 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 |
| 12.1.10. | 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 |

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| 12.1.11. | Any breathing and/or drain vents in the cable termination enclosures necessary to prevent condensation or facilitate draining shall be suitably vermin proofed |
| 2. | **Cable Clamping and Gland Plate** |
| 12.2.1. | 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 |
| 12.2.2. | 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 |
| 12.2.3. | 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 |
| 12.2.4. | 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 |
| 12.2.5. | Alternative gland plate and cable seal designs shall be to the Engineer's approval |
| 3. | **Cable Bushings** |
| 12.3.1. | Cable bushings on all modules shall be Type C bushings complying with EN 50181 |
| 12.3.2. | 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. |
| 12.3.3. | The bushings shall be fitted with M12 stainless steel reducing stems and M12 nut, washer and spring washers |
| 12.3.4. | 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 |
| 12.3.5. | The surface of the bushings shall be smooth and free from blemishes and patches or fillings |
| 12.3.6. | The bushings shall be made from insulating material to the approval of the Engineer. Dough moulded compound cable bushings are not acceptable |
| 13. | **Pedestal or Raising Base (for Indoor Ring Main Units and Compact Switchgear)** |
| 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 |
| 2. | The pedestal or raising base dimensions shall comply with the ring main unit or compact switchgear footprint dimensions |
| 3. | The pedestal or raising base shall be rigid, robust and completely self-supporting |
| 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 |
| 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 |
| 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 |
| 14. | **Earth Fault Indication Equipment** |
| 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 |
| 2. | The control and indicating unit shall provide for manual resetting, with an automatic self-resetting facility with selectable time delay |
| 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 |
| 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 |
| 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 (i.e. front) of the ring main unit (with the enclosure doors open in the case of ring main units for outdoor installation) |

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| 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) |
| 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 |
| 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. | 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 |
| 15. | **Phase Comparators** |
| 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 |
| 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 |
| 3. | Phase comparators shall be provided with phasing leads long enough to permit the phasing out across a minimum of four panels |
| 4. | The phase comparators, leads and ancillary equipment shall be housed in a suitable rigid case, to approval |
| 16. | **WEATHER-PROOF KIOSK** |
| 1. | **General** |
| 16.1.1. | 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 |
| 16.1.2. | 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 |
| 16.1.3. | Any breathing and/or venting facilities in the kiosk shall be suitably vermin proofed |
| 16.1.4. | The kiosk roof, doors and compartments shall be so designed to preclude the possibility of pooling or retention of water |
| 16.1.5. | 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 |
| 2. | **Doors** |
| 16.2.1. | 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 |
| 16.2.2. | 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 |
| 16.2.3. | 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 |
| 16.2.4. | 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 90º |
| 16.2.5. | 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 |
| 3. | **Electrical Bonding** |
| 16.3.1. | 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 |
| 16.3.2. | 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 |

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| 4. | **Lifting and Mounting** |
| 16.4.1. | 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. |
| 16.4.2. | 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 |
| 16.4.3. | 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 |
| 5. | **Painting and Protection Against Corrosion** |
| 16.5.1. | 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 |
| 16.5.2. | 3CR12 steel shall be abrasive blasted and then passivated prior to painting |
| 16.5.3. | The 3CR12 components shall be painted with an approved and appropriate primer and with two coats of an approved polyurethane based heat fused epoxy powder coating of colour C12 (Avocado) to SANS 1091 in accordance with the requirements of SANS 780 |
| 16.5.4. | Suitable steps shall have been taken to ensure a satisfactory bond between the protected surfaces and the paint to prevent peeling |
| 16.5.5. | The thickness of the paint including the primer shall not be less than 50µm |
| 16.5.6. | Alternative corrosion protection systems may be considered. Manufacturers shall submit their proposed corrosion protection specifications to the Engineer for approval |
| 16.5.7. | 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 |
| 6. | **PACKING** |
| 16.6.1. | 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 |
| 16.6.2. | 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 |
| 16.6.3. | 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 |
| 16.6.4. | 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 |
| 16.6.5. | 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 authorized 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 |
| 16.6.6. | Transit/storage bushing protection covers shall be fixed to the equipment to prevent damage to bushings |
| 16.6.7. | 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 |
| 16.6.8. | 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 |
| 16.6.9. | 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 |

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| | 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 |
| 16.6.10. | Access to the Stores is by road only |
| 7. | **TRAINING** |
| 16.7.1. | Training shall be provided in the OM 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 |
| 16.7.2. | The Hardware and Maintenance Training course for the switchgear shall include, but not be limited to, the following: |
| 16.7.3. | Theory of operation |
| 16.7.4. | Installation and commissioning |
| 16.7.5. | Preventative maintenance |
| 16.7.6. | Maintenance manual review |
| 16.7.7. | Interlocks and Safety Feature |
| 16.7.8. | Testing, troubleshooting and configuration |
| 16.7.9. | Repairs |
| 16.7.10. | Practical Demonstration |
| 16.7.11. | The Operator training for the switchgear shall include, but not be limited to, the following |
| 16.7.12. | Theory of operation |
| 16.7.13. | Detailed overview of Equipment |
| 16.7.14. | Interlocks and Safety Features |
| 16.7.15. | Practical Demonstration |
| 16.7.16. | 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 |
| 16.7.17. | Any special tools shall be identified and if not included shall be quoted for separately |
| 16.7.18. | 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 |
| 16.7.19. | 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 |
| 16.7.20. | All training will be undertaken at Employer's premises |
| 16.7.21. | 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) |
| 16.7.22. | 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 |
| 16.7.23. | The price for each course shall include all preparation, travelling, accommodations and incidental costs including all course materials |
| 8. | **DRAWINGS AND INFORMATION** |
| 16.8.1. | **Drawings**<br>**Tenderers shall submit with their tenders the following drawings** |
| a. | 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 |
| b. | 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 |
| c. | 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 |
| d. | 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 |

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| e. | Section drawings for buzz bar couplers and / or external buzz bars showing expanded view and installed view including provisions for voltage stress relief |
| f. | 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. | **Instruction Books** |
| 16.9.1. | 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 |
| 10. | **PARTICULARS** |
| 16.10.1. | Tenderers shall submit with their tenders full particulars of the equipment offered and shall complete the Schedules attached hereto |
| 16.10.2. | 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 |
| 16.10.3. | 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 |
| 16.10.4. | No departure shall be implemented without the prior approval of the Engineer |
| 16.10.5. | 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 |
| 16.10.6. | 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 |
| 16.10.7. | 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 |
| 16.10.8. | 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 |
| 11. | **TESTS AND INSPECTIONS** |
| 16.11.1. | **Inspections** |
| a. | During manufacture and prior to dispatch the ring main units, compact switchgear, 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. |
| b. | 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 |
| 16.11.2. | **Type Tests** |
| a. | 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 |
| b. | 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 |
| c. | 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 |
| d. | 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 |

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| 16.11.3. | **Routine Tests** | |
| a. | 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. | |
| b. | Such tests shall include routine partial discharge testing on MV bushings, current transformers and voltage transformers | |
| c. | 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 | |
| d. | CT polarity, ratio and magnetization curve tests | |
| e. | 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 | |
| f. | Verification that the OCEF relay trips the circuit breaker | |
| g. | Protection relays are to be configured and tested in accordance with the generic settings below (or next closest achievable settings): | |
| h. | OC pickup (I>) | 125 A |
| | OC IDMT curve | NI |
| | OC time multiplier | 0.1 |
| | OC definite setting | (I>>) 10 x I> (or 9.5 x I> if 10 x not possible) |
| | OC definite time | 100 ms (0.1 s) |
| | EF pickup (Io>) | 37.5 A |
| | EF IDMT curve | NI |
| | EF time multiplier | 0.1 |
| | EF definite setting | (Io>>) 10 x Io> (or 9.5 x Io> if 10 x not possible) |
| | EF definite time | 100 ms (0.1 s) |
| i. | Copies of the test results are to be furnished with each panel | |
| j. | 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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| 17. | **TERMINATIONS AND JOINTS** |
| 1. | The resin filled joint kit shall comprise a self-sealing plastic mould of high mechanical strength having sufficient connector space. |
| 2. | The exact amount of cold hardening resin shall be provided in a two-compartment plastic bag |
| 3. | The resin shall have absolute minimum shrinkage |
| 4. | The mould and resin shall be completely waterproof and non-hygroscopic and shall be resistant to ultraviolet radiation |
| 5. | Joint kits shall be of "SCOTCHCAST", "CELLPACK" or similar |
| 18. | **CIRCUIT BREAKERS** |
| 1. | 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 |
| 19. | **INSULATION TAPE** |
| 1. | Vinyl electric Insulation tape with Polyvinyl chloride (PVC) backing |
| 2. | Super strong adhesion |
| 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) |

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| 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. | |
| 20. | **Black Tape** | |
| 20.1.1. | + Vinyl Electrical Tape is based on polyvinyl chloride (PVC) and/or it's co-polymers and has a rubber-based, pressure-sensitive adhesive | |
| 20.1.2. | The tape shall be 7 mils thick, and be UL Listed and marked per UL Standard 510 as "Flame Retardant, Cold and Sunlight Resistant | |
| 20.1.3. | The tape must be applicable at temperatures ranging from 0°F through 100°F (-18°C through 38°C) without loss of physical properties | |
| 20.1.4. | The tape shall be classified for use in both indoor and outdoor environments | |
| 20.1.5. | The tape shall be compatible with synthetic cable insulations, jackets and splicing compounds | |
| 20.1.6. | The tape will remain stable and will not telescope more than 0.1 inches when maintained at temperatures below 120°F (50°C) | |
| 21. | **Coloured tape** | |
| 1. | Tape 35 is based on polyvinyl chloride (PVC) and/or its copolymers and has a rubber-based, pressure-sensitive adhesive | |
| 2. | The tape shall be 7 mils thick, and be UL Listed and marked per UL Standard 510 as "Flame-Retardant." | |
| 3. | The tape shall be compatible with synthetic cable insulations, jackets and splicing compounds | |
| 4. | The tape will remain stable and will not telescope more than 0.1 inches when maintained at temperatures below 122°F (50°C | |
| 22. | **RUBBER TAPE** | |
| 1. | Self -fusing. Once it has been applied the tape contracts to fit tightly and give maximum protection needed and will not unwind | |
| 2. | Must be able to use it to Waterproof cable ends, insulate bus bars to prevent spiking, etc | |
| 3. | Must be weather resistant so it can be used outdoors | |
| 4. | Di-electric strength 28.KV thick | |
| 5. | Supplied in a strong plastic container | |
| 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 | |
| 7. | Typical electric strength 6.6/ kV/mm | |
| 8. | Packed in strong re-usable containers | |
| 23. | **MOMAR MIRACLE TOOL** | |
| 1. | Multi-Purpose Penetrant, Lubricant, Corrosion Retardant Aerosol | |
| 2. | Displaces water - removes moisture on contact and provides a long-term anti-corrosion seal | |
| 3. | Eliminates squeaks - lubricates metal-on-metal moving parts | |
| 4. | Non-conductive - Dielectric strength of >45,000 volts | |
| 5. | Loosens frozen parts - penetrates rust, corrosion, and oxidation | |
| 6. | Protects metal - seals out salt, rust, moisture and dirt | |
| 7. | Prevents corrosion - long-lasting lubricant resists water | |
| 8. | Density @ 25degrees c (ASTM-D-287) | 0900 g/ml |
| | Colour | Light Amber |
| | Appearance | Clear |
| | Odour | Petroleum dour |
| | Health/flammability/reactivity | 2/2/0 |
| | Personal safety | B – Safety Glasses |
| | Container | 500ml Can |
| 24. | **OIL SPILL KITS**<br>**One man oils spill kit (Small)** | |
| 1. | **THE OIL SPILL KIT SHOULD INCLUDE:** | |
| 2. | 2 x 3kg Root Sorb | |
| | 1 X Boom (2m) | |
| | 2 X Cushions (Containing Orca Sorb) (Ea.) | |
| | 1 X Dust Masks (Ffp/2) | |

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| | 1 X Gloves (Pigskin) | |
| | 1 X Goggles | |
| | 1 X Chevron Tape | |
| | 3 X Empty Plastic Bags | |
| | 3 X Cable Ties | |
| | 1 X Black Utility Box (110L) | |
| 25. | **Oil cap** | |
| 1. | Chemical characterization | |
| 2. | Description: Aqueous silicates in solution and additives | |
| 3. | Dangerous components: CAS NO Designation % Index R-phrases | |
| 4. | 1344-09-8 Sodium silicate 20-30 None | |
| 5. | Form: liquid Colour: colourless Odour: weak | |
| 6. | Boiling point: 100°C Flash point: not applicable Ignition. temp.: not applicable | |
| 7. | Critical values for explosion: | |
| 8. | Lower: not applicable Upper: not applicable | |
| | Vapour pressure at 20 °C: not applicable | |
| | Solubility in water: 100 % | |
| | Density: 1,2-1,3 g/m3 | |
| | in other: pH: 11.3 – 11.7 (conc.) | |
| 26. | **Rootsorb** | |
| 1. | Physical and Chemical Properties | |
| 2. | Physical State | Light brown fibre |
| | Boiling Point | N/A |
| | Vapour Pressure | Light smell |
| | Specific Gravity | N/A |
| | Melting Point | N/A |
| | Solubility in water | Not soluble. Colour water to light brown / light yellow |
| 3. | Toxicological Information | |
| 4. | Low toxicity material. Contain no toxic components. Natural fiber<br>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 in-situ and land-farm remediation purposes. | |
| 5. | ROOTSORB is available in 25 Kg bags | |
| 6. | ROOTSORB-ACID was developed with Rootsorb as base product and serves as an absorbent and neutralizer of mild acids | |
| 7. | ROOTSORB-ACID is available in 25 Kg bags. | |
| 27. | **Tsw. Asbestos Encapsulation** | |
| 1. | Composition / Information On Ingredients | |
| 2. | Sodium Silicate | In Aqueous Solution With Additives Cas # 1344-09-8 |
| | Dangerous Components | None |
| | Physical And Chemical Properties | |
| | Boiling Point: 212 Deg F (100 Deg C) Ph 10.5 - 11 Appearance -- Clear Fluid | |
| | Water Solubility 100% Colour -- None Wt % Solids 24 | |
| | Specific Gravity -- 1.21 Viscosity -- Low | |
| 3. | Stability And Reactivity: | |
| | Normally Stable At Temperatures Above 5 Degrees C | |
| | Product May Cause A Gelling Effect To Materials That Contain Acids Or Ammonia | |
| | Upon Drying The Crystals Formed From This Solution Become Sharp And Abrasive | |
| | Hazardous Polymerization Will Not Occur | |

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| | Toxicological Information | |
| | Product Is An Alkaline Solution, With No Known Chronic Effects | |
| | Acute Oral Toxicity Ld50 (Rat) 2,000 – 3000 Mg/Kg | |
| | Ecological Information | |
| | Prevent Large Spills From Entering Natural Waters. 48 Hour Lc 50 For Fathead Minnow Is 11.1 Mgms/ℓ | |
| 28. | **Orcasorb** | |
| 1. | Description/Properties ( Nature, Reactivity ) | |
| | A loose fibrous product which absorbs hydrocarbons and aqueous liquids and making them safer to handle | |
| | Physical and Chemical Properties | |
| | Physical State | Light brown fibre |
| | Boiling Point | N/A |
| | Vapour Pressure | Light smell |
| | Specific Gravity | N/A |
| | Melting Point | N/A |
| | Solubility in water | Not soluble |

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| 29. | **COPPER-TOP ALKALINE DISPOSABLE BATTERIES** |
| 1. | AAA: Packs of 2 |
| 2. | AA: Packs of 4 |
| 3. | C: Packs of 2 |
| 4. | D: Packs of 2 |
| 5. | PM3, 9 Volt: Per each |

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| 30. | **SECTOS POLE MOUNTED SF6 LOAD BREAK SWITCH** |
| a. | **3-WAY LOAD BREAK SWITCH** |
| |  |
| 30.1.2. | **General Information** |
| i. | NXBD is a 3-way load break switch using NXB components. Two independent load break switch in one enclosure with the third tapped way can be used for easy and reliable line branching in overhead, cable, or mixed networks. |
| ii. | Sectos is an SF6-insulated, outdoor pole mounted load break switch family for overhead lines and specifically designed for use in modern remote controlled distribution automation systems. The Sectos offers reliable maintenance free operation even in the most demanding climatic conditions including salt laden atmospheres, corrosive industrial pollution, snow and ice. It has excellent load breaking and fault making capacity and<br>satisfies the isolation requirements specified for load break switch. The earthed metal tank prevents all possible leakage currents across an open switch. Sectos can be manually operated or motor operated for local and remote electric control, and can be upgraded easily. |

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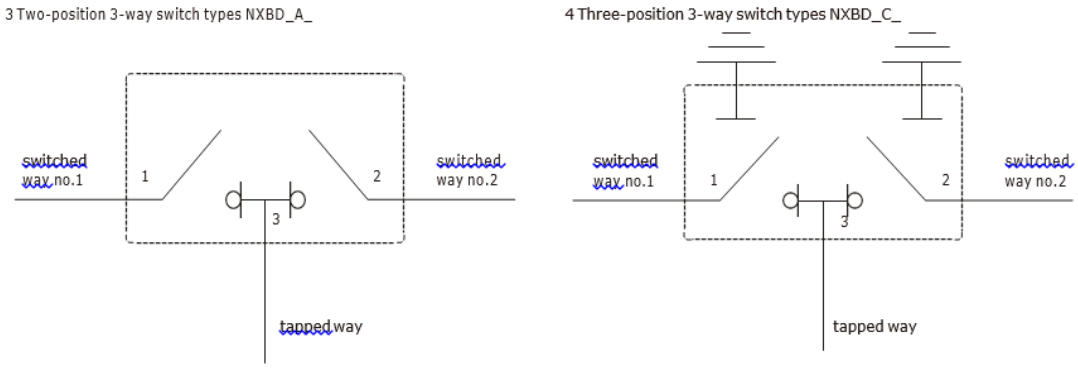
| 30.1.3. | **STANDARDS FOR REFERENCE** | |
| i. | IEC 62271-102 | High-voltage switchgear and control gear. Part 102 Alternating current disconnectors and earthing switches |
| ii. | IEC 62271-103 | High-voltage switchgear and control gear. Part 103: switches for rated voltage above 1 kV up to and including 52 kV |
| iii. | IEC 62271-1 | High-voltage switchgear and control gear-Part 1: common specifications |

30.1.4. **Basic switch configurations**

i.




30.1.5. **Electrical performance data**

i.

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| Insulation level | | |
| Rated voltage | kV | 24 |
| Power frequency withstand voltage, 50 Hz | | |
| - to earth and between phases | kV | 50 |
| - across the isolating distance | kV | 60 |
| Lightning impulse withstand voltage | | |
| - to earth and between phases | kV | 125 |
| - across the isolating distance | kV | 145 |
| Current ratings | | |
| Rated normal current | A | 630 |
| Mainly active load breaking current | A | 630 |
| Number of breaking operations CO | n | 400 |
| Line-charging breaking current | A | 50 |
| Cable-charging breaking current | A | 50 |
| Earth fault breaking current | A | 50 |
| Cable charging breaking current | | |
| under earth fault conditions | A | 28 |
| No-load transformer breaking current | A | |
| Short-circuit ratings | | |
| Short-time withstand current, Ik | kA/s | 20 kA/4 s |
| Peak withstand current | kA | 50 |
| Short-circuit making current | kA | 50 |
| Number of making operations | | |
| - main switch 50 kA (CL E3) | n | 5 |
| - main switch 31.5 kA (CL E3) | n | 10 |
| - earthing switch 50 kA (CL E2) | n | 3 |
| - earthing switch 31.5 kA (CL E3) | n | 5 |

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| | Creepage distance | mm | 620 |
| | Ambient air temperature limits | | -40°C...+60°C*1 |
| | Mechanical endurance (number of close-open operations) | | |
| | - main switch | n | 5000 |
| | - earthing switch*2 | n | 2000 |
| | Filling pressure (+20°C) | bar (abs) | 1.4-1.5 |
| | Alarm pressure (+20°C) | | |
| | - density switch | bar (abs) | 1.2 |
| | - density gauge | bar (abs) | 1.2 |
| | - low gas lock-out mechanism | bar (abs) | 1.1 |
| | Weight | | |
| | NXB (manual operated type) | kg | 82 |
| | NXA (manual operated type) | kg | 117 |
| | NXBD (manual operated type) | kg | 138 |
| | Degree of protection of the mechanism box | | IP67 |
| | "*1": for CVD -25~°C+60°C.<br>"*2": Not suitable for NXA type. | | |

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| 31. | **HEAT-SHRINK TERMINATIONS AND JOINTS** |
| 32. | **SANS 1332: 2013 Schedule of Specifications: Cable Accessories** |
| 32.1.1. | **Scope** |
| a. | This schedule covers the requirements for accessories for medium voltage cable accessories from 6,6 kV up to and including 33 kV |
| b. | Accessories for both PILC and XLPE - insulated cables are covered |
| 32.1.2. | **PLEASE NOTE: SHOULD YOU INTEND TO TENDER ON ANY OF THE ITEMS LISTED UNDER PARAGRAPH 34 THE FOLLOWING SCHEDULE MUST BE COMPLETED** |

**PLEASE NOTE: THE FOLLOWING SCHEDULE MUST BE COMPLETED SHOULD YOU INTEND TO TENDER ON ANY OF THE ITEMS UNDER PARAGRAPH 31**

| ACCESSORY | REQUIREMENT | Conformance YES | Conformance NO | NOTES |
|---|---|---|---|---|
| SECTION 1: TERMINATIONS | Termination range taking according to latest edition of SANS 1332:2013 | | | |
| | Range taking Mechanical Torque shear (MTS) included | | | |
| | M16 Lug hole on the palm of the MTS | | | **NRS Version nr:** |
| | Minimum creepage distance 31 mm/ kV (Outdoor) and 20 mm/kV (Indoor) according to SANS 876 | | | |
| | Crutch support (Tri-shed) included (Outdoor termination for PILC cables) | | | |
| | Creepage path shall be of the same material for the entire creepage distance | | | |
| | **1) From the same Manufacturer** | | | |
| | 2) Indoor Termination tail length 650 mm (3 core 11 kV cable) | | | |
| | 3) Indoor Extended screen Termination tail length 800 mm (3 core 11 kV cable, into switchgear with CT's) | | | |
| | 4) Outdoor Termination tail length 1200 mm (3 core 11 kV cable) | | | |

| | | | |
|---|---|---|---|
| Signature | | Name (print) | |
| Capacity | | Date | |
| Name of firm | | | |

| ACCESSORY | REQUIREMENT | Conformance YES | Conformance NO | NOTES |
|---|---|---|---|---|
| | 5) Installation Instruction (JI) in colour | | | |
| | 6) Full parts list (B.O.M.) attached | | | |
| | 7) Installation instruction based on "top down" measurement | | | |
| | 8) Does the design make provision for Core crossing? | | | |
| | 9) Phase Identification marking accessory included | | | **Type of identification method:** |
| | 10) Type test according to IEC 60055-1 (PILC) or SANS 60502-4 (XLPE) | | | **Test report attached?** **Yes** **No** |
| | 11) KIPTS approved | | | **Test report attached** **Yes** **No** |
| **SECTION 2: TERMINATION EARTHING** | 1) Termination Earthing kit included | | | |
| | 2) 70 mm² Tinned Copper Main Earth Braid, rated @ 10 kA/1 sec (unless otherwise specified) | | | |
| | 3) Earth braid 1000 mm length (Indoor Terminations) | | | |
| | 4) Earth braid 1000 mm length (Outdoor Terminations) | | | |
| | 5) 70 mm² Tinned Copper lug with M 12 Fixing hole | | | |
| | 6) Earthing conductor Integrally Water blocked with Solder | | | |
| | 7) Constant Force Spring (CFS) minimum 20 mm width | | | |
| | 8) Tinned Copper mesh for application under CFS to ensure sufficient contact area between CFS and Lead | | | |
| | 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 Version nr:** |
| | 12) Range taking Mechanical Torque shear connector included | | | |
| **SECTION 3: JOINTS( Heat shrink)** | 1) Is the joint filled to facilitate longitudinal water blocking? | | | |
| | 2) Can the Joint accommodate Core crossing? | | | |
| | 3) Minimum insulation wall thickness over the connector of 1.2 X Cable Insulation | | | |
| | 4) 70 mm² Tinned Copper Main Earth Braid, rated @ 10 kA/1 sec (unless otherwise specified) | | | |
| | 5) Type tested according to CENELEC HD 629.1 S2, CENELEC HD 629.2 S2, IEC 60055-1, SANS 60502-4 | | | **Test report attached?** **Yes** **No** |
| | 6) Type tested Impact test done | | | **Test report attached?** **Yes** **No** |
| **SECTION 4: UNSCREENED SEPARABLE** | 1) Dead-break type | | | |
| | 2) Extensible | | | |
| | 3) Range taking | | | |
| | 4) Bolted 35mm long Stainless steel or brass M16 x 2 threaded connection (set screw and spring washers) | | | |

| | | | |
|---|---|---|---|
| Signature | | Name (print) | |
| Capacity | | Date | |
| Name of firm | | | |

| ACCESSORY | REQUIREMENT | Conformance YES | Conformance NO | NOTES |
|---|---|---|---|---|
| | 5) Suitable for 630 A type "C" bushing according to EN 50180 | | | |
| | 6) Type tested | | | Test report attached? Yes ☐ No ☐ |
| | 7) Type tested by an Accredited testing facility | | | Accreditation certificate attached? Yes ☐ No ☐ |
| SECTION 5: SCREENED SEPARABLE CONNECTORS (SSCs) | 1) Dead-break type | | | |
| | 2) Extensible | | | |
| | 3) Range taking | | | |
| | 4) Suitable for 800 A type "C" bushing according to EN 50180 with integrated Stress Control | | | |
| | 5) Bolted 35mm long M16 x 2 threaded connection (set screw and spring washers) | | | |
| | 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) | | | Test report attached? Yes ☐ No ☐ |
| | 12) Type tested by an Accredited testing facility (Attach copy of Accreditation certificate) | | | Accreditation certification attached? Yes ☐ No ☐ |
| SECTION 6: CABLE REPAIR SLEEVES | 1) Wraparound design | | | |
| | 2) Supplied with stainless steel zip/channel | | | |
| | 3) Length minimum 1000 mm | | | |
| | 4) Minimum wall thickness 2 mm after installation | | | |
| | 5) Inner surface coated with heat activated adhesive | | | |
| | 6) Marked with manufacturers name and batch numbers | | | |
| | 7) UV stable (Attach copy of Test report) | | | Test report attached? Yes ☐ No ☐ |
| SECTION 7: CABLE SEALING END CAPS | 1) Suitable range taking (45 mm to 65 mm) and (65 to 95 mm) | | | |
| | 2) Minimum length 150 mm | | | |
| | 3) Minimum wall thickness 2 mm after installation | | | |
| | 4) Inner surface coated with heat activated adhesive | | | |
| | 5) Marked with manufacturers name and batch numbers | | | |
| | 6) UV stable | | | Test report attached? Yes ☐ No ☐ |
| MARKING, PACKING AND DOCUMENTATION | 1) All components marked with Manufacturers name (visible on the completed accessory) | | | |
| | 2) All components marked with Manufacturers part number and batch number | | | |
| | 3) All components individually packed and labelled | | | |
| | 4) Does any of the components have an expiry date | | | |
| | 5) Identification tag included in the packing | | | |
| | 6) All documentation in English | | | |

| | | | |
|---|---|---|---|
| Signature | | Name (print) | |
| Capacity | | Date | |
| Name of firm | | | |

| ACCESSORY | REQUIREMENT | Conformance YES | Conformance NO | NOTES |
|---|---|---|---|---|
| | 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) | | | |
| TEST REPORTS | 1) Test reports shall be correctly identified with respect to: | | | **Attach a copy of test report for each product offered** |
| | 2) Name of manufacturer | | | |
| | 3) Brand name | | | |
| | 4) Type | | | |
| | 5) Manufacturing date | | | |
| | 6) Part number | | | |
| | 7) Photos of set up | | | |
| | 8) Cable cross section | | | |
| | 9) Material composition and shape of the cable conductor | | | |
| | 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 Body | | | **Certificate attached?** **Yes** **No** |
| TRAINING | 1) Does the supplier offer product training | | | |
| | 2) EWETA or SAQA accredited (attach proof) | | | **Proof attached?** **Yes** **No** |
| | 3) Assessors and Moderator Seta accredited | | | **Certificate attached?** **Yes** **No** |

| | | | |
|---|---|---|---|
| Signature | | Name (print) | |
| Capacity | | Date | |
| Name of firm | | | |

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## 19. SCHEDULE OF WORK EXPERIENCE OF THE TENDERER

| | Employer (Name, Tel, Fax, Email) | | Nature of work | Value of work (Incl. VAT) | Date started | Date completed |
|---|---|---|---|---|---|---|
| 1. | **Name of entity** | | | | | |
| | Contact Person | | | | | |
| | Tel | | | | | |
| | Fax | | | | | |
| | Email | | | | | |
| 2. | **Name of entity** | | | | | |
| | Contact Person | | | | | |
| | Tel | | | | | |
| | Fax | | | | | |
| | Email | | | | | |
| 3. | **Name of entity** | | | | | |
| | Contact Person | | | | | |
| | Tel | | | | | |
| | Fax | | | | | |
| | Email | | | | | |
| 4. | **Name of entity** | | | | | |
| | Contact Person | | | | | |
| | Tel | | | | | |
| | Fax | | | | | |
| | Email | | | | | |
| 5. | **Name of entity** | | | | | |
| | Contact Person | | | | | |
| | Tel | | | | | |
| | Fax | | | | | |
| | Email | | | | | |

**Attach more pages if necessary.**

| | | | | | |
|---|---|---|---|---|---|
| SIGNATURE | | NAME (PRINT) | | DATE | |
| CAPACITY | | NAME OF FIRM | | | |

## 20. 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 destination.**
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.**
5. **The Bidder MUST indicate whether he/she/the entity is a registered VAT Vendor or not.**
   a. **In the case of the Bidder not being a registered VAT Vendor, both columns (amount/rate excluding AND including VAT) must reflect the same amount.**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | INDICATE WITH AN 'X' | | | | | |
| **Are you/is the firm a registered VAT Vendor** | | | | | | **YES** | | | **NO** | | |
| **If "YES", please provide VAT number** | | | | | | | | | | | |

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:**

**SEE PRICING SCHEDULE ON NEXT PAGES:**

| | | | |
|---|---|---|---|
| Signature | | Name (print) | |
| Capacity | | Date | |
| Name of firm | | | |

| Item # | OM stock code | Description | Est. Qty. Over The Contract Period | Indicate if your offer complies with technical requirements | | Lead Time (Weeks) | Manufacturer & Model / Type | Tender Price Including VAT | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Yes | No | | | Kleinmond | Hermanus | Gansbaai |
| **1.** | **METERS** | | | | | | | | | |
| 1.1. | **PLC METERS SEE ITEM #1 IN SPECIFICATIONS** | | | | | | | | | |
| 1.1.1 | 02M070 | MULTI FREQUENCY 1 PHASE DIN RAIL G3 -PLC METER:E460S (SMART (LANDIS OR COMPATIBLE) | 1650 | | | | | | | |
| 1.1.2 | 02M075 | MULTI FREQUENCY 3 PHASE DIN RAIL G3-PLC METER:E460S (LANDIS OR COMPATIBLE) | 650 | | | | | | | |
| 1.1.3 | 02M080 | CUSTOMER INTERFACE UNIT: P160 PLC CUSTOMER INTERFACE UNIT (STAND-ALONE) (LANDIS OR COMPATIBLE) | 60 | | | | | | | |
| 1.1.4 | Non Stock | MULTI FREQUENCY 1 PHASE BS G3 – PLC METER E460S (LANDIS OR COMPATIBLE) | 60 | | | | | | | |
| 1.1.5 | Non Stock | MULTI FREQUENCY 3 PHASE BS G3 – PLC METER E460S (LANDIS OR COMPATIBLE) | 6 | | | | | | | |
| 1.1.6 | Non Stock | E650 SERIES 3 – ZXD400AT/CT METER (LANDIS OR COMPATIBLE) | 10 | | | | | | | |
| 1.1.7 | Non Stock | E65C CU-U52 – MODEM (LANDIS OR COMPATIBLE) | 10 | | | | | | | |
| 1.1.8 | Non Stock | SG101 IS AN INDUSTRIAL GPRS/EDGE/3G MODEM (LANDIS OR COMPATIBLE) | 10 | | | | | | | |

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| Signature | | Name (print) | |
| Capacity | | Date | |
| Name of firm | | | |

| Item # | OM stock code | Description | Est. Qty. Over The Contract Period | Indicate if your offer complies with technical requirements | | Lead Time (Weeks) | Manufacturer & Model / Type | Tender Price Including VAT | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Yes | No | | | Kleinmond | Hermanus | Gansbaai |
| 1.1.9 | Non Stock | COVERT GSM MULTIBAND OMNI-DIRECTIONAL ANTENNA (824-960MHZ AND 1710-2200MHZ) (LANDIS OR COMPATIBLE) | 10 | | | | | | | |
| 1.1.10 | Non Stock | THE SG106; INDUSTRIAL GPRS/EDGE/3G MODEM FOR LANDIS+GYR E460S (LANDIS OR COMPATIBLE) | 10 | | | | | | | |
| 1.2. | **SPLIT SINGLE PHASE DIN RAIL MOUNT POWER LINE COMMUNICATIONS ELECTRICITY METER (Ontec or compatible) SEE ITEM #1 IN SPECIFICATIONS** | | | | | | | | | |
| 1.2.1 | 02M046 | SPLIT SINGLE PHASE DIN RAIL MOUNT POWER LINE COMMUNICATIONS ELECTRICITY METER (ONTEC OR COMPATIBLE) | 50 | | | | | | | |
| 1.2.2 | Non Stock | MULTI FREQUENCY SINGLE PHASE SPLIT DIN-RAIL MOUNTED PLC PREPAYMENT METER – MCU (ONTEC SIENNA OR COMPATIBLE) | | | | | | | | |
| 1.2.3 | 02M045 | ACE 9000 PLC CIU STANDARD, COMMON BASE KEYPAD (ONTEC OR COMPATIBLE) | | | | | | | | |
| 1.2.4 | 02M047 | ACE 9000 PLC CIU STAND-ALONE, KEYPAD (ONTEC OR COMPATIBLE) | | | | | | | | |
| 1.3. | **RADIO FREQUENCY (RF) METERS WITH BUILT IN ANTENNAS (Conlog or Similar Approved)** | | | | | | | | | |
| 1.3.1 | G0101E010 | USER INTERFACE UNIT (UIU) (CONLOG OR COMPATIBLE) | 87 | | | | | | | |
| 1.3.2 | 02M060 | RF DATA CONCENTRATOR UNIT (CONLOG OR COMPATIBLE) | 100 | | | | | | | |

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| Signature | | Name (print) | |
| Capacity | | Date | |
| Name of firm | | | |

| Item # | OM stock code | Description | Est. Qty. Over The Contract Period | Indicate if your offer complies with technical requirements | | Lead Time (Weeks) | Manufacturer & Model / Type | Tender Price Including VAT | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Yes | No | | | Kleinmond | Hermanus | Gansbaai |
| 1.3.3 | Non Stock | RF COMMON BASE ED & ECU KEYPAD (CONLOG OR COMPATIBLE) | 1 | | | | | | | |
| 1.3.4 | G0101E05 | SPLIT METER: W BEC 44 (09) RADIO FREQUENCY (CONLOG OR COMPATIBLE) | | | | | | | | |
| 1.3.5 | Non Stock | SPLIT METER: W BEC 44 (10) DIN RAIL , MEASUREMENT CONTROL UNIT ( MCU ) (CONLOG OR COMPATIBLE) | | | | | | | | |
| 1.3.6 | Non Stock | SPLIT METER: BEC 62-THREE PHASE RADIO FREQUENCY (CONLOG OR COMPATIBLE) | | | | | | | | |
| 1.3.7 | 02M052 | WIRELESS USER INTERFACE UNIT (WUIU) (CONLOG OR COMPATIBLE) | | | | | | | | |
| 1.3.8 | Non Stock | WIRELESS CUSTOMER INTERFACE UNIT COMMON BASE RADIO FREQUENCY (CONLOG OR COMPATIBLE) | | | | | | | | |
| 1.3.9 | Non Stock | WIRELESS METER INTERFACE WMI(09) (CONLOG OR COMPATIBLE) | | | | | | | | |
| 1.3.10 | Non Stock | RF SIGNAL EXTENDER (CONLOG OR COMPATIBLE) | | | | | | | | |
| 1.3.11 | 02M055 | ANTENNA: WIRELESS METER INTERFACE WMI(09) (CONLOG OR COMPATIBLE) | | | | | | | | |
| 1.4. | **THREE PHASE PROGRAMMABLE ENERGY AND DEMAND METER SEE ITEM #1 IN SPECIFICATIONS** | | | | | | | | | |
| 1.4.1 | 02M010 | METER: ENERMAX + METER E+MA-153000110V, 3 WIRE (ENERMAX" OR COMPATIBLE) | | | | | | | | |

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| Signature | | Name (print) | |
| Capacity | | Date | |
| Name of firm | | | |

| Item # | OM stock code | Description | Est. Qty. Over The Contract Period | Indicate if your offer complies with technical requirements | | Lead Time (Weeks) | Manufacturer & Model / Type | Tender Price Including VAT | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Yes | No | | | Kleinmond | Hermanus | Gansbaai |
| 1.4.2 | 02M009 | METER: ENERMAX + METER E+MA-454000 220V / 400V, 4 WIRE("ENERMAX" OR COMPATIBLE) | | | | | | | | |
| 1.4.3 | 02M060 | EXPANSION MODULE: E+EA-GPRS 04 WITH RS485 AND GSM / GPRS. UNDER-GLASS TO FIT ENERMAX PLUS METER VERSION 50V228 (ENERMAX" OR COMPATIBLE) | | | | | | | | |
| 1.4.4 | Non Stock | ENERMAX INTELLIGENT DEVICE MANAGER (IDM) (ENERMAX" OR COMPATIBLE) | | | | | | | | |
| 1.5. | | **OTHER METERS** | | | | | | | | |
| 1.5.1 | Non Stock | BLANK COVER FOR COMMON BASE | | | | | | | | |
| 1.5.2 | 02M101 | BASE FOR S/PHASE PREPAID COMPATIBLE METER | | | | | | | | |
| 1.5.3 | 02M100 | SINGLE PHASE PREPAYMENT METERS STS COMPATIBLE, COMMON BASE | | | | | | | | |
| 1.5.4 | 02M005 | THREE PHASE PREPAYMENT METERS STS COMPATIBLE, SPLIT (WIRED) – 100 AMP | | | | | | | | |

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|---|---|---|---|
| Signature | | Name (print) | |
| Capacity | | Date | |
| Name of firm | | | |

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| **2.** | **METER SEALS &TEST BLOCKS SEE TIEM #2 IN SPECIFICATIONS** | | | | | | | | | |
| 2.1. | Non Stock | METER SEALS: SP1-YEL QUICK SEAL, YELLOW, RED & BLUE | 100 | | | | | | | |
| 2.2. | 02M300 | METERING TEST BLOCK, FRONT CONNECTED 13WAY HTB001 | 10 | | | | | | | |
| 2.3. | Non Stock | METERING TEST BLOCK, REAR CONNECTED | 2 | | | | | | | |

| Item # | OM stock code | Description | Est. Qty. Contract period | Indicate if your offer complies with technical requirements | | Lead Time (Weeks) | Manufacturer & Model / Type | Tender Price Including VAT | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Yes | No | | | Kleinmond | Hermanus | Gansbaai |
| **3.** | **LIGHT FITTINGS AND ACCESSORIES;** | | | | | | | | | |
| 3.1. | **ACRYLIC ART LIGHTING SEE ITEM #3.1 IN SPECIFICATIONS** | | | | | | | | | |
| 3.1.1 | Non Stock | ACRYLIC ART LIGHTING CONE ART AA-BFH45-04 LIGHT FITTING (OR COMPATIBLE | 10 | | | | | | | |
| 3.2. | **STREET LIGHTING LUMINAIRES TO SABS 1277 AND 1088 NB: BEKA COMPATIBLE REF #4 IN SPECIFICATIONS** | | | | | | | | | |
| 3.2.1 | Non Stock | 70W HPS BEKALANE BOTTOM ENTRY BUBBLE GLASS (BEKA OR COMPATIBLE) | 2 | | | | | | | |
| 3.2.2 | Non Stock | 125W MV BEKALANE BOTTOM ENTRY BUBBLE GLASS (BEKA OR COMPATIBLE | 2 | | | | | | | |
| 3.2.3 | Non Stock | 70W HPS BEKALANE SIDE ENTRY BUBBLE GLASS (BEKA OR COMPATIBLE) | 2 | | | | | | | |
| 3.2.4 | Non Stock | 125W MV BEKALANE SIDE ENTRY BUBBLE GLASS (BEKA OR COMPATIBLE) | 2 | | | | | | | |
| 3.2.5 | Non Stock | 70W HPS BEKALANE FLAT GLASS BOTTOM ENTRY (BEKA OR COMPATIBLE) | 2 | | | | | | | |

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|---|---|---|---|
| Signature | | Name (print) | |
| Capacity | | Date | |
| Name of firm | | | |

| Item # | OM stock code | Description | Est. Qty. Contract period | Indicate if your offer complies with technical requirements | | Lead Time (Weeks) | Manufacturer & Model / Type | Tender Price Including VAT | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Yes | No | | | Kleinmond | Hermanus | Gansbaai |
| 3.2.6 | Non Stock | 70W HPS BEKALANE FLAT GLASS SIDE ENTRY (BEKA OR COMPATIBLE) | 2 | | | | | | | |
| 3.2.7 | Non Stock | 150W HPS BEKALANE BOTTOM ENTRY BUBBLE GLASS (BEKA OR COMPATIBLE) | 2 | | | | | | | |
| 3.2.8 | Non Stock | 150W HPS BEKALANE SIDE ENTRY BUBBLE GLASS (BEKA OR COMPATIBLE) | 2 | | | | | | | |
| 3.2.9 | Non Stock | 6 SIDED BOTTOM ENTRY POST TOP(BEKA OR COMPATIBLE) BEKA RAY 70W HPS-I | 2 | | | | | | | |
| 3.2.10 | Non Stock | 6 SIDED BOTTOM ENTRY POST TOP(BEKA OR COMPATIBLE) BEKA RAY 125W MV | 2 | | | | | | | |
| 3.2.11 | Non Stock | 70W HPS BEKALUX SIDE ENTRY | 2 | | | | | | | |
| 3.2.12 | Non Stock | 70W HPS BEKALUX BOTTOM ENTRY | 2 | | | | | | | |
| 3.2.13 | Non Stock | 125W MV BEKALUX SIDE ENTRY | 2 | | | | | | | |
| 3.2.14 | Non Stock | 125W MV BEKALUX BOTTOM ENTRY | 2 | | | | | | | |
| 3.3. | **LIGHT FITTINGS AND ACCESSORIES** | | | | | | | | | |
| 3.3.1 | Non Stock | 4FT FLUORESCENT SINGLE OPEN FITTING | 2 | | | | | | | |
| 3.3.2 | Non Stock | 4FT FLUORESCENT DOUBLE OPEN FITTING | 2 | | | | | | | |
| 3.3.3 | Non Stock | 5FT FLUORESCENT SINGLE OPEN FITTING | 2 | | | | | | | |

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|---|---|---|---|
| Signature | | Name (print) | |
| Capacity | | Date | |
| Name of firm | | | |

| Item # | OM stock code | Description | Est. Qty. Contract period | Indicate if your offer complies with technical requirements | | Lead Time (Weeks) | Manufacturer & Model / Type | Tender Price Including VAT | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Yes | No | | | Kleinmond | Hermanus | Gansbaai |
| 3.3.4 | Non Stock | 5FT FLUORESCENT DOUBLE OPEN FITTING | 2 | | | | | | | |
| 3.3.5 | Non Stock | 4FT DECORATIVE FLUORESCENT DOUBLE FITTING | 2 | | | | | | | |
| 3.3.6 | Non Stock | 5FT DECORATIVE FLUORESCENT DOUBLE FITTING | 2 | | | | | | | |
| 3.3.7 | 02C001 | CHOKE: 70 WATT HPS (SMALL:110LX68WX 55H) AFCAP OR SIMILAR APPROVED | 594 | | | | | | | |
| 3.3.8 | 02C006 | CHOKE: 80 WATT MERCURY VAPOUR | 30 | | | | | | | |
| 3.3.9 | 02C003 | CHOKE: 125 WATT MERCURY VAPOUR | 246 | | | | | | | |
| 3.3.10 | 02C005 | CHOKE: 250 WATT MERCURY VAPOUR | 132 | | | | | | | |
| 3.3.11 | 02S009 | DAYLIGHT SWITCH: 16A NATIONAL (NS216) (OR COMPATIBLE) | 1156 | | | | | | | |
| 3.3.12 | 02S010 | DAYLIGHT SWITCH: 18A SPECTRUM (MS18) (OR COMPATIBLE) | 171 | | | | | | | |
| 3.4. | **ROPE LIGHTS AND ACCESSORIES SEE ITEM #3.2 IN SPECIFICATIONS** | | | | | | | | | |
| 3.4.1 | **ROPE LIGHT STANDARD COLOURS** | | | | | | | | | |
| 3.4.1.1. | Non Stock | 2 WIRE ROPE LIGHT CLEAR | 1 | | | | | | | |
| 3.4.1.2. | Non Stock | 2 WIRE ROPE LIGHT RED | 1 | | | | | | | |
| 3.4.1.3. | Non Stock | 2 WIRE ROPE LIGHT YELLOW | 1 | | | | | | | |

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|---|---|---|---|
| Signature | | Name (print) | |
| Capacity | | Date | |
| Name of firm | | | |

| Item # | OM stock code | Description | Est. Qty. Contract period | Indicate if your offer complies with technical requirements | | Lead Time (Weeks) | Manufacturer & Model / Type | Tender Price Including VAT | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Yes | No | | | Kleinmond | Hermanus | Gansbaai |
| 3.4.1.4. | Non Stock | 2 WIRE ROPE LIGHT BLUE | 1 | | | | | | | |
| 3.4.1.5. | Non Stock | 2 WIRE ROPE LIGHT GREEN | 1 | | | | | | | |
| 3.4.1.6. | Non Stock | 2 WIRE ROPE LIGHT AQUA BLUE | 1 | | | | | | | |
| 3.4.1.7. | Non Stock | 2 WIRE ROPE LIGHT HELLFIRE | 1 | | | | | | | |
| 3.4.1.8. | Non Stock | 2 WIRE ROPE LIGHT DARK GREY | 1 | | | | | | | |
| 3.4.1.9. | Non Stock | 2 WIRE ROPE LIGHT SAKURA PINK | 1 | | | | | | | |
| 3.4.1.10. | Non Stock | 2 WIRE ROPE LIGHT ORANGE | 1 | | | | | | | |
| 3.4.1.11. | Non Stock | 2 WIRE ROPE LIGHT PURPLE | 1 | | | | | | | |
| 3.4.1.12. | Non Stock | 2 WIRE ROPE LIGHT FLUORESCENT GREEN | 1 | | | | | | | |
| 3.4.1.13. | Non Stock | 2 WIRE ROPE LIGHT FLUORESCENT ORANGE | 1 | | | | | | | |
| 3.4.1.14. | Non Stock | 2 WIRE ROPE LIGHT FLUORESCENT PINK | 1 | | | | | | | |
| 3.4.1.15. | Non Stock | 3 WIRE ROPE LIGHT CLEAR | 1 | | | | | | | |
| 3.4.1.16. | Non Stock | 3 WIRE ROPE LIGHT RED | 1 | | | | | | | |

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| Signature | | Name (print) | |
| Capacity | | Date | |
| Name of firm | | | |

| Item # | OM stock code | Description | Est. Qty. Contract period | Indicate if your offer complies with technical requirements | | Lead Time (Weeks) | Manufacturer & Model / Type | Tender Price Including VAT | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Yes | No | | | Kleinmond | Hermanus | Gansbaai |
| 3.4.1.17. | Non Stock | 3 WIRE ROPE LIGHT YELLOW | 1 | | | | | | | |
| 3.4.1.18. | Non Stock | 3 WIRE ROPE LIGHT BLUE | 1 | | | | | | | |
| 3.4.1.19. | Non Stock | 3 WIRE ROPE LIGHT GREEN | 1 | | | | | | | |
| 3.4.1.20. | Non Stock | 3 WIRE ROPE LIGHT AQUA BLUE | 1 | | | | | | | |
| 3.4.1.21. | Non Stock | 3 WIRE ROPE LIGHT HELLFIRE | 1 | | | | | | | |
| 3.4.1.22. | Non Stock | 3 WIRE ROPE LIGHT DARK GREY | 1 | | | | | | | |
| 3.4.1.23. | Non Stock | 3 WIRE ROPE LIGHT SAKURA PINK | 1 | | | | | | | |
| 3.4.1.24. | Non Stock | 3 WIRE ROPE LIGHT ORANGE | 1 | | | | | | | |
| 3.4.1.25. | Non Stock | 3 WIRE ROPE LIGHT PURPLE | 1 | | | | | | | |
| 3.4.1.26. | Non Stock | 3 WIRE ROPE LIGHT FLUORESCENT GREEN | 1 | | | | | | | |
| 3.4.1.27. | Non Stock | 3 WIRE ROPE LIGHT FLUORESCENT ORANGE | 1 | | | | | | | |
| 3.4.1.28. | Non Stock | 3 WIRE ROPE LIGHT FLUORESCENT PINK | 1 | | | | | | | |

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| Capacity | | Date | |
| Name of firm | | | |

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| 3.4.2 | **ROPE LIGHT PEARL COLOURS** | | | | | | | | | |
| 3.4.2.1. | Non Stock | 2 WIRE ROPE LIGHT WHITE (PEARL) | 1 | | | | | | | |
| 3.4.2.2. | Non Stock | 2 WIRE ROPE LIGHT RED | 1 | | | | | | | |
| 3.4.2.3. | Non Stock | 2 WIRE ROPE LIGHT YELLOW | 1 | | | | | | | |
| 3.4.2.4. | Non Stock | 2 WIRE ROPE LIGHT BLUE | 1 | | | | | | | |
| 3.4.2.5. | Non Stock | 2 WIRE ROPE LIGHT GREEN (SEA) | 1 | | | | | | | |
| 3.4.2.6. | Non Stock | 2 WIRE ROPE LIGHT ORANGE | 1 | | | | | | | |
| 3.4.2.7. | Non Stock | 2 WIRE ROPE LIGHT, PINK | 1 | | | | | | | |
| 3.4.2.8. | Non Stock | 3 WIRE ROPE LIGHT WHITE (PEARL) | 1 | | | | | | | |
| 3.4.2.9. | Non Stock | 3 WIRE ROPE LIGHT RED | 1 | | | | | | | |
| 3.4.2.10. | Non Stock | 3 WIRE ROPE LIGHT YELLOW | 1 | | | | | | | |
| 3.4.2.11. | Non Stock | 3 WIRE ROPE LIGHT BLUE | 1 | | | | | | | |
| 3.4.2.12. | Non Stock | 3 WIRE ROPE LIGHT GREEN (SEA) | 1 | | | | | | | |
| 3.4.2.13. | Non Stock | 3 WIRE ROPE LIGHT ORANGE | 1 | | | | | | | |
| 3.4.2.14. | Non Stock | 3 WIRE ROPE LIGHT, PINK | 1 | | | | | | | |

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| Name of firm | | | |

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| 3.4.3 | **ROPE LIGHT MULTI COLOUR** | | | | | | | | | |
| 3.4.3.1. | Non Stock | 2 WIRE ROPE LIGHT RED | 1 | | | | | | | |
| 3.4.3.2. | Non Stock | 2 WIRE ROPE LIGHT, GREEN | 1 | | | | | | | |
| 3.4.3.3. | Non Stock | 2 WIRE ROPE LIGHT BLUE | 1 | | | | | | | |
| 3.4.3.4. | Non Stock | 3 WIRE ROPE LIGHT RED | 1 | | | | | | | |
| 3.4.3.5. | Non Stock | 3 WIRE ROPE LIGHT GREEN | 1 | | | | | | | |
| 3.4.3.6. | Non Stock | 3 WIRE ROPE LIGHT BLUE | 1 | | | | | | | |
| 3.4.4 | **ROPE LIGHT CONTROLLERS** | | | | | | | | | |
| 3.4.4.1. | Non Stock | WL5C- 6 FUNCTION HEAVY DUTY CONTROLLERS LOADING LENGTH 100 M - 220/240 VOLT – 15 AMP(OR COMPATIBLE) | 1 | | | | | | | |
| 3.4.4.2. | Non Stock | WL310 – 13M X 3 WIRE – 12 METER LOADING LENGTH MINI CONTROLLERS 2 CHANNEL CHASING MOVEMENT FAST OR SLOW MOVING SETTING 1.2 AMP(OR COMPATIBLE) | 1 | | | | | | | |
| 3.4.4.3. | Non Stock | WL-310-CF - MINI CONTROLLER FOR CHASING FLEXILIGHT (3-WIRE), 220V. FUNCTION: CHASING, SPEED ADJUSTABLE(OR COMPATIBLE) | 1 | | | | | | | |
| 3.4.4.4. | Non Stock | WL-3C - 8A CONTROLLER FOR CHASING FLEXILIGHT, 220V, 7-FUNCTION CHASING(OR COMPATIBLE) | 1 | | | | | | | |
| 3.4.4.5. | Non Stock | BI-310 - MINI-CONTROLLER FOR BI-COLOR CHAMELEON, 220V, FUNCTION: GRADUAL COLOR CHANGE, SPEED ADJUSTABLE(OR COMPATIBLE) | 1 | | | | | | | |

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| Capacity | | Date | |
| Name of firm | | | |

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| 3.4.4.6. | Non Stock | WL-210 - MINI CONTROLLER FOR MINI FLEXILIGHT, 220V(OR COMPATIBLE) | 1 | | | | | | | |
| 3.4.4.7. | Non Stock | WL-310C - MINI CONTROLLER FOR CHASING FLEXILIGHT (3-WIRE), 220V, FUNCTION: CHASING, SPEED ADJUSTABLE(OR COMPATIBLE) | 1 | | | | | | | |
| 3.4.4.8. | Non Stock | WL-318-CF - MINI CONTROLLER FOR CHASING FLEXILIGHT, 220V, 16 FUNCTION(OR COMPATIBLE) | 1 | | | | | | | |
| 3.5. | **FLEXI LIGHT ACCESSORIES** | | | | | | | | | |
| 3.5.1 | Non Stock | M1&M2 - 2M BLACK POWER CORD WITH POWER CONNECTOR FOR MINI FLEXILIGHT. W/2 PINS- ROUND PLUG (OR COMPATIBLE) | 1 | | | | | | | |
| 3.5.2 | Non Stock | F1&F2 - 2M BLACK POWER CORD WITH POWER CONNECTOR FOR INSTANT FLEXILIGHT. W/2 PINS- ROUND PLUG(OR COMPATIBLE) | 1 | | | | | | | |
| 3.5.3 | Non Stock | C1&C2 - 2M BLACK POWER CORD WITH POWER CONNECTOR FOR CHASING FLEXILIGHT, W/2-PINS ROUND PLUG(OR COMPATIBLE) | 1 | | | | | | | |
| 3.5.4 | Non Stock | M2 - POWER CONNECTOR MINI FLEXILIGHT(OR COMPATIBLE) | 1 | | | | | | | |
| 3.5.5 | Non Stock | F2 - POWER CONNECTOR FOR INSTANT FLEXILIGHT(OR COMPATIBLE) | 1 | | | | | | | |
| 3.5.6 | Non Stock | C2 - POWER CONNECTOR FOR CHASING FLEXILIGHT(OR COMPATIBLE) | 1 | | | | | | | |
| 3.5.7 | Non Stock | M3 - SPLICE CONNECTOR FOR MINI FLEXILIGHT(OR COMPATIBLE) | 1 | | | | | | | |
| 3.5.8 | Non Stock | F3 - SPLICE CONNECTOR FOR INSTANT FLEXILIGHT(OR COMPATIBLE) | 1 | | | | | | | |
| 3.5.9 | Non Stock | C3 - SPLICE CONNECTOR FOR CHASING FLEXILIGHT(OR COMPATIBLE) | 1 | | | | | | | |
| 3.5.10 | Non Stock | M4 - END CAP FOR MINI FLEXILIGHT (100PCS = 1 PKT) (OR COMPATIBLE) | 1 | | | | | | | |

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| Capacity | | Date | |
| Name of firm | | | |

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| 3.5.11 | Non Stock | F4 - END CAP FOR INSTANT FLEXILIGHT (100PCS = 1 PKT) (OR COMPATIBLE) | 1 | | | | | | | |
| 3.5.12 | Non Stock | C4 - END CAP FOR CHASING FLEXILIGHT (100PCS = 1PKT) (OR COMPATIBLE) | 1 | | | | | | | |
| 3.5.13 | Non Stock | M9 - EASY SPLICE CONNECTOR FOR MINI FLEXILIGHT(OR COMPATIBLE) | 1 | | | | | | | |
| 3.5.14 | Non Stock | F9 - EASY SPLICE CONNECTOR FOR INSTANT FLEXILIGHT(OR COMPATIBLE) | 1 | | | | | | | |
| 3.5.15 | Non Stock | C9 - EASY SPLICE CONNECTOR FOR CHASING FLEXILIGHT(OR COMPATIBLE) | 1 | | | | | | | |

| 4. | STREETLIGHT POLES SEE ITEM #5 IN SPECIFICATIONS | | | | | | | Tender Price Including VAT | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | PLEASE PROVIDE A UNIT PRICE | | |
| **Item #** | **OM stock code** | **Description** | **Est. Qty. Contract period** | **Indicate if your offer complies with technical requirements** | | **Lead Time (Weeks)** | **Manufacturer & Model / Type** | **Kleinmond** | **Hermanus** | **Gansbaai** |
| | | | | **Yes** | **No** | | | | | |
| 4.1. | Non Stock | 4.2M STEEL POLE | 2 | | | | | | | |
| 4.2. | Non Stock | 5.7M STEEL POLE | 2 | | | | | | | |
| 4.3. | Non Stock | 7.2M STEEL POLE | 2 | | | | | | | |
| 4.4. | Non Stock | 10M STEEL POLE | 2 | | | | | | | |
| 4.5. | Non Stock | 11.5M STEEL POLE | 2 | | | | | | | |
| 4.6. | Non Stock | 14.5M STEEL POLE | 10 | | | | | | | |
| 4.7. | Non Stock | 4.5M CONCRETE POLE | 2 | | | | | | | |

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| Signature | | Name (print) | |
| Capacity | | Date | |
| Name of firm | | | |

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| 4.8. | Non Stock | 7.2M CONCRETE POLE | 2 | | | | | | | |
| 4.9. | Non Stock | 3.6M HEAVY DUTY GRP POLE COMPLETE WITH SPIGOT, BASEPLATE, GLANDPLATE AND MCB 5A/5KA ("BEKA K18.76.30" OR COMPATIBLE) | 2 | | | | | | | |
| 4.10. | Non Stock | 4.5M HEAVY DUTY GRP POLE COMPLETE WITH SPIGOT, BASEPLATE, GLANDPLATE AND MCB 5A/5KA ("BEKA K18.76.30" OR COMPATIBLE) | 2 | | | | | | | |
| 4.11. | 02P025 | 9M WOODEN GUM – CREOSOTE TREATED | 20 | | | | | | | |

| **5.** | **GENERAL A (LED) NOTE! THIS ITEM WILL BE ARWDED AS ONE ITEM TO ONE BIDDER** | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Item #** | **OM stock code** | **Description** | **Est. Qty. Contract period** | **Indicate if your offer complies with technical requirements** | | **Lead Time (Weeks)** | **Manufacturer & Model / Type** | **Tender Price Including VAT** | | |
| | | | | **Yes** | **No** | | | **Kleinmond** | **Hermanus** | **Gansbaai** |
| 5.1. | 02F022 | FLUORESCENT BALLAST: 4FT | 12 | | | | | | | |
| 5.2. | 02F023 | FLUORESCENT BALLAST: 5FT | 1 | | | | | | | |
| 5.3. | 02F024 | FLUORESCENT BALLAST: 6FT | 1 | | | | | | | |
| 5.4. | 02F078 | FLUORESCENT LAMP HOLDER | | | | | | | | |
| 5.5. | K02S009 | HOUSE WIRE: 1.5MM BLACK PVC (PLEASE PROVIDE A PRICE PER METER) | 52 | | | | | | | |
| 5.6. | 02F080 | LAMPS LED 4FT | 1 | | | | | | | |
| 5.7. | 02F090 | LAMPS LED 5FT | 10 | | | | | | | |

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| Signature | | Name (print) | |
| Capacity | | Date | |
| Name of firm | | | |

| 5. | GENERAL A (LED) NOTE! THIS ITEM WILL BE ARWDED AS ONE ITEM TO ONE BIDDER | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Item # | OM stock code | Description | Est. Qty. Contract period | Indicate if your offer complies with technical requirements | | Lead Time (Weeks) | Manufacturer & Model / Type | Tender Price Including VAT | | |
| | | | | Yes | No | | | Kleinmond | Hermanus | Gansbaai |
| 5.8. | G0102D02 | PLUGTOPS: 16A WHITE PVC | 100 | | | | | | | |
| 5.9. | G0102D02 | SWITCH 1L 2X4 COMPLETE WITH COVER | 6 | | | | | | | |
| 5.10. | NON STOCK | 1MM TWIN AND EARTH (100M ROLL) | 100 | | | | | | | |
| 5.11. | NON STOCK | 2.5 X 2C WHITE SURFIX (100M ROLL) | 100 | | | | | | | |
| 5.12. | NON STOCK | CABLE CLIPS 8.5 FLAT | 1000 | | | | | | | |
| 5.13. | NON STOCK | CABLE CLIPS 9MM ROUND | 1000 | | | | | | | |
| 5.14. | NON STOCK | CONNECTOR BLOCKS 10 AMP | 50 | | | | | | | |
| 5.15. | NON STOCK | CONNECTOR BLOCKS 15 AMP | 100 | | | | | | | |
| 5.16. | NON STOCK | CONNECTOR BLOCKS 5 AMP | 100 | | | | | | | |
| 5.17. | NON STOCK | FLUORESCENT STARTERS (FSU) | 100 | | | | | | | |
| 5.18. | NON STOCK | HOUSE WIRE: 1.5MM BLUE PVC (PLEASE PROVIDE A PRICE PER METER) | 100 | | | | | | | |
| 5.19. | NON STOCK | HOUSE WIRE: 1.5MM GREEN/YELLOW PVC (PLEASE PROVIDE A PRICE PER METER) | 100 | | | | | | | |
| 5.20. | NON STOCK | HOUSE WIRE: 1.5MM RED PVC (PLEASE PROVIDE A PRICE PER METER) | 100 | | | | | | | |

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| Signature | | Name (print) | |
| Capacity | | Date | |
| Name of firm | | | |

| 5. | GENERAL A (LED) NOTE! THIS ITEM WILL BE ARWDED AS ONE ITEM TO ONE BIDDER | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Item # | OM stock code | Description | Est. Qty. Contract period | Indicate if your offer complies with technical requirements | | Lead Time (Weeks) | Manufacturer & Model / Type | Tender Price Including VAT | | |
| | | | | Yes | No | | | Kleinmond | Hermanus | Gansbaai |
| 5.21. | NON STOCK | HOUSE WIRE: 1.5MM WHITE PVC (PLEASE PROVIDE A PRICE PER METER) | 100 | | | | | | | |
| 5.22. | NON STOCK | HOUSE WIRE: 2.5MM BLACK PVC (PLEASE PROVIDE A PRICE PER METER) | 100 | | | | | | | |
| 5.23. | NON STOCK | HOUSE WIRE: 2.5MM BLUE PVC (PLEASE PROVIDE A PRICE PER METER) | 100 | | | | | | | |
| 5.24. | NON STOCK | HOUSE WIRE: 2.5MM GREEN/YELLOW PVC (PLEASE PROVIDE A PRICE PER METER) | 100 | | | | | | | |
| 5.25. | NON STOCK | HOUSE WIRE: 2.5MM RED PVC (PLEASE PROVIDE A PRICE PER METER) | 100 | | | | | | | |
| 5.26. | NON STOCK | HOUSE WIRE: 2.5MM WHITE PVC (PLEASE PROVIDE A PRICE PER METER) | 100 | | | | | | | |
| 5.27. | NON STOCK | LAMP 85W E40 SPIRAL E/SAVER | 100 | | | | | | | |
| 5.28. | NON STOCK | LAMPS FLUORESCENT TUBES: 4FT (36W) | 10 | | | | | | | |
| 5.29. | NON STOCK | PVC WONDER BOX 2 X 4 | 420 | | | | | | | |
| 5.30. | NON STOCK | PVC WONDER BOX 4 X 4 | 10 | | | | | | | |
| 5.31. | NON STOCK | SWITCH 1L 2X4 COMPLETE WITH COVER | 300 | | | | | | | |
| 5.32. | NON STOCK | SWITCH 2L 2X4 COMPLETE WITH COVER | 10 | | | | | | | |
| 5.33. | NON STOCK | SWITCH 3L 2X4 COMPLETE WITH COVER | 10 | | | | | | | |

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| Signature | | Name (print) | |
| Capacity | | Date | |
| Name of firm | | | |

| 5. | GENERAL A (LED) NOTE! THIS ITEM WILL BE ARWDED AS ONE ITEM TO ONE BIDDER | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Item # | OM stock code | Description | Est. Qty. Contract period | Indicate if your offer complies with technical requirements | | Lead Time (Weeks) | Manufacturer & Model / Type | Tender Price Including VAT | | |
| | | | | Yes | No | | | Kleinmond | Hermanus | Gansbaai |
| 5.34. | NON STOCK | SWITCH 4L 2X4 COMPLETE WITH COVER | 100 | | | | | | | |
| 5.35. | NON STOCK | SWITCH DOUBLE SWITCH SOCKET OUTLET, 4 X 4 WITH COVER | 100 | | | | | | | |
| 5.36. | NON STOCK | SWITCH SINGLE SWITCH SOCKET WITH 3 X 5A EURO SOCKETS | 12 | | | | | | | |

| 6. | CABLES SEE ITEM #7 IN SPECIFICATIONS | | | | | | | | Tender Price Including VAT | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Item # | OM stock code | Description | Estimated quantity over Contract Period | Indicate if your offer complies with technical requirements | | Lead Time (Weeks) | Manufacturer & Model / Type | Indicate how many meters per drum | Kleinmond | Hermanus | Gansbaai |
| | | | | Yes | No | | | | | | |
| 6.1. | PVC INSULATED COPPER CONDUCTOR ; PVC BEDDED SWA PVC SHEATHED; 600/1000 VOLT CABLE TO SANS 1507 | | | | | | | | | | |
| | All full drum MV cables to bear meter marking | | | | | | | | | | |
| 6.1.1 | 02C015 | 16 MM² X 2 CORE | 4551 | | | | | | | | |
| 6.1.2 | 02C038 | 6 MM² X 2 CORE | 2900 | | | | | | | | |
| 6.1.3 | 02C037 | 6 MM² X 3 CORE | 3500 | | | | | | | | |

| Signature | | Name (print) | |
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| Capacity | | Date | |
| Name of firm | | | |

| 6. | CABLES SEE ITEM #7 IN SPECIFICATIONS | | | | | | | | Tender Price Including VAT | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Item # | OM stock code | Description | Estimated quantity over Contract Period | Indicate if your offer complies with technical requirements | | Lead Time (Weeks) | Manufacturer & Model / Type | Indicate how many meters per drum | Kleinmond | Hermanus | Gansbaai |
| | | | | Yes | No | | | | | | |
| 6.1.4 | 02C015 | 16 MM²X2CORE CU PVC SWA | | | | | | | | | |
| 6.1.5 | G0103F05 | 16 MM² X 2 CORE + 2 CORE STRANDED PILOT | 1491 | | | | | | | | |
| 6.1.6 | 02C039 | 16 MM² X 4 CORE | 1464 | | | | | | | | |
| 6.1.7 | 02C035 | 25 MM² X 4 CORE | 1182 | | | | | | | | |
| 6.1.8 | 02C082 | 70 MM² X 4 CORE | 1161 | | | | | | | | |
| 6.1.9 | 02C085 | 95 MM² X 4 CORE | 276 | | | | | | | | |
| 6.1.10 | Non Stock | 1,5 MM² X 2 CORE | 12 | | | | | | | | |
| 6.1.11 | Non Stock | 2,5 MM² X 2 CORE | 12 | | | | | | | | |
| 6.1.12 | Non Stock | 4 MM² X 2 CORE | 12 | | | | | | | | |
| 6.1.13 | Non Stock | 6 MM² X 4 CORE | 12 | | | | | | | | |
| 6.1.14 | Non Stock | 10 MM² X 2 CORE | 12 | | | | | | | | |
| 6.1.15 | Non Stock | 10 MM² X 4 CORE | 12 | | | | | | | | |
| 6.1.16 | Non Stock | 16 MM² X 4 CORE + 2 CORE STRANDED PILOT | 12 | | | | | | | | |
| 6.1.17 | Non Stock | 35 MM² X 4 CORE | 12 | | | | | | | | |
| 6.1.18 | Non Stock | 50 MM² X 4 CORE | 12 | | | | | | | | |
| 6.1.19 | Non Stock | 120 MM² X 4 CORE | 12 | | | | | | | | |

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| Capacity | | Date | |
| Name of firm | | | |

| 6. | CABLES SEE ITEM #7 IN SPECIFICATIONS | | | | | | | | Tender Price Including VAT | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Item # | OM stock code | Description | Estimated quantity over Contract Period | Indicate if your offer complies with technical requirements | | Lead Time (Weeks) | Manufacturer & Model / Type | Indicate how many meters per drum | Kleinmond | Hermanus | Gansbaai |
| | | | | Yes | No | | | | | | |
| 6.1.20 | Non Stock | 150 MM² X 4 CORE | 12 | | | | | | | | |
| 6.1.21 | Non Stock | 185 MM² X 4 CORE | 12 | | | | | | | | |
| 6.2. | PVC INSULATED ALUMINIUM CONDUCTOR; PVC BEDDED SWA PVC SHEATHED; 600/1000 VOLT CABLE TO SANS 1507 | | | | | | | | | | |
| | All full drum MV cables to bear meter marking | | | | | | | | | | |
| 6.2.1 | Non Stock | 185 MM² X 4 CORE | 12 | | | | | | | | |
| 6.2.2 | Non Stock | 150 MM² X 4 CORE | 12 | | | | | | | | |
| 6.2.3 | Non Stock | 120 MM² X 4 CORE | 12 | | | | | | | | |
| 6.2.4 | Non Stock | 95 MM² X 4 CORE | 12 | | | | | | | | |
| 6.2.5 | Non Stock | 70 MM² X 4 CORE | 12 | | | | | | | | |
| 6.2.6 | Non Stock | 50 MM² X 4 CORE | 12 | | | | | | | | |
| 6.2.7 | Non Stock | 35 MM² X 4 CORE | 12 | | | | | | | | |
| 6.2.8 | Non Stock | 25 MM² X 4 CORE | 12 | | | | | | | | |
| 6.3. | PAPER INSULATED COPPER CONDUCTOR CABLE; PVC SERVED 6,35/11KV TABLE 19 ; PILC GSTA TO SANS 97 | | | | | | | | | | |
| | All full drum MV cables to bear meter marking | | | | | | | | | | |
| 6.3.1 | Non Stock | 185 MM² X 3 CORE | 12 | | | | | | | | |
| 6.3.2 | Non Stock | 120 MM² X 3 CORE | 12 | | | | | | | | |

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|---|---|---|---|
| Signature | | Name (print) | |
| Capacity | | Date | |
| Name of firm | | | |

| 6. | CABLES SEE ITEM #7 IN SPECIFICATIONS | | | | | | | | Tender Price Including VAT | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Item # | OM stock code | Description | Estimated quantity over Contract Period | Indicate if your offer complies with technical requirements | | Lead Time (Weeks) | Manufacturer & Model / Type | Indicate how many meters per drum | Kleinmond | Hermanus | Gansbaai |
| | | | | Yes | No | | | | | | |
| 6.3.3 | Non Stock | 95 MM² X 3 CORE | 12 | | | | | | | | |
| 6.3.4 | Non Stock | 70 MM² X 3 CORE | 12 | | | | | | | | |
| 6.3.5 | Non Stock | 35 MM² X 3 CORE | 12 | | | | | | | | |
| 6.3.6 | Non Stock | 25 MM² X 3 CORE | 12 | | | | | | | | |
| 6.3.7 | Non Stock | 300 MM² X 3 CORE | 12 | | | | | | | | |
| 6.3.8 | Non Stock | 240 MM² X 3 CORE | 12 | | | | | | | | |
| 6.3.9 | Non Stock | 185 MM² X 3 CORE | 12 | | | | | | | | |
| 6.3.10 | Non Stock | 120 MM² X 3 CORE | 12 | | | | | | | | |
| 6.3.11 | Non Stock | 95 MM² X 3 CORE | 12 | | | | | | | | |
| 6.3.12 | Non Stock | 70 MM² X 3 CORE | 12 | | | | | | | | |
| 6.4. | **INSULATED AERIAL CABLE COPPER SPLIT CONCENTRIC AIRDAC** | | | | | | | | | | |
| | **All full drum MV cables to bear meter marking** | | | | | | | | | | |
| 6.4.1 | 02C012 | 10 MM² COPPER SPLIT CONCENTRIC AIRDAC PLUS STRANDED PILOT CABLE | 2004 | | | | | | | | |
| 6.4.2 | G0103F04 | 16 MM² COPPER SPLIT CONCENTRIC AIRDAC PLUS STRANDED PILOT CABLE | 1365 | | | | | | | | |

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| Signature | | Name (print) | |
| Capacity | | Date | |
| Name of firm | | | |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| 6.5. | **XLPE-INSULATED ALUMINIUM ABC- CONDUCTOR TO SABS 1418 PART 1 AND 2/1986 WITH CORE IDENTIFICATION (LV)** | | | | | | | | | | |
| 6.5.1 | Non Stock | 3X120 + 54,6 + 25 MM² | 12 | | | | | | | | |
| 6.5.2 | Non Stock | 3X95 + 54,6 + 25 MM² | 12 | | | | | | | | |
| 6.5.3 | Non Stock | 3X70 + 54,6 + 25 MM² | 12 | | | | | | | | |
| 6.5.4 | Non Stock | 3X35 + 54,6 + 25 MM² | 12 | | | | | | | | |
| 6.6. | **XLPE- INSULATED ALUMINIUM ABC- CONDUCTOR TO SANS 1713 AND TYPE B 6.35/11KV WITH CORE IDENTIFICATION (MV)** | | | | | | | | | | |
| 6.6.1 | Non Stock | AL 120MM2 3C XLPE IS(0.15) PVC(UV) + HSSW 7/3.60MM PVC(UV) ABC SANS 1713 TYPE B 6.35/11KV | 12 | | | | | | | | |
| 6.6.2 | 02C200 | AL 35MM2 3C XLPE IS(0.15) PVC(UV) + HSSW 7/3.00MM PVC(UV) ABC SANS 1713 TYPE B 6.35/11KV | 12 | | | | | | | | |
| 6.6.3 | Non Stock | AL 70MM2 3C XLPE IS(0.15) PVC(UV) + HSSW 7/3.00MM PVC(UV) ABC SANS 1713 TYPE B 6.35/11KV | 12 | | | | | | | | |
| 6.6.4 | Non Stock | AL 95MM2 3C XLPE IS(0.15) PVC(UV) + HSSW 7/3.00MM PVC(UV) ABC SANS 1713 TYPE B 6.35/11KV | 12 | | | | | | | | |
| 6.7. | **OVERHEAD CONDUCTOR** | | | | | | | | | | |
| 6.7.1 | Non Stock | OAK (359A) 100MM ALUMINIUM OVERHEAD CONDUCTOR (ABERDARE OR SIMILAR) | 10 | | | | | | | | |

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| Signature | | Name (print) | |
| Capacity | | Date | |
| Name of firm | | | |

| 7. | CABLE – GENERAL | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Item # | OM stock code | Description | Estimated quantity over the Contract Period | Indicate if your offer complies with technical requirements | | Lead Time (Weeks) | Manufacturer & Model / Type | Indicate how many units per packet / box | Kleinmond | Hermanus | Gansbaai |
| | | | | Yes | No | | | | | | |
| 7.1. | 02B028 | HEAT SHRINK BOOT: 16MM SINGLE PHASE | 9 | | | | | | | | |
| 7.2. | 02B029 | HEAT SHRINK BOOT: 16MM 3 CORE | 27 | | | | | | | | |
| 7.3. | 02B032 | HEAT SHRINK BOOT: 35- 95MM 3 CORE | 45 | | | | | | | | |
| 7.4. | 02B033 | HEAT SHRINK BOOT: 70-120MM 3 PHASE | 3 | | | | | | | | |
| 7.5. | 02B035 | END CAPS: 55-25MM | 63 | | | | | | | | |
| 7.6. | 02B036 | END CAPS: 75-32MM | 36 | | | | | | | | |
| 7.7. | 02C002 | END CAPS: 16MM(LXAC116) | 85 | | | | | | | | |
| 7.8. | 02C037 | END CAPS:100-45MM | 2 | | | | | | | | |
| 7.9. | 02C110 | INSULATION PIERCING CONNECTORS: 6-35MM (TTD151F) | 165 | | | | | | | | |
| 7.10. | 02C111 | INSULATION PIERCING CONNECTORS:25-95MM (TTD201F) | 231 | | | | | | | | |
| 7.11. | G0101B05 | END CONNECTORS & SLEEVES: NO.2 | 1326 | | | | | | | | |
| 7.12. | Non Stock | END CONNECTORS & SLEEVES: NO 3 | 400 | | | | | | | | |

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| Signature | | Name (print) | |
| Capacity | | Date | |
| Name of firm | | | |

| 7. | LAMPS | | | | | | | | Tender Price Including VAT | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | PLEASE PROVIDE A UNIT PRICE AND NOT A PRICE PER PACKET OR BOX | | |
| Item # | OM stock code | Description | Est. Qty. Contract period | Indicate if your offer complies with technical requirements | | Lead Time (Weeks) | Manufacturer & Model / Type | Indicate how many units per packet / box | Kleinmond | Hermanus | Gansbaai |
| | | | | Yes | No | | | | | | |
| 7.1. | **DISCHARGE LAMPS** | | | | | | | | | | |
| 7.1.1 | **MERCURY VAPOUR LAMPS** | | | | | | | | | | |
| 7.1.1.1. | 02G010 | 80W MERCURY (HPL-N) E27 | 393 | | | | | | | | |
| 7.1.1.2. | 02G004 | 125 WATT, 250 VOLT, ES | 2292 | | | | | | | | |
| 7.1.1.3. | 02G006 | 250 WATT, 250 VOLT, GES | 78 | | | | | | | | |
| 7.1.1.4. | Non Stock | 400 WATT, 250 VOLT, GES | 1 | | | | | | | | |
| 7.1.2 | **HIGH PRESSURE SODIUM** | | | | | | | | | | |
| 7.1.2.1. | 02G017 | 70 WATT, NAV-E 70 W/E E27 | 2256 | | | | | | | | |
| 7.1.2.2. | G0101D08 | GLOBES: 70W NAVT SUPER TUBULAR | 255 | | | | | | | | |
| 7.1.2.3. | 02G005 | 250 WATT, COATED ELLIPTIC, GES | 369 | | | | | | | | |
| 7.1.2.4. | 02G001 | 400 WATT, COATED ELLIPTIC, GES | 12 | | | | | | | | |
| 7.1.2.5. | Non Stock | 250 WATT, CLEAR TUBULAR, GES | 1 | | | | | | | | |
| 7.1.2.6. | Non Stock | 400 WATT, CLEAR TUBULAR, GES | 1 | | | | | | | | |
| 7.1.2.7. | Non Stock | 70 WATT, CLEAR TUBULAR, GES | 1 | | | | | | | | |
| 7.1.2.8. | Non Stock | 150 WATT COATED ELLIPTIC, GES | 1 | | | | | | | | |

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| Signature | | Name (print) | |
| Capacity | | Date | |
| Name of firm | | | |

| 7. | LAMPS | | | | | | | | Tender Price Including VAT<br>PLEASE PROVIDE A UNIT PRICE AND NOT A PRICE PER PACKET OR BOX | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Item # | OM stock code | Description | Est. Qty. Contract period | Indicate if your offer complies with technical requirements | | Lead Time (Weeks) | Manufacturer & Model / Type | Indicate how many units per packet / box | Kleinmond | Hermanus | Gansbaai |
| | | | | Yes | No | | | | | | |
| 7.1.3 | **METAL HALIDE** | | | | | | | | | | |
| 7.1.3.1. | Non Stock | 400 WATT, TUBULAR WITHOUT INTERNAL IGNITER | 1 | | | | | | | | |
| 7.1.3.2. | Non Stock | 400 WATT, TUBULAR WITH INTERNAL IGNITER | 1 | | | | | | | | |
| 7.1.3.3. | Non Stock | 2000 WATT, TUBULAR WITHOUT INTERNAL IGNITER | 1 | | | | | | | | |
| 7.1.3.4. | Non Stock | 2000 WATT, TUBULAR WITH INTERNAL IGNITER | 1 | | | | | | | | |
| 7.2. | **LAMPS - GENERAL** | | | | | | | | | | |
| 7.2.1 | G0102F22 | GLOBES: 16W 2D 2PIN | 12 | | | | | | | | |
| 7.2.2 | 02G012 | GLOBES: 70W E/S ROBOT | 195 | | | | | | | | |
| 7.2.3 | K02G002B | GLOBES: 11W ENERGY SAVER BC | 534 | | | | | | | | |
| 7.2.4 | K02G002A | GLOBES: 11W ENERGY SAVER ES | 249 | | | | | | | | |
| 7.2.5 | G0101D02 | GLOBES: 60W ES | 114 | | | | | | | | |
| 7.2.6 | G0101B06 | GLOBES: 100W B/C | 135 | | | | | | | | |
| 7.2.7 | 02H001 | HALOGEN LAMP: 12V 55W H3 (OSRAM) | 150 | | | | | | | | |

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|---|---|---|---|
| Signature | | Name (print) | |
| Capacity | | Date | |
| Name of firm | | | |

| 9. | MINIATURE SUB-STATION – NB: COPPER WINDING ONLY SEE ITEM #8 IN SPECIFICATIONS | | | | | | | Tender Price Including VAT<br>PLEASE PROVIDE A UNIT PRICE | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Item # | OM stock code | Description | Est. Qty. Contract period | Indicate if your offer complies with technical requirements | | Lead Time (Weeks) | Manufacturer & Model / Type | Kleinmond | Hermanus | Gansbaai |
| | | | | Yes | No | | | | | |
| 9.1. | 02M201 | 315A 11500/420V. MINIATURE SUBSTATION AS PER SPECIFICATION INCLUDING LV CIRCUIT BREAKERS | 6 | | | | | | | |
| 9.2. | 02M203 | 500 KVA 11500/420V. MINIATURE SUBSTATION AS PER SPECIFICATION INCLUDING LV CIRCUIT BREAKERS | 6 | | | | | | | |
| 9.3. | 02M204 | 630 KVA 11500/420V. MINIATURE SUBSTATION AS PER SPECIFICATION INCLUDING LV CIRCUIT BREAKERS | 6 | | | | | | | |
| 9.4. | 02M205 | 800 KVA 11500/420V. MINIATURE SUBSTATION AS PER SPECIFICATION INCLUDING LV CIRCUIT BREAKERS | 6 | | | | | | | |
| 9.5. | Non Stock | 200 KVA 11500/420V. MINIATURE SUBSTATION AS PER SPECIFICATION INCLUDING LV CIRCUIT BREAKERS | 1 | | | | | | | |
| 9.6. | Non Stock | 400 KVA 11500/420V. MINIATURE SUBSTATION AS PER SPECIFICATION INCLUDING LV CIRCUIT BREAKERS | 1 | | | | | | | |
| 9.7. | Non Stock | 1000 KVA 11500/420V. MINIATURE SUBSTATION AS PER SPECIFICATION INCLUDING LV CIRCUIT BREAKER. | 1 | | | | | | | |

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|---|---|---|---|
| Signature | | Name (print) | |
| Capacity | | Date | |
| Name of firm | | | |

| 9. | PAINT FOR MINIATURE SUBSTATIONS SEE ITEM #8.1 IN SPECIFICATIONS | | | | | | | | Tender Price Including VAT<br>PLEASE PROVIDE A UNIT PRICE AND NOT A PRICE PER PACKET OR BOX | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Item # | OM stock code | Description | Est. Qty. Contract period | Indicate if your offer complies with technical requirements | | Lead Time (Weeks) | Manufacturer & Model / Type | Indicate 1L, 5L or 20L | Kleinmond | Hermanus | Gansbaai |
| | | | | Yes | No | | | | | | |
| 9.1. | Non Stock | SYNLAC INDUSTRIAL ENAMEL SL5000 SERIES AVOCADO GREEN (OR COMPATIBLE) | 6 | | | | | | | | |

| 11. | POLE MOUNTED TRANSFORMERS – NB: COPPER WINDING SEE ITEM #9 IN SPECIFICATIONS | | | | | | | Tender Price Including VAT<br>PLEASE PROVIDE A UNIT PRICE AND NOT A PRICE PER PACKET OR BOX | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Item # | OM stock code | Description | Est. Qty. Contract period | Indicate if your offer complies with technical requirements | | Lead Time (Weeks) | Manufacturer & Model / Type | Kleinmond | Hermanus | Gansbaai |
| | | | | Yes | No | | | | | |
| 11.1. | 02T300 | 25 KVA 11500/420V POLE MOUNTED TRANSFORMER | 3 | | | | | | | |
| 11.2. | 02T301 | 50 KVA 11500/420V POLE MOUNTED TRANSFORMER | 3 | | | | | | | |
| 11.3. | 02T031 | 200 KVA 11500/420V TRANSFORMER WITH ENCLOSED LV COMPARTMENT – POLE MOUNTED (SPECIFICATIONS, PAR. 6) | 6 | | | | | | | |
| 11.4. | Non Stock | 100 KVA 11500/420V POLE MOUNTED TRANSFORMER | 1 | | | | | | | |

| Signature | | Name (print) | |
|---|---|---|---|
| Capacity | | Date | |
| Name of firm | | | |

| 11. | POLE MOUNTED TRANSFORMERS – NB: COPPER WINDING SEE ITEM #9 IN SPECIFICATIONS | | | | | | | Tender Price Including VAT<br>PLEASE PROVIDE A UNIT PRICE AND NOT A PRICE PER PACKET OR BOX | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Item # | OM stock code | Description | Est. Qty. Contract period | Indicate if your offer complies with technical requirements | | Lead Time (Weeks) | Manufacturer & Model / Type | Kleinmond | Hermanus | Gansbaai |
| | | | | Yes | No | | | | | |
| 11.5. | Non Stock | 200 KVA 11500/420V POLE MOUNTED TRANSFORMER | 1 | | | | | | | |

| 11. | KIOSKS AND ENCLOSURES SEE ITEM #10 IN SPECIFICATIONS | | | | | | | Tender Price Including VAT | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Item # | OM stock code | Description | Est. Qty. Contract period | Indicate if your offer complies with technical requirements | | Lead Time (Weeks) | Manufacturer & Model / Type | Kleinmond | Hermanus | Gansbaai |
| | | | | Yes | No | | | | | |
| 11.1. | POLYETHYLENE KIOSK | | | | | | | | | |
| 11.1.1 | 02K002 | 6 WAY DOUBLE DOOR KIOSK WITH BUSBARS. MUST HAVE INTEGRATED HINGES. ("POLYBOX" OR COMPATIBLE) | 48 | | | | | | | |
| 11.1.2 | 02K003 | 9 WAY DOUBLE DOOR KIOSK WITH BUSBARS. MUST HAVE INTEGRATED HINGES. ("POLYBOX" OR COMPATIBLE) | 48 | | | | | | | |
| 11.1.3 | 02K001 | 12 WAY DOUBLE DOOR KIOSK WITH BUSBARS. MUST HAVE INTEGRATED HINGES. ("POLYBOX" OR COMPATIBLE) | 24 | | | | | | | |
| 11.1.4 | Non Stock | 2 WAY DOUBLE DOOR KIOSK WITH BUSBARS. MUST HAVE INTEGRATED HINGES. ("POLYBOX" OR COMPATIBLE) | 1 | | | | | | | |

| Signature | | Name (print) | |
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| Capacity | | Date | |
| Name of firm | | | |

| 11. | KIOSKS AND ENCLOSURES SEE ITEM #10 IN SPECIFICATIONS | | | | | | | Tender Price Including VAT | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Item # | OM stock code | Description | Est. Qty. Contract period | Indicate if your offer complies with technical requirements | | Lead Time (Weeks) | Manufacturer & Model / Type | Kleinmond | Hermanus | Gansbaai |
| | | | | Yes | No | | | | | |
| 11.1.5 | Non Stock | 4 WAY DOUBLE DOOR KIOSK WITH BUSBARS. MUST HAVE INTEGRATED HINGES ("POLYBOX" OR COMPATIBLE) | 1 | m | | | | | | |
| 11.2. | POLYETHYLENE KIOSK (PEARLY BEACH) SEE ITEM #10.7 IN SPECIFICATIONS | | | | | | | | | |
| 11.2.1 | Non Stock | 2 WAY DOUBLE DOOR KIOSK WITH BUSBARS. MUST HAVE INTEGRATED HINGES. ("POLYBOX" OR COMPATIBLE) | 1 | | | | | | | |
| 11.2.2 | Non Stock | 4 WAY DOUBLE DOOR KIOSK WITH BUSBARS. MUST HAVE INTEGRATED HINGES ("POLYBOX" OR COMPATIBLE) | 1 | | | | | | | |
| 11.2.3 | Non Stock | 6 WAY DOUBLE DOOR KIOSK WITH BUSBARS. MUST HAVE INTEGRATED HINGES. ("POLYBOX" OR COMPATIBLE)) | 1 | | | | | | | |
| 11.2.4 | Non Stock | 9 WAY DOUBLE DOOR KIOSK WITH BUSBARS. MUST HAVE INTEGRATED HINGES. ("POLYBOX" OR COMPATIBLE) | 1 | | | | | | | |
| 11.2.5 | Non Stock | 12 WAY DOUBLE DOOR KIOSK WITH BUSBARS. MUST HAVE INTEGRATED HINGES. ("POLYBOX" OR COMPATIBLE) | 1 | | | | | | | |
| 11.2.6 | Non Stock | KEY: ANTI VANDAL STAINLESS LEFT-HAND THREAD | 1 | | | | | | | |

| Signature | | Name (print) | |
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| Capacity | | Date | |
| Name of firm | | | |

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| 11.3. | **POLE MOUNTED DISTRIBUTION/METERING ENCLOSURES POLYETHYLENE SEE ITEM #10.7 IN SPECIFICATIONS** | | | | | | | | | |
| 11.3.1 | 02K100 | AP1 POLYETHYLENE, POLE MOUNT ENCLOSED / STAINLESS STEEL POLE MOUNT BRACKETS / MOUNTING BOARD / NEUTRAL BAR. | 12 | | | | | | | |
| 11.3.2 | Non Stock | SMB2 POLYETHYLENE, STAINLESS STEEL POLE MOUNT BRACKETS, ONE ROW DIN RAIL | 60 | | | | | | | |

| **14.** | **SECTOS POLE MOUNTED SF6 LOAD BREAK SWITCH 3-WAY LOAD BREAK SWITCH SEE ITEM #29 IN SPECIFICATIONS** | | | | | | | **Tender Price Including VAT** | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Item #** | | **Description** | **Est. Qty. Contract period** | **Indicate if your offer complies with technical requirements** | | **Lead Time (Weeks)** | **Manufacturer & Model / Type** | **Kleinmond** | **Hermanus** | **Gansbaai** |
| | | | | **Yes** | **No** | | | | | |
| 14.1. | Non Stock | **SECTOS POLE MOUNTED SF6 LOAD BREAK SWITCH 3-WAY LOAD BREAK SWITCH** | | | | | | | | |

| **15.** | **12 KV INDOOR AND OUTDOOR METAL-ENCLOSED RING MAIN UNITS, METERING RING MAIN UNITS AND COMPACT SWITCHGEAR SEE ITEM #11 - 16 IN SPECIFICATIONS** | | | | | | | **Tender Price Including VAT** | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Item #** | **OM stock code** | **Description** | **Est. Qty. Contract period** | **Indicate if your offer complies with technical requirements** | | **Lead Time (Weeks)** | **Manufacturer & Model / Type** | **Kleinmond** | **Hermanus** | **Gansbaai** |
| | | | | **Yes** | **No** | | | | | |
| 15.1. | Non Stock | SF6 RMU CIRCUIT BREAKERS FOR COASTAL AREAS ("ABB" OR COMPATIBLE) | | | | | | | | |

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| Signature | | Name (print) | |
| Capacity | | Date | |
| Name of firm | | | |

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| 15.2. | Non Stock | SF6 RMU CIRCUIT BREAKERS WITH METERING UNIT FOR COASTAL AREAS "ABB" OR COMPATIBLE) | | | | | | | | |

| 14. | CABLE TERMINATIONS AND JOINTS SEE ITEM #30 IN SPECIFICATIONS | | | | | | | Tender Price Including VAT | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | PLEASE PROVIDE A UNIT PRICE | | |
| Item # | OM stock code | Description | Est. Qty. Contract period | Indicate if your offer complies with technical requirements | | Lead Time (Weeks) | Manufacturer & Model / Type | Indicate how many units per packet / box | Kleinmond | Hermanus | Gansbaai |
| | | | | Yes | No | | | | | | |
| 14.1.1 | 02T100 | 16MM² - 35MM² HEAT SHRINK INDOOR 650MM² TERMINATION WITH EARTH KID AS PER SANS 1332/2013 | 12 | | | | | | | | |
| 14.1.2 | 02T101 | 50MM² - 95MM² HEAT SHRINK INDOOR 650MM² TERMINATION WITH EARTH KID AS PER SANS 1332/2013 | 25 | | | | | | | | |
| 14.1.3 | 02T102 | 120MM² - 185MM² HEAT SHRINK INDOOR 650MM² TERMINATION WITH EARTH KID AS PER SANS 1332/2013 | 20 | | | | | | | | |
| 14.1.4 | 02T200 | 16MM² - 35MM² HEAT SHRINK OUTDOOR 1200MM² TERMINATION WITH EARTH KID AS PER SANS 1332/2013 | 20 | | | | | | | | |
| 14.1.5 | 02T201 | 50MM² - 95MM² HEAT SHRINK OUTDOOR 1200MM² TERMINATION WITH EARTH KID AS PER SANS 1332/2013 | 20 | | | | | | | | |
| 14.1.6 | 02T202 | 120MM² - 185MM² HEAT SHRINK OUTDOOR 1200MM² TERMINATION WITH EARTH KID AS PER SANS 1332/2013 | 20 | | | | | | | | |
| 14.1.7 | 02J100 | 16MM² - 35MM² HEAT SHRINK JOINT OUTDOOR 1200MM² JOINT AS PER SANS 1332/2013 | 45 | | | | | | | | |

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| Signature | | Name (print) | |
| Capacity | | Date | |
| Name of firm | | | |

| 14. | CABLE TERMINATIONS AND JOINTS SEE ITEM #30 IN SPECIFICATIONS | | | | | | | | Tender Price Including VAT | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | PLEASE PROVIDE A UNIT PRICE | | |
| Item # | OM stock code | Description | Est. Qty. Contract period | Indicate if your offer complies with technical requirements | | Lead Time (Weeks) | Manufacturer & Model / Type | Indicate how many units per packet / box | Kleinmond | Hermanus | Gansbaai |
| | | | | Yes | No | | | | | | |
| 14.1.8 | 02J101 | 50MM² - 95MM² HEAT SHRINK JOINT OUTDOOR 1200MM² JOINT AS PER SANS 1332/2013 | 45 | | | | | | | | |
| 14.1.9 | 02J102 | 120MM² - 185MM² HEAT SHRINK JOINT OUTDOOR 1200MM² JOINT AS PER SANS 1332/2013 | 25 | | | | | | | | |
| 14.1.10 | Non Stock | 35MM² - 70MM² HEAT SHRINK OUTDOOR 650MM² TERMINATION WITH EARTH KID AS PER SANS 1332/2013 | 2 | | | | | | | | |
| 14.1.11 | Non Stock | 95MM² - 120MM² HEAT SHRINK OUTDOOR 650MM² TERMINATION WITH EARTH KID AS PER SANS 1332/2013 | 2 | | | | | | | | |
| 14.1.12 | 02C013 | CABLE COMPOUND (12.7KG) | 12 | | | | | | | | |
| 14.2. | **SINGLE CORE BUNDLE CONDUCTOR 11KV – JOINTS AND TERMINATIONS** | | | | | | | | | | |
| 14.2.1 | Non Stock | INLINE JOINT: 16 – 35MM (SJXU 21A10) (BUNDLE CONDUCTOR) PEX | 1 | | | | | | | | |
| 14.2.2 | Non Stock | INLINE JOINT: 50 – 70MM (SJXU 22A10) (BUNDLE CONDUCTOR) PEX | 1 | | | | | | | | |
| 14.2.3 | Non Stock | INLINE JOINT: 95 – 150MM (SJXU 22R10) (BUNDLE CONDUCTOR) PEX | 1 | | | | | | | | |
| 14.2.4 | Non Stock | SINGLE CORE TERMINATION: OUTDOOR 16 – 25MM; STXB 21R12 PEX | 1 | | | | | | | | |
| 14.2.5 | Non Stock | SINGLE CORE TERMINATION: OUTDOOR 35 – 70MM; STXB 22R12 PEX | 1 | | | | | | | | |

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| Signature | | Name (print) | |
| Capacity | | Date | |
| Name of firm | | | |

| 14. | CABLE TERMINATIONS AND JOINTS SEE ITEM #30 IN SPECIFICATIONS | | | | | | | | Tender Price Including VAT | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | PLEASE PROVIDE A UNIT PRICE | | |
| Item # | OM stock code | Description | Est. Qty. Contract period | Indicate if your offer complies with technical requirements | | Lead Time (Weeks) | Manufacturer & Model / Type | Indicate how many units per packet / box | Kleinmond | Hermanus | Gansbaai |
| | | | | Yes | No | | | | | | |
| 14.2.6 | Non Stock | SINGLE CORE TERMINATION: OUTDOOR 95 – 150MM; STXB 23R12 | 1 | | | | | | | | |
| 14.3. | **LOW VOLTAGE HEAT SHRINK JOINTS** | | | | | | | | | | |
| 14.3.1 | 02S001 | HEAT SHRINK LOW VOLTAGE JOINT SJLA 4MM – 16MM | 1 | | | | | | | | |
| 14.3.2 | 02S002A | HEAT SHRINK LOW VOLTAGE JOINT SJLA 25MM – 50MM | 1 | | | | | | | | |
| 14.3.3 | 02S003 | HEAT SHRINK LOW VOLTAGE JOINT SJLA 70MM – 120MM | 1 | | | | | | | | |
| 14.3.4 | 02S004 | HEAT SHRINK LOW VOLTAGE JOINT SJLA 120MM – 240MM | 1 | | | | | | | | |
| 14.4. | **HEAT SHRINK JOINTS MV** | | | | | | | | | | |
| 14.4.1 | Non Stock | HEAT SHRINK JOINT 3 CORE PILC (SJPA 21 A31) | 1 | | | | | | | | |
| 14.4.2 | Non Stock | HEAT SHRINK JOINT 3 CORE PILC (SJPA 22 A31 | 1 | | | | | | | | |
| 14.4.3 | Non Stock | HEAT SHRINK JOINT 3 CORE PILC (SJPA 23 A31 | 1 | | | | | | | | |
| 14.5. | **LOW VOLTAGE RESIN FILL CABLE JOINTS** | | | | | | | | | | |
| 14.5.1 | Non Stock | JOINT KIT:P1 (91-A1) | 80 | | | | | | | | |
| 14.5.2 | Non Stock | JOINT KIT:P2 (91-A2) | 100 | | | | | | | | |
| 14.5.3 | Non Stock | JOINT KIT:P3 (91-A4) | 20 | | | | | | | | |

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| Signature | | Name (print) | |
| Capacity | | Date | |
| Name of firm | | | |

| 14. | CABLE TERMINATIONS AND JOINTS SEE ITEM #30 IN SPECIFICATIONS | | | | | | | | Tender Price Including VAT | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | PLEASE PROVIDE A UNIT PRICE | | |
| Item # | OM stock code | Description | Est. Qty. Contract period | Indicate if your offer complies with technical requirements | | Lead Time (Weeks) | Manufacturer & Model / Type | Indicate how many units per packet / box | Kleinmond | Hermanus | Gansbaai |
| | | | | Yes | No | | | | | | |
| 14.5.4 | Non Stock | JOINT KIT:P4 (91-A5) | 45 | | | | | | | | |
| 14.5.5 | Non Stock | JOINT KIT:P0 (91-A0) | | | | | | | | | |
| 14.5.6 | Non Stock | JOINT KIT:P2.5 (91-A3) | | | | | | | | | |
| 14.5.7 | Non Stock | JOINT KIT:P3.5 (91-A4,5) | | | | | | | | | |
| 14.6. | **CAST IRON JOINTS** | | | | | | | | | | |
| 14.6.1 | 02J001 | JOINT: 1001 CAST IRON COMPLETE | 3 | | | | | | | | |
| 14.6.2 | 02J002 | JOINT: 1002 CAST IRON COMPLETE | 3 | | | | | | | | |
| 14.6.3 | 02J003 | JOINT: 1003 CAST IRON COMPLETE | 6 | | | | | | | | |
| 14.7. | **HEAT SHRINK JOINT & TERMINATION ACCESSORIES** | | | | | | | | | | |
| 14.7.1 | Non Stock | 500g Threaded Gas Cartridge (CADAC Or similar Approved) | 2 | | | | | | | | |
| 14.7.2 | Non Stock | Blow lamp to match 500g Gas canister | 2 | | | | | | | | |

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| Signature | | Name (print) | |
| Capacity | | Date | |
| Name of firm | | | |

| 15. | CIRCUIT BREAKERS SEE ITEM #18 IN SPECIFICATIONS | | | | | | | | Tender Price Including VAT | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | PLEASE PROVIDE A UNIT PRICE | | |
| Item # | OM stock code | Description | Est. Qty. Contract period | Indicate if your offer complies with technical requirements | | Lead Time (Weeks) | Manufacturer & Model / Type | Indicate how many units per packet / box | Kleinmond | Hermanus | Gansbaai |
| | | | | Yes | No | | | | | | |
| 15.1. | Non Stock | CIRCUIT BREAKERS 100 AMP – J25S HYDRAULIC MAGNETIC ("CBI" OR COMPATIBLE) FRAME SIZE 105X210MM | 2 | | | | | | | | |
| 15.2. | 02C071 | CIRCUIT BREAKERS 125 AMP – J25S HYDRAULIC MAGNETIC ("CBI" OR COMPATIBLE) FRAME SIZE 105X210MM | 2 | | | | | | | | |
| 15.3. | 02C073 | CIRCUIT BREAKERS 150 AMP – J25S HYDRAULIC MAGNETIC ("CBI" OR COMPATIBLE) FRAME SIZE 105X210MM | 3 | | | | | | | | |
| 15.4. | 02C074 | CIRCUIT BREAKERS 200 AMP – J25S HYDRAULIC MAGNETIC ("CBI" OR COMPATIBLE) FRAME SIZE 105X210MM | 2 | | | | | | | | |
| 15.5. | 02C072 | CIRCUIT BREAKERS 250 AMP – J25S HYDRAULIC MAGNETIC ("CBI" OR COMPATIBLE) FRAME SIZE 105X210MM | 50 | | | | | | | | |
| 15.6. | Non Stock | CIRCUIT BREAKERS 175 AMP – J25S HYDRAULIC MAGNETIC ("CBI" OR COMPATIBLE) FRAME SIZE 105X210MM | 1 | | | | | | | | |
| 15.7. | Non Stock | CIRCUIT BREAKERS 225 AMP – J25S HYDRAULIC MAGNETIC ("CBI" OR COMPATIBLE) FRAME SIZE 105X210MM | 1 | | | | | | | | |
| 15.8. | Non Stock | CIRCUIT BREAKERS 300 AMP – L25B HYDRAULIC MAGNETIC ("CBI" OR COMPATIBLE) | 1 | | | | | | | | |
| 15.9. | Non Stock | CIRCUIT BREAKERS 350 AMP – L25B HYDRAULIC MAGNETIC ("CBI" OR COMPATIBLE) | 1 | | | | | | | | |

| Signature | | Name (print) | |
|---|---|---|---|
| Capacity | | Date | |
| Name of firm | | | |

| 15. | CIRCUIT BREAKERS SEE ITEM #18 IN SPECIFICATIONS | | | | | | | | Tender Price Including VAT | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | PLEASE PROVIDE A UNIT PRICE | | |
| Item # | OM stock code | Description | Est. Qty. Contract period | Indicate if your offer complies with technical requirements | | Lead Time (Weeks) | Manufacturer & Model / Type | Indicate how many units per packet / box | Kleinmond | Hermanus | Gansbaai |
| | | | | Yes | No | | | | | | |
| 15.10. | Non Stock | CIRCUIT BREAKERS 400 AMP – L25B HYDRAULIC MAGNETIC ("CBI" OR COMPATIBLE) | 1 | | | | | | | | |
| 15.11. | Non Stock | CIRCUIT BREAKERS 450 AMP – L25B HYDRAULIC MAGNETIC ("CBI" OR COMPATIBLE) | 1 | | | | | | | | |
| 15.12. | Non Stock | CIRCUIT BREAKERS 500 AMP – L25B HYDRAULIC MAGNETIC ("CBI" OR COMPATIBLE) | 1 | | | | | | | | |
| 15.13. | Non Stock | CIRCUIT BREAKERS 550 AMP – L25B HYDRAULIC MAGNETIC ("CBI" OR COMPATIBLE)) | 1 | | | | | | | | |
| 15.14. | Non Stock | CIRCUIT BREAKERS 600 AMP – L25B HYDRAULIC MAGNETIC ("CBI" OR COMPATIBLE) | 1 | | | | | | | | |
| 15.15. | Non Stock | CIRCUIT BREAKER SHROUD TRIPLE | 1 | | | | | | | | |
| 15.16. | 02C051 | CIRCUIT BREAKER: 3 PHASE 20AMP ORANGE TOGGLE (3 X 26MM) | 12 | | | | | | | | |
| 15.17. | 02C052 | CIRCUIT BREAKER: 3 PHASE 30AMP ORANGE TOGGLE (3 X 26MM) | 12 | | | | | | | | |
| 15.18. | 02C53 | CIRCUIT BREAKER: 3 PHASE 40AMP ORANGE TOGGLE (3 X 26MM) | 12 | | | | | | | | |
| 15.19. | 02C054 | CIRCUIT BREAKER: 3 PHASE 50AMP ORANGE TOGGLE (3 X 26MM) | 1 | | | | | | | | |
| 15.20. | 02C055 | CIRCUIT BREAKER: 3 PHASE 60AMP ORANGE TOGGLE (3 X 26MM) | 12 | | | | | | | | |
| 15.21. | 02C056 | CIRCUIT BREAKER: 3 PHASE 70AMP ORANGE TOGGLE (3 X 26MM) | 12 | | | | | | | | |

| Signature | | Name (print) | |
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| Capacity | | Date | |
| Name of firm | | | |

| 15. | CIRCUIT BREAKERS SEE ITEM #18 IN SPECIFICATIONS | | | | | | | | Tender Price Including VAT | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | PLEASE PROVIDE A UNIT PRICE | | |
| Item # | OM stock code | Description | Est. Qty. Contract period | Indicate if your offer complies with technical requirements | | Lead Time (Weeks) | Manufacturer & Model / Type | Indicate how many units per packet / box | Kleinmond | Hermanus | Gansbaai |
| | | | | Yes | No | | | | | | |
| 15.22. | 02C057 | CIRCUIT BREAKER: 3 PHASE 80AMP ORANGE TOGGLE (3 X 26MM) | 12 | | | | | | | | |
| 15.23. | 02C058 | CIRCUIT BREAKER: 3 PHASE 90AMP ORANGE TOGGLE (3 X 26MM) | 12 | | | | | | | | |
| 15.24. | 02C059 | CIRCUIT BREAKER: 3 PHASE 100AMP ORANGE TOGGLE (3 X 26MM) | 12 | | | | | | | | |
| 15.25. | 02C045 | CIRCUIT BREAKER: S/ PHASE 30AMP ORANGE TOGGLE (1 X 26MM) | 12 | | | | | | | | |
| 15.26. | 02C047 | CIRCUIT BREAKER: S/ PHASE 40AMP ORANGE TOGGLE (1 X 26MM) | 12 | | | | | | | | |
| 15.27. | 02C048 | CIRCUIT BREAKER: S/ PHASE 50AMP ORANGE TOGGLE (1 X 26MM) | 1 | | | | | | | | |
| 15.28. | 02C049 | CIRCUIT BREAKER: S/ PHASE 63AMP ORANGE TOGGLE (1 X 26MM) | 200 | | | | | | | | |
| 15.29. | 02C050 | CIRCUIT BREAKER: S/ PHASE 70AMP ORANGE TOGGLE (1 X 26MM) | 12 | | | | | | | | |
| 15.30. | 02C026 | CIRCUIT BREAKER: S/ PHASE 80AMP ORANGE TOGGLE (1 X 26MM) | 1200 | | | | | | | | |
| 15.31. | 02C028 | CIRCUIT BREAKER: S/ PHASE 100AMP ORANGE TOGGLE (1 X 26MM) | 12 | | | | | | | | |
| 15.32. | 02C007 | CIRCUIT BREAKER: SAM QA-1(13) 5AMP | 126 | | | | | | | | |
| 15.33. | 02C041 | CIRCUIT BREAKER: SAM QA-1(13) 10AMP | 250 | | | | | | | | |
| 15.34. | 02C043 | CIRCUIT BREAKER: SAM QA-1(13) 20AMP | 48 | | | | | | | | |

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| Signature | | Name (print) | |
| Capacity | | Date | |
| Name of firm | | | |

| 15. | CIRCUIT BREAKERS SEE ITEM #18 IN SPECIFICATIONS | | | | | | | | Tender Price Including VAT | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | PLEASE PROVIDE A UNIT PRICE | | |
| Item # | OM stock code | Description | Est. Qty. Contract period | Indicate if your offer complies with technical requirements | | Lead Time (Weeks) | Manufacturer & Model / Type | Indicate how many units per packet / box | Kleinmond | Hermanus | Gansbaai |
| | | | | Yes | No | | | | | | |
| 15.35. | Non Stock | CIRCUIT BREAKER: SAM QA-1(13) 40AMP | 12 | | | | | | | | |
| 15.36. | K02S001 | EARTH LEAKAGE 63A | 8 | | | | | | | | |
| 15.37. | Non Stock | EARTH LEAKAGE 3 POLE + N 6KA 80A - SF36C | | | | | | | | | |
| 15.38. | Non Stock | SHROUDS & CLIPS: SINGLE PHASE (SF1) (1 X 26MM) 25 – 60 AMP | 1 | | | | | | | | |
| 15.39. | Non Stock | SHROUDS & CLIPS: SINGLE PHASE (SF1) (1 X 26MM) 70 – 100 AMP | 1 | | | | | | | | |
| 15.40. | Non Stock | SHROUDS & CLIPS: THREE PHASE (SF1) (3 X26MM) 25 – 60 AMP | 1 | | | | | | | | |
| 15.41. | Non Sock | SHROUDS & CLIPS: THREE PHASE (SF1) (3 X26MM) 70 – 100 AMP | 1 | | | | | | | | |

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| Signature | | Name (print) | |
| Capacity | | Date | |
| Name of firm | | | |

| 16. | STRIKER PIN FUSES | | | | | | Tender Price Including VAT | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | PLEASE PROVIDE A UNIT PRICE | | |
| Item # | OM stock code | Description | Est. Qty. Contract period | Lead Time (Weeks) | Manufacturer & Model / Type | Indicate how many units per packet / box | Kleinmond | Hermanus | Gansbaai |
| 16.1. | 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 | | | | | | |
| 16.2. | 02F100 | STRIKER PIN FUSE 36 AMP 254MM | 3 | | | | | | |
| 16.3. | 02F101 | STRIKER PIN FUSE 45 AMP 254MM | 3 | | | | | | |
| 16.4. | 02F099 | STRIKER PIN FUSE 31.5 AMP 254MM (“BUSSMAN” OR SIMILAR) | 3 | | | | | | |
| 16.5. | 02F102 | Striker Pin Fuse 63 Amp 254mm (“BUSSMAN” or similar) | 3 | | | | | | |
| 16.6. | 02F103 | STRIKER PIN FUSE 80 AMP 254MM (“BUSSMAN” OR SIMILAR) | 3 | | | | | | |
| 16.7. | 02F104 | STRIKER PIN FUSE 100 AMP 254MM (“BUSSMAN” OR SIMILAR) | 3 | | | | | | |
| 16.8. | 02F200 | STRIKER PIN FUSE 36 AMP 360MM LONG (“BUSSMAN” OR SIMILAR) | 3 | | | | | | |
| 16.9. | 02F201 | STRIKER PIN FUSE 45 AMP 360MM (“BUSSMAN” OR SIMILAR) | 3 | | | | | | |
| 16.10. | 02F015 | STRIKER PIN FUSE 50 AMP 360MM (“BUSSMAN” OR SIMILAR) | 3 | | | | | | |
| 16.11. | 02F202 | STRIKER PIN FUSE 63 AMP 360MM (“BUSSMAN” OR SIMILAR) | 3 | | | | | | |

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| Signature | | Name (print) | |
| Capacity | | Date | |
| Name of firm | | | |

| 16. | STRIKER PIN FUSES | | | | | | Tender Price Including VAT | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | PLEASE PROVIDE A UNIT PRICE | | |
| Item # | OM stock code | Description | Est. Qty. Contract period | Lead Time (Weeks) | Manufacturer & Model / Type | Indicate how many units per packet / box | Kleinmond | Hermanus | Gansbaai |
| 16.12. | 02F203 | STRIKER PIN FUSE 80 AMP 360MM ("BUSSMAN" OR SIMILAR) | 3 | | | | | | |
| 16.13. | 02F204 | STRIKER PIN FUSE 90 AMP 360MM ("BUSSMAN" OR SIMILAR) | 3 | | | | | | |
| 16.14. | 02F205 | STRIKER PIN FUSE 100 AMP 360MM ("BUSSMAN" OR SIMILAR) | 3 | | | | | | |
| 16.15. | Non Stock | STRIKER PIN FUSE 10 AMP 254MM ("BUSSMAN" OR SIMILAR) | 1 | | | | | | |
| 16.16. | Non Stock | STRIKER PIN FUSE 20 AMP 254MM ("BUSSMAN" OR SIMILAR) | 1 | | | | | | |
| 16.17. | Non Stock | STRIKER PIN FUSE 90 AMP 254MM ("BUSSMAN" OR SIMILAR) | 1 | | | | | | |
| 16.18. | Non Stock | 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) | 1 | | | | | | |
| 16.19. | Non Stock | FUSE: 20 AMP 11 KV H.T | 1 | | | | | | |
| 16.20. | Non Stock | FUSE: 100 AMP 12KV (120HFMA100) | 1 | | | | | | |
| 16.21. | Non Stock | FUSELINK: 1 AMP 12KV HRC | 1 | | | | | | |
| 16.22. | G0103F09 | FUSELINK: 2 AMP K-SPEED | 30 | | | | | | |
| 16.23. | G0103F10 | FUSELINK: 5 AMP STANDARD | 30 | | | | | | |
| 16.24. | 02F069 | FUSELINK: 6 AMP TYPE-K STANDARD | 30 | | | | | | |

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| Signature | | Name (print) | |
| Capacity | | Date | |
| Name of firm | | | |

| 16. | STRIKER PIN FUSES | | | | | | Tender Price Including VAT | | |
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| | | | | | | | PLEASE PROVIDE A UNIT PRICE | | |
| Item # | OM stock code | Description | Est. Qty. Contract period | Lead Time (Weeks) | Manufacturer & Model / Type | Indicate how many units per packet / box | Kleinmond | Hermanus | Gansbaai |
| 16.25. | 02F070 | FUSELINK: 10 AMP TYPE-K STANDARD | 30 | | | | | | |
| 16.26. | 02F071 | FUSELINK: 15 AMP TYPE-K STANDARD | 30 | | | | | | |
| 16.27. | 02F072 | FUSELINK : 20 AMP TYPE-K STANDARD | 30 | | | | | | |
| 16.28. | 02F073 | FUSELINK : 30 AMP TYPE-K STANDARD | 30 | | | | | | |
| 16.29. | 02F074 | FUSELINK : 40 AMP TYPE-K STANDARD | 30 | | | | | | |
| 16.30. | 02F075 | FUSELINK : 50 AMP TYPE-K STANDARD | 30 | | | | | | |
| 16.31. | 02F076 | FUSELINK : 65 AMP TYPE-K STANDARD | 30 | | | | | | |
| 16.32. | 02F077 | FUSELINK : 80 AMP TYPE-K STANDARD | 10 | | | | | | |
| 16.33. | 02F021 | FUSELINK :100 0AMP TYPE-K STANDARD | 10 | | | | | | |
| 16.34. | Non Stock | FUSES: 20 - 63 AMP 11KV | 10 | | | | | | |
| 16.35. | G0102B14 | FUSE: 20A KEBXO | 12 | | | | | | |
| 16.36. | G0102F12 | FUSE: 36A KEBXO H.S | 12 | | | | | | |
| 16.37. | G0102B15 | FUSE: 40A KEBXO | 12 | | | | | | |
| 16.38. | G0102F13 | FUSE: 45A KEBXO H.S | 12 | | | | | | |
| 16.39. | G0102B16 | FUSE: 63A KEBXO | 12 | | | | | | |
| 16.40. | G0102F14 | FUSE: 80A KEBXO H.S | 12 | | | | | | |
| 16.41. | G102F15 | FUSE: 90A KEBXO H.S | 12 | | | | | | |

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| Signature | | Name (print) | |
| Capacity | | Date | |
| Name of firm | | | |

| 17. | LUGS & FERRULES | | | | | | Tender Price Including VAT | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | PLEASE PROVIDE A UNIT PRICE | | |
| Item # | OM stock code | Description | Est. Qty. Contract period | Lead Time (Weeks) | Manufacturer & Model / Type | Indicate how many units per packet / box | Kleinmond | Hermanus | Gansbaai |
| 17.1. | 02F034 | Crimping Ferrule: 2.5mm Copper | 27 | | | | | | |
| 17.2. | Non Stock | Crimping Ferrule: 4mm Copper | 1 | | | | | | |
| 17.3. | 02F033 | Crimping Ferrule: 6mm Copper | 152 | | | | | | |
| 17.4. | 02F095 | Crimping Ferrule: 10mm Copper | 135 | | | | | | |
| 17.5. | 02F048 | Crimping Ferrule: 16mm Copper | 1412 | | | | | | |
| 17.6. | 02F035 | Crimping Ferrule: 25mm Copper | 90 | | | | | | |
| 17.7. | 02F036 | Crimping Ferrule: 35mm Copper | 83 | | | | | | |
| 17.8. | 02F037 | Crimping Ferrule: 50mm Copper | 63 | | | | | | |
| 17.9. | 02F038 | Crimping Ferrule: 70mm Copper | 114 | | | | | | |
| 17.10. | 02F039 | Crimping Ferrule: 95mm Copper | 56 | | | | | | |
| 17.11. | 02F040 | Crimping Ferrule:120mm Copper | 1 | | | | | | |
| 17.12. | 02F041 | Crimping Ferrule:150mm Copper | 1 | | | | | | |
| 17.13. | 02F042 | Crimping Ferrule:185mm Copper | 12 | | | | | | |
| 17.14. | 02F043 | Crimping Ferrule:240mm Copper | 1 | | | | | | |
| 17.15. | 02F044 | Crimping Ferrule:300mm Copper | 1 | | | | | | |
| 17.16. | 02L070 | Crimping Lugs: 2.5X 4mm Copper | 1 | | | | | | |

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| Signature | | Name (print) | |
| Capacity | | Date | |
| Name of firm | | | |

| 17. | LUGS & FERRULES | | | | | | Tender Price Including VAT | | |
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| | | | | | | | PLEASE PROVIDE A UNIT PRICE | | |
| Item # | OM stock code | Description | Est. Qty. Contract period | Lead Time (Weeks) | Manufacturer & Model / Type | Indicate how many units per packet / box | Kleinmond | Hermanus | Gansbaai |
| 17.17. | 02L069 | Crimping Lugs: 2.5X 5mm Copper | 1 | | | | | | |
| 17.18. | 02L068 | Crimping Lugs: 2.5X 6mm Copper | 160 | | | | | | |
| 17.19. | 02L029 | Crimping Lugs: 2.5X 8mm Copper | 40 | | | | | | |
| 17.20. | 02L067 | Crimping Lugs: 4X 5mm Copper | 1 | | | | | | |
| 17.21. | 02L066 | crimping lugs: 4X 6mm Copper | 1 | | | | | | |
| 17.22. | 02L065 | Crimping Lugs: 6X 5mm Copper | 20 | | | | | | |
| 17.23. | 02L064 | Crimping Lugs: 6X 6mm Copper | 35 | | | | | | |
| 17.24. | 02L063 | Crimping Lugs: 6X 8mm Copper | 30 | | | | | | |
| 17.25. | 02L043 | Crimping Lugs: 6x10mm Copper | 40 | | | | | | |
| 17.26. | 02L062 | Crimping Lugs: 10X 5mm Copper | 5 | | | | | | |
| 17.27. | 02L044 | Crimping Lugs: 10X 6mm Copper | 5 | | | | | | |
| 17.28. | 02L045 | Crimping Lugs: 10X 8mm Copper | 10 | | | | | | |
| 17.29. | 02L046 | Crimping Lugs: 16X 6mm Copper | 488 | | | | | | |
| 17.30. | 02L021 | Crimping Lugs: 16X 8mm Copper | 184 | | | | | | |
| 17.31. | 02L017 | Crimping Lugs: 16x10mm Copper | 118 | | | | | | |
| 17.32. | 02L049 | Crimping Lugs: 16x12mm Copper | 5 | | | | | | |
| 17.33. | 02L050 | Crimping Lugs: 16x16mm Copper | 1 | | | | | | |

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| Signature | | Name (print) | |
| Capacity | | Date | |
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| 17. | LUGS & FERRULES | | | | | | Tender Price Including VAT | | |
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| | | | | | | | PLEASE PROVIDE A UNIT PRICE | | |
| Item # | OM stock code | Description | Est. Qty. Contract period | Lead Time (Weeks) | Manufacturer & Model / Type | Indicate how many units per packet / box | Kleinmond | Hermanus | Gansbaai |
| 17.34. | 02L051 | Crimping Lugs: 25X 6mm Copper | 10 | | | | | | |
| 17.35. | 02L013 | Crimping Lugs: 25X 8mm Copper | 80 | | | | | | |
| 17.36. | 02L019 | Crimping Lugs: 25x10mm Copper | 65 | | | | | | |
| 17.37. | 02L054 | Crimping Lugs: 25x12mm Copper | 4 | | | | | | |
| 17.38. | 02L055 | Crimping Lugs: 25x16mm Copper | 3 | | | | | | |
| 17.39. | 02L020 | Crimping Lugs: 35X 8mm Copper | 1 | | | | | | |
| 17.40. | 02L021 | Crimping Lugs: 35x10mm Copper | 30 | | | | | | |
| 17.41. | 02L058 | Crimping Lugs: 35x12mm Copper | 33 | | | | | | |
| 17.42. | 02L111 | Crimping Lugs: 35x16mm Copper | 10 | | | | | | |
| 17.43. | 02L059 | Crimping Lugs: 50X 8mm Copper | 20 | | | | | | |
| 17.44. | 02L023 | Crimping Lugs: 50x10mm Copper | 42 | | | | | | |
| 17.45. | 02L061 | Crimping Lugs: 50x12mm Copper | 6 | | | | | | |
| 17.46. | 02L024 | Crimping Lugs: 50x16mm Copper | 1 | | | | | | |
| 17.47. | 02L025 | Crimping Lugs: 70X 8mm Copper | 49 | | | | | | |
| 17.48. | 02L026 | Crimping Lugs: 70x10mm Copper | 117 | | | | | | |
| 17.49. | 02L027 | Crimping Lugs: 70x12mm Copper | 68 | | | | | | |
| 17.50. | 02L028 | Crimping Lugs: 70x16mm Copper | 10 | | | | | | |

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| Signature | | Name (print) | |
| Capacity | | Date | |
| Name of firm | | | |

| 17. | LUGS & FERRULES | | | | | | Tender Price Including VAT | | |
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| | | | | | | | PLEASE PROVIDE A UNIT PRICE | | |
| Item # | OM stock code | Description | Est. Qty. Contract period | Lead Time (Weeks) | Manufacturer & Model / Type | Indicate how many units per packet / box | Kleinmond | Hermanus | Gansbaai |
| 17.51. | 02L030 | Crimping Lugs: 95X 8mm Copper | 21 | | | | | | |
| 17.52. | 02L031 | Crimping Lugs: 95x10mm Copper | 34 | | | | | | |
| 17.53. | 02L032 | Crimping Lugs: 95x12mm Copper | 46 | | | | | | |
| 17.54. | 02L033 | Crimping Lugs: 95x20mm Copper | 3 | | | | | | |
| 17.55. | 02L034 | Crimping Lugs:120X 8mm Copper | 1 | | | | | | |
| 17.56. | 02L035 | Crimping Lugs:120x10mm Copper | 41 | | | | | | |
| 17.57. | 02L036 | Crimping Lugs:120x12mm Copper | 13 | | | | | | |
| 17.58. | 02L037 | Crimping Lugs:150x10mm Copper | 1 | | | | | | |
| 17.59. | 02L038 | Crimping Lugs:150x12mm Copper | 1 | | | | | | |
| 17.60. | 02L039 | Crimping Lugs:150x16mm Copper | 1 | | | | | | |
| 17.61. | 02L040 | Crimping Lugs:185x12mm Copper | 16 | | | | | | |
| 17.62. | 02L041 | Crimping Lugs:240x12mm Copper | 1 | | | | | | |
| 17.63. | 02L042 | Crimping Lugs:300x16mm Copper | 1 | | | | | | |
| 17.64. | 02L083 | Crimping Lugs: 25mm x 10mm Aluminium | 1 | | | | | | |
| 17.65. | Non Stock | Crimping Lugs: 25mm x 12mm Aluminium | 1 | | | | | | |
| 17.66. | 02L082 | Crimping Lugs: 35mm x 10mm Aluminium | 1 | | | | | | |
| 17.67. | 02L081 | Crimping Lugs: 35mm x 12mm Aluminium | 1 | | | | | | |

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| Signature | | Name (print) | |
| Capacity | | Date | |
| Name of firm | | | |

| 17. | LUGS & FERRULES | | | | | | Tender Price Including VAT | | |
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| | | | | | | | PLEASE PROVIDE A UNIT PRICE | | |
| Item # | OM stock code | Description | Est. Qty. Contract period | Lead Time (Weeks) | Manufacturer & Model / Type | Indicate how many units per packet / box | Kleinmond | Hermanus | Gansbaai |
| 17.68. | 02L079 | Crimping Lugs: 50mm x 10mm Aluminium | 8 | | | | | | |
| 17.69. | 02L078 | Crimping Lugs: 50mm x 12mm Aluminium | 1 | | | | | | |
| 17.70. | 02L077 | Crimping Lugs: 70mm x 10mm Aluminium | 2 | | | | | | |
| 17.71. | 02L076 | Crimping Lugs: 70mm x 12mm Aluminium | 1 | | | | | | |
| 17.72. | 02L074 | Crimping Lugs: 95mm x 10mm Aluminium | 5 | | | | | | |
| 17.73. | 02L073 | Crimping Lugs: 95mm x 12mm Aluminium | 1 | | | | | | |
| 17.74. | 02L072 | Crimping Lugs: 120mm x 12mm Aluminium | 1 | | | | | | |
| 17.75. | 02L071 | Crimping Lugs: 150mm x 12mm Aluminium | 1 | | | | | | |
| 17.76. | Non Stock | Crimping Lugs: 120mm x 10mm Aluminium | 1 | | | | | | |
| 17.77. | Non Stock | Crimping Lugs: 150mm x 10mm Aluminium | 1 | | | | | | |
| 17.78. | Non Stock | Crimping Lugs: 185mm x 12mm Aluminium | 1 | | | | | | |
| 17.79. | 02L084 | Crimping Lugs: 25mmx12mm Orange Bundle Conductor | 1 | | | | | | |
| 17.80. | 02L085 | Crimping Lugs: 35mmx12mm Red Bundle Conductor | 1 | | | | | | |
| 17.81. | 02L086 | Crimping Lugs: 50mmx12mm Yellow Bundle Conductor | 1 | | | | | | |
| 17.82. | 02L087 | Crimping Lugs: 70mmx12mm White Bundle Conductor | 1 | | | | | | |
| 17.83. | 02L088 | Crimping Lugs: 95mmx12mm Grey Bundle Conductor | 1 | | | | | | |
| 17.84. | 02F025 | Crimping Ferrule: 25mm Aluminium | 1 | | | | | | |

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| Signature | | Name (print) | |
| Capacity | | Date | |
| Name of firm | | | |

| 17. | LUGS & FERRULES | | | | | | Tender Price Including VAT | | |
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| | | | | | | | PLEASE PROVIDE A UNIT PRICE | | |
| Item # | OM stock code | Description | Est. Qty. Contract period | Lead Time (Weeks) | Manufacturer & Model / Type | Indicate how many units per packet / box | Kleinmond | Hermanus | Gansbaai |
| 17.85. | 02F026 | Crimping Ferrule: 35mm Aluminium | 1 | | | | | | |
| 17.86. | 02F027 | Crimping Ferrule: 50mm Aluminium | 1 | | | | | | |
| 17.87. | 02F028 | Crimping Ferrule: 70mm Aluminium | 2 | | | | | | |
| 17.88. | 02F029 | Crimping Ferrule: 95mm Aluminium | 2 | | | | | | |
| 17.89. | 02F030 | Crimping Ferrule: 120mm Aluminium | 1 | | | | | | |
| 17.90. | 02F031 | Crimping Ferrule: 150mm Aluminium | 1 | | | | | | |
| 17.91. | 02F047 | Crimping Ferrule: 35-35mm Copper/Alum (Bi-Metal) | 1 | | | | | | |
| 17.92. | 02F046 | Crimping Ferrule: 50-50mm Copper/Alum (Bi-Metal) | 1 | | | | | | |
| 17.93. | 02F045 | Crimping Ferrule: 70-70mm Copper/Alum (Bi-Metal) | 1 | | | | | | |
| 17.94. | 02F088 | Crimping Ferrule: 95mmx95mmCopper/Alum (Bi-Metal) | 1 | | | | | | |
| 17.95. | 02F062 | Crimping Ferrule: 16mm Blue (MJPB) | 1 | | | | | | |
| 17.96. | 02F052 | Crimping Ferrule: 25mm Orange Bundle Conductor | 1 | | | | | | |
| 17.97. | 02F058 | Crimping Ferrule: 35mm Red Bundle Conductor | 6 | | | | | | |
| 17.98. | 02F054 | Crimping Ferrule: 50mm Yellow Bundle Conductor | 1 | | | | | | |
| 17.99. | 02F055 | Crimping Ferrule: 70mm White Bundle Conductor | 1 | | | | | | |
| 17.100. | 02F056 | Crimping Ferrule: 95mm Grey Bundle Conductor | 1 | | | | | | |
| 17.101. | 02F092 | Crimping Ferrule: 54.6mm Neutral Bundle | 1 | | | | | | |

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| Signature | | Name (print) | |
| Capacity | | Date | |
| Name of firm | | | |

| 17. | LUGS & FERRULES | | | | | | Tender Price Including VAT | | |
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| | | | | | | | PLEASE PROVIDE A UNIT PRICE | | |
| Item # | OM stock code | Description | Est. Qty. Contract period | Lead Time (Weeks) | Manufacturer & Model / Type | Indicate how many units per packet / box | Kleinmond | Hermanus | Gansbaai |
| 17.102. | Non Stock | Crimping Lugs: 54.6mm Neutral Bundle | 1 | | | | | | |
| 17.103. | Non Stock | Crimping Ferrule: 185mm Aluminium | 1 | | | | | | |
| 17.104. | 02F083 | Crimping Ferrule: 35mm Weak Back | 1 | | | | | | |
| 17.105. | 02F058 | Crimping Ferrule: 50mm Weak Back | 1 | | | | | | |
| 17.106. | 02F059 | Crimping Ferrule: 70mm Weak Back | 1 | | | | | | |
| 17.107. | 02F060 | Crimping Ferrule: 95mm Weak Back | 1 | | | | | | |
| 17.108. | 02F061 | Crimping Ferrule: 120mm Weak Back | 1 | | | | | | |
| 17.109. | Non Stock | Shear off lug BLMT 25/95-13 & 17 (“Tank” or similar) | 1 | | | | | | |
| 17.110. | Non Stock | Shear off lug BLMT 35/150-13 & 17 (“Tank” or similar) | 1 | | | | | | |
| 17.111. | Non Stock | Shear off lug BLMT 95/240-13 & 17 (“Tank” or similar) | 1 | | | | | | |
| 17.112. | Non Stock | Shear off lug BLMT 185/400-13 & 17 (“Tank” or similar) | 1 | | | | | | |
| 17.113. | Non Stock | Shear off ferrule BSM25/95 (“Tank” or similar) | 1 | | | | | | |
| 17.114. | Non Stock | Shear off ferrule BSM35/150 (“Tank” or similar) | 1 | | | | | | |
| 17.115. | Non Stock | Shear off ferrule BSM95/240 (“Tank” or similar) | 1 | | | | | | |
| 17.116. | Non Stock | Shear off ferrule BSM185/400 (“Tank” or similar) | 1 | | | | | | |

| Signature | | Name (print) | |
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| Capacity | | Date | |
| Name of firm | | | |

| 18. | INSULATORS | | | | | | Tender Price Including VAT | | |
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| | | | | | | | PLEASE PROVIDE A UNIT PRICE | | |
| Item # | OM stock code | Description | Est. Qty. Contract period | Lead Time (Weeks) | Manufacturer & Model / Type | Indicate how many units per packet / box | Kleinmond | Hermanus | Gansbaai |
| 18.1. | **Silicone Insulators** | | | | | | | | |
| 18.1.1 | Non Stock | 6 DISC 480mm | 1 | | | | | | |
| 18.1.2 | Non Stock | 7 DISC 620mm; 520mm | 1 | | | | | | |
| 18.1.3 | Non Stock | 8 DISC 620mm; 490mm | 1 | | | | | | |
| 18.1.4 | Non Stock | 8 DISC 620mm; 500mm | 1 | | | | | | |
| 18.1.5 | Non Stock | 8 DISC 620mm; 620mm | 1 | | | | | | |
| 18.2. | **Porcelain Insulators** | | | | | | | | |
| 18.2.1 | 02I010 | Porcelain; 22kV intermediate complete with pin, 4kN with creepage 31mm/kV | 1 | | | | | | |
| 18.3. | **Flexible Boot** | | | | | | | | |
| 18.3.1 | Non Stock | Boots: Flexible Elastomeric Insulating Bushing Boot 17.5KV - RCAB 4120 (46-70 mm) | 1 | | | | | | |
| 18.3.2 | Non Stock | RCAB or RICS 3133 Flexible boot | 1 | | | | | | |

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| Signature | | Name (print) | |
| Capacity | | Date | |
| Name of firm | | | |

| 19. | GENERAL B | | | | | | | | Tender Price Including VAT | | |
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| | | | | | | | | | PLEASE PROVIDE A UNIT PRICE | | |
| Item # | OM stock code | Description | Est. Qty. Contract period | Indicate if your offer complies with technical requirements | | Lead Time (Weeks) | Manufacturer & Model / Type | Indicate how many units per packet / box | Kleinmond | Hermanus | Gansbaai |
| | | | | Yes | No | | | | | | |
| 19.1 | 02A002 | Airdac Strain Clamps For 10-16mm | 45 | | | | | | | | |
| 19.2 | 02A002 | Airdac Strain Clamps For 10-16mm | 45 | | | | | | | | |
| 19.3 | Non Stock | Airdac Suspension Plate | 2 | | | | | | | | |
| 19.4 | 02B004 | Band It Buckles: 12.7mm (100'S) | 15 | | | | | | | | |
| 19.5 | Non Stock | Band It Buckles: 15.8mm (100'S) | 2 | | | | | | | | |
| 19.6 | 02B005 | Band It Strap: 12.5X0.7mmx30m | 33 | | | | | | | | |
| 19.7 | Non Stock | Band It Strap: 15.8x0.7mmx30m | 2 | | | | | | | | |
| 19.8 | 02T017 | Barrier Tape: 75mmx500mx50mic - Red / White | 30 | | | | | | | | |
| 19.9 | Non Stock | Base Plate 380x380x6mm (Hot Dipped Galv) | 250 | | | | | | | | |
| 19.10 | 02B041 | Bundle Tie Straps: 200mm – Black | 2 | | | | | | | | |
| 19.11 | K02T004 | Cable Ties:104mm X 2.5mm – Black | 1 | | | | | | | | |
| 19.12 | Non Stock | Cable Ties:104mm X 2.5mm – Various Colours | 2 | | | | | | | | |
| 19.13 | 02T004A | Cable Ties:200mm X 4,7mm – Black | 5 | | | | | | | | |
| 19.14 | Non Stock | Cable Ties:200mm X 4,7mm – Various Colours | 2 | | | | | | | | |
| 19.15 | 02T004B | Cable Ties:305mm X 4,7mm – Black | 7 | | | | | | | | |

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| 19. | GENERAL B | | | | | | | | Tender Price Including VAT | | |
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| Item # | OM stock code | Description | Est. Qty. Contract period | Indicate if your offer complies with technical requirements | | Lead Time (Weeks) | Manufacturer & Model / Type | Indicate how many units per packet / box | Kleinmond | Hermanus | Gansbaai |
| | | | | Yes | No | | | | | | |
| 19.16 | Non Stock | Cable Ties:305mm X 4,7mm – Various Colours | 2 | | | | | | | | |
| 19.17 | Non Stock | Cable Ties:387mm X 7.6mm – Black | 2 | | | | | | | | |
| 19.18 | 02C114 | Clamp: Dead End | 2 | | | | | | | | |
| 19.19 | 02C109 | Clamp: Mv Gland | 2 | | | | | | | | |
| 19.20 | 02C113 | Contactor: 230v 50/60hz Magnetic(Rab-35t10) Or Compatible | 30 | | | | | | | | |
| 19.21 | G02T002 | Danger Tape: 300mmx60 MIC – Orange | 3 | | | | | | | | |
| 19.22 | Non Stock | Double Sided GDA Tape 12mmx25m | 2 | | | | | | | | |
| 19.23 | Non Stock | Double Sided GDA Tape 18mmx25m | 2 | | | | | | | | |
| 19.24 | Non Stock | Double Sided GDA Tape 24mmx25m | 2 | | | | | | | | |
| 19.25 | 0102B11 | Earth Kit Eakt-1669 16-120mm Raychem/Tank (Or Similar Approved) | 6 | | | | | | | | |
| 19.26 | 2.00E+01 | Electro Flasher Unit: Model R1F 230V (“Omron” Or Compatible) | 12 | | | | | | | | |
| 19.27 | Non Stock | Gansbaai Armoured Gland, Shrouds Included (Pratley Or Similar) | 20 | | | | | | | | |
| 19.28 | 0102B06 | Glands: No. 2 (Pvc) | 12 | | | | | | | | |
| 19.29 | 02G023 | Glands & Shrouds: No 1 Bw | 2 | | | | | | | | |
| 19.30 | 02G020 | Glands & Shrouds: No 2 Bw | 2 | | | | | | | | |
| 19.31 | 02G061 | Glands & Shrouds: No 3 Bw | 6 | | | | | | | | |

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| Capacity | | Date | |
| Name of firm | | | |

| 19. | GENERAL B | | | | | | | | Tender Price Including VAT | | |
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| Item # | OM stock code | Description | Est. Qty. Contract period | Indicate if your offer complies with technical requirements | | Lead Time (Weeks) | Manufacturer & Model / Type | Indicate how many units per packet / box | Kleinmond | Hermanus | Gansbaai |
| | | | | Yes | No | | | | | | |
| 19.32 | Non Stock | Glands & Shrouds: No 4 Bw | 2 | | | | | | | | |
| 19.33 | Non Stock | Glands & Shrouds: No 5 Bw | 2 | | | | | | | | |
| 19.34 | Non Stock | Glands: No. 0 (Pvc) | 1 | | | | | | | | |
| 19.35 | Non Stock | Glands: No. 1 (Pvc) | 2 | | | | | | | | |
| 19.36 | Non Stock | Gloves: Leather Outer RGXSC-C – Various Sizes ("Regeltex" Or Similar) | 2 | | | | | | | | |
| 19.37 | 0103F06 | Gloves: Rubber – Various Sizes 1100 Volt | 3 | | | | | | | | |
| 19.38 | Non Stock | **Guy Grips – Al Blue 1250mm** | 2 | | | | | | | | |
| 19.39 | Non Stock | **Guy Grips – Al Green 1100mm** | 2 | | | | | | | | |
| 19.40 | G0102B12 | Guy Grips – AL Green 1900mm | 2 | | | | | | | | |
| 19.41 | Non Stock | **Guy Grips – Al Yellow 920mm** | 2 | | | | | | | | |
| 19.42 | K02W001 | House Wire:16mm Black PVC **(PLEASE PROVIDE A PRICE PER METER)** | 2 | | | | | | | | |
| 19.43 | Non Stock | House Wire:16mm Blue PVC **(PLEASE PROVIDE A PRICE PER METER)** | 2 | | | | | | | | |
| 19.44 | Non Stock | House Wire:16mm Green/Yellow PVC **(PLEASE PROVIDE A PRICE PER METER)** | 2 | | | | | | | | |
| 19.45 | K02W002 | House Wire:16mm Red PVC **(PLEASE PROVIDE A PRICE PER METER)** | 2 | | | | | | | | |
| 19.46 | Non Stock | House Wire:16mm White PV C**(PLEASE PROVIDE A PRICE PER METER)** | 2 | | | | | | | | |

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| Capacity | | Date | |
| Name of firm | | | |

| 19. | GENERAL B | | | | | | | | Tender Price Including VAT | | |
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| Item # | OM stock code | Description | Est. Qty. Contract period | Indicate if your offer complies with technical requirements | | Lead Time (Weeks) | Manufacturer & Model / Type | Indicate how many units per packet / box | Kleinmond | Hermanus | Gansbaai |
| | | | | Yes | No | | | | | | |
| 19.47 | 02T014 | Insulation Tape: Black (+33) ("3M Scotch" Or Similar) **(Specifications item #20)** | 100 | | | | | | | | |
| 19.48 | 02T016 | Insulation Tape: Blue (No.35) ("3M Scotch" Or Similar) **(Specifications item #19)** | 100 | | | | | | | | |
| 19.49 | G0102D12 | Insulation Tape: Green (No.35) ("3M Scotch" Or Similar) **(Specifications item #19)** | 100 | | | | | | | | |
| 19.50 | 02T015 | Insulation Tape: Red (No.35) ("3M Scotch" Or Similar) **(Specifications item #19)** | 100 | | | | | | | | |
| 19.51 | 02T003 | Insulation Tape: White (No.35) ("3M Scotch" Or Similar) **(Specifications item #19)** | 100 | | | | | | | | |
| 19.52 | Non Stock | Insulation Tape: Yellow (No.35) ("3M Scotch" Or Similar) **(Specifications item # 19)** | 1000 | | | | | | | | |
| 19.53 | G0102C09 | K-Clamps: 16mm | 450 | | | | | | | | |
| 19.54 | G0102C06 | K-Clamps: 20mm | 20 | | | | | | | | |
| 19.55 | G0102C10 | K-Clamps: 32mm | 450 | | | | | | | | |
| 19.56 | G0102C07 | K-Clamps: 40mm | 450 | | | | | | | | |
| 19.57 | G0101E03 | Lightning Arrestors 11 Kv | 50 | | | | | | | | |

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| Capacity | | Date | |
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| 19. | GENERAL B | | | | | | | Tender Price Including VAT | | |
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| Item # | OM stock code | Description | Est. Qty. Contract period | Indicate if your offer complies with technical requirements | | Lead Time (Weeks) | Manufacturer & Model / Type | Indicate how many units per packet / box | Kleinmond | Hermanus | Gansbaai |
| | | | | Yes | No | | | | | | |
| 19.58 | 02L007 | Line Taps: 100mm | 300 | | | | | | | | |
| 19.59 | G0102C05 | Line Taps: 150mm (Mo 5/8) | 300 | | | | | | | | |
| 19.60 | 02L010 | Line Taps: 25mm (Mo 4) | 300 | | | | | | | | |
| 19.61 | 02L008 | Line Taps: 35mm (Mo 2) | 200 | | | | | | | | |
| 19.62 | 02L006 | Line Taps: 50mm (Mo 0) | 9 | | | | | | | | |
| 19.63 | 02L009 | Line Taps: 70mm (Mo 3/0) | 100 | | | | | | | | |
| 19.64 | 02L011 | Line Taps:16mm (Mo.6) | 100 | | | | | | | | |
| 19.65 | Non Stock | Miracle Tool Spray – Momar Or Similar **(Specifications item # 23)** | 300 | | | | | | | | |
| 19.66 | Non Stock | Oil Cap **(Specifications item # 23)** | 300 | | | | | | | | |
| 19.67 | Non Stock | Oil Spill Kit: One Man Spill Kit **(Specifications item # 23)** | 300 | | | | | | | | |
| 19.68 | Non Stock | Orange Barrier Netting – 1.2m X 30m | 300 | | | | | | | | |
| 19.69 | Non Stock | Orcasorb **(Specifications item # 23)** | 300 | | | | | | | | |
| 19.70 | Non Stock | Panel Wire: 2.5mm Black **(PLEASEPROVIDE A PRICE PER METER)** | 50 | | | | | | | | |
| 19.71 | Non Stock | Panel Wire: 2.5mm Blue **(PLEASE PROVIDE A PRICE PER METER)** | 1 | | | | | | | | |
| 19.72 | Non Stock | Panel Wire: 2.5mm Brown **(PLEASE PROVIDE A PRICE PER METER)** | 12 | | | | | | | | |

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| Capacity | | Date | |
| Name of firm | | | |

| 19. | GENERAL B | | | | | | | | Tender Price Including VAT | | |
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| | | | | | | | | | PLEASE PROVIDE A UNIT PRICE | | |
| Item # | OM stock code | Description | Est. Qty. Contract period | Indicate if your offer complies with technical requirements | | Lead Time (Weeks) | Manufacturer & Model / Type | Indicate how many units per packet / box | Kleinmond | Hermanus | Gansbaai |
| | | | | Yes | No | | | | | | |
| 19.73 | Non Stock | Panel Wire: 2.5mm Green/Yellow **(PLEASE PROVIDE A PRICE PER METER)** | 2 | | | | | | | | |
| 19.74 | Non Stock | Panel Wire: 2.5mm Grey **(PLEASE PROVIDE A PRICE PER METER)** | 100 | | | | | | | | |
| 19.75 | Non Stock | Panel Wire: 2.5mm Orange **(PLEASE PROVIDE A PRICE PER METER)** | 100 | | | | | | | | |
| 19.76 | Non Stock | Panel Wire: 2.5mm Pink **(PLEASE PROVIDE A PRICE PER METER)** | 100 | | | | | | | | |
| 19.77 | Non Stock | Panel Wire: 2.5mm Purple **(PLEASE PROVIDE A PRICE PER METER)** | 100 | | | | | | | | |
| 19.78 | Non Stock | Panel Wire: 2.5mm Red **(PLEASE PROVIDE A PRICE PER METER)** | 100 | | | | | | | | |
| 19.79 | Non Stock | Panel Wire: 2.5mm White **(PLEASE PROVIDE A PRICE PER METER)** | 100 | | | | | | | | |
| 19.80 | Non Stock | Panel Wire: 2.5mm Yellow **(PLEASE PROVIDE A PRICE PER METER)** | 100 | | | | | | | | |
| 19.81 | 02P008 | Pigtail Bolts: M 16 X 380 | 100 | | | | | | | | |
| 19.82 | 02A003 | Pigtail Screws | 100 | | | | | | | | |
| 19.83 | 02P001 | Pipe: 110mm X 6m Plasduct | 100 | | | | | | | | |
| 19.84 | K02P001 | Pipe: 40mm X 4m Conduit Bosal Galv. | 100 | | | | | | | | |
| 19.85 | 02C007 | Pole Bracket Only: CS14 | 1 | | | | | | | | |
| 19.86 | 02P003 | Pole Mount Box + Vert. Bracket Spb1 | 50 | | | | | | | | |

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| Signature | | Name (print) | |
| Capacity | | Date | |
| Name of firm | | | |

| 19. | GENERAL B | | | | | | | | Tender Price Including VAT | | |
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| | | | | | | | | | PLEASE PROVIDE A UNIT PRICE | | |
| Item # | OM stock code | Description | Est. Qty. Contract period | Indicate if your offer complies with technical requirements | | Lead Time (Weeks) | Manufacturer & Model / Type | Indicate how many units per packet / box | Kleinmond | Hermanus | Gansbaai |
| | | | | Yes | No | | | | | | |
| 19.87 | G0102B13 | Pole Top Make Offs Stay Wire Strand 7 X 4,00mm Green | 420 | | | | | | | | |
| 19.88 | Non Stock | Ready Boards With Light ("CBI" Or Similar) | 250 | | | | | | | | |
| 19.89 | Non Stock | Rootsorb 25 Kg **(Specifications Par. B 18.3)** | 6 | | | | | | | | |
| 19.90 | Non Stock | Rubber Gloves – Cotton Inners – Various Sizes | 2 | | | | | | | | |
| 19.91 | Non Stock | Rubber Tape: 25mm X 0.75mm X 9.15m ("Pratley" Or Similar) **(Specifications Par. B 16.)** | 60 | | | | | | | | |
| 19.92 | 02T001 | Rubber Tape: 34mm X 3.2mm X 1.6m ("Pratley" Or Similar) **(Specifications item # 21** | 10 | | | | | | | | |
| 19.93 | K02S001 | Saddles: 20mm Galvanized | 100 | | | | | | | | |
| 19.94 | K02S002 | Saddles: 40mm Galvanized | 100 | | | | | | | | |
| 19.95 | 02P031 | Saddles: Pvc 20mm | 10 | | | | | | | | |
| 19.96 | G0102B11 | Solderless Earth Connection See Item #6 In Specifications | 2 | | | | | | | | |
| 19.97 | Non Stock | Stay Rod Adjustable M20x2.4m (Hot Dipped Galv) | 120 | | | | | | | | |
| 19.98 | 02B038 | Strain Clamp Bundle: Lv Insulated Neutral | 300 | | | | | | | | |
| 19.99 | 02B039 | Suspension Assembly Bundle: Insulated Neutral | 100 | | | | | | | | |
| 19.99 | 02B040 | Suspension Clamp Bundle: Lv Insulated Neutral | 2 | | | | | | | | |
| 19.100 | Non Stock | Trotec Troply Laminates (Graflux Or Similar ) White/Red P206-206 | 100 | | | | | | | | |

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| 19. | GENERAL B | | | | | | | | Tender Price Including VAT | | |
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| Item # | OM stock code | Description | Est. Qty. Contract period | Indicate if your offer complies with technical requirements | | Lead Time (Weeks) | Manufacturer & Model / Type | Indicate how many units per packet / box | Kleinmond | Hermanus | Gansbaai |
| | | | | Yes | No | | | | | | |
| 19.101 | Non Stock | Trotec Troply Laminates (Graflux Or Similar) Black/White SW019 | 2 | | | | | | | | |
| 19.102 | Non Stock | Trotec Troply Laminates (Graflux Or Similar) Blue/White M512 | 10 | | | | | | | | |
| 19.103 | Non Stock | Trotec Troply Laminates (Graflux Or Similar) Yellow/Black P744-206 | 2 | | | | | | | | |
| 19.104 | Non Stock | Tsw Asbestos Encapsulation **(Specifications item # 23)** | 10 | | | | | | | | |
| 19.105 | 02J006 | Wiping Metal S5 | 2 | | | | | | | | |
| 19.106 | G0103F08 | Wire:16mm Bare Copper **(PLEASE PROVIDE A PRICE PER METER AND NOT PER KG.)** | 250 | | | | | | | | |
| 19.107 | Non Stock | Wooden Droppers (Gum): ± 30mm X 1.2m – Natural | 2 | | | | | | | | |

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|---|---|---|---|
| Signature | | Name (print) | |
| Capacity | | Date | |
| Name of firm | | | |

| 20. | BATTERIES (Specifications Par. B 19) | | | | | | | Tender Price Including VAT<br>PLEASE PROVIDE A UNIT PRICE AND NOT A PRICE PER PACKET OR BOX | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Item # | OM stock code | Description | Est. Qty. Contract period | Indicate if your offer complies with technical requirements | | Lead Time (Weeks) | Manufacturer & Model / Type | Kleinmond | Hermanus | Gansbaai |
| | | | | Yes | No | | | | | |
| 20.1. | Non Stock | Type AAA: Alkaline Coppertop Penlight Batteries (per pack of 4) | 24 | | | | | | | |
| 20.2. | 44B002 | Type AA: Alkaline Coppertop Penlight Batteries (per pack of 4) | 100 | | | | | | | |
| 20.3. | 44B003 | Type C: Alkaline Coppertop Medium Batteries (per pack of 2 | 30 | | | | | | | |
| 20.4. | 44B005 | Type D: Alkaline Coppertop Torch Batteries (per pack of 2) | 60 | | | | | | | |
| 20.5. | 44B004 | Type PM3: Alkaline Coppertop 9Volt Batteries | 60 | | | | | | | |

| 21. | CURRENT TRANSFORMERS | | | | | | | Tender Price Including VAT<br>PLEASE PROVIDE A UNIT PRICE AND NOT A PRICE PER PACKET OR BOX | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Item # | OM stock code | Description | Est. Qty. Contract period | Indicate if your offer complies with technical requirements | | Lead Time (Weeks) | Manufacturer & Model / Type | Kleinmond | Hermanus | Gansbaai |
| | | | | Yes | No | | | | | |
| 21.1. | Non Stock | CURRENT TRANSFORMER: 100/5 (32MM RING) CL1 | 2 | | | | | | | |
| 21.2. | 02M011 | CURRENT TRANSFORMER: 150/5 (32MM RING) CL1 | 6 | | | | | | | |
| 21.3. | 02M012 | CURRENT TRANSFORMER: 200/5 (32MM RING) CL1 | 2 | | | | | | | |

| | | | |
|---|---|---|---|
| Signature | | Name (print) | |
| Capacity | | Date | |
| Name of firm | | | |

| 21. | CURRENT TRANSFORMERS | | | | | | | Tender Price Including VAT<br>PLEASE PROVIDE A UNIT PRICE AND NOT A PRICE PER PACKET OR BOX | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Item # | OM stock code | Description | Est. Qty. Contract period | Indicate if your offer complies with technical requirements | | Lead Time (Weeks) | Manufacturer & Model / Type | Kleinmond | Hermanus | Gansbaai |
| | | | | Yes | No | | | | | |
| 21.4. | 02M013 | CURRENT TRANSFORMER: 250/5 (32MM RING) CL1 | 3 | | | | | | | |
| 21.5. | 02M031 | CURRENT TRANSFORMER: 250/5 (36MM RING) CL1 | 3 | | | | | | | |
| 21.6. | 02M014 | CURRENT TRANSFORMER: 300/5 (36MM RING) CL1 | 3 | | | | | | | |
| 21.7. | 02M015 | CURRENT TRANSFORMER: 350/5 (36MM RING) CL1 | 2 | | | | | | | |
| 21.8. | 02M016 | CURRENT TRANSFORMER: 400/5 (36MM RING) CL1 | 2 | | | | | | | |
| 21.9. | 02M018 | CURRENT TRANSFORMER: 500/5 (65MM RING )CL1 | 2 | | | | | | | |
| 21.10. | 2M019 | CURRENT TRANSFORMER: 600/5 (65MM RING) CL1 | 2 | | | | | | | |
| 21.11. | 2M020 | CURRENT TRANSFORMER: 700/5 (65MM RING) CL1 | 2 | | | | | | | |
| 21.12. | 2M021 | CURRENT TRANSFORMER: 800/5 (65MM RING) CL1 | 2 | | | | | | | |
| 21.13. | 2M022 | CURRENT TRANSFORMER: 1000/5 (65MM RING) CL1 | 2 | | | | | | | |

| | | | |
|---|---|---|---|
| Signature | | Name (print) | |
| Capacity | | Date | |
| Name of firm | | | |

## 21. MBD 7.1. – CONTRACT FORM - PURCHASE OF GOODS/WORKS

**NB:**

1. **This form must be completed in duplicate by both the successful bidder (Part 1) and the purchaser (Part 2). The form must be signed in the original so that the successful bidder and the purchaser will be in possession of a signed contracts for their respective records.**
2. **NO correction fluid/tape may be used.**
3. **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 **OVERSTRAND MUNICIPALITY** in accordance with the requirements and specifications stipulated in bid number SC2099/2020 at the price(s) as per pricing schedule.
2. 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.
3. The following documents shall be deemed to form and be read and construed as part of this agreement:
   *(i)* Bidding documents, *viz*
      1. Invitation to bid
      2. Tax clearance certificate
      3. Pricing schedule(s)
      4. Technical Specification(s)
      5. Preference claims in terms of the Preferential Procurement Regulations 2017
      6. Declaration of interest
      7. Special Conditions of Contract; and

   (ii) General Conditions of Contract.
4. 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.
5. 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.
6. I declare that I have no participation in any collusive practices with any bidder or any other person regarding this or any other bid.
7. I confirm that I am duly authorised to sign this contract.

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

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

**PART 2 (To be completed by OVERSTRAND MUNICIPALITY)**

1. I, _____, 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 order indicating delivery instructions is forthcoming.

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 that I am duly authorized to sign this contract.



SIGNED AT _____ on this _____ day of _____20____.

| **TO BE COMPLETED BY THE OVERSTRAND MUNICIPALITY** | | |
|---|---|---|
| SIGNATURE: | | **OFFICIAL STAMP:** |
| NAME (PRINT): | | |
| WITNESS 1: | | |
| WITNESS 2: | | |

## 22. 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 *domicillium citandi et executandi* (physical address at which legal proceedings may be instituted) in the Republic at:

_____

_____

_____

I / We accept full responsibility for the proper execution and fulfillment of all obligations and conditions devolving in me / us under this agreement as the principal liable for the due fulfillment of this contract.

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 / items specified in the tender documents and that the price(s) 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.

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 | |

# 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 REGISTRATION NUMBER** | | **SC** | | |
| **NAME OF FIRM** | | | | |
| **SIGNATURE** | | **CAPACITY** | | |
| **NAME (PRINT)** | | | | |

| | |
|---|---|
| **B** | **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 |

## FOR OFFICE USE ONLY

| *FORMS REMOVED & HANDED TO DATABASE 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. | Yes | | No | |
| **8.** | **LIST ANY OTHER FORMS REMOVED AND SUBMITTED TO DATABASE OFFICIAL:** | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

*I confirm that I have removed the forms as indicated above from the tender document and forwarded it to the Supplier Database Official*

| | ***Removed*** | ***Checked*** |
|---|---|---|
| ***Print Name*** | | |
| ***Signature*** | | |
| ***Date*** | | |

MUNISIPALITEIT MUNICIPALITY

# DATABASE REGISTRATION FORM

**VAT/BTW REG. NO: 4140106396** **www.overstrand.gov.za** **OM-C1**


| HERMANUS | HANGKLIP-KLEINMOND | | STANFORD | GANSBAAI |
|---|---|---|---|---|
| Magnoliastraat 1 Magnolia Street<br>✉ 20 7200<br>Tel. 028 313 8152<br>Faks/Fax. 086 533 9190 | 5de Laan 39 5th Avenue<br>Privaatsak X3 Private Bag 7195<br>Tel. 028 271 8400<br>Faks/Fax. 028 271 4100 | | **Queen Victoriastraat 15 Queen Victoria Street**<br>✉ **84 7210**<br>Tel. 028 341 0640<br>Faks/Fax. 028 341 0445 | **Hoofstraat Main Road**<br>✉ **26 7220**<br>Tel. 028 384 0111<br>Faks/Fax. 028 384 0241 |


| | |
|---|---|
| **KREDITEURE:**<br>Registrasie op databasis ingevolge: | 1. Wet op die Raamwerk vir Voorkeurverkrygingsbeleid, 2000 (Wet No. 5 van 2000) (Staat Kennisgewing No.97 van 03 Februarie 2000 – Staatskoerant No. 20854)<br>2. Voorkeurverkrygingsregulasies (No. R.725 van 10 Augustus 2001) uitgevaardig ingevolge bogemelde Wet (Staatskoerant No. 22549)<br>3. **Wet Op Plaaslike Regering: Munisipale Finansiële Bestuur No. 56 Van 2003** |
| **CREDITORS:**<br>Registration on data base in terms of: | 1. Preferential Procurement Policy Framework Act No. 5 Of 2000 (Government Notice No.97 van 03 February 2000 – Government Gazette No. 20854)<br>2. Preferential Procurement Regulations (No. R.725 of 10 August 2001) promulgated in terms of abovementioned Act (Government Gazette No. 22549)<br>3. Local Government: Municipal Finance Management Act No. 56 Of 2003 |
| **ABANTU ENINAMATYALA KUBO:**<br>Ubhaliso kuluhlu ngokwemiqathango: | 1. Yobume benkqubo ekhethekileyo yokufumana Umthetho ongunombolo 5 ka-2000 (Isaziso sikaRhulumente esingunombolo 97 we-3 kaFebruwari 2000-Iphepha-ndaba lombuso likaRhulumente unombolo 20854)<br>2. Imithetho yenkqubo ekhethekiuleyo yokufumana (Nombolo R725 ka-Agasti 2001) umthetho owaziswe ngokubhekiselele ngumthetho ongasentla (Iphepha-ndaba lombuso likaRhulumente elingunombolo 22549)<br>3. **Umasipala wengingqi: Umthetho wokulawula ezemali kamasipala ongunombolo 56 ka -2003** |

| | |
|---|---|
| Handelsnaam van onderneming<br>Trade name of enterprise<br>Igama leshishini | |
| Posadres / Postal address<br>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 | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Tipe onderneming (Merk met X) / Type of enterprise (Mark with X) / Uhlobo loshishino (Phawula ngo-X) | 1 | Eenmansaak / Sole Proprietor/ Ushishino lomntu omnye | 2 | Vennootskap/ Partnership/ Uthelelwano | 3 | Openbare Sektor / Public Sector / Icandelo lomntu wonke | 4 | Maatskappy/Beslote Korporasie / Company /Close Corporation / Inkampani/mbumba evalekileyo | 5 | Ander: Klub, Trust, ens. / Other: Club, Trust, etc. / Ezinye: umbutho, itrasti, njl-njl. |

| | |
|---|---|
| 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 ungabhaliselanga nayiphi na into kwezi zingaphezulu, nika izizathu: | |

CIDB nommer / CIDB number / inombolo ye-CIDB (Construction Industry Development Board)

**Besonderhede van verantwoordelike persoon of eienaar / Particulars of responsible person or owner / Iiinkcukacha zomntu othatha uxanduva okanye zomnini**

| | |
|---|---|
| Van / Surname / Ifani | |
| Voornaam / First name / Amagama | |
| Hoedanigheid / Designation / Ubume emsebenzini | |

**Besonderhede van skakelbeampte / Particulars of liaison officer / Iinkcukacha 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 | |

| | | | |
|---|---|---|---|
| Meld taalvoorkeur / Indicate language preference | Afrikaans | | English |

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 incukacha ezinikiweyo apha ziyinyaniso kwaye zilungile.

Handtekening van persoon verantwoordelik vir hierdie verklaring / Signature of person responsible for this declaration / Utyikityo 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**

## PREFERENTIAL PROCUREMENT REGULATIONS 2017

**1. POINTS AWARDED FOR B-BBEE STATUS LEVEL OF CONTRIBUTION**

1.1 In terms of Regulation 6 (2) and 7 (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 | 6 | 14 |
| 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:

| | |
|---|---|
| **2.1.1 B-BBEE STATUS LEVEL OF CONTRIBUTION CLAIMED IN TERMS OF PARAGRAPHS 1.3.1.2 AND 5.1** | |
| **2.1.1.1** B-BBEE Status Level of Contribution as reflected on the B-BBEE Certificate | |
| **2.1.1.2** 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).***

| | | | |
|---|---|---|---|
| **3** | Persentasie aandeelhouding van persone geklassifiseer as **jeug**. (18 – 35 Jaar oud) / Percentage of shareholding of persons in the business classified as **youth**. (18 – 35 Years old) / Ipersenti labantu abanezabelo kwinkonzo zoshishino ababizwa ngokuba **lulutsha** (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 |
| | | | 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

| | |
|---|---|
| | |
| **Handtekening / Signature / Osayinileyo** | **Getuie / As Witness / Njengengqina** |

## 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:<br>(i) abused the municipality's supply chain management system or committed any improper conduct in relation to such system;<br>(ii) been convicted for fraud or corruption during the past five years;<br>(iii) willfully neglected, reneged on or failed to comply with any government, municipal or other public sector contract during the past five years;<br>(iv) being a person whose tax matters are not cleared by the South African Revenue Services; or<br>(v) 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). |

| | | | | | | |
|---|---|---|---|---|---|---|
| **3.** | In order to give effect to the above, the following questionnaire must be completed and signed before a Commissioner of Oaths. | | | | | |
| **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 *in the service of the state* 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 *in the service of the state?* | **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.** | | | | | |

| | | | | | |
|---|---|---|---|---|---|
| **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)? | **YES** | | **NO** | |
| **3.10.1** | **If so, furnish particulars.** | | | | |
| **3.11** | Was the supplier 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** | |
| **3.11.1** | **If so, furnish particulars.** | | | | |
| **3.12** | Does the supplier 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? | **YES** | | **NO** | |
| **3.12.1** | **If so, furnish particulars.** | | | | |
| **3.13** | Was any contract between the supplier 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? | **YES** | | **NO** | |
| **3.13.1** | **If so, furnish particulars.** | | | | |

**CERTIFICATION**

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** |

* *MSCM Regulations: "in the service of the state" means to be –*

*(a) a member of –*
- *(i) any municipal council;*
- *(ii) any provincial legislature; or*
- *(iii) the national Assembly or the national Council of provinces;*

*(b) a member of the board of directors of any municipal entity;*
*(c) an official of any municipality or municipal entity;*
*(d) an employee of any national or provincial department, national or provincial public entityor constitutional institution within the meaning of the Public Finance Management Act, 1999 (Act No.1 of 1999);*
**(e)** *a member of the accounting authority of any national or provincial public entity; or*
**(f)** *an employee of Parliament or a provincial legislature.*

**COMMISSIONER OF OATHS**

Signed and sworn to before me at _____, on this _____day of _____ 20 _____

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 OATHS:-**

Position: _____

Address: _____

Tel: _____

**Apply official stamp of authority on this page:**

| ETHICS COMMITMENT FOR SUPPLIERS OF THE OVERSTRAND LOCAL MUNICIPALITY |
|---|
| **In our dealings with the Overstrand Local Municipality we commit to uphold high standards of ethics. Among other things this means:** |
| • We will be honest and deal in good faith;<br>• We will not improperly try to influence any municipal official or decision; We will avoid all conflicts of interest;<br>• We will not engage in any form of corruption (e.g. paying bribes, giving kickbacks); We will not give gifts to municipal officials or councillors;<br>• We will not be involved in collusion with other service providers (i.e. price-fixing);<br>• We will ensure that all information we submit to the municipality is accurate and truthful (e.g. we will not engage in B-BBEE fronting).<br>• We will ensure and take accountability to keep our database records up to date, avoiding misrepresentation.<br>• We will ensure to comply with legislative requirements applicable.<br>• We will inform the Overstrand of any unethical behaviour known, either from other suppliers or<br>• Overstrand officials, supported by the protection of our Whistle Blowing policy.<br>• We will contribute by all means necessary, in building a positive ethical culture in the Overstrand. |
| **This is our commitment to help build an ethical Overstrand.** |

| | |
|---|---|
| **Name of Company:** | |
| **Name of authorised person:** | |
| **Signature:** | |
| **Date:** | |

| Please provide the following information on ALL directors / shareholders / trustees / members below: | | | |
|---|---|---|---|
| **Full Name and Surname** | **Full Name and Surname** | **Full Name and Surname** | **Full Name and Surname** |
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## MBD 15 – CERTIFICATE FOR PAYMENT OF MUNICIPAL SERVICES

**DECLARATION IN TERMS OF PARAGRAPH 38(1)(d)(i) OF SUPLLY CHAIN MANAGEMENT POLICY OF THE OVERSTRAND MUNICIPALITY** (To be signed in the presence of a Commissioner of Oaths)

**DECLARATION IN TERMS OF PARAGRAPH 38(1)(d)(i) OF SUPLLY CHAIN MANAGEMENT POLICY OF THE OVERSTRAND MUNICIPALITY** (To be signed in the presence of a Commissioner of Oaths)

I, _____, _____ (full name and ID no.), hereby acknowledge that according to SCM Regulation 38(1)(d)(i), the Municipality may reject the tender of the tenderer if any municipal rates and taxes or municipal service charges owed by the Tenderer or any of its directors/members/partners to the Overstrand Municipality, or to any other municipality or municipal entity, are in arrears for more than 3 (three) months.

I declare that I am duly authorised to act on behalf of _____ (name of the firm) and hereby declare, that to the best of my personal knowledge, neither the firm nor any director/member/partner of said firm is in arrears on any of its municipal accounts with any municipality in the Republic of South Africa, for a period longer than 3 (three) months.

I further hereby certify that the information set out in this schedule and/or attachment(s) hereto is true and correct. The Tenderer acknowledges that failure to properly and truthfully complete this schedule may result in the tender being disqualified, and/or in the event that the tenderer is successful, the cancellation of the contract.

| PHYSICAL BUSINESS ADDRESS(ES) OF THE TENDERER | MUNICIPAL ACCOUNT NUMBER |
|---|---|
| | |
| | |

**FURTHER DETAILS OF THE BIDDER'S Director / Shareholder / Partners, etc.:**

| Director / Shareholder / partner | Physical address of the Business | Municipal Account number(s) | Physical residential address of the Director / shareholder / partner | Municipal Account number(s) |
|---|---|---|---|---|
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**NB:** **Please attach** certified copy(ies) of ID document(s)

| Number of sheets appended by the tenderer to this schedule (If nil, enter NIL) | |
|---|---|

| | | |
|---|---|---|
| | | |
| **Signature** | **Position** | **Date** |

**COMMISSIONER OF OATHS**

Signed and sworn to before me at _____, on this _____day of _____ 20___

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 OATHS:-**

Position: _____

Address: _____

Tel: _____

**Apply official stamp of authority on this page:**

# 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 with the Standard Industrial Classification<br>Please indicate your Sector | "X" | Size of class | Total full-time equivalent of paid employees<br>Less than: | Total annual turnover<br>Less than: | Total gross asset value (fixed property excluded)<br>Less than: | Indicate the category of your business<br>"X" |
|---|---|---|---|---|---|---|
| All Tiers of Government<br>00001 - 09999 | | Not applicable | Not applicable | Not applicable | Not applicable | Not applicable |
| Agriculture<br>11001 - 14999 | | Medium | 100 | R 5 m | R 5 m | |
| | | Small | 50 | R 3 m | R 3 m | |
| | | Very small | 10 | R 0.50 m | R 0.50 m | |
| | | Micro | 5 | R 0.20 m | R 0.10 m | |
| Mining and Quarrying<br>21001 - 29999 | | Medium | 200 | R 39 m | R 23 m | |
| | | Small | 50 | R 10 m | R 6 m | |
| | | Very small | 20 | R 4 m | R 2 m | |
| | | Micro | 5 | R 0.20 m | R 0.10 m | |
| Manufacturing<br>30001 - 39999 | | Medium | 200 | R 51 m | R 19 m | |
| | | Small | 50 | R 13 m | R 5 m | |
| | | Very small | 20 | R 5 m | R 2 m | |
| | | Micro | 5 | R 0.20 m | R 0.10 m | |
| Electricity, Gas and Water<br>41001 - 42999 | | Medium | 200 | R 51 m | R 19 m | |
| | | Small | 50 | R 13 m | R 5 m | |
| | | Very small | 20 | R 5.10 m | R 1.90 m | |
| | | Micro | 5 | R 0.20 m | R 0.10 m | |
| Construction<br>50001 - 50999 | | Medium | 200 | R 26 m | R 5 m | |
| | | Small | 50 | R 6 m | R 1 m | |
| | | Very small | 20 | R 3 m | R 0.50 m | |
| | | Micro | 5 | R 0.20 m | R 0.10 m | |
| Wholesale Trade, Commercial Agents and Allied Services<br>58001 - 61999 | | Medium | 200 | R 64 m | R 10 m | |
| | | Small | 50 | R 32 m | R 5 m | |
| | | Very small | 20 | R 6 m | R 0.60 m | |
| | | Micro | 5 | R 0.20 m | R 0.10 m | |
| Retail and Motor Trade and Repair Services<br>62101 - 63500 | | Medium | 200 | R 39 m | R 6 m | |
| | | Small | 50 | R 19 m | R 3 m | |
| | | Very small | 20 | R 4 m | R 0.60 m | |
| | | Micro | 5 | R 0.20 m | R 0.10 m | |
| Catering, Accommodation and other Trade<br>64101 - 64299 | | Medium | 200 | R13 m | R 3 m | |
| | | Small | 50 | R 6 m | R 1 m | |
| | | Very small | 20 | R 1.50 m | R 0.90 m | |
| | | Micro | 5 | R 0.20 m | R 0.10 m | |
| Transport, Storage and Communications<br>71001 - 75999 | | Medium | 200 | R26 m | R 6 m | |
| | | Small | 50 | R13 m | R 3 m | |
| | | Very small | 20 | R 3 m | R 0.60 m | |
| | | Micro | 5 | R 0.20 m | R 0.10 m | |
| Finance and Business Services<br>81001 - 88999 | | Medium | 200 | R 26 m | R 5 m | |
| | | Small | 50 | R 13 m | R 3 m | |
| | | Very small | 20 | R 3 m | R 0.50 m | |
| | | Micro | 5 | R 0.20 m | R 0.10 m | |
| Community, Social and Personal Services<br>91001 - 99999 | | Medium | 200 | R 13 m | R 6 m | |
| | | Small | 50 | R 6 m | R 3 m | |
| | | Very small | 20 | R 1 m | R 0.60 m | |
| | | Micro | 5 | R 0.20 m | R 0.10 m | |

## 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 √ and (i.e. nature of operations, products or services):**

| PRIMARY FUNCTION: | | SECONDARY FUNCTION: | |
|---|---|---|---|
| **PRODUCTS** | | **PRODUCTS** | |
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## KREDIETBEVEL INSTRUKSIE / CREDIT ORDER INSTRUCTION / UMYALELO NGOTYALO MALI

| | | |
|---|---|---|
| Dit is die Overstrand Munisipaliteit se beleid om alle krediteure deur middel van direkte bankoorplasings te vereffen. Verskaf meegaande inligting en verkry asb. U bankiers se bevestiging. | It is the policy of the Overstrand Municipality to pay all creditors by means of direct bank transfers. Please complete this information and acquire your banker's confirmation. | Yinkqubo kaMasipala waseOverstrand ukuhlawula abo kufuneka bebahlawule ngokufaka imali ebhankini.Nceda ke ngoko uzalise olu xwebhu lungezantsi ngeenkcukacha zakho ucele ibhanki yakho ukuba yenze isiqinisekiso sezi nkcukacha. |

| **BESONDERHEDE VAN FIRMA/INSTANSIE / DETAILS OF FIRM/INSTITUTION / IINKCUKACHA ZEFEMU/IZIKO:** | |
|---|---|
| Naam / Name / Igama | |
| Adres / Address / Idilesi | |

| **BESONDERHEDE VAN MY/ONS BANKREKENING IS AS VOLG / DETAILS OF MY/OUR BANK ACCOUNT ARE AS FOLLOWS / IINKCUKACHA ZEBHANKI YAM ZIMI NGOLU HLOBO:** | |
|---|---|
| NAAM VAN BANK / NAME OF BANK / IGAMA LEBHANKI | |
| NAAM VAN TAK / NAME OF BRANCH / IGAMA LESEBE LEBHANKI | |
| REKENING NR / ACCOUNT NO / INOMBOLO YE_AKHAWUNTI | |
| TAKKODE / BRANCH CODE / IKHOWUDI YESEBE | |
| TIPE REKENING / TYPE OF ACCOUNT / UHLOBO LWE_AKHAWUNTI | |

| | | | | | |
|---|---|---|---|---|---|
| 1 = | Tjekrekening<br>Cheque Account<br>I-akhawunti yetshekhi | 2 = | Transmissierekening<br>Transmission Account<br>I-akhawunti yokuqgithisela | 3 = | Spaarrekening<br>Savings Account<br>I-akhawunti yemali egciniweyo |
| 4 = | Verbandrekening<br>Bond Account<br>I-akhawunti yebhondi | 5 = | (Nie in gebruik)<br>(Not in use)<br>Ayisetyenziswa | 6 = | Subskripsieaandeelrekening<br>Subscription Share Account<br>I-akhawunti yomrhumo wezabelo |

| | | |
|---|---|---|
| Ek/ons versoek en magtig hiermee die Overstrand Munisipaliteit om enige bedrae wat my/ons mag toeval, in my/ons bankrekening te krediteer.<br>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.<br>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.<br>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.<br>I/we further undertake to inform the Overstrand Municipality in advance of any change in my/our bank details and accept that this authority may only be cancelled by me/us by giving thirty days' notice by prepaid registered post. | Mna/Thina sicela/sigunyazisa uMasipala waseOverstrand ukuba ahlawule yonke imali eziimfanelo zam/zethu kwi-akhawunti yebhanki yam/yethu.<br>Ndi/Siyaqonda ukuba isiqinisekiso semali ehlawulwe ngumasipala siza kufumaneka kwaye eso siqinisekiso siza kubonisa umhla ekuhlawulwe ngawo kunye nezinye iinkcukacha zentlawulo.<br>Ndi/Siya kumazisa umasipala xa iinkcukacha zebhanki yam/zethu zitshintshile kwaye ndiza/siza kubanika isaziso seentsuku ezingama-30 ndisi/sisthumele ngeleta erejistarishiweyo. |

| | | | |
|---|---|---|---|
| GEMAGTIGDE HANDTEKENING / AUTHORISED SIGNATURE / USAYINO OLUGUNYAZISIWEYO | | | |
| VOORLETTERS EN VAN / INITIALS AND SURNAME / OONOBUMBA BOKUQALA BEGAMA KUNYE NEFANI | | | |
| TELEFOONNOMMER / TELEPHONE NUMBER / INOMBOLO YEFOWUNI | | DATUM / DATE/ UMHLA | |

### VIR BANKGEBRUIK ALLEENLIK / FOR BANK USE ONLY / KUSETYENZISWA YIBHANKI KUPHELA

| | |
|---|---|
| I/WE HEREBY CERTIFY THAT THE DETAILS OF OUR CLIENTS BANK ACCOUNT AS INDICATED ON THE CREDIT ORDER INSTRUCTION IS CORRECT:<br><br>**NAME & SURNAME OF BANK OFFICIAL (PRINT NAME)**<br><br>**SIGNATURE OF A BANK OFFICIAL** | **OFFICIAL DATE STAMP OF BANKING INSTITUTION** |

## 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 agreement | Certificate of Incorporation Section 21 | Registrar of CC's & Companies |
| **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 | If staff are employed | If staff are employed | If staff are employed | If staff are employed | SARS |
| **VAT REGISTRATION** | Yes | Yes | Yes | Yes | Yes | Yes | SARS |
| **U.I.F Certificate** | YES | YES, if staff remuneration | YES, if staff remuneration | YES, if staff remuneration | 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 Is 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 REGISTRATION NUMBER*** | | | |