PART A INVITATION TO BID

YOU ARE HEREBY INVITED TO BID FOR REQUIREMENTS OF THE (LANGEBERG MUNICIPALITY)					
BID NUMBER:	**TENDER-02/2025**	**CLOSING DATE:**	**30 MAY 2025**	**CLOSING TIME:**	**12H00**
DESCRIPTION	**SUPPLY AND DELIVERY OF ELECTRICAL MATERIAL, FOR A PERIOD OF THREE (3) YEARS**				
THE SUCCESSFUL BIDDER WILL BE REQUIRED TO FILL IN AND SIGN A WRITTEN CONTRACT FORM (MBD7).					
BID RESPONSE DOCUMENTS MAY BE DEPOSITED IN THE BOX SITUATED AT					
LANGEBERG MUNICIPAL OFFICES					
28 MAIN ROAD					
ASHTON					
6715					

SUPPLIER INFORMATION				
NAME OF BIDDER				
POSTAL ADDRESS				
STREET ADDRESS				
TELEPHONE NUMBER	CODE		NUMBER	
CELLPHONE NUMBER				
E-MAIL ADDRESS				
VAT REGISTRATION NUMBER				
TAX INCOME NUMBER				
TAX COMPLIANCE STATUS	TCS PIN:		**AND** CSD No:	
B-BBEE STATUS LEVEL VERIFICATION CERTIFICATE [TICK APPLICABLE BOX]	☐ Yes ☐ No		B-BBEE STATUS LEVEL SWORN AFFIDAVIT	☐ Yes ☐ No

[A B-BBEE STATUS LEVEL VERIFICATION CERTIFICATE/ SWORN AFFIDAVIT (FOR EMES & QSEs) MUST BE SUBMITTED IN ORDER TO QUALIFY FOR PREFERENCE POINTS FOR B-BBEE]

ARE YOU THE ACCREDITED REPRESENTATIVE **IN SOUTH AFRICA FOR THE GOODS /SERVICES /WORKS OFFERED?**	☐Yes ☐No [IF YES ENCLOSE PROOF]	ARE YOU A FOREIGN BASED SUPPLIER FOR **THE GOODS /SERVICES /WORKS OFFERED?**	☐Yes ☐No [IF YES, ANSWER PART B:3]
TOTAL NUMBER OF ITEMS OFFERED		**TOTAL BID PRICE VAT INCLUSIVE**	**R**
SIGNATURE OF BIDDER	.....	**DATE**	
CAPACITY UNDER WHICH THIS BID IS SIGNED			

BIDDING PROCEDURE ENQUIRIES MAY BE DIRECTED TO:		**TECHNICAL INFORMATION MAY BE DIRECTED TO:**	
DEPARTMENT	SCM	CONTACT PERSON	MR RYNO BOUWER
CONTACT PERSON	Sabelo NGCONGOLO	TELEPHONE NUMBER	023 626 8200
TELEPHONE NUMBER	023 615 8000	EMAIL ADRESS	rbouwer@langeberg.gov.za
E-MAIL ADDRESS	sngcongolo@langeberg.gov.za		

Important Notice Regarding Fraudulent Activities

We would like to notify all bidders that there have been recent reports of scammers exploiting our management's information to solicit illegal bribes. It is imperative to note that such actions are unlawful and strictly forbidden. Should you be approached by individuals claiming to represent the Municipality or otherwise attempting to solicit bribes or engage in unethical practices, you are required to report these incidents immediately to the Municipality. Be aware that participation in illegal activities, including bribery, will have severe consequences. Companies involved in such practices, if exposed, will be blacklisted and barred from future participation in the Central Supplier Database (CSD). We urge all applicants to maintain the highest standards of integrity and to cooperate with us to ensure a fair and transparent tendering process. Langeberg Municipality.

PART B - TERMS AND CONDITIONS FOR BIDDING

1. BID SUBMISSION:

1.1. BIDS MUST BE DELIVERED BY THE STIPULATED TIME TO THE CORRECT ADDRESS. LATE BIDS WILL NOT BE ACCEPTED FOR CONSIDERATION.

1.2. **ALL BIDS MUST BE SUBMITTED ON THE OFFICIAL FORMS PROVIDED–(NOT TO BE RE-TYPED) OR ONLINE**

1.3. THIS BID IS SUBJECT TO THE PREFERENTIAL PROCUREMENT POLICY FRAMEWORK ACT AND THE PREFERENTIAL PROCUREMENT REGULATIONS, 2022, THE GENERAL CONDITIONS OF CONTRACT (GCC) AND, IF APPLICABLE, ANY OTHER SPECIAL CONDITIONS OF CONTRACT.

2. TAX COMPLIANCE REQUIREMENTS

2.1 BIDDERS MUST ENSURE COMPLIANCE WITH THEIR TAX OBLIGATIONS.

2.2 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.

2.3 APPLICATION FOR THE TAX COMPLIANCE STATUS (TCS) 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.

2.4 FOREIGN SUPPLIERS MUST COMPLETE THE PRE-AWARD QUESTIONNAIRE IN PART B:3.

2.5 BIDDERS MAY ALSO SUBMIT A PRINTED TCS CERTIFICATE TOGETHER WITH THE BID.

2.6 IN BIDS WHERE CONSORTIA / JOINT VENTURES / SUB-CONTRACTORS ARE INVOLVED, EACH PARTY MUST SUBMIT A SEPARATE TCS CERTIFICATE / PIN / CSD NUMBER.

2.7 WHERE NO TCS IS AVAILABLE BUT THE BIDDER IS REGISTERED ON THE CENTRAL SUPPLIER DATABASE (CSD), A CSD NUMBER MUST BE PROVIDED.

3. QUESTIONNAIRE TO BIDDING FOREIGN SUPPLIERS

3.1.	IS THE ENTITY A RESIDENT OF THE REPUBLIC OF SOUTH AFRICA (RSA)?	☐ YES ☐ NO
3.2.	DOES THE ENTITY HAVE A BRANCH IN THE RSA?	☐ YES ☐ NO
3.3.	DOES THE ENTITY HAVE A PERMANENT ESTABLISHMENT IN THE RSA?	☐ YES ☐ NO
3.4.	DOES THE ENTITY HAVE ANY SOURCE OF INCOME IN THE RSA?	☐ YES ☐ NO
3.5.	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.

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.

SIGNATURE OF BIDDER: ……

CAPACITY UNDER WHICH THIS BID IS SIGNED: ……

DATE: ……..

TENDER-02/2025

Tenders are hereby requested for the **SUPPLY AND DELIVERY OF ELECTRICAL MATERIAL, FOR A PERIOD OF THREE (3) YEARS, LANGEBERG MUNICIPALITY** as specified in the bid document.

Completed Bids, in sealed envelopes, clearly marked **"TENDER-02/2025: SUPPLY AND DELIVERY OF ELECTRICAL MATERIAL, FOR A PERIOD OF THREE (3) YEARS, LANGEBERG MUNICIPALITY",** should be placed in the tender box, at the Langeberg Municipal Office, 28 Main Road, Ashton, not later than **12:00 on 30 MAY 2025** when the Bids will be opened in public. Late, faxed or e-mailed tenders will not be considered.

PLEASE NOTE:

The official Bid document must be fully completed in black ink, all pages must be submitted and the document should preferably be bound.

Supporting documents must be submitted separately and must be stapled or bound.

The lowest, or any tender, will not necessarily be accepted and council reserves the right to accept any tender. Tenders will be evaluated according to the Council's Supply Chain Management Policy and the 80/20 Preference Point system. The Supply Chain Management Policy can be viewed at Municipal Offices or www.langeberg.gov.za

Tender documents are available from **25 APRIL 2025,** on the Langeberg Municipal website: www.langeberg.gov.za

Please refer written enquiries to **MR R BOUWER** - (rbouwer@langeberg.gov.za).

DP LUBBE
MUNICIPAL MANAGER
Private Bag X2
Ashton,
6715

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1. GENERAL CONDITIONS OF CONTRACT

1.1. Definitions:

The following terms shall be interpreted as indicated

1.1.1. **"Closing time"** means the date and hour specified in the bidding advertisement for the receipt of bids.

1.1.2. **"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.

1.1.3. **"Contract price"** means the price payable to the supplier under the contract for the full and proper performance of his contractual obligations.

1.1.4. **"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.

1.1.5. **"Countervailing duties"** are imposed in cases where an enterprise abroad is subsidized by its government and encouraged to market its products internationally.

1.1.6. **"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.

1.1.7. **"Day"** means calendar day.

1.1.8. **"Delivery"** means delivery in compliance of the conditions of the contract or order.

1.1.9. **"Delivery ex stock"** means immediate delivery directly from stock actually on hand.

1.1.10. **"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 goods are so delivered and a valid receipt is obtained.

1.1.11. **"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.

1.1.12. **"Force majeure"** means an event beyond the control of the supplier and not involving the supplier's fault or negligence and not foreseeable. 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.

1.1.13. **"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.

1.1.14. **"GCC"** means the General Conditions of Contract.

1.1.15. **"Goods"** means all of the equipment, machinery, and/or other materials that the supplier is required to supply to the purchaser under the contract.

1.1.16. **"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 goods covered by the bid will be manufactured.

1.1.17. **"Manufacture"** means the production of products in a factory using labour, materials, components and machinery and includes other related value-adding activities.

1.1.18. **"Order"** means an official written order issued for the supply of goods or works or the rendering of a service.

1.1.19. **"Project site,"** where applicable, means the place indicated in bidding documents.

1.1.20. **"Purchaser"** means the organization purchasing the goods.

1.1.21. **"Republic"** means the Republic of South Africa.

1.1.22. **"SCC"** means the Special Conditions of Contract.

1.1.23. **"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.

1.1.24. **"Supplier"** means the successful bidder who is awarded the contract to maintain and administer the required and specified service(s) to the State.

1.1.25. **"Tort"** means in breach of contract.

1.1.26. **"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.

1.1.27. **"Written"** or **"in writing"** means hand-written in ink or any form of electronic or mechanical writing.

1.2. Application

1.2.1. These general conditions are applicable to all bids, contracts and orders including bids for functional and professional services (excluding professional services related to the building and construction industry), sales, hiring, letting and the granting or acquiring of rights, but excluding immovable property, unless otherwise indicated in the bidding documents.

1.2.2. Where applicable, special conditions of contract are also laid down to cover specific goods, services or works.

1.2.3. Where such special conditions of contract are in conflict with these general conditions, the special conditions shall apply

1.3. General

1.3.1. 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 nonrefundable fee for documents may be charged

1.3.2. Invitations to bid are usually published in locally distributed news media and on the municipality/municipal entity website.

1.4. Standards

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

1.5. Use of contract documents and information inspection

1.5.1. 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.

1.5.2. The supplier shall not, without the purchaser's prior written consent, make use of any document or information mentioned in GCC clause 1.5.1 except for purposes of performing the contract.

1.5.3. Any document, other than the contract itself mentioned in GCC clause 1.5.1 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.

1.5.4. 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.

1.6. Patent Rights

1.6.1. 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.

1.6.2. 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.

1.7. Performance security

1.7.1. 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.

1.7.2. 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.

1.7.3. 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:

1.7.4. a 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 a cashier's or certified cheque

1.7.5. 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.

1.8. Inspections, tests and analyses

1.8.1. All pre-bidding testing will be for the account of the bidder.

1.8.2. If it is a bid condition that goods to be produced or services to be rendered should at any stage be subject to inspections, tests and analyses, the bidder or contractor's premises shall be open, at all reasonable hours, for inspection by a representative of the purchaser or organization acting on behalf of the purchaser.

1.8.3. 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.

1.8.4. If the inspections, tests and analyses referred to in clauses 1.8.2 and 1.8.3 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.

1.8.5. Where the goods or services referred to in clauses 1.8.2 and 1. 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.

1.8.6. Goods and services which are referred to in clauses 1. 8.2 and 1.8.3 and which do not comply with the contract requirements may be rejected.

1.8.7. 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.

1.8.8. The provisions of clauses 1.8.4 to 1.8.7 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 1.22 of GCC.

1.9. Packing

1.9.1. 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.

1.9.2. 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, if any, and in any subsequent instructions ordered by the purchaser.

1.10. Delivery and documents

1.10.1. Delivery of the goods and arrangements for shipping and clearance obligations shall be made by the supplier in accordance with the terms specified in the contract.

1.11. Insurance

1.11.1. 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.

1.12. Transportation

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

1.13. Incidental Services

1.13.1. The supplier may be required to provide any or all of the following services, including additional services, if any:

1.13.1.1. performance or supervision of on-site assembly and/or commissioning of the supplied goods;

1.13.1.2. furnishing of tools required for assembly and/or maintenance of the supplied goods;

1.13.1.3. furnishing of a detailed operations and maintenance manual for each appropriate unit of the supplied goods;

1.13.1.4. 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

1.13.1.5. 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.

1.13.2. 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.

1.14. Spare parts

1.14.1. 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:

1.14.2. 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 in the event of termination of production of the spare parts:

1.14.3. advance notification to the purchaser of the pending termination, in sufficient time to permit the purchaser to procure needed requirements; and following such termination, furnishing at no cost to the purchaser, the blueprints, drawings, and specifications of the spare parts, if requested.

1.15. Warranty

1.15.1. 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.

1.15.2. 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.

1.15.3. The purchaser shall promptly notify the supplier in writing of any claims arising under this warranty.

1.15.4. Upon receipt of such notice, the supplier shall, within the period specified and with all reasonable speed, repair or replace the defective goods or parts thereof, without costs to the purchaser.

1.15.5. 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.

1.15.6. All Machinery must comply with the Occupational Health and Safety (OHS) Act and its applicable regulations and standards.

1.16. Payment

1.16.1. The method and conditions of payment to be made to the supplier under this contract shall be specified.

1.16.2. 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.

1.16.3. Payments shall be made promptly by the purchaser, but in no case later than thirty (30) days after submission of an invoice or claim by the supplier.

1.16.4. Payment will be made in Rand unless otherwise stipulated.

1.17. Prices

1.17.1. 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.

1.18. Variation orders

1.18.1. 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.

1.19. Assignment

1.19.1. 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.

1.20. Subcontracts

1.20.1. The supplier shall notify the purchaser in writing of all subcontracts awarded under this contracts 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.

1.21. Delays in the supplier's performance

1.21.1. 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.

1.21.2. If at any time during performance of the contract, the supplier or its subcontractor(s) should encounter conditions impeding timely delivery of the goods and performance of services, the supplier shall promptly notify the purchaser in writing of the fact of the delay, its likely duration and its cause(s). As soon as practicable after receipt of the supplier's notice, the purchaser shall evaluate the situation and may at his discretion extend the supplier's time for performance, with or without the imposition of penalties, in which case the extension shall be ratified by the parties by amendment of contract.

1.21.3. 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 goods are required, or the supplier's services are not readily available.

1.21.4. Except as provided under GCC Clause 1.25, 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 1.22.1, unless an extension of time is agreed upon pursuant to GCC Clause 1.22.2 without the application of penalties.

1.21.5. Upon any delay beyond the delivery period in the case of a goods contract, the purchaser shall, without canceling the contract, be entitled to purchase goods 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.

1.22. Penalties

1.22.1. Subject to GCC Clause 1.25, 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 1.23.

1.23. Termination for default

1.23.1. 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:

1.23.1.1. 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 1.21.2;

1.23.1.2. if the supplier fails to perform any other obligation(s) under the contract; or if the supplier, in the judgment of the purchaser, has engaged in corrupt or fraudulent practices in competing for or in executing the contract.

1.23.2. 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.

1.23.3. 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.

1.23.4. 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.

1.23.5. Any restriction imposed on any person by the purchaser will, at the discretion of the purchaser, also be applicable to any other enterprises 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 purchaser actively associate

1.23.6. .If a restriction is imposed, the purchaser must, within five (5) working days of such imposition, furnish the National Treasury, with the following information:

1.23.6.1. the name and address of the supplier and / or person restricted by the purchaser;

1.23.6.2. the date of commencement of the restriction

1.23.6.3. the period of restriction; and

1.23.6.4. the reasons for the restriction.

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

1.23.8. If a court of law convicts a person of an offence as contemplated in section 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.

1.24. Antidumping and countervailing duties and rights

1.24.1. When, after the date of bid, provisional payments are required, or anti-dumping 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 or 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 favorable difference shall on demand be paid forthwith by the supplier to the purchaser or the purchaser may deduct such amounts from moneys (if any) which may otherwise be due to the supplier in regard to goods 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.

1.25. Force Majeure

1.25.1. Notwithstanding the provisions of GCC Clauses 1.22 and 1.23, the supplier shall not be liable for forfeiture of its performance 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.

1.25.2. 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.

1.26. Termination for solvency

1.26.1. 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.

1.27. Settlement of Disputes

1.27.1. If any dispute or difference of any kind whatsoever arises between the purchaser and the supplier in connection with or 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.

1.27.2. 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.

1.27.3. Should it not be possible to settle a dispute by means of mediation, it may be settled in a South African court of law.

1.27.4. Notwithstanding any reference to mediation and/or court proceedings herein,

1.27.4.1. the parties shall continue to perform their respective obligations under the contract unless they otherwise agree; and

1.27.4.2. the purchaser shall pay the supplier any monies due the supplier for goods delivered and / or services rendered according to the prescripts of the contract.

1.28. Limitation of Liability

1.28.1. Except in cases of criminal negligence or willful misconduct, and in the case of Infringement pursuant to Clause 1.6;

1.28.1.1. 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

1.28.1.2. 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.

1.29. Governing language

1.29.1. 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.

1.30. Applicable law

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

1.31. Notices

1.31.1. 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.

1.31.2. 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.

1.32. Taxes and duties

1.32.1. A foreign supplier shall be entirely responsible for all taxes, stamp duties, license fees, and other such levies imposed outside the purchaser's country.

1.32.2. A local supplier shall be entirely responsible for all taxes, duties, license fees, etc., incurred until delivery of the contracted goods to the purchaser.

1.32.3. 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.

1.32.4. No contract shall be concluded with any bidder whose municipal rates and taxes and municipal services charges are in arrears.

1.33. Transfer of contracts

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

1.34. Amendment of contract

1.34.1. 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.

1.35. Prohibition of restrictive practices

1.35.1. 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.

1.35.2. 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 investigating and possible impossible of administrative penalties as contemplated in section 59 of the Competition Act No 89 of 1998.

1.35.3. 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.

2. SPECIAL TENDER CONDITIONS

SPECIAL TENDER CONDITIONS
This tender is subject to the Supply Chain Management Policy of the Langeberg Municipality. The aim of the policy is to improve job opportunities and to stimulate prosperity in the municipal area. Broad Based Black Economic Empowerment (BBBEE) will receive preferential adjudication. Tenderers must take note that a tender will be granted on the ground of their performance capacity as well as a preference formula. For tenderers to qualify for the advantages of the policy, they must thoroughly complete the document. **If the schedules are not thoroughly completed the tender will not be considered.** Tenderers must take note that in the case of a false statement or submission of false information the tender will be disqualified with immediate effect and a possibility of criminal prosecution. The complete Supply Chain Management Policy is available for inspection at the Municipal Offices at Ashton and websites (www.langeberg.gov.za).

2.1 TENDER DOCUMENTS

Tender documents are obtainable and must be returned as described in the tender notice. The completed documents of the tender fully priced, extended and totalled, completed in all respects, signed and sealed in an envelope which is to be endorsed **"TENDER-02/2025: SUPPLY AND DELIVERY OF ELECTRICAL MATERIAL, FOR A PERIOD OF THREE (3) YEARS, LANGEBERG MUNICIPALITY".**

" must be placed in the tender box at the Municipal Offices, 28 Main Street, Ashton

2.1.1. Tenders submitted by fax, e-mail, telex or telegraphically will not be accepted. Postal Tenders will be accepted for consideration only if they are received in sufficient time to be lodged in the appropriate tender box by the closing time for such tenders. The Langeberg Municipality disclaims any responsibility for seeing that such tenders/ are lodged in the tender box.

2.1.2. Any tender delivered to an address other than the one stipulated in the tender notice will not be accepted. Tenders may not be handed in at other offices of the Langeberg Municipality.

2.1.3. Tenders will be opened in public, shortly after closing time of tenders. The name of the tenderer/bidder and the total tender/bid price will be announced to all tenderers/bidders present at the opening.

2.1.4. Tenders received after the closing date and time shall be declared invalid and will not be considered.

2.2 SOUTH AFRICAN CURRENCY

2.2.1 All payments from the Langeberg Municipality will be made in the currency of the Republic of South Africa (Rand). The tenderer/bidder shall specify clearly all matters and conditions regarding payments in the tender/bidder specifications.

2.2.2 Tenders shall indicate separately prices excluding value added tax and included value added tax (VAT) in the tender/bid rates and amounts.

2.3 INCOMPLETE TENDERS/BIDS

2.3.1 Tenders will be rejected in the event of incomplete offers and irregularities of any nature contained in the tender or in any of the completed tender schedules.

2.4 WITHDRAWAL OF TENDERS/BIDS

2.4.1 A tenderer/bidder may, without incurring any liability, withdraw his tender provided written advice to that effect reaches the Langeberg Municipality before the expiry of the time fixed in the tender/bid notice for receiving tenders/.

2.5 CHECKING OF TENDER DOCUMENTS

2.5.1 Before submitting a tender the tenderer/bidder shall check the numbering of the pages in the tender/bid documents and if any pages part of the tender/bid document is found to be missing or if any part of the documents is illegible or indistinct, he shall immediately notify the Langeberg Municipality.

2.5.2 The Langeberg Municipality will not be liable in any way for any claims arising through neglect of the Tenderer/bidder to comply with these requirements.

2.6 EXPENSES DUE TO PREPARATION AND SUBMISSION OF TENDER DOCUMENTS

2.6.1 The Langeberg Municipality shall not be liable for any expenses or losses incurred by the Tenderer/bidder due to visiting the site or municipal area and the preparation and/or submission of the tender/bid documents.

2.7 PERIOD OF VALIDITY

2.7.1 Tenders, whether for a part of or for the whole of the project, shall remain valid for a period as specified by the tenderer/bidder, which period shall be that period between the date upon which tenders/bids close up to the date upon which notice is given that the tender/bid has been awarded, but at least a period of **120 days**.

2.8 ACCEPTANCE OR REJECTION OF TENDERS/BIDS

2.8.1 The Langeberg Municipality is not compelled to accept the lowest or any tender/bid and reserves the right to accept any tender/bid.

2.9 PREFERENTIAL PROCUREMENT

2.9.1 Tenders/bids will be considered in terms of the Preferential Procurement Policy of the Langeberg Municipality.

2.10 REGISTRATION AS SERVICE PROVIDER

2.10.1 Only those tenderer/bidders that are registered on the Central Supplier Database as service providers, or are capable of being so prior to the evaluation of submissions, are eligible to submit tenders/bids. The Langeberg Municipality will only enter into a formal contract with a tenderer/bidder that is registered on this Database as service provider.

2.11 JOINT VENTURE AGREEMENTS (IF APPLICABLE)

2.11.1 Any Joint Venture Agreement must be submitted with the tender/bid document detailing the split of responsibilities in terms of the tender/bid specifications, i.e. percentage of work to be performed by each partner.

2.11.2 All parties to the Joint Venture Agreement must be registered and verified on the Western Cape Supplier Database. Only those that are registered and verified before the closing date of the tender/bid will qualify for preference points.

2.11.3 It must be noted that the order will be placed in the name of the BEE Partner as well as all financial administration that follows such an order/s. The Joint Venture Agreement must stipulate the BEE partner selected for this in the event of the Joint Venture been considered successful.

2.12 LOCAL BUSINESS/OFFICE:

2.12.1 A local office of a tenderer/bidder shall be deemed to be a physical address inside the demarcated boundaries of the Langeberg Municipality area.

2.13 TEST FOR RESPONSIVENESS

2.13.1 No Tender will be considered unless it meets the following responsiveness criteria:

2.13.2 The tender must be properly received in a sealed envelope clearly indicating the description of the service and the tender/bid number for which the tender/bid is submitted.

2.13.3 The tender must be deposited in the relevant tender box as indicated on the notice of the tender on or before the closing date and time of the bid

2.13.4 An Income Tax Number and a Tax verification pin (OTP) must be submitted with the tender/bid on or before the closing date and before the closing time.

2.13.5 A latest Municipal service account obtained from the local municipality must be submitted.

2.13.6 The official tender document must be fully completed in black ink, all pages must be submitted and should preferably be bound. Where information requested does apply to the bidder and the space is left blank, the tender document will be deemed as non-responsive.

2.13.7 If the entity submitting a bid is a Joint Venture or a Consortium or Partnership, each party to that formation must submit all the above information

2.13.8 The tenderer/bidder must be in good standing to do business with the public sector in terms of Regulation 38 of the Supply Chain Management Regulations (Government Gazette 27636 of 30 May 2005).

2.13.9 The tenderer/bidder must adhere to pricing Instructions

2.13.10 The tenderer/bidder must complete and sign all tender forms. Where indicated, forms must be signed and stamped by a Commissioner of Oaths.

2.13.11 All mandatory returnable forms and prescribed attachments must be completed and where applicable signed by a Commissioner of Oaths.

2.13.12 All tenders' conditions/specifications must be complied with.

2.14 PAYMENT OF INVOICES

2.14.1 All payments from the Langeberg Municipality will be made within 30 days of receipt of valid tax invoice for goods and services rendered to the satisfaction of the Municipality,

CONTRACT PRICE ADJUSTMENT

If price variation occurs due to escalation and/or rates of exchange it will only be considered if it was pointed out in the Tenderers bid.

Escalation on the tendered price will only be considered if based on SIEFSA formula and proof of the escalation must accompany the invoice.

Prices are firm for 120 days, thereafter S.E.I.F.S.A formula for material and labour will apply.

Price increases on the tendered price due to rates of exchange will only be considered if proof of the chance in the rates of exchange accompanies the invoice.

MATERIAL

All material offered shall be new and the best obtainable for their respective application, and shall comply with the respective SANS, NRS or British Standard Specifications.

Any queries shall be addressed to: Mr. Ryno Bouwer: Electrical Engineering Services (rbouwer@langeberg.gov.za)

Tenders shall quote in accordance with the specifications, but alternatives aimed at economy, with equivalent performances shall be considered

SITE CONDITIONS

Altitude average 220m above sea level maximum and minimum temperature of 40º C and -5º C Humidity maximum 90%

.

Frequent lightning storms occur.

NB: All metal parts which are prone to rusting such as bolts, nuts, washers, spindles, cross arms, etc. shall be hot dipped galvanized to SABS 763.

SYSTEM CONDITIONS

High voltage 66000 volts and 11000 volts, 3 phases, 50 cycles per second bulk supplies from ESKOM.

The neutral is earthed through an earthing resistance. Low voltage 400/230 volts, 3 phases, 4 wire.

Phase rotation standard as indicated in BSS no 158/1938, Section 3.

TENDER DATA

Complete details, including relevant drawings which may assist in deciding on the suitability of the equipment, shall accompany the tender.

Any variations from the specifications shall be stated.

DELIVERY

Delivery shall be made to the respective towns namely; Ashton, Bonnievale, Montagu, McGregor and Robertson and tenderers shall clearly state the means and time of delivery.

Material shall only consider as delivered satisfactory after it has been inspected and approved by an authorized representative of the municipality.

Bid prices for the supply of all materials must include **delivery and off-loading** on site.

Bid prices for material/equipment must include delivery cost.

DAMAGES

Should any delay occur in delivery, and the supplier is not in a position to satisfy the council that the causes are beyond his control, the tenderer shall be held responsible for any loss which the council may suffer, directly or indirectly as a result of the non-delivery of such items, provided that it shall be limited to 0.5 % per completed week up to a maximum of 10% of the tender value of the
undelivered plant or material.

In this respect the assessment of the council's Electrical Engineer or other duly authorized representatives shall be final and binding.

SPECIFICATION

When specifications are not mentioned under the schedule or materials, detail specifications must be provided under that item.

3. DECLARATION OF "IN THE SERVICE OF THE STATE"

If a spouse, child or parent of the owner, director, manager, shareholder or stakeholder of the entity is in the service of the state, or has been in the service of the state in the previous twelve months, the following information must be completed: (Please indicate if not applicable)

The name of the person in the employment of the state:

……

The capacity in which that person is in service of the state:

……

Is that person an owner, director, manager, shareholder or connected to the business: Yes or No? **(If yes please specify)**

……

The relationship to the owner, director, manager, shareholder or stakeholder of the entity:

	Spouse	Child	Parent
Owner	☐	☐	☐
Director	☐	☐	☐
Manager	☐	☐	☐
Shareholder	☐	☐	☐

"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.

CERTIFICATION

I, THE UNDERSIGNED (FULL NAME) ……
CERTIFY THAT THE INFORMATION FURNISHED ON THIS DECLARATION FORM IS 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 Date

…….. ……..
Position Name of Bidder

4. MUNICIPAL SERVICE ACCOUNT

4.1 An original latest municipal account must be attached to this page.

4.2 It should be noted that the tender cannot be considered/evaluated if any municipal rates and taxes or municipal services charges owed by the bidder or any of its directors to the municipality or municipal entity, or to any other municipality or entity, are in arrears for more than three months,

4.3 If the bidder or any of its directors are not responsible for the payment of municipal rates of service charges to the municipality or municipal entity, or to any other municipality or entity, a sworn affidavit to this effect must be attached to this page.

5. PRICING SCHEDULE – FIRM PRICES (MBD 3.1) (PURCHASES)

NOTE: ONLY FIRM PRICES WILL BE ACCEPTED. NON-FIRM PRICES (INCLUDING PRICES SUBJECT TO RATES OF EXCHANGE VARIATIONS) WILL NOT BE CONSIDERED

IN CASES WHERE DIFFERENT DELIVERY POINTS INFLUENCE THE PRICING, A SEPARATE PRICING SCHEDULE MUST BE SUBMITTED FOR EACH DELIVERY POINT

Name of bidder: ……
Bid number: ……..
Closing Time 12:00
Closing date: ……..

OFFER TO BE VALID FOR …… DAYS FROM THE CLOSING DATE OF BID.

6. DECLARATION OF INTEREST (MBD 4)

6.1 Any legal person, including persons employed by the state[1], or persons having a kinship with persons employed by the state, including a blood relationship, may make an offer or offers in terms of this invitation to bid (includes an advertised competitive bid, a limited bid, a proposal or written price quotation). In view of possible allegations of favouritism, should the resulting bid, or part thereof, be awarded to persons employed by the state, or to persons connected with or related to them, it is required that the bidder or his/her authorised representative declare his/her position in relation to the evaluating/adjudicating authority where-

6.1.1. the bidder is employed by the state; and/or the legal person on whose behalf the bidding document is signed, has a relationship with persons/a person who are/is involved in the evaluation and or adjudication of the bid(s), or where it is known that such a relationship exists between the person or persons for or on whose behalf the declarant acts and persons who are involved with the evaluation and or adjudication of the bid.

6.2 In order to give effect to the above, the following questionnaire must be completed and submitted with the bid.

6.2.1 Full Name of bidder or his or her representative: ……

6.2.2 Identity Number: ……...

6.2.3 Position occupied in the Company (director, trustee, shareholder[2], member):

……

6.2.4 Registration number of company, enterprise, close corporation, partnership agreement or trust:

……

6.2.5 Tax Reference Number: ……

6.2.6 VAT Registration Number: ……

6.3 The names of all directors / trustees / shareholders / members, their individual identity numbers, tax reference numbers and, if applicable, employee / PERSAL numbers must be indicated in paragraph 6.5 below.

[1]"State" means –

a) 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);
b) any municipality or municipal entity;
c) provincial legislature
d) national Assembly or the national Council of provinces; or
e) Parliament.

[2]"Shareholder" means a person who owns shares in the company and is actively involved in the management of the enterprise or business and exercises control over the enterprise.

6.4 Are you or any person connected with the bidder presently employed by the state? YES / NO

6.4.1 If so, furnish the following particulars:

Name of person / director / trustee / shareholder/ member: ……..……

Name of state institution at which you or the person connected to the bidder is employed: ……

Position occupied in the state institution: ……

Any other particulars:

……

……

6.4.2 If you are presently employed by the state, did you obtain the appropriate authority to undertake remunerative

6.4.3 work outside employment in the public sector? YES / NO

6.4.4 If yes, did you attach proof of such authority to the bid document? YES / NO

6.4.5 (Note: Failure to submit proof of such authority, where applicable, may result in the disqualification of the bid.

6.4.6 If no, furnish reasons for non-submission of such proof:

……
……
……

6.4.7 Did you or your spouse, or any of the company's directors / trustees / shareholders / members or their spouses conduct business with the state in the previous twelve months? YES / NO

6.4.8 If so, furnish particulars:

……..

……..

……...

6.4.9 Do you, or any person connected with the bidder, have any relationship (family, friend, other) with a person employed by the state and who may be involved with the evaluation and or adjudication of this bid?

YES / NO

6.4.10 If so, furnish particulars.

……...

……..…

6.4.11 Are you, or any person connected with the bidder, aware of any relationship (family, friend, other) between any other bidder and any person employed by the state who may be involved with the evaluation and or adjudication of this bid?

YES/NO

6.4.11.1 If so, furnish particulars.

……...
……..….
……

6.4.12 Do you or any of the directors / trustees / shareholders / members of the company have any interest in any other related companies whether or not they are bidding for this contract?

YES/NO

6.4.12.1 If so, furnish particulars:

……
……
……

6.5 Full details of directors / trustees / members / shareholders.

Full Name	**Identity Number**	**Personal Income Tax Reference Number**	**State Employee Number / Personal Number**

6.6 DECLARATION

I, THE UNDERSIGNED (NAME): .....
CERTIFY THAT THE INFORMATION FURNISHED IN PARAGRAPHS 6.2 and 6.5 ABOVE IS CORRECT.

I ACCEPT THAT THE STATE MAY REJECT THE BID OR ACT AGAINST ME SHOULD THIS DECLARATION PROVE TO BE FALSE.

.....	.....
Signature	**Date**
.....	.....
Position	**Name of bidder**

MBD 6.1

PREFERENCE POINTS CLAIM FORM IN TERMS OF THE PREFERENTIAL PROCUREMENT REGULATIONS 2022

This preference form must form part of all tenders invited. It contains general information and serves as a claim form for preference points for specific goals.

NB: BEFORE COMPLETING THIS FORM, TENDERERS MUST STUDY THE GENERAL CONDITIONS, DEFINITIONS AND DIRECTIVES APPLICABLE IN RESPECT OF THE TENDER AND PREFERENTIAL PROCUREMENT REGULATIONS, 2022

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1. GENERAL CONDITIONS

1.1 The following preference point systems are applicable to invitations to tender:

- the 80/20 system for requirements with a Rand value of up to R50 000 000 (all applicable taxes included); and
- the 90/10 system for requirements with a Rand value above R50 000 000 (all applicable taxes included).

1.2 **To be completed by the organ of state**

a) The applicable preference point system for this tender is the 80/20 preference point system.

b) the 80/20 preference point system will be applicable in this tender. The lowest/ highest acceptable tender will be used to determine the accurate system once tenders are received.

1.3 Points for this tender (even in the case of a tender for income-generating contracts) shall be awarded for:

(a) Price; and

(b) Specific Goals.

1.4 **To be completed by the organ of state:**

The maximum points for this tender are allocated as follows:

	POINTS
PRICE	**80**
SPECIFIC GOALS	**20**
Total points for Price and SPECIFIC GOALS	**100**

1.5 Failure on the part of a tenderer to submit proof or documentation required in terms of this tender to claim points for specific goals with the tender, will be interpreted to mean that preference points for specific goals are not claimed.

1.6 The organ of state reserves the right to require of a tenderer, either before a tender is adjudicated or at any time subsequently, to substantiate any claim in regard to preferences, in any manner required by the organ of state.

2. DEFINITIONS

(a) **"tender"** means a written offer in the form determined by an organ of state in response to an invitation to provide goods or services through price quotations, competitive tendering process or any other method envisaged in legislation;

(b) **"price"** means an amount of money tendered for goods or services, and includes all applicable taxes less all unconditional discounts;

(c) **"rand value"** means the total estimated value of a contract in Rand, calculated at the time of bid invitation, and includes all applicable taxes;

(d) **"tender for income-generating contracts"** means a written offer in the form determined by an organ of state in response to an invitation for the origination of income-generating contracts through any method envisaged in legislation that will result in a legal agreement between the organ of state and a third party that produces revenue for the organ of state, and includes, but is not limited to, leasing and disposal of assets and concession contracts, excluding direct sales and disposal of assets through public auctions; and

(e) **"the Act"** means the Preferential Procurement Policy Framework Act, 2000 (Act No. 5 of 2000).

3. FORMULAE FOR PROCUREMENT OF GOODS AND SERVICES

3.1. POINTS AWARDED FOR PRICE

3.1.1 Application of preference point system

3.1.1.1 The Municipality will, in the tender documents, stipulate —

(a) the preference point system applicable; and

(b) any specific goal as envisaged in section 2(1)(d) and (e) of the Preferential Procurement Act.

3.1.1.2 If it is unclear whether the 80/20 or 90/10 preference point system applies—

(a) in the case of a tender to generate income or to dispose of or lease assets, the highest acceptable tender; or

(b) in the case of any other tender, the lowest acceptable tender, must be used to determine the applicable preference point system.

3.1.2 Points for Price: 80/20 preference point system for acquisition of goods or services with Rand value equal to or above R30 000 and up to R50 million

3.1.2.1 The following formula must be used to calculate the points out of 80 for price in respect of a tender with a Rand value equal to or above R30 000 and up to a Rand value of R50 million, inclusive of all applicable taxes:

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

Where-

Ps = Points scored for price of tender under consideration;

Pt = Price of tender under consideration; and

Pmin = Price of lowest acceptable tender.

3.1.2.2 A maximum of 20 points may be awarded to a tenderer for the specified goals envisaged in section 2(1)(d) and (e) of the Act.

3.1.2.3 The points scored must be rounded off to the nearest two decimal places.

3.1.2.4 The contract must be awarded to the tenderer scoring the highest points.

3.1.3 . Points for price: 90/10 preference point system for acquisition of goods or services with Rand value above R50 million

3.1.3.1 The following formula must be used to calculate the points out 90 for price in respect of a tender with a Rand value above R50 million, inclusive of all applicable taxes:

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

Where-

Ps = Points scored for price of tender under consideration;

Pt = Price of tender under consideration; and

Pmin = Price of lowest acceptable tender.

3.1.3.2 A maximum of 10 points may be awarded to a tenderer for the specified goals envisaged in section 2(1)(d) and (e) of the Act.

3.1.3.3 The points scored must be rounded off to the nearest 2 decimal places.

3.1.3.4 The contract must be awarded to the tenderer scoring the highest points.

3.2. **FORMULAR FOR DISPOSAL OR LEASING OF STATE ASSETS AND INCOME GENERATING PROCUREMENT**

The following formula must be used to calculate the points for price in respect of a tender to generate income or to dispose of or lease assets, with a Rand value equal to, or above R 30 000 and up to a Rand value of R50 million, inclusive of all applicable taxes:

$$Ps = 80\left(1 + \frac{Pt - Pmax}{Pmax}\right)$$

Where-

Ps = Points scored for price of tender under consideration;

Pt = Price of tender under consideration; and

Pmax = Price of highest acceptable tender.

3.2.1 A maximum of 20 points may be awarded to a tenderer for the specified goals envisaged in section 2(1)(d) and (e) of the Act.

3.2.2 The points scored must be rounded off to the nearest 2 decimal places.

3.3.3 The contract must be awarded to the tenderer scoring the highest points.

3.3.4 Points for price:90/10 preference point system for tenders to generate income or to dispose of or lease assets with Rand value equal to or above R50 million

3.3.5 The following formula must be used to calculate the points for price in respect of a tender to generate income or to dispose of or lease assets, with a Rand value above R50 million, inclusive of all applicable taxes:

$$Ps = 90\left(1 + \frac{Pt - Pmax}{Pmax}\right)$$

Where-

Ps = Points scored for price of tender under consideration;

Pt = Price of tender under consideration; and

Pmax = Price of highest acceptable tender.

3.3.6 A maximum of 10 points may be awarded to a tenderer for the specified goals envisaged in section 2(1)(d) and (e) of the Act.

3.3.7 The points scored must be rounded off to the nearest 2 decimal places.

3.3.8 The contract must be awarded to the tenderer scoring the highest points.

4. POINTS AWARDED FOR SPECIFIC GOALS

4.1 The tendering conditions will stipulate the specific goals, as contemplated in section 2(1)(d)(ii) of the Preferential Procurement Act, be attained.

4.2 A maximum of 20 points (80/20) preference points system) or 10 (90/10) preference points system), will be allocated for specific goals. These goals are:

(a) contracting with persons, or categories of persons, historically disadvantaged by unfair discrimination on the basis of race, gender or disability (BBBEE);

(b) Promotion of enterprises located in the municipal area

4.3 Regarding par 4.2 (a) 50% of the 20/10 points will be allocated to promote this goal and points will be allocated in terms of the BBBEE scorecard as follows:

B-BBEE Status Level of Contributor	Number of Points for Preference (80/20)	Number of Points for Preference (90/10)
1	20	10
2	18	9
3	14	8
4	12	5
5	8	4
6	6	3
7	4	2
8	2	1
Non-compliant contributor	0	0

4.4 A tenderer must submit proof of its BBBEE status level contributor [scorecard].

4.5 A tenderer failing to submit proof of BBBEE status level of contributor –

4.5.1 may only score in terms of the 80/90-point formula for price; and

4.5.2 scores 0 points out of 10/5 BBBEE status level of contributor, which is in line with section 2 (1) (d) (i) of the Act, where the supplier or service provider did not provide proof thereof.

4.6 Regarding par 4.2 (b) 50% of the 20/10 points will be allocated to promote this goal. Points will be allocated as follows.

Locality of supplier	Points
Within the boundaries of the municipality	**10/5**
Outside of the boundaries of the municipality	0

4.7 The policy should not include Pre-qualification goals.

4.8 Any specific goal for which a point may be awarded, must be clearly specified in the invitation to submit a tender.

4.9 A tenderer failing to submit proof of required evidence to claim preferences for other specified goals, which is in line with section 2 (1) (d) (ii) of the Act.

4.9.1 may only score in terms of the 80/90-point formula for price; and

4.9.2 scores 0 points out of 10/5 of the relevant specific goals where the supplier or service provider did not stipulate.

4.10 The preference points scored by a tenderer must be added to the points scored for price.

4.11 The points scored must be rounded off to the nearest two decimal places.

4.12 The contract must be awarded to the tenderer scoring the highest procurement points.

Table 1: Specific goals for the tender and points claimed are indicated per the table below.

(Note to organs of state: Where either the 90/10 or 80/20 preference point system is applicable, corresponding points must also be indicated as such.

Note to tenderers: The tenderer must indicate how they claim points for each preference point system.)

The specific goals allocated points in terms of this tender	Number of points allocated (90/10 system) (To be completed by the organ of state)	Number of points allocated (80/20 system) (To be completed by the organ of state)	Number of points claimed (90/10 system) (To be completed by the tenderer)	Number of points claimed (80/20 system) (To be completed by the tenderer)
BBBEE preference points system	05	10		
Promotion of enterprises located in the municipal area	05	10		

5. DECLARATION WITH REGARD TO COMPANY/FIRM

Name of company/firm…….

5.1. Company registration number: ……...

5.2. **TYPE OF COMPANY/ FIRM**

- □ Partnership/Joint Venture / Consortium
- □ One-person business/sole propriety
- □ Close corporation
- □ Public Company
- □ Personal Liability Company
- □ (Pty) Limited
- □ Non-Profit Company
- □ State Owned Company

[TICK APPLICABLE BOX]

5.3. I, the undersigned, who is duly authorised to do so on behalf of the company/firm, certify that the points claimed, based on the specific goals as advised in the tender, qualifies the company/ firm for the preference(s) shown and I acknowledge that:

i) The information furnished is true and correct;

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

iii) In the event of a contract being awarded as a result of points claimed as shown in paragraphs 1.4 and 4.2, the contractor may be required to furnish documentary proof to the satisfaction of the organ of state that the claims are correct;

iv) If the specific goals have been claimed or obtained on a fraudulent basis or any of the conditions of contract have not been fulfilled, the organ of state may, in addition to any other remedy it may have –

(a) disqualify the person from the tendering 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 tenderer 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, if deemed necessary.

……

SIGNATURE(S) OF TENDERER(S)

SURNAME AND NAME: ……

DATE: ……

ADDRESS: ……

……

……

……

8 CONTRACT FORM - PURCHASE OF GOODS/WORKS (MBD 7.1)

THIS FORM MUST BE FILLED IN DUPLICATE BY BOTH THE SUCCESSFUL BIDDER (PART 1) AND THE PURCHASER (PART 2). BOTH FORMS MUST BE SIGNED IN THE ORIGINAL SO THAT THE SUCCESSFUL BIDDER AND THE PURCHASER WOULD BE IN POSSESSION OF ORIGINALLY SIGNED CONTRACTS FOR THEIR RESPECTIVE RECORDS.

PART 1 (TO BE FILLED IN BY THE BIDDER)

8.1 I hereby undertake to supply all or any of the goods and/or works described in the attached bidding documents to (name of institution)…….…. in accordance with the requirements and specifications stipulated in bid number……..…….. at the price/s quoted. My offer/s remain binding upon me and open for acceptance by the purchaser during the validity period indicated and calculated from the closing time of bid.

8.2 The following documents shall be deemed to form and be read and construed as part of this agreement:

8.3 Bidding documents, viz

- Invitation to bid;
- Tax clearance certificate;
- Pricing schedule(s);
- Technical Specification(s);
- Preference claims for Broad Based Black Economic Empowerment Status Level of Contribution in terms of the Preferential Procurement Regulations 2022;
- Declaration of interest;
- Declaration of bidder's past SCM practices;
- Certificate of Independent Bid Determination;
- Special Conditions of Contract;

8.4 General Conditions of Contract; and

8.5 Other (specify)

……
……

……
……

……
……

8.6 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.

8.7 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.

8.8 I declare that I have no participation in any collusive practices with any bidder or any other person regarding this or any other bid.

8.9 I confirm that I am duly authorised to sign this contract.

NAME (PRINT) .....

CAPACITY .....

SIGNATURE .....

NAME OF FIRM .....

DATE .....

WITNESSES

1 .....

2. .....

DATE: .....

9 CONTRACT FORM - PURCHASE OF GOODS/WORKS (MBD 7.1)

PART 2 (TO BE FILLED IN BY THE PURCHASER)

9.1 I, MR DP LUBBE in my capacity as: MUNICPAL MANAGER,

9.2 accept your bid under reference number **TENDER-02/2025** dated……for the supply of goods/works indicated hereunder and/or further specified in the annexure(s).

9.3 An official order indicating delivery instructions is forthcoming.

9.4 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.

ITEM NO.	**PRICE (ALL APPLICABLE TAXES INCLUDED)**	**BRAND**	**DELIVERY PERIOD**	**B-BBEE STATUS LEVEL OF CONTRIBUTION**

9.5 I confirm that I am duly authorized to sign this contract.

SIGNED AT ……ON……..

NAME (PRINT) …….

SIGNATURE …….

OFFICIAL STAMP

WITNESSES

1. ……

2. ……

DATE

10 DECLARATION OF BIDDER'S PAST SUPPLY CHAIN MANAGEMENT PRACTICES (MBD 8)

10.1 This Municipal Bidding Document must form part of all bids invited.

10.2 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.

10.3 The bid of any bidder may be rejected if that bidder, or any of its directors have:

10.4 abused the municipality's / municipal entity's supply chain management system or committed any improper conduct in relation to such system;

10.5 been convicted for fraud or corruption during the past five years;

10.6 will-fully neglected, reneged on or failed to comply with any government, municipal or other public sector contract during the past five years; or

10.7 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).

10.8 In order to give effect to the above, the following questionnaire must be completed and submitted with the bid.

Item	Question	Yes	No
10.9	Is the bidder or any of its directors listed on the National Treasury's Database of Restricted Suppliers as companies or persons prohibited from doing business with the public sector? (Companies or persons who are listed on this Database were informed in writing of this restriction by the Accounting Officer/Authority of the institution that imposed the restriction after the *audi alteram partem* rule was applied). **The Database of Restricted Suppliers now resides on the National Treasury's website(www.treasury.gov.za) and can be accessed by clicking on its link at the bottom of the home page.**	Yes ☐	No ☐
10.10	If so, furnish particulars:		
10.11	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)? **The Register for Tender Defaulters can be accessed on the National Treasury's website (www.treasury.gov.za) by clicking on its link at the bottom of the home page.**	Yes ☐	No ☐
10.12	If so, furnish particulars:		

10.13	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 ☐
10.14	If so, furnish particulars:		
10.15	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 ☐
10.16	If so, furnish particulars:		
10.17	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 ☐
10.18	If so, furnish particulars:		

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 **Date**

…… ……..
Position **Name of Bidder**

11 CERTIFICATE OF INDEPENDENT BID DETERMINATION (MBD 9)

10.19 This Municipal Bidding Document (MBD) must form part of all bids[1] invited.

10.20 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).[2] Collusive bidding is a pe se prohibition meaning that it cannot be justified under any grounds.

10.21 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:

10.22 take all reasonable steps to prevent such abuse;

10.23 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

10.24 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.

10.25 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.

10.26 In order to give effect to the above, the attached Certificate of Bid Determination (MBD 9) must be completed and submitted with the bid:

[1] Includes price quotations, advertised competitive bids, limited bids and proposals.

[2] 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.

[3] 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

12 CERTIFICATE OF INDEPENDENT BID DETERMINATION (MBD 9)

I, the undersigned, in submitting the accompanying bid:

_____
(Bid Number and Description)

in response to the invitation for the bid made by:

_____
(Name of Municipality / Municipal Entity)

do hereby make the following statements that I certify to be true and complete in every respect:

I certify, on behalf of: _____ that:
(Name of Bidder)

a. I have read and I understand the contents of this Certificate;

b. I understand that the accompanying bid will be disqualified if this Certificate is found not to be true and complete in every respect;

c. I am authorized by the bidder to sign this Certificate, and to submit the accompanying bid, on behalf of the bidder;

d. 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;

e. 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:
   - has been requested to submit a bid in response to this bid invitation;
   - could potentially submit a bid in response to this bid invitation, based on their qualifications, abilities or experience; and
   - provides the same goods and services as the bidder and/or is in the same line of business as the bidder

f. 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[3] will not be construed as collusive bidding.

g. In particular, without limiting the generality of paragraphs 12.6 above, there has been no consultation, communication, agreement or arrangement with any competitor regarding:
   - prices;
   - geographical area where product or service will be rendered (market allocation)
   - methods, factors or formulas used to calculate prices;
   - the intention or decision to submit or not to submit, a bid;
   - the submission of a bid which does not meet the specifications and conditions of the bid; or bidding with the intention not to win the bid.

h. 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.

i. 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.

j. 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.

.....	.....
Signature	Date
.....	.....
Position	Name of Bidder

13 CODE OF CONDUCT FOR SUPPLIERS

Langeberg Municipality is strongly committed in observing the highest ethical standards in all its procurement activities. As such, this Code of Conduct for Suppliers has been prepared to provide clear summary of Langeberg Municipality expectation form the suppliers in all procurement dealings, ensuring that internationally recognized procurement ethics are followed. Transparency and accountability should be strictly adhered to in all procurement activities.

Langeberg Municipality procurement ethics focuses on **zero tolerance on corruption, avoiding any form of interest and honest representation of supplier's capabilities.**

Suppliers are strongly urged to familiarize themselves with this Code of Conduct to ensure successful working relations with Langeberg Municipality.

Policy on Corruption and Position on Conflict of Interest

Langeberg Municipality expects all contracted suppliers and companies seeking to sell goods and services to conduct their business in accordance with the highest ethical standards. Suppliers or potential suppliers must strictly comply with all rules and regulations on bribery, corruption and avoid unacceptable business practices. Hence suppliers are expected to observe the following:

- Shall not, directly or indirectly, offer, give or agree or promise to give to any Langeberg Municipality staff any gratuity for the benefit of/or at the direction or request of any Staff or Langeberg Municipality;
- To immediately inform the Langeberg Municipality in the event that any Staff or Langeberg Municipality solicits or obtained or has made an attempt to obtain gratification for himself/herself or for any other persons.

To immediately declare if any of the Company's staff and/or officers had or have any relative employed with Langeberg Municipality. Failure to make such declaration shall be construed as a conflict of interest and might result in the exclusion of the

- supplier from present and future procurement activities and/or other legal action as deemed fit by the Organization.

Important Notice Regarding Fraudulent Activities

- **We would like to notify all bidders that there have been recent reports of scammers exploiting our management's information to solicit illegal bribes. It is imperative to note that such actions are unlawful and strictly forbidden. Should you be approached by individuals claiming to represent the Municipality or otherwise attempting to solicit bribes or engage in unethical practices, you are required to report these incidents immediately to the Municipality. Be aware that participation in illegal activities, including bribery, will have severe consequences. Companies involved in such practices, if exposed, will be blacklisted and barred from future participation in the Central Supplier Database (CSD). We urge all applicants to maintain the highest standards of integrity and to cooperate with us to ensure a fair and transparent tendering process. Langeberg Municipality.**

Representation from Suppliers

Langeberg Municipality expects all its suppliers to honestly declare and warrant that:

- It will comply with all rules, regulations and statutory requirements relating to the provision of the products/services to Langeberg Municipality;
- It will not act in concert with other suppliers or agents when participating in a bid;
- It is a duly authorized/certified provider of the supplied products/services and shall not, expressly or impliedly hold itself out to be an agent/representative of a third-party provider of the same products/services;
- It will only supply products that are certified to be of merchantable and satisfactory quality;
- The supplier processes the necessary capabilities, equipment and suitable place of business to perform its obligations;
- It shall not contract out of subcontract or outsource any portion of the products/services unless prior written consent from Langeberg Municipality has been obtained; and
- It shall maintain the highest standards of integrity and quality of work at all times.

Applicability of the Code of Conduct

This Code of Conduct shall apply to all Suppliers, sub-contractors and to other entities acting behalf of them (approval of Langeberg Municipality).

Monitoring compliance to the Code of Conduct

To facilitate the monitoring of suppliers' compliance with this Code of Conduct, Langeberg Municipality expects suppliers to:

- Develop and maintain all necessary documentation to support compliance with the described standards; such documentation must be accurate and complete;
- Provide Langeberg Municipality representatives with access to relevant records, upon Langeberg Municipality request;
- Allow Langeberg Municipality representatives to conduct interviews with the supplier's employees and with management separately;
- Allow Langeberg Municipality representatives to conduct announced and unannounced site visits of supplier locations; and
- Respond promptly to reasonable inquiries from Langeberg Municipality representatives in relation to the implementation of the Code of Conduct.

Secure Communication Channels

Langeberg Municipality has established a secure communication channel to enable the suppliers to raise their concerns confidentially and responsibly. If the supplier has questions about the Code of Conduct or wishes to report a questionable behaviour or possible violation of the Code of Conduct, the Supplier is encouraged and should contact Langeberg Municipality at:

Municipal Manager

28 Main Road

Ashton

6715

or contact at mm@langeberg.gov.za;

Langeberg Municipality will not tolerate any retribution or retaliation by anyone against a concerned Supplier who has, in good faith, sought out advice or has reported questionable behaviour and/or a possible violation. Langeberg Municipality will take disciplinary action up to and including termination of contract for anyone who threatens or engages in retaliation, retribution or harassment of the concerned individual. Identities and contents of all information or complaints will be rated strictly confidential.

SANCTIONS

Breach of the Code may result in actions being taken against that service providers, in addition to any contractual or legal remedies. The actions applied will depend on the nature and seriousness of the breach and on the degree of commitment shown by the service provider to resolve any issues stemming from the breach.
The range of actions to be imposed include but are not restricted to the following:

- Formal written warnings;
- Required disclosure of nature of breach in terms of the Policy;
- Immediate termination of contract;
- Criminal and/or civil action.

ACKNOWLEDGEMENT AND ACCEPTANCE

This is to certify that I have fully read the Supplier's Code of Conduct attached. Having fully read and understood the completed requirement of this Supplier's Code of Conduct, I hereby commit myself and my company to serve this Code of Conduct and to fully comply with all of its principles. I also certify that I am authorized by my company to sign and accept this document in its behalf.

Supplier: _____

Address: _____

Representative: _____

Signature: _____

Date: _____

14 TECHNICAL SPECIFICATIONS

SCOPE: This specification covers the supply and delivery of new electrical material.

1. ITEM 1: 11000/420/242 VOLT MINIATURE SUBSTATION

1.1 STANDARD SPECIFICATION FOR MINIATURE SUBSTATIONS

Except where otherwise specified equipment and its auxiliaries and fittings shall comply with the following specifications and amendments:

The Machinery and Occupational Safety Act No. 6 of 1983.
Transformers to NRS 005: 1990 or SABS 1029

Miniature Substations to NRS 004: 1991 or SABS 1029 AND 1030

Current transformers to SABS 029: 1993

High voltage fuses to BSS 2692

Bus bar to SABS 1195: 1978

Cable Boxes to BSS 2562

Colour and markings to BSS 381C & 158 Colour C12 of SABS 1091

Transformer oil to SABS 555: 1985

L.T. Breakers tested to SABS 156: 1977

Enclosure: Classification IAC AB (IEC 62271-202)

Internal arc 20 kA 0.5s

Any departures from the requirements of the specification shall be stated.

1.2 DESIGN AND CONSTRUCTION

The miniature substations shall be designed to facilitate inspection, cleaning and repairs. All apparatus supplied shall be designed to ensure satisfactory, continuous operation and all materials used shall be suitable for working under the atmospheric conditions prevailing in the Breede River region, and under such variations of load and voltage as may be met with under working conditions, including those due to short circuits. All miniature substation transformers must be equipped with copper windings.

The design shall incorporate every reasonable precaution and for the safety of all those concerned in the operation and maintenance of the miniature substation and the associated cables. All materials used in the miniature substation shall be new and of best quality.

The miniature substation shall generally consist of 3 (three) separate compartments. The whole design, which includes the roof and shall be made from 3 mm mild steel or 3CR12 plate. Each compartment shall be provided with a separate door, the door handles of which shall be made from brass or stainless steel (S/S preferred) as well as the door hinges, having measurements not less than 60mm wide and 6 mm thick and not less than a 10mm diameter hinge pin.

NB (Doors shall be fitted with a restraining device to prevent whipping in windy weather).

The transformer compartment shall be designed so that removal and replacement by another rating unit can easily be done.

An earthing connection in the form of a copper strap 25.4 mm by 3.15 mm cross-sectional area, bonding all the compartments shall be provided. The earth strap shall have provisions for connections from all cable sheaths and earth electrodes. It shall be designed for mounting on a concrete plinth, having all incoming and outgoing cables buried underground. Cubicles shall be sufficiently, ventilated and shall be constructed in such a way as to prevent the ingress of rain or moisture.

All apparatus shall be designed to eliminate the risk of accidental short circuits due to birds, animals, insects and vermin.

All bolts, nuts and studs shall be of brass, phosphor bronze, stainless steel, electro galvanised of cadmium plated steel. All bolts shall be fitted with locking washers.

1. 3 CLEANING AND PAINTING

All sheet metal works and all metal parts shall be thoroughly cleaned by shot blasting of all dirt, grease, rust mill scale, moisture and other contaminants to give a dry, bright metallic surface and immediately thereafter shall be treated in accordance with the requirements of SABS 005 - 1990 for transformers.

The equipment shall be fully painted and protected so that no further painting will be required after erection.

The miniature substation cover shall be 3CR12 steel to the relevant SABS Standard.

Complete painting specification as proposed by the manufacturer for the individual items of equipment shall be stated.

1.4 H.V. COMPARTMENT

The compartment shall be equipped with the following:

- Two 11 kV cable boxes suitable for 3-core 300 mm^2 copper P.I.L.C.D.S.T.A. cables, complete with glands and armour clamps.
- The cable boxes shall be of approved design and so arranged to accommodate all the cable joint fittings required by the manufacturer of the cables.
- Cable boxes shall be suitable for heat shrink terminations and shall be provided with all necessary fittings including draining holes, single unit cable clamps and earthing clamp. The cable boxes shall not be constructed of cast-iron.

(b) Ring Main Unit: Vacuum Switch with Circuit –Breaker and Protection Relay.

- The switchgear must comply to the relevant SABS, SANS and IEC Standards.
- The isolators shall be quick acting, spring loaded for making and breaking, suitable for a load operation and capable of withstanding a fault level of 250 MVA.
- An approved mechanically operated indicating device positively coupled to each isolator operating mechanism shall be provided to show whether the isolator is in on/off cable earthed position.

1.5 TRANSFORMERS

The transformers shall be of the double wound three phase copper winding oil immersed core type arranged for natural oil cooling (first filling of oil is required) manufactured, rated and tested in according with SABS 005 - 1990 and addenda thereto.

The normal frequency of the system will be 50 Hz, but the transformer shall be designed for operation at any frequency within ± 2½ % of normal and with ± 5 % voltage variation without exceeding the temperature rise specified in SABS 780, when the frequency and voltage variations are not in opposite directions.

All insulation materials shall be free from substances likely to become soft or to contaminate the oil in the transformer during its life, and each portion of the windings is to be impregnated before assembly and if varnished it shall be adequately dried before assembly or immersion in oil.

The tank and its cooling tubes shall be given two coats of best quality oil base paint at the factory. The total dry film thickness shall be at least 0,25mm and the paint shall comply with the requirements of SABS 780.

It is required that the transformers shall be specifically guaranteed free from objectionable humming, radio or TV interference. The oil shall comply with SABS 555.

The following requirements are applicable to the transformers, and schedule below shall be completed.

kVA Rating	315, 500, 630, 800 and 1000
Number of phases	3
Frequency	50 Hz
Voltage	11000/420/231 volt
Primary connections	DELTA
Secondary connections	STAR
Vector diagram	DYN 11
Primary terminal arrangement	3 x 11 kV Bushings
Secondary terminal arrangement	4 Bushings connected to LT bus bar
Cooling	O.N.

	315	500	630	800	1000
Core loss (normal voltage) volts					
Copper loss (full load 1.0 P.F.) in Watts					
Regulations 1.0 P.F. %					
Regulations 0.8 P.F. %					
Efficiency @ 1.0 P.F. Full Load					
Efficiency @ 1.0 P.F. ½ Load					
Efficiency @ 1.0 P.F. ⅓ Load					
Transformer total mass kg					

The transformer tapping arrangement shall be a voltage variation of ± 2½ % and ± 5 % tapping's.

1.6 L.V. COMPARTMENT

This compartment shall be equipped with the following:

(a) A set of suitable rated bus bars, 3 phases and neutral connected to the L.V. side to the transformer, of which the bus bars shall be mounted behind the front panel. A 450A, 700A, 900A , 1200A and 1400A incoming large frame moulded case circuit breaker shall be provided for the 315 kVA, 500 kVA, 630 kVA, 800 kVA and 1000 kVA transformers respectively.

(b) Current Transformers 500/5, 800/5, 900/5, 1200/5 and 1400/5 - 10 VA class 3 with three maximum demanded ammeters of 20 minutes delay and with direct reading shall be provided for 315 kVA, 500 kVA, 630 kVA, 800 kVA and 1000 kVA transformers respectively.

(c) (i) Four (4) large frame three-phase circuit breakers (MCCB) rated 200 amperes with a rupturing capacity of 30 kA to be surface mounted plus space for two (2) Large frame three-phase circuit breakers (MCCB) 200 Amp CB for future installation on 315 kVA, 500 kVA and 630 kVA.

(ii) Four (4) large frame three-phase circuit breakers (MCCB) rated 250 amperes with a rupturing capacity of 30 kA to be surface mounted plus space for four (4) large frame three-phase circuit breakers (MCCB) rated 250 amperes for future installation on 800 kVA and 1000 kVA.

(d) One 60-ampere triple pole circuit breaker with a rupturing capacity of 15 kA.

(e) One direct online contractor, 100 ampere three phase double break, electro-magnetically operated type complying with BSS 775, the coil of which shall be 230 Volt.

(f) One 3-phase kWh meter 100 amperes and three single phase circuit breakers 40 amperes, which shall be used in con- junction with the 60 amperes T.P.C.B. and the direct online contractor for street lighting and shall be wired before delivery.

(g) Switch for testing of the streetlights.

(h) A galvanised gland plate complete with holes for five (5) no 4 Pratley cable glands, two (2) no 5 cable glands and four (4) no 1 glands.

(i) A 15 A industrial plug outlet with a 15 A M.C.B. and earth leakage shall be provided.

(j) One voltmeter scaled 0 - 500 volt with selector switch and HRC fuses.

1.7 LABELS AND PLATES

All labels for mounting on outdoor equipment shall be of an approved non-corrosive material and shall be fixed with stainless steel screws. "Danger" plates shall have red lettering on a white background. All labels and designations shall be in three official language and shall comply with the Machinery and Occupational Safety Act no. 6 of 1983, as amended. The high voltage compartment door/s shall be equipped with a "Danger High Voltage" sign in three official languages with letters not less than 400 mm high.

Provision shall be made for internal labels, similar or equal to Eskom's requirements and standards.

ITEM 2: TRANSFORMERS (SABS 05-1990)

3 Phase 11000/420/231 Volt and 3300/420/231 Volt sealed open bushing and cable box transformers. The transformer and bracket shall be mild steel or 3CR12 steel and painted to the transformer's specification as under Item 1. The transformer shall be of a low loss type copper winding. The transformer shall be of the welded sealed type. The transformer shall withstand the frequency variation as under Item 1. The transformer tapping arrangement shall be as under Item 1 but giving a voltage variation of ± 5% and ± 2½ %. Transformers up to 25 kVA shall be mounted on a single pole by means of a bracket or clamp.

2.1 Transformers 11000/420/231 Volt

(a) 25 kVA 1-phase open bushing

(b) 25 kVA 3-phase open bushing

(c) 50 kVA 3-phase open bushing

(d) 100 kVA 3-phase open bushing

(e) 160 kVA 3-phase open bushing and cable boxes

(f) 200 kVA 3-phase open bushing and cable boxes

(g) 315 kVA 3-phase open bushing and cable boxes

(h) 500 kVA 3-phase open bushing and cable boxes

(i) 630 kVA 3-phase open bushing and cable boxes

(j) 800 kVA 3-phase open bushing and cable boxes

(k) 1000 kVA 3-phase open bushing and cable boxes

The following requirements are applicable to the transformers, and schedule below shall be completed.

KVA Rating	25, 50, 100, 160, 200, 315, 500, 630, 800 and 1000
Number of phase's	25-kVA 1-phase and 25- to 1000 kVA 3-phase
Frequency	50 Hz
Voltage	25 kVA 1-phase 11000/231 volt and 25 to 1000 kVA 3-phase 11000/420/231 volt
Primary connections	DELTA
Secondary connections	STAR
Vector diagram	DYN 11
Primary terminal arrangement	3 x 11 kV Bushings

Secondary terminal arrangement 4 Bushings connected to LT bus bar

Cooling O.N.A.N.

	25 -1Φ	25	50	100	160	200
Core loss (normal voltage) volts						
Copper loss (full load 1.0 P.F.) in Watts						
Regulations 1.0 P.F. %						
Regulations 0.8 P.F. %						
Efficiency @ 1.0 P.F. Full Load						
Efficiency @ 1.0 P.F. ½ Load						
Efficiency @ 1.0 P.F. ⅓ Load						
Transformer total mass kg						

	315	500	630	800	1000
Core loss (normal voltage) volts					
Copper loss (full load 1.0 P.F.) in Watts					
Regulations 1.0 P.F. %					
Regulations 0.8 P.F. %					
Efficiency @ 1.0 P.F. Full Load					
Efficiency @ 1.0 P.F. ½ Load					
Efficiency @ 1.0 P.F. ⅓ Load					
Transformer total mass kg					

The transformer tapping arrangement shall be a voltage variation of ± 2½ % and ± 5 % tapping's.

Item 2.2. Transformers 11000/420/231 Volt with LT Distribution Box (SANS 780)

(a) 200-kVA 3-phase pole mounted transformer with L.T. distribution box for outgoing feeders and streetlight panel.
(As per specification 1.5 above)
(b) 315-kVA 3-phase pole mounted transformer with L.T. distribution box for outgoing feeders and streetlight panel. (As per specification 1.5 above)
(c) 400-kVA 3-phase pole mounted transformer with L.T. distribution box for outgoing feeders and streetlight panel. (As per specification 1.5 above)

2.2.1 L.V. Distribution Box

The distribution box shall be equipped with the following:

(a) A set of suitable rated bus bars, 3 phases and neutral connected to the Low Voltage side to the transformer, of which the bus bars shall be mounted behind the front panel. A 350A, 500A and 600A incoming large frame moulded case circuit breaker shall be provided for the 200 kVA, 315 kVA and 400 kVA transformers respectively.

(b) Current Transformers 400/5, 500/5 and 600/5 - 10 VA class 3 with three maximum demanded ammeters of 20 minutes delay and with direct reading shall be provided for 200 kVA, 315 kVA, and 400 kVA transformers respectively.

(c) 200 kVA – Three 3-phase moulded case large frame (MCCB) circuit breakers rated 150 amperes with a rupturing capacity of 25 kA to be surface mounted plus space for 1 x 150 Amp 3-phase moulded case large frame (MCCB) circuit breaker for future installation.

(d) 315 kVA – Three 3-phase moulded case large frame (MCCB) circuit breakers rated 200 amperes with a rupturing capacity of 25 kA to be surface mounted plus space for 1 x 200 Amp 3-phase moulded case large frame (MCCB) circuit breaker for future installation for future installation.

(e) 400 kVA - Four 3-phase moulded case large frame (MCCB) circuit breakers rated 200 amperes with a rupturing capacity of 25 kA to be surface mounted plus space for 1 x 200 Amp CB for future installation.

(f) One 60 ampere tipple pole circuit breaker with a rupturing capacity of 15 kA.

(g) One direct online contractor, 100 ampere three phase double break, electro-magnetically operated type complying with BSS 775, the coil of which shall be 230 Volt.

(h) One 3-phase kWh meter 100 amperes and three single-phase circuit breakers 40 amperes, which shall be used in con- junction with the 60 amperes T.P.C.B. and the direct online contractor for street lighting and shall be wired before delivery.

(i) Switch for testing of the streetlights.

(j) One day night switch mounted on the outside of box.

(k) A galvanised gland plate complete with holes for four (4) no 4 Pratley cable glands, and three no1 glands.

(j) One voltmeter scaled 0 - 500 volt with selector switch and HRC fuses.

	200 kVA	**315 kVA**	**400 kVA**
Core loss (normal voltage) volts			
Copper loss (full load 1.0 P.F.) in Watts			
Regulations 1.0 P.F. %			
Regulations 0.8 P.F. %			
Efficiency @ 1.0 P.F. Full Load			
Efficiency @ 1.0 P.F. ½ Load			
Efficiency @ 1.0 P.F. ⅓ Load			
Transformer total mass kg			

The transformer tapping arrangement shall be a voltage variation of ± 2½ % and ± 5 % tapping's.

2.3 **Transformers 3300/420/231 Volt (SABS 05-1990)**

(a) 25 kVA 1- phase open bushing

(b) 25 kVA 3- phase open bushing

(c) 50 kVA 3- phase open bushing

(d) 100 kVA 3- phase open bushing

(e) 160 kVA 3- phase open bushing

(f) 200 kVA 3- phase open bushing

(g) 315 kVA 3-phase open bushing

(h) 500 kVA 3- phase open bushing

	25 -1Φ kVA	25 kVA	50 kVA	100 kVA	160 kVA
Core loss (normal voltage) volts					
Copper loss (full load 1.0 P.F.) in Watts					
Regulations 1.0 P.F. %					
Regulations 0.8 P.F. %					
Efficiency @ 1.0 P.F. Full Load					
Efficiency @ 1.0 P.F. ½ Load					
Efficiency @ 1.0 P.F. ⅓ Load					
Transformer total mass kg					

	200 kVA	315 kVA	500 kVA
Core loss (normal voltage) volts			
Copper loss (full load 1.0 P.F.) in Watts			
Regulations 1.0 P.F. %			
Regulations 0.8 P.F. %			
Efficiency @ 1.0 P.F. Full Load			
Efficiency @ 1.0 P.F. ½ Load			
Efficiency @ 1.0 P.F. ⅓ Load			
Transformer total mass kg			

The transformer tapping arrangement shall be a voltage variation of ± 2½ % and ± 5 % tapping's.

2.**4** **<u>Transformers 11000/3300 Volt (SABS 05-1990)</u>**

(a) 500 kVA 3- phase open bushing

(b) 800 kVA 3- phase open bushing

(c) 1000 kVA 3- phase open bushing

The transformers shall be of the double wound three phase copper winding oil immersed core type arranged for natural oil cooling (first filling of oil is required) manufactured, rated and tested in according with SABS 005 - 1990 and addenda thereto.

The normal frequency of the system will be 50 Hz, but the transformer shall be designed for operation at any frequency within ± 2½ % of normal and with ± 5 % voltage variation without exceeding the temperature rise specified in SABS 780, when the frequency and voltage variations are not in opposite directions.

All insulation materials shall be free from substances likely to become soft or to contaminate the oil in the transformer during its life, and each portion of the windings is to be impregnated before assembly and if varnished it shall be adequately dried before assembly or immersion in oil.

The tank and its cooling tubes shall be given two coats of best quality oil base paint at the factory. The total dry film thickness shall be at least 0,25mm and the paint shall comply with the requirements of SABS 780.

It is required that the transformers shall be specifically guaranteed free from objectionable humming, radio or TV interference. The oil shall comply with SABS 555.

The following requirements are applicable to the transformers, and schedule below shall be completed.

kVA Rating	500, 800 and 1000
Number of phases	3
Frequency	50 Hz
Voltage	11000/3300 volt
Primary connections	DELTA
Secondary connections	STAR
Vector diagram	DYN 11
Primary terminal arrangement	3 x 11 kV Bushings
Secondary terminal arrangement	4 Bushings connected to LT bus bar
Cooling	O.N.A.N

	500 kVA	800 kVA	1000 kVA
Core loss (normal voltage) volts			
Copper loss (full load 1.0 P.F.) in Watts			
Regulations 1.0 P.F. %			
Regulations 0.8 P.F. %			
Efficiency @ 1.0 P.F. Full Load			
Efficiency @ 1.0 P.F. ½ Load			
Efficiency @ 1.0 P.F. ⅓ Load			
Transformer total mass kg			

The transformer tapping arrangement shall be a voltage variation of ± 2½ % and ± 5 % tapping's.

ITEM 3: AUTOMATIC RECLOSER AND SECTIONALIZER

3 (a) Oil Insulated Automatic Recloser with Controller

Operating voltage - 11 kV

Nominal service voltage - up to 14.4 kV

Normal current - 250 amperes (max)

Breaking capacity - 100 MVA at 11 kV

Making capacity – 13 400 Ampere (peak)

Power frequency withstand - 50 kV for 1 min

Impulse withstand level - 110 kV 1/50 wave form

Short circuit tests - Unit must be tested in accordance to relevant specifications SABS or NRS Standards and test date must be supplied.

Temperature rise tests - Tests made before and after short circuit tests be within 40^{o}C rise permitted by B.S.

Protection - Over current and Earth fault protection be supplied with 50 amp trip coils for over current,

20 amps for earth fault and 5 amps for sensitive earth fault with variable time setting. The auto recloser shall work in series with Reyrolle L.M.T.O.C.B. with an English electric type V.A.R. 42 relay.

Control equipment must be supplied with automatic recloser and comprises of the following;

Control cabinet with battery provided for full operational capability for up to 48 hours. Isolated RS-232 and RS-485 ports. Programmable I/O ports Oscillographic data. Storage capacity. All data to be downloaded on-site or remotely.

Fault Recording - Records of last 128 operations of phase and ground fault amperes, phase and ground voltage, tripping element, recluse time, distance fault, estimated fault resistance and time stamp

Operation recording – Store of 512 operation records.

Remote Communications - RS 232 port with RTS/CTS handshaking. Modbus ASCII and RTU and

DNP 3.0 protocols to be supplied with unit. DNP 3.0 compliant to level 2.

Fault Location – Indicates Distance to fault to maintain protection integrity.

Power Quality – Records voltage sags, swells and interruptions. Programmable voltage thresholds.

Metering – Meter current and voltage. Measure kWh, kVArh, power factor, demand kW, kVAr, and frequency.

Protection Functions – Phase time over current, Phase instantaneous over current, definite time over current settings, Ground over current, Ground instantaneous over current, definite time ground over current settings, Negative sequence over current, Phase and ground directional over current, two steps for

load shed, restoration and power frequency, Under and over voltage control and alarm, Four re-close cycles, Adaptive re-closing shots, Sensitive earth fault protection with directional features. Recloser curves, ANSI curves, IEC curves and user programmable curves must be available.

3 (b) <u>Vacuum Automatic Recloser with Controller</u>

Operating voltage - 11 kV

Nominal service voltage - up to 15.5 kV

Normal current - 630 amperes (max)

Breaking capacity – 12.5 kA

Making capacity – 12.5 kA (peak)

Power frequency withstand - 50 kV for 1 min

Impulse withstand level - 110 kV 1/50 wave form

Short circuit tests - Unit must be tested in accordance to relevant specifications SABS or NRS Standards and test date must be supplied.

Temperature rise tests - Tests made before and after short circuit tests be within 40^{o}C rise permitted by B.S.

Protection - Over current and Earth fault protection be supplied with 50 amp trip coils for over current, 20 amp for earth fault and 5 amp for sensitive earth fault with variable time setting. The auto recloser shall work in series with Reyrolle L.M.T.O.C.B. with an English electric type V.A.R. 42 relay.

<u>Control equipment must be supplied with automatic recloser and comprises of the following</u>;

Control cabinet with battery provided for full operational capability for up to 48 hours.

Isolated RS-232 and RS-485 ports. Programmable I/O ports Oscillographic data. Storage capacity. On-site or remotely downloading of all data must be possible.

Fault Recording - Records of last 128 operations of phase and ground fault amperes, phase and ground voltage, tripping element, recluse time, distance to fault, estimated fault resistance and time stamp.

Operation recording – Store of 512 operation records.

Remote Communications - RS 232 port with RTS/CTS handshaking. Mod-bus ASCII and RTU, and DNP3.0 protocols to be supplied with unit. DNP 3.0 compliant to level 2.

Fault Location – Indicates Distance to fault to maintain protection integrity.

Power Quality – Records voltage sags, swells and interruptions. Programmable voltage thresholds.

Metering – Meter current and voltage. Measure kWh, kVArh, power factor, demand kW, kVAr, and frequency.

Protection Functions – Phase time over current, Phase instantaneous over current, definite time over current settings, Ground over current, Ground instantaneous over current, definite time ground over

current settings, Negative sequence over current, Phase and ground directional over current, two steps for load shed, restoration and power frequency, Under and over voltage control and alarm, Four re-close cycles, Adaptive re-closing shots, Sensitive earth fault protection with directional features. Recloser curves, ANSI curves, IEC curves and user programmable curves must be available.

3 (c) <u>Sectionalizer Vacuum</u>

Operating voltage - 11 kV

Nominal service voltage - up to 24 kV

Normal current - 630 amperes (max)

Breaking capacity – 630 amperes

Making capacity – 40 kA (peak)

Power frequency withstand - 28 kV for 1 min

Impulse withstand level - 75 kV

Short circuit tests - Unit must be tested in accordance to relevant specifications SABS or NRS Standards and test date must be supplied.

Temperature rise tests - Tests made before and after short circuit tests be within 40^{o}C rise permitted by B.S.

The unit must be a pole mounting type complete with control box for remote and local control.

Control equipment must be supplied with automatic recloser and comprises of the following;

- Control cabinet with battery provided for full operational capability for up to 48 hours.
- 24 VDC battery and charger. Battery monitor device. VT supply fail. Radio & RTU. Earth fault passage indicator. Auto sectionalizing.

Tenderer must provide details of their product.

<u>ITEM 4: RING MAIN UNIT (VACUUM)</u>

All outdoor units must comply with the following: Classification IAC AB (IEC 62271 – 202): Internal arc 20 kA 0.5s

4 (a) <u>Non-extensible - Vacuum (2 x isolator switches and 1 x fuse switch)</u>

The units must be suitable for **indoor and outdoor** use. Tenderer must state whether prices include weatherproof enclosure for switch and if not prices must be provided.

These units shall be designed as 630-amp ring main isolator units with attached H.R.C. switch/fuse for controlling and protecting of transformers up to 2500 kVA.

The units shall be suitable for a rupturing capacity of 400 M.V.A. at 11000 volts, shall be of the load breaking/fault making type, complete with frame support, "ON", “OFF” and "EARTH" switch positions, and all necessary cable boxes, bus bar, connections, etc.

Rated voltage - 12 kV Power frequency withstand voltage - 28 kV

Impulse withstand voltage – 95 kV Making capacity – 52.5 kA

Cable boxes must accommodate up to 300 mm^2, 11 kV, P.I.L.C.D.S.T.A cables. Cable boxes shall be suitable for heat shrink terminations and shall be provided with all necessary fittings including, cable clamps/glands and earthing clamp.

The unit shall be supplied with 3 x 45-amp 11 kV H.R.C. fuses and shall be complete with all necessary accessories for operation of the switchgear.

4 (b) <u>Non-extensible - Vacuum (3 x isolator switches)</u>

The units must be suitable for **indoor and outdoor** use. Tenderer must state whether prices include weatherproof enclosure for switch and if not prices must be provided. These units shall be designed as 630-amp ring main isolator units.

The units shall be suitable for a rupturing capacity of 400 M.V.A. at 11000 volts, shall be of the load breaking/fault making type, complete with frame support, "ON", “OFF” and "EARTH" switch positions, and all necessary cable boxes, bus bar, connections, etc.

Rated voltage - 12 kV Power frequency withstand voltage - 28 kV

Impulse withstand voltage – 95 kV Making capacity – 52.5 kA

Cable boxes must accommodate up to 300 mm^2, 11 kV, P.I.L.C.D.S.T.A cables. Cable boxes shall be suitable for heat shrink terminations and shall be provided with all necessary fittings including, cable clamps/glands and earthing clamp. The unit shall be supplied complete with all necessary accessories for operation of the switchgear.

4 (c) <u>Non-extensible - Vacuum (2 x isolator switches and 1 x Vacuum switch)</u>

The units must be suitable for **indoor and outdoor** use. Tenderer must state whether prices include weatherproof enclosure for switch and if not prices must be provided. These units shall be designed as 630-amp ring main isolator units with attached Vacuum switch for controlling and protecting of transformers up to 2500 kVA. Vacuum switching must be complete with protection relays.

The units shall be suitable for a rupturing capacity of 400 M.V.A. at 11000 volts, shall be of the load breaking/fault making type, complete with frame support, "ON", “OFF” and "EARTH" switch positions, and all necessary cable boxes, bus bar, connections, etc.

Rated voltage - 12 kV Power frequency withstand voltage - 28 kV

Impulse withstand voltage – 95 kV Making capacity – 52.5 kA

Cable boxes must accommodate up to 300 mm^2, 11 kV, P.I.L.C.D.S.T.A cables. Cable boxes shall be suitable for heat shrink terminations and shall be provided with all necessary fittings including, cable clamps/glands and earthing clamp. The unit shall be supplied complete with all necessary accessories for operation of the switchgear.

4 (d) Non-extensible - Vacuum (1 x Main isolator switch and 2 x Vacuum switches)

The units must be suitable for **indoor and outdoor** use. Tenderer must state whether prices include weatherproof enclosure for switch and if not, prices must be provided. These units shall be designed as 630-amp ring main isolator units with attached Vacuum switches for controlling and protecting of two outgoing feeders up to 3000 kVA. Vacuum switching must be complete with protection relays.

The units shall be suitable for a rupturing capacity of 400 M.V.A. at 11000 volts, shall be of the load breaking/fault making type, complete with frame support, "ON", “OFF” and "EARTH" switch positions, and all necessary cable boxes, bus bar, connections, etc.

Rated voltage - 12 kV Power frequency withstand voltage - 28 kV

Impulse withstand voltage – 95 kV Making capacity – 52.5 kA

Cable boxes must accommodate up to 300 mm^2, 11 kV, P.I.L.C.D.S.T.A cables. Cable boxes shall be suitable for heat shrink terminations and shall be provided with all necessary fittings including, cable clamps/glands and earthing clamp. The unit shall be supplied complete with all necessary accessories for operation of the switchgear.

4 (e) Non-extensible - Vacuum (2 x Vacuum switches, 1 x Main isolator switch and 1 x Fuse switch)

The units must be suitable for **indoor and outdoor** use. Tenderer must state whether prices include weatherproof enclosure for switch and if not prices must be provided. These units shall be designed as 630-amp ring main isolator units with attached Vacuum switches for controlling and protecting of two outgoing feeders up to 3000 kVA. Vacuum switching must be complete with protection relays.

The units shall be suitable for a rupturing capacity of 400 M.V.A. at 11000 volts, shall be of the load breaking/fault making type, complete with frame support, "ON", “OFF” and "EARTH" switch positions, and all necessary cable boxes, bus bar, connections, etc.

Rated voltage - 12 kV Power frequency withstand voltage - 28 kV

Impulse withstand voltage – 95 kV Making capacity – 52.5 kA

Cable boxes must accommodate up to 300 mm^2, 11 kV, P.I.L.C.D.S.T.A cables. Cable boxes shall be suitable for heat shrink terminations and shall be provided with all necessary fittings including, cable clamps/glands and earthing clamp. The unit shall be supplied with complete with all necessary accessories for operation of the switchgear.

The unit shall be supplied with 3 x 45-amp 11 kV H.R.C. fuses and shall be complete with all necessary accessories for operation of the switchgear.

4 (f) Non-extensible - Vacuum (3 x Vacuum switches, 1 x Main isolator switch and 1 x Fuse switch)

The units must be suitable for **indoor and outdoor** use. Tenderer must state whether prices include weatherproof enclosure for switch and if not prices must be provided. These units shall be designed as 630-amp ring main isolator units with attached Vacuum switches for controlling and protecting of two outgoing feeders up to 3000 kVA. Vacuum switching must be complete with protection relays.

The units shall be suitable for a rupturing capacity of 400 M.V.A. at 11000 volts, shall be of the load breaking/fault making type, complete with frame support, "ON", "OFF" and "EARTH" switch positions, and all necessary cable boxes, bus bar, connections, etc.

Rated voltage - 12 kV Power frequency withstand voltage - 28 kV

Impulse withstand voltage – 95 kV Making capacity – 52.5 kA

Cable boxes must accommodate up to 300 mm^2, 11 kV, P.I.L.C.D.S.T.A cables. Cable boxes shall be suitable for heat shrink terminations and shall be provided with all necessary fittings including, cable clamps/glands and earthing clamp. The unit shall be supplied with complete with all necessary accessories for operation of the switchgear.

The unit shall be supplied with 3 x 45-amp 11 kV H.R.C. fuses and shall be complete with all necessary accessories for operation of the switchgear.

ITEM 5: RING MAIN UNIT WITH METER UNIT (VACUUM)

All outdoor units must comply with the following: Classification IAC AB (IEC 62271 – 202):

5 (a) Cable Switch (Vacuum)

The units must be suitable for indoor and outdoor use. Tenderer must state whether prices include weatherproof enclosure for switch and if not prices must be provided.

This unit shall be designed to be coupled up to a combination of switches cable, cable, bus bar, metering unit, vacuum or fuse and shall be designed as 630 / 1250-amp ring main isolator units. Vacuum switching must be complete with protection relays.

Rated voltage - 12 kV Power frequency withstand voltage - 28 kV

Impulse withstand voltage – 95 kV Making capacity – 52.5 kA

These units shall be suitable for a breaking capacity of 630 / 1250 amp at 11000 volts, shall be of the load breaking/fault making type; complete with frame support, , "ON", "OFF" and "EARTH" switch positions, and all necessary cable boxes, bus bar, connections, etc. Cable boxes shall be provided large enough to accommodate up to 300 mm^2, 11 kV, P.I.L.C.D.S.T.A cables. Cable boxes shall be suitable for heat shrink terminations and shall be provided with all necessary fittings including, cable gland or clamp and earthing clamp.

5 (b) Fuse switch

The units must be suitable for indoor and outdoor use. Tenderer must state whether prices includes weatherproof enclosure for switch and if not prices must be provided.

This unit shall be designed to be coupled up to a combination of A and C and shall have rupturing capacity of 350 MVA at 11 kV. It shall be of the load breaking/fault making type, complete with frame support "ON", "OFF" and "EARTH" switches positions, and all necessary cable boxes, bus bar, connections, etc.

Rated voltage - 12 kV Power frequency withstand voltage - 28 kV

Impulse withstand voltage – 95 kV Making capacity – Fuse rating

Cable boxes shall be provided large enough to accommodate up to 300 mm^2 11 kV P.I.L.C.D.S.T.A. cables.

Cable boxes shall be suitable for heat shrink terminations and shall be provided with all necessary fittings including, cable gland or clamp and earthing clamp.

The mechanism shall prevent single phasing if any one of the fuses blows. The unit shall be supplied with 3 x 45-amp H.R.C. fuse for the switch fuse three-off and shall be complete with all necessary accessories for operation of the switchgear.

5 (c) Vacuum switch

The units must be suitable for indoor and outdoor use. Tenderer must state whether prices include weatherproof enclosure for switch and if not, prices must be provided. This unit shall be designed to be coupled up to a combination of A and B above and shall have rupturing capacity 400 M.V.A. at 11 kV. It shall be of the load breaking/fault making type, complete with frame support "ON", “OFF” and "EARTH" switches positions, and all necessary cable boxes, bus bar, connections, etc. Vacuum switching must be complete with protection relays.

Rated voltage - 12 kV Power frequency withstand voltage - 28 kV

Impulse withstand voltage – 95 kV Making capacity – 52.5 kA

Cable boxes shall be provided large enough to accommodate up to 300 mm^2 11 kV P.I.L.C.D.S.T.A. cables.

Cable boxes shall be suitable for heat shrink terminations and shall be provided with all necessary fittings including, cable gland or clamp and earthing clamp.

The mechanism shall prevent single phasing. A suitable protection relay for protecting of cable feeders and transformer loads must be installed. The unit shall be supplied with complete with all necessary accessories for operation of the switchgear.

5 (d) Metering Unit

The metering unit shall be installed in a separate compartment.

The metering unit will be coupled up to a combination of all switches and bus bar switch under Item 5.

Panel must be complete with Voltage Transformer, voltage transformer fuses, three current transformers 60-40-20 / 5 or 1 ampere CT’s class 0.5 and or 30-20-10 / 5 or 1 ampere CT’s class 0.5

A separate panel must be provided for two kVA maximum demand meters (Landis & Gyr ZMD or similar) with terminal blocks and wiring. The meters must be complete with modem and sim card

It must not be possible to make contact with live 11 kilo-volt conductors or bus bars, inside the metering panel or switchgear compartment when opening the compartment in which the meters are housed.

NB: Specifications for Outdoor Kiosk's for RMU'S and Metering Unit must be supplied

All kiosks must comply with the following standard:

Classification IAC AB (IEC 62271-202): INTERNAL ARC 20 kA 0,5s

The design shall incorporate every reasonable precaution and for the safety of all those concerned in the operation and maintenance of the switchgear, voltage transformer, current transformers, protection relay, fuses, meters and the associated cables. All materials used in the unit shall be new and of best quality.

The unit shall generally consist of 3 (three) separate compartments in the whole design, which includes the roof and shall be made from 3 mm 3CR12 steel to the relevant SABS Standard.

The unit must be suitable for the mounting of switchgear, metering panel and meters in separate compartments (CMVV).

Each compartment shall be provided with a separate door, the door handles of which shall be made from brass or stainless steel (S/S preferred) as well as the door hinges, having:

- All labels for mounting on outdoor equipment shall be of an approved non-corrosive material and shall be fixed with stainless steel screws. "Danger" plates shall have red lettering on a white background. All labels and designations shall be in three official languages and shall comply with the Machinery and Occupational Safety Act no. 6 of 1983, as amended. The high voltage compartment door/s shall be equipped with a "Danger High Voltage" sign in three official languages with letters not less than 400 mm high.
- All sheet metal works, and all-metal parts shall be thoroughly cleaned by shot blasting of all dirt, grease, rust mill scale, moisture and other contaminants to give a dry, bright metallic surface and immediately thereafter shall be treated in accordance with the requirements of SABS Standard.

  The equipment shall be fully painted and protected so that no further painting will be required after erection.

  All weatherproof in-closures must comply with the following standard:

  Classification IAC AB (IEC 62271-202): INTERNAL ARC 20 KA 0,5S

  NB (Doors shall be fitted with a restraining device to prevent whipping in windy weather).

  The unit shall be designed so that removal and replacement of switchgear, voltage and current transformers can easily be done.

  An earthing connection in the form of a copper strap 25.4 mm by 3.15 mm cross-sectional area, bonding all the compartments shall be provided. The earth strap shall have provisions for connections from all cable sheaths and earth electrodes. It shall be designed for mounting on a concrete plinth, having all incoming and outgoing cables buried underground. Cubicles shall be sufficiently, ventilated and shall be constructed in such a way as to prevent the ingress of rain or moisture.

  All apparatus shall be designed to eliminate the risk of accidental short circuits due to birds, animals, insects and vermin.

ITEM 6: RING MAIN UNIT - EXTENSIBLE

All outdoor units must comply with the following: Classification IAC AB (IEC 62271 – 202): Internal arc 20 kA, 0.5s

6 (a) Cable Switch (Extensible - Vacuum)

The units must be suitable for indoor and outdoor use. Tenderer must state whether prices include weatherproof enclosure for switch and if not prices must be provided.

This unit shall be designed to be coupled up to a combination of all switches and metering unit under Items 4 and 5 and shall be designed as 630- or 1250-amp ring main isolator units. Vacuum switching must be complete with protection relays.

Rated voltage - 12 kV Power frequency withstand voltage - 28 kV

Impulse withstand voltage – 95 kV Making capacity – 52.5 kA

These units shall be suitable for a breaking capacity of 1250 amp at 11000 volts, shall be of the load breaking/fault making type; complete with frame support, , "ON", “OFF” and "EARTH" switch positions, and all necessary cable boxes, bus bar, connections, etc. Cable boxes shall be provided large enough to accommodate up to 300 mm^2, 11 kV, P.I.L.C.D.S.T.A cables. Cable boxes shall be suitable for compound filling and heat shrink terminations and shall be provided with all necessary fittings including accessible filling and draining holes, single unit wiping gland or cable clamp and earthing clamp.

6 (b) Fuse switch (Extensible)

The units must be suitable for indoor and outdoor use. Tenderer must state whether prices include weather prove in-closure for switch and if not prices must be provided.

This unit shall be designed to be coupled up to a combination of all switches and metering unit under Items 4 and 5 and shall have a rupturing capacity of 250 MVA at 11 kV. It shall be of the load breaking/fault making type, complete with frame support "ON", “OFF” and "EARTH" switches positions, and all necessary cable boxes, bus bar, connections, etc.

Rated voltage - 12 kV Power frequency withstand voltage - 28 kV

Impulse withstand voltage – 95 kV Making capacity – Fuse rating

Cable boxes shall be provided large enough to accommodate up to 300 mm^2 11 kV P.I.L.C.D.S.T.A. cables.

Cable boxes shall be suitable for heat shrink terminations and shall be provided with all necessary fittings including, cable gland or clamp and earthing clamp.

The mechanism shall prevent single phasing if any one of the fuses blows. The unit shall be supplied with 3 x 45-amp H.R.C. fuse for the switch fuse three off and shall be complete with all necessary accessories for operation of the switchgear.

6 (c) Vacuum switch (Extensible - Vacuum)

The units must be suitable for indoor and outdoor use. Tenderer must state whether prices include weatherproof enclosure for switch and if not prices must be provided. This unit shall be designed to be coupled up to a combination of all switches and metering unit under Items 4 and 5 and shall have a rupturing capacity of 1250 ampere at 11 kV. It shall be of the load breaking/fault making type, complete with frame support "ON", “OFF” and "EARTH" switches positions, and all necessary cable boxes, bus bar, connections, etc. Vacuum switching must be complete with protection relays.

Rated voltage - 12 kV Power frequency withstand voltage - 28 kV

Impulse withstand voltage – 95 kV Making capacity – 52.5 kA

Cable boxes shall be provided large enough to accommodate up to 300 mm^2 11 kV P.I.L.C.D.S.T.A. cables.

Cable boxes shall be suitable for heat shrink terminations and shall be provided with all necessary fittings including, cable gland or clamp and earthing clamp.

The mechanism shall prevent single phasing. A suitable protection relay for protecting of cable feeders and transformer loads must be installed. The unit shall be supplied with complete with all necessary accessories for operation of the switchgear.

6 (d) Bus Bar Switch (Extensible - Vacuum)

The units must be suitable for indoor and outdoor use. Tenderer must state whether prices include weatherproof enclosure for switch and if not, prices must be provided.

This unit shall be designed to be coupled up to a combination of all switches and metering unit under Items 4 and 5 and shall be designed as 1250-amp ring main isolator units. Vacuum switching must be complete with protection relays.

Rated voltage - 12 kV Power frequency withstand voltage - 28 kV

Impulse withstand voltage – 95 kV Making capacity – 52.5 kA

These units shall be suitable for a breaking capacity of 1250 amp at 11000 volts, shall be of the load breaking/fault making type; complete with frame support, , "ON", “OFF” and "EARTH" switch positions, and all necessary cable boxes, bus bar, connections, etc. Cable boxes shall be provided large enough to accommodate 300 mm^2, 11 kV, P.I.L.C.D.S.T.A cables. Cable boxes shall be suitable for heat shrink terminations and shall be provided with all necessary fittings including accessible filling and draining holes, single unit wiping gland or cable clamp and earthing clamp.

6 (e) Metering Unit (Extensible)

The metering unit shall be installed in a separate compartment.

The metering unit will be coupled up to a combination of all switches and bus bar switch under Items 4 and 5.

Panel must be complete with Voltage Transformer, voltage transformer fuses, three current transformers 500-50/5 or 1 ampere CT’s class 0.5.

A separate panel must be provided for two kVA maximum demand meters (Landis & Gyr ZMD or similar) with terminal blocks and wiring. The meters must be complete with modem and sim card

It must not be possible to make contact with live 11 kilo-volt conductors or bus bars, inside the metering panel or switchgear compartment when opening the compartment in which the meters are housed.

ITEM 7: OUTDOOR KIOSK'S FOR FREE-STANDING RMUs

Kiosk's will be used with a combination of switchgear as per Item 4 and 5 (see specification for outdoor kiosk's)

All kiosks must comply with the following standard:

Classification IAC AB (IEC 62271-202): INTERNAL ARC 20 kA 0.5s

7 (a) Two-way Kiosk

7 (b) Three-way Kiosk

7 (c) Four-way Kiosk

7 (d) Five-way Kiosk

ITEM 8: WOODEN POLES: CLASS A

The creosoted Pinus radiata poles as to SABS specification no 753/1994 or NRS 073, Class A strength, high temperature creosoted.

8.1 (a) 7 m long with 140 – 160 mm diameter tops.

(b) 9 m long with 140 – 160 mm diameter tops.

(c) 10 m long with 140 – 160 mm diameter tops.

(d) 11 m long with 140 – 160 mm diameter tops.

(e) 12 m long with 140 – 160 mm diameter tops.

8.2 (a) 9 m long with 160 – 180 mm diameter tops.

(b) 10 m long with 160 – 180 mm diameter tops.

(c) 11 m long with 160 – 180 mm diameter tops.

(d) 12 m long with 160 – 180 mm diameter tops.

ITEM 9: GALVANISED STEEL BRACKETS

All brackets shall be hot dipped galvanised.

(a) A-Frame Intermediate Bracket 22 kV

(b) A-Frame Strain Bracket 22 kV

(c) Special Strain Bracket

(d) Fuse Bracket

(e) Transformer platform single pole mounted

(f) Transformer platform 1.68 spacing between pole centres

(g) Streetlight bracket – length 500 mm with 40 mm diameter with pole mounting clamp.

ITEM 10A: LOW VOLTAGE COPPER CABLE

PVC SWA PVC grade to SABS 1507 - 1990 and SABS 1574 - 1992.

(a) 10 mm² x 2 core

(b) 10 mm² x 4 core

(c) 16 mm² x 2 core

(d) 16 mm² x 4 core

(e) 25 mm² x 4 core

(f) 35 mm² x 4 core

(g) 50 mm² x 4 core

(h) 70 mm² x 4 core

(i) 95 mm² x 4 core

(j) 120 mm² x 4 core

(k) 150 mm² x 4 core

(l) 185 mm² x 4 core

(m) 240 mm² x 4 core

(n) 300 mm² x 4 core

ITEM 10B: LOW VOLTAGE ALLUMINIUM CABLE

PVC SWA PVC grade to SABS 1507 - 1990 and SABS 1574 - 1992.

(a) 50 mm² x 4 core

(b) 70 mm² x 4 core

(c) 95 mm² x 4 core

(d) 120 mm² x 4 core

(e) 150 mm² x 4 core

(f) 185 mm² x 4 core

(g) 240 mm² x 4 core

(h) 300 mm² x 4 core

ITEM 11: LOW VOLTAGE CABLE WITH COMMUNICATION WIRE (Cu / XLPE / SWA / PVC + 2 X 1.5 PILOT)

(Cu / XLPE / SWA / PVC / + 2 x 1.5 PILOT WIRES)

Cable shall be manufactured to comply with SANS 1602

(a) 10 mm² x 2 cores

(b) 16 mm² x 2 cores

(c) 16 mm² x 4 cores

ITEM 12: LOW VOLTAGE AERIAL BUNDLE CONDUCTOR (Aluminium)

Aerial Bundled Conductors shall be manufactured to comply with SABS 1418 Part 1 and 2 1986 as amended. XLPE insulated aerial bundle conductors shall consist of the following:

12.1 Single-phase conductor and one neutral conductor

(a) 25 mm² x 2 core conductor

All the 3-phase ABC should have and insulated neutral as well as the streetlight cable.

Aerial Bundled Conductors shall be manufactured to comply with SABS 1418 Part 1 and 2 1986 as amended. XLPE insulated aerial bundle conductors shall consist of the following:

12.2 Three-phase conductors, one neutral conductor and one street light conductor.

a. 35 mm²

b. 50 mm²

c. 70 mm²

d. 95 mm²

e. 120 mm²

ITEM 13: LOW VOLTAGE CABLE AIRDAC WITH COMMUNICATION WIRE

Cable must comply with NRS 062 and 063: 1998

(a) 10 mm²

(b) 16 mm²

ITEM 14: MEDIUM VOLTAGE CABLE

PILC PVC GDSTA PVC T18 11/11 - 3 Core copper conductors unearthed manufactured in accordance with SABS 97 1991 and NRS 013: 1991. Table 18 and Table19

(a) 35 mm² x 3 cores

(b) 70 mm² x 3 cores

(c) 95 mm² x 3 cores

(d) 120 mm² x 3 cores

(e) 150 mm² x 3 cores

(f) 185 mm² x 3 cores

(g) 240 mm² x 3 cores

(h) 300 mm² x 3 cores

ITEM 15 (a): DISTRIBUTION BOXES (POLYETHYLENE)

(1) Pillar Boxes:

Polyethylene pillar-boxes suitable for 2,4, 6, 9 & 12 single phase metering units with breakers. These boxes shall be complete with 3CR12 steel gland plate (with holes – must be suitable for an incomer nr 4 gland and consumer for nr 2 glands), 200A copper bus bar and meter supporting board (din rail to be installed). All metal work exposed to the atmosphere shall be of brass. Unit shall be lockable.

(2) Pole Mounted:

Polyethylene pole mounted boxes suitable 4 and 8 single phase metering units with breakers. These boxes shall be complete with gland knockouts, 200A copper bus bar and meter supporting board (din rail to be installed). All metal work exposed to the atmosphere shall be of brass. Unit shall be lockable.

A drawing of the above shall be submitted with the tender.

ITEM 15 (b) DISTRIBUTION BOXES (3CR12 STEEL)

(1) Pillar Boxes:

3CR12 steel pillar boxes suitable for 2, 4, 6, 9 & 12 single phase metering units with breakers. These boxes shall be complete with 3CR12 steel gland plate (with holes)
200A copper bus bar and meter supporting board. All metal work exposed to the atmosphere shall be of brass. Unit shall be lockable.

(2) Pole Mounted:

3CR12 steel pole mounted boxes suitable for 4 and 8 single phase metering units with breakers. These boxes shall be complete with gland knockouts, 200A copper bus bar and meter supporting board. All metal work exposed to the atmosphere shall be of brass. Unit shall be lockable.

A drawing of the above shall be submitted with the tender.

ITEM 15 (c) MARSHALLING KIOSK (3CR12)

- Steel kiosk shall be constructed from 3CR12 stainless steel with a minimum thickness of 1.5 mm. Any other grade of stainless steel shall be to the approval of the Engineer.
- Kiosks manufactured out of mild steel shall not be acceptable.
- All fabrication and welding of 3CR12 component parts shall comply fully with the requirements of NRS 056-3.
- All welding shall be continuous and sheet joints shall be continuously welded on the outside of the boxes to ensure proper sealing. Painting, Colouring and Protection against Corrosion
- All ferrous parts that are not manufactured from 3CR12 shall be hot dip galvanised in accordance with the requirements of SANS 121 or otherwise protected in an approved manner against corrosion. Galvanising shall be carried out only after all welding, drilling and machining has been completed.
- All rivets, bolts, nuts, washers and set screws shall be of stainless steel or other approved non-ferrous metal.

- All 3CR12 steel Kiosk shells, roots, frames and other component parts shall be prepared for painting in accordance with NRS 056-3, including grinding and mechanical cleaning of welds and chemical pickling and passivating, and shall be finished in accordance with NRS 056-3 with polyurethane-based heat fused epoxy powder coating of at least 30 µm total thickness suitable for exterior use. Suitable steps shall have been taken to ensure a satisfactory bond between the protected surfaces and the paint to prevent peeling.

- The colour shall be an acceptable match to Colour: T.B.C Degree of Protection

- The degree of protection of the installed kiosk shall be at least IP 45 to SANS 60529.

- Adequate ventilation holes (louvres) shall be provided on the kiosk housing to encourage natural air flow within the kiosk and to prevent condensation. The ventilation holes shall be so positioned as to prevent the ingress of water and shall at the same time be vermin proof.

- Roof pitched towards the center with an all-round overhang not less than 35 mm's. Doors

- Doors to sit proud of the kiosk body and will have internal concealed hinges.

- Doors to be fitted with internal stiffener plate in order to assist with rigidity.

- Doors to have internal rubber fitted all round. Locking

- These kiosks will make use of a pad lockable swing handle three-point locking system in order to lock in the center, top and bottom. All locking rods as well as rod guides to be stainless steel.

- 3CR12 Lock Box to be fitted on the outside of the kiosk covering the pad lockable swing handle lock.

- Coin Slot/Square Key Locks to all internal 3CR12 kiosk face plates. Busbars

- All kiosks shall be fitted with 25 x 5 mm incoming and separate consumer phase busbars plus neutral and earth bars.

- The busbars, neutral bars, consumer neutral bars and earth bars shall be tinned high conductivity copper busbars in accordance with SANS 1195.

- The busbars shall have an adequate current rating.

- The phase and neutral busbars shall be mounted vertically and shall be arranged in an approved manner to accommodate incoming cables which will be bolted to the busbars by means of lug terminals.

- The phase busbars shall be mounted with clearances sufficient to ensure electrical clearance is maintained between the cable lugs on incoming distribution cable tails and the busbars of adjacent phases. Safe electrical clearances shall also be provided between the busbars / lugs and other non-current carrying surfaces in the kiosk, including the busbars shroud.

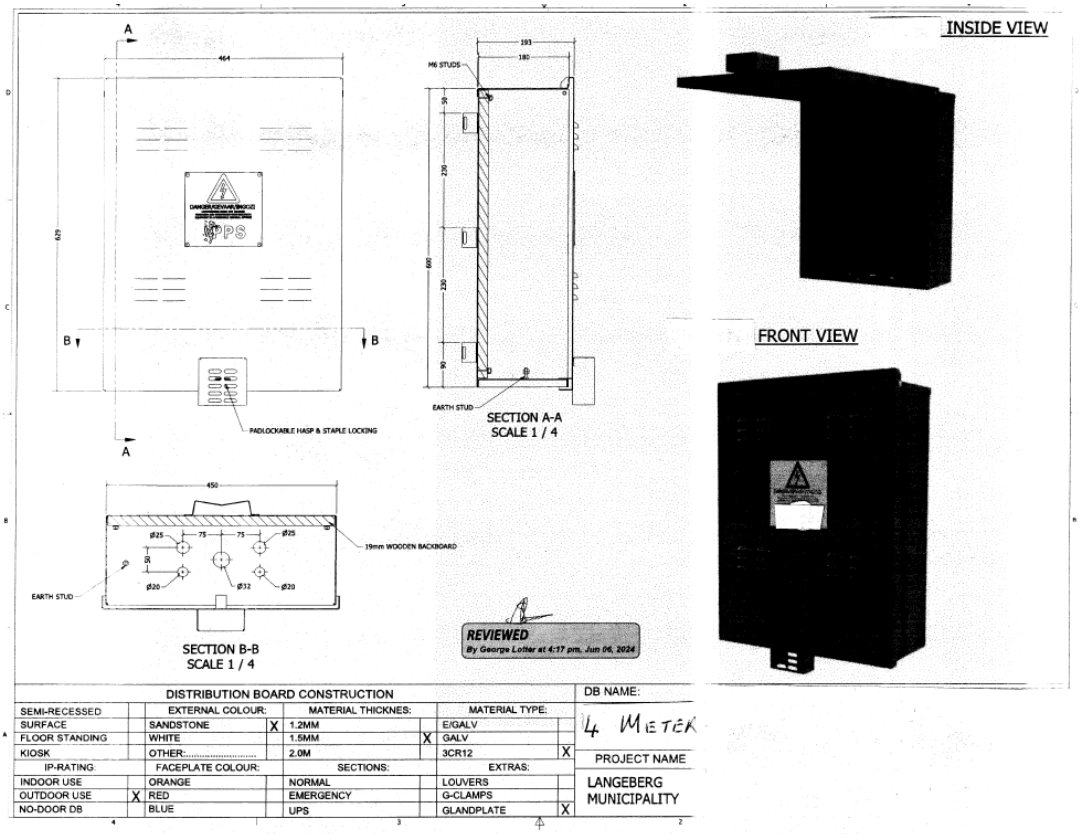
- The busbars shall be permanently colour coded in an approved manner to allow identification on the red, white and blue phases and the neutral bar. Red phase shall be situated at the top.

- The busbars, neutral bars and earth bars shall be pre-drilled, prior to tinning, in accordance with the requirements as specified for the particular kiosk type.

- The busbars, neutral bars and earth bars shall be fitted with close tolerance stainless steel bolts, nuts and washers at all cable connecting points.

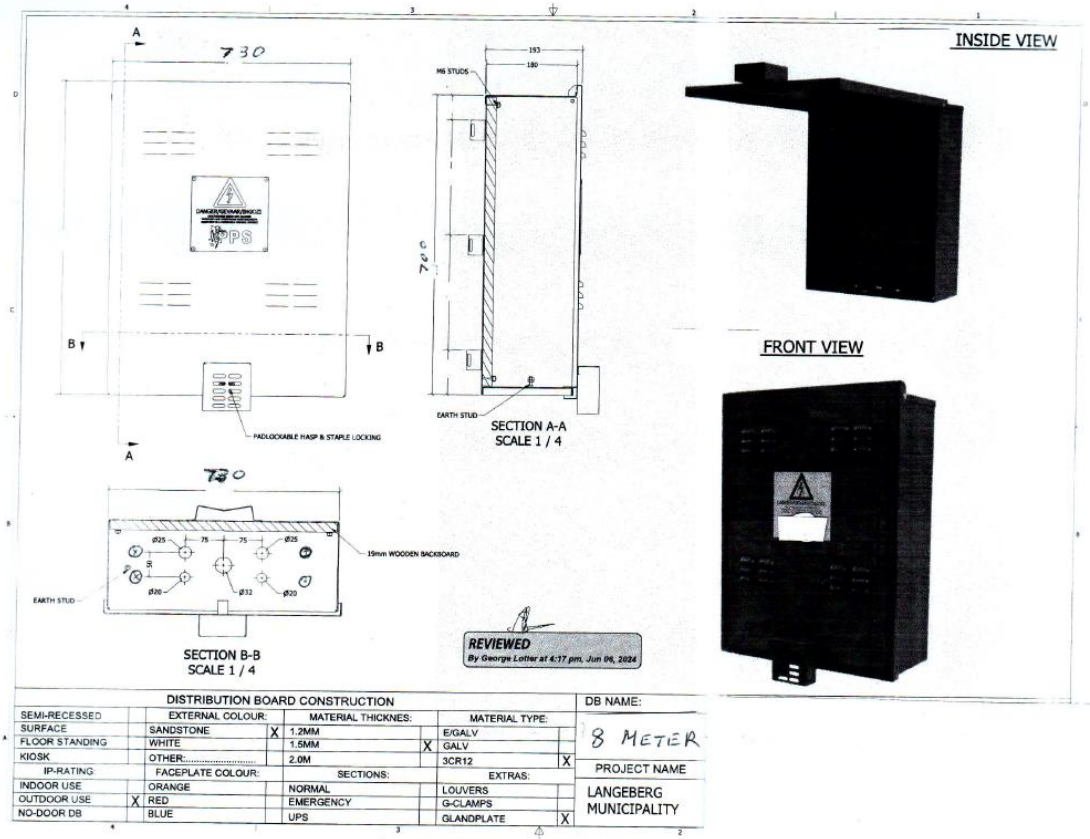
- The busbars shall be permanently colour coded in an approved manner to allow identification on the red, white and blue phases and the neutral bar. Red phase shall be situated at the top.
- The busbars shall be mounted on red, white and the blue color-coded stand-off insulators.
- The neutral bar and, where applicable, the consumer neutral bar shall be insulated from earth by means of black stan-off insulators. CABLE TERMINATIONS
- Galvanized heavy duty Unistrut 40 x 20 mm's 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 70 mm square cable. EARTHING
- All non-current carrying metal parts, cable armouring and equipment, including metal kiosk shells, roots and internal frames shall be bonded to the earth bar. Earth bonds shall have a minimum cross-sectional area of 70 mm square copper or equivalent.
- The neutral busbar and earth busbar shall be connected in accordance with point 4.9 ELECTRICAL RATINGS
- The complete installed system of busbars, frame, mounting panel and other associated equipment in the kiosks shall be capable of withstanding a fault level of 5kA for 1s.
- The main breakers, if applicable shall be rated as per project specifications. LABELS & DANGER SIGNS The kiosks shall be supplied with the following labels:
- All doors shall be fitted with a 150 x 100 mm Aluminium, Steel, Teflon or similar material danger sign.
- An aluminium label with 40 mm high letters and numeral indicating the kiosk number when applicable.
- Engraved trifoliate labels with 6 mm high numerals under each circuit breaker, meter and terminal on the terminal block indicating the consumer stand number when applicable.
- The labels shall have a white background and black letters. The 40 mm labels shall be fixed by means of rivets and the 6 mm high labels shall be inserted in a 25 mm wide aluminium label holder mounted at the bottom of the relevant equipment when applicable
- The marshalling kiosk must be supplied with concrete plinth and steel adaptor plate for concrete plinth

Distribution Board Item 15(b) - 4m



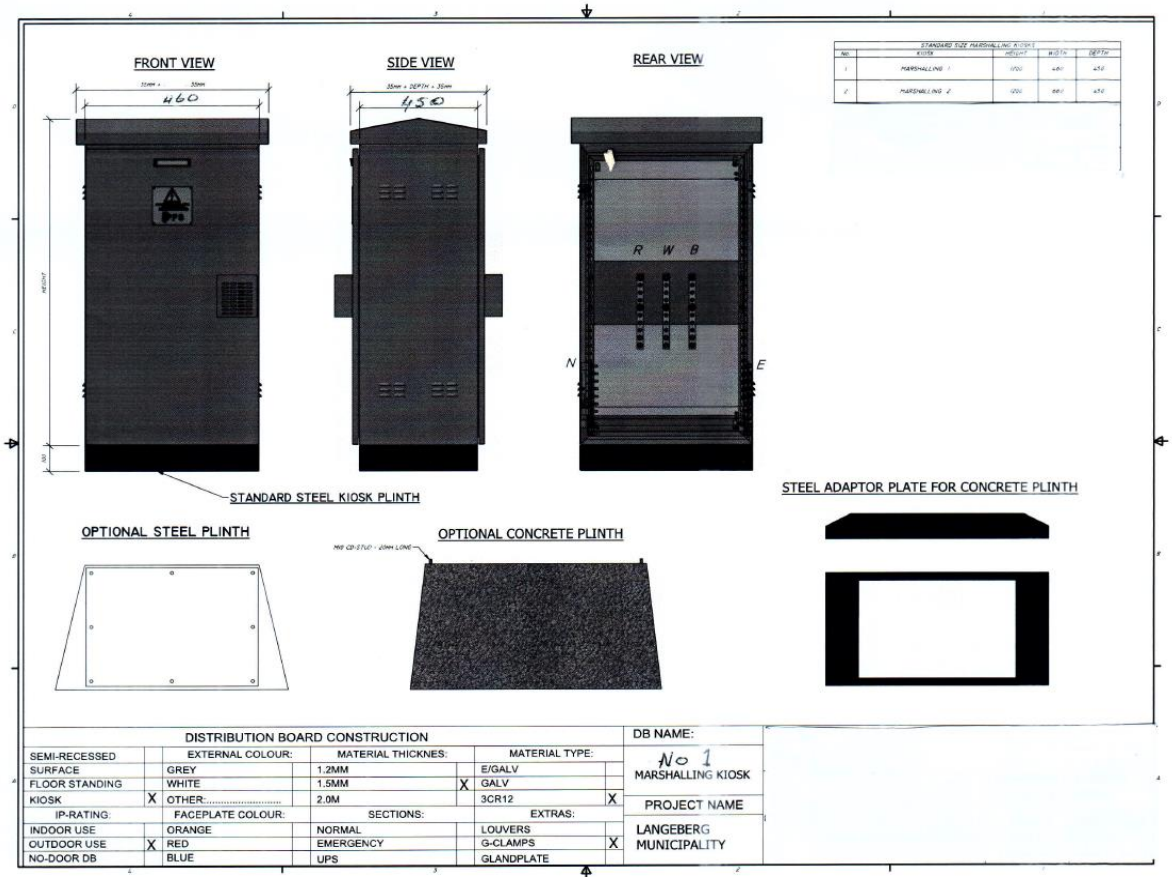
DISTRIBUTION BOARD CONSTRUCTION								DB NAME:
SEMI-RECESSED		EXTERNAL COLOUR:		MATERIAL THICKNES:		MATERIAL TYPE:		4 METER
SURFACE		SANDSTONE	X	1.2MM		E/GALV		
FLOOR STANDING		WHITE		1.5MM	X	GALV		PROJECT NAME
KIOSK		OTHER:.....		2.0M		3CR12	X	LANGEBERG MUNICIPALITY
IP-RATING:		FACEPLATE COLOUR:		SECTIONS:		EXTRAS:		
INDOOR USE		ORANGE		NORMAL		LOUVERS		
OUTDOOR USE	X	RED		EMERGENCY		G-CLAMPS		
NO-DOOR DB		BLUE		UPS		GLANDPLATE	X	

Distribution Board Item 15(b) - 8m



DISTRIBUTION BOARD CONSTRUCTION								DB NAME:
SEMI-RECESSED		EXTERNAL COLOUR:		MATERIAL THICKNES:		MATERIAL TYPE:		8 METER
SURFACE		SANDSTONE	X	1.2MM		E/GALV		
FLOOR STANDING		WHITE		1.5MM	X	GALV		PROJECT NAME
KIOSK		OTHER:.....		2.0M		3CR12	X	LANGEBERG MUNICIPALITY
IP-RATING:		FACEPLATE COLOUR:		SECTIONS:		EXTRAS:		
INDOOR USE		ORANGE		NORMAL		LOUVERS		
OUTDOOR USE	X	RED		EMERGENCY		G-CLAMPS		
NO-DOOR DB		BLUE		UPS		GLANDPLATE	X	

Marshalling Kiosk -Item 15(c)(1)

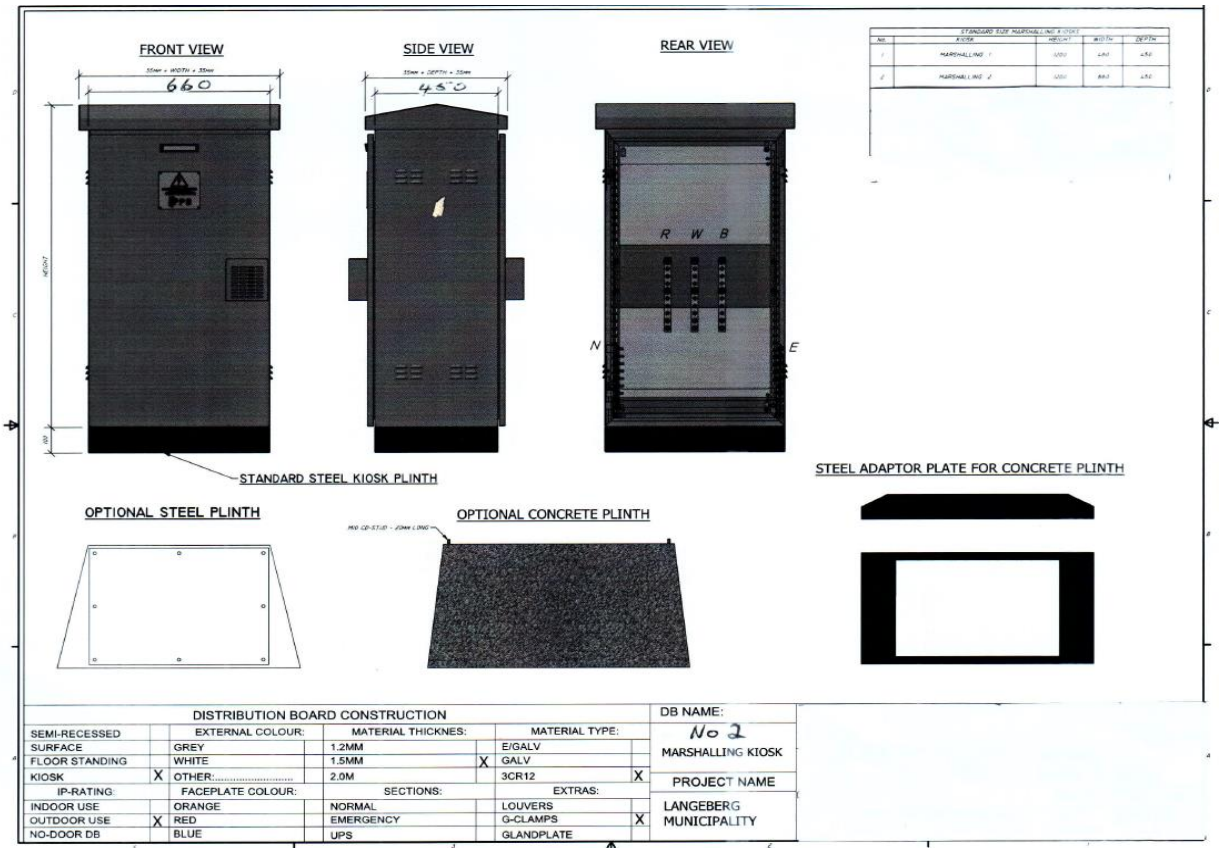


DISTRIBUTION BOARD CONSTRUCTION							
SEMI-RECESSED		EXTERNAL COLOUR:		MATERIAL THICKNES:		MATERIAL TYPE:	
SURFACE		GREY		1.2MM		E/GALV	
FLOOR STANDING		WHITE		1.5MM	X	GALV	
KIOSK	X	OTHER:.....		2.0M		3CR12	X
IP-RATING:		FACEPLATE COLOUR:		SECTIONS:		EXTRAS:	
INDOOR USE		ORANGE		NORMAL		LOUVERS	
OUTDOOR USE	X	RED		EMERGENCY		G-CLAMPS	X
NO-DOOR DB		BLUE		UPS		GLANDPLATE	

DB NAME: No 1 MARSHALLING KIOSK

PROJECT NAME: LANGEBERG MUNICIPALITY

Marshalling Kiosk -Item 15(c)(2)



DISTRIBUTION BOARD CONSTRUCTION							
SEMI-RECESSED		EXTERNAL COLOUR:		MATERIAL THICKNES:		MATERIAL TYPE:	
SURFACE		GREY		1.2MM		E/GALV	
FLOOR STANDING		WHITE		1.5MM	X	GALV	
KIOSK	X	OTHER:.....		2.0M		3CR12	X
IP-RATING:		FACEPLATE COLOUR:		SECTIONS:		EXTRAS:	
INDOOR USE		ORANGE		NORMAL		LOUVERS	
OUTDOOR USE	X	RED		EMERGENCY		G-CLAMPS	X
NO-DOOR DB		BLUE		UPS		GLANDPLATE	

DB NAME: No 2 MARSHALLING KIOSK

PROJECT NAME: LANGEBERG MUNICIPALITY

ITEM 16(a): METER BOXES (POLYETHYLENE)

Polyethylene meter boxes, 1.5 mm thickness, shall be fitted with brass, hasp and staple and hinges, which is bolted. These boxes shall be complete with 1 x 20 mm² & 1 x 25 mm² knockout, one earth stud, meter supporting board and **pole mounting bracket;** lockable:

(1) 400 mm x 450 mm (Ap1)

(2) 450 mm x 600 mm (Ap2)

(3) 600 mm x 900 mm

ITEM 16(b): METER BOXES (GALVANISED OR 3CR12)

Galvanised or 3CR12 meter boxes, 1.5 mm thickness, shall be fitted with brass, hasp and staple and hinges, which is bolted. These boxes shall be complete with 1 x 20 mm² & 1 x 25 mm² knockout, one earth stud, meter supporting board and **pole mounting bracket;** lockable: As per attached drawings

(1) 400 mm x 450 mm

(2) 450 mm x 600 mm

(3) 700 mm x 730 mm

ITEM 17: STREET LIGHT LUMINAIRE

All luminaires for interior lightning, street lighting and flood lighting must comply with the following applicable standards:

i. CIE Publication 27 Photometry of luminaires for street lighting

ii. SATS 17576:2014 Light-emitting diode products for interior lighting, streetlighting and floodlighting — Performance requirements

iii. IEC 60598-1 Luminaires - Part 1: General requirements and tests

iv. IEC 60598-2-3 Luminaires - Part 2: Particular requirements - Section 3: Luminaires for road and street lighting

v. SANS 475 Luminaires for interior lighting, streetlighting and floodlighting Performance requirements

vi. SANS 529 Heat-resisting wiring cables

vii. SANS 121 Hot dip galvanized coatings on fabricated iron and steel articles — Specifications and test methods.

viii. SANS 1088 Luminaire entries and spigots

ix. SANS 60529 Degrees of protection provided by enclosures (IP Code)

x. ISO 4762 Hexagon socket head cap screws

xi. SANS 1507 Electric cables with extruded solid dielectric insulation for fixed installations (300/500 V to 1 900/3 300 V) Part 3: PVC Distribution cables

xii. SANS 1574 Electric flexible cores, cords and cables with solid extruded dielectric insulation Part 3: PVC-insulated cores and cables

xiii. SANS ARP 035 Guidelines for the installation and maintenance of street lighting

xiv. OHSACT (Act 85 of 1993) Occupational Health and Safety Act and Regulations

xv. SANS 61000-3-2 Electromagnetic compatibility (EMC) Part 3-2: Limits — Limits for harmonic current emissions (equipment input current ≤ 16 A per phase)

xvi. IEC 61000-4-5 Electromagnetic compatibility (EMC) - Surge immunity test

xvii. IEC 55015 Limits and methods of measurements of radio disturbance characteristics of electrical lighting and similar equipment

xviii. IEC 5502 Information technology equipment. Radio disturbance characteristics

17(a) LED: Roadway Luminaire (with circuit breaker)

General

The luminaires shall be delivered completely assembled with housing, driver, LED module and lens.

Luminaires shall be Class 1 of IEC 60598-1 and be of the totally enclosed type.

The luminaire output shall be provided as output flux at Tq of 25°C, Nominal flux will not be considered.

The colour temperature of the luminaires shall be neutral white, 4 000K. No other colour temperature will be accepted.

The colour rendering index of the luminaires shall be 70 (minimum).

The performance of LED luminaires shall be verified by designing the lighting of the appropriate road as per SANS ARP 035 on request.

The luminaires shall deliver 95% of the initial lumens, when installed for 100 000 hours with a 10% maximum LED failure rate (L95B10). The bidder shall provide a lumen depreciation graph by means of the IES LM 80-08 data of the LEDs.

The LED light source test data shall provide the expected data for at least 25% of rated LED light source lifetime, i.e.15 000hrs

The following information and conditions shall be met, and the manufacturer shall supply test data that includes, but is not limited to, the following:

- The LED light source(s) have been tested according to LM-80-08.
- The LED drive current specified by the luminaire manufacturer is less than or equal to the drive current specified in the LM-80 test report.
- The LED light source(s) manufacturer prescribes/indicates a temperature measurement point (Ts) on the light source(s).

- The Ts is accessible to allow temporary attachment of a thermocouple for measurement of in-situ temperature. Access via a temporary hole in the housing, tightly resealed during testing with putty or other flexible sealant is allowable.
- For the hottest LED light source in the luminaire, the temperature measured at the Ts is less than or equal to the temperature specified in the LM-80 test report for the corresponding drive current.

Temperature sensors shall be fitted as protection devices to the luminaire, placed directly next to the LEDs. These shall not switch off the luminaire completely. Full details of how the luminaire manages its temperature through the use of sensors and the effect on lumen maintenance shall be supplied.

The luminaire shall be designed in such a manner that there is a thermal separation between the optical and gear compartments. This will allow air to freely flow through and ensure optimal cooling of the luminaire especially during possible daytime maintenance.

Lifespan estimation deterioration curves of LED to be submitted for various design currents, e.g. 350 mA, 500 mA, 700 mA, etc. on request.

The complete assembly and testing of the LED luminaire/s shall be undertaken in South Africa, within an ISO 9001 certified factory.

Luminaires shall further comply with the following standards:

- IEC 55015 “Limits and methods of measurements of radio disturbance characteristics of electrical lighting and similar equipment”
- IEC 5502 “Information technology equipment. Radio disturbance characteristics.”
- IEC 61000-4-5 “Electromagnetic compatibility (EMC) - Surge immunity test”

IP Rating

The luminaires shall have minimum rating of IP 66 in accordance with SANS 60529 for both the control gear (driver) and optical (LED engine) compartments, when normally mounted as per SANS 475.

Construction of Luminaires

The housing shall be robustly constructed, weatherproof, hail proof, insect proof, corrosion proof, ultra-violet light resistant and vandal resistant. Luminaires shall be suitable for operation at an ambient temperature, Ta, of 35°C. Fixing devices, junctions, lips and the like shall be designed to shed water. Pockets and ledges in which condensation may accumulate shall be avoided.

The luminaires shall contain a heat sink with no fans, pumps or liquids, and the design of the heat sink shall prevent the accumulation of dirt and nesting of insects or ants, thus ensuring effective heat dissipation. Heat from the LED source should take the shortest path to the exterior by direct conduction or any other reliable form of cooling that will not compromise the useful life of the LEDs.

Luminaires shall have three separate compartments being: the optical compartment with LED engine, the control gear compartment and the spigot compartment, and shall have a minimum degree of protection of IP66 for the optical and control gear compartments.

The cooling fins shall be designed in such a manner to prevent the accumulation of dirt, thus ensuring the continuous effective cooling. Additionally, the top surface shall be slightly curved in shape.

The luminaires shall have die-cast aluminium housings and shall be of grade EN1706 AC44300, (or higher) aluminium alloy. Bidders shall submit a metallurgical report from an independent metallurgist confirming the grade of aluminium for all the luminaires offered. The Municipality reserves the right to submit luminaires for metallurgical testing when necessary.

The luminaires shall be supplied in raw aluminium finish. i.e. The finish shall be unpainted.

Ferrous components shall be hot dip galvanised and shall withstand the test specified in the current edition of SANS 121 for heavy duty application.

Small components (such as toggle clips, bolts, screws, nuts, washers) shall be manufactured of stainless steel (grade 304 or better)

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, or other such simple method which does not require tools, to allow integration of future technological development of LEDs and power supply.

The driver shall be mounted internally and be replaceable with the aid of commonly available hand tools.

The luminaire housing shall incorporate an IP 68 rated air pressure relief valve to ensure longevity and reliability on the total luminaire IP rating as well as reducing potential condensation on the glass protector.

Mounting

Luminaire entries shall be of a material that is inherently corrosion resistant and compatible with the galvanised mild steel supporting spigot to such a degree that deterioration by electrolytic action will not occur.

Spigot entries shall be designed to fit easily over the bracket pipe and shall be truly parallel to the fitting axis and shall comply with Table 1 of SANS 1088:1990 as follows:

a) For Type 2 luminaires (side entry): Nominal size - 42 mm.
b) Nominal size – 76mm bottom shall also be available at no additional cost
c) 0- or 10-degree rake angle options will be available at no additional cost

The luminaire shall be secured on its spigot by at least two stainless steel M8 screws as specified in ISO 4762, which are screwed into stainless steel sockets or any other proven method to prevent cathodic corrosion between stainless steel and aluminium. The construction of the housing shall be such that cracking cannot occur during the process of fixing the luminaire to the pole or bracket. The attachment of the luminaire should be designed to withstand wind speeds of up to 150 km/h on the projected surface of the luminaire without due deflection.

The luminaire will be fitted with a spirit level to ensure ease of true horizontal mounting.

Protector

The photometrical lens, covering each individual LED, shall not be exposed directly to the elements of nature and will have a separate high impact, toughened, clear flat glass protector covering the complete optical (LED) compartment.

The protector shall form a seal completely preventing the entry of moisture, dust and insects into the optical (LED) compartment. A one-piece gasket of silicon sponge material shall be used for this purpose. Gaskets shall not deteriorate or suffer permanent deformation due to light, heat or compression, to which they will be exposed in practice, during the life of the luminaire.

The gasket shall be fitted into a groove in the housing and shall be seated in a manner ensuring the integrity of the IP66 rating and shall not work loose during maintenance of the luminaire.

Allow for impact resistance of IK10.

Power Supply or Driver Requirements

LED module(s) drivers shall be housed fully within the body of the luminaire and be suitable for operation with the specified rating of luminaire.

The output frequency of the drivers shall be 100 Hz or greater, to avoid visible flicker.

The LED module driver(s) shall be equipped with 1-10V dimming feature for further energy savings if required via a preprogramed step dimming scene if and when required.

The LED module driver(s) shall operate at a power factor of 0,95 or greater, and the total harmonic distortion levels shall be less than 20% to not cause interference on the electrical network and shall comply with the limits given in SANS 61000-3-2.

The control gear (or driver) compartment shall form a seal completely preventing the entry of moisture, dust and insects into the optical (LED) compartment. A one-piece gasket of silicon sponge material shall be used for this purpose. Gaskets shall not deteriorate or suffer permanent deformation due to light, heat or compression, to which they will be exposed in practice, during the life of the luminaire. The gasket shall be fitted into a groove in the housing and shall be seated in a manner ensuring the integrity of the IP66 rating and shall not work loose during maintenance of the luminaire.

The control gear (or driver) compartment shall be so designed that there is sufficient space to permit repairs, replacement of components and reassembly without difficultly and without the removal of the luminaire from its mounting.

The power supply or driver shall be able to withstand surges of up to 10kV/10kA by means of an external, inline fused surge protection device. This surge protection device shall be easily replaceable, and it shall fail in an open circuit mode to protect the luminaire from further surges.

The lifetime of the power supply (driver) shall be 100 000hrs with 90% survival over the lifetime.

The power supply (driver) shall incorporate a thermal switch to prevent exceeding the case temperature for maximum life time of equipment.

Earthing

The luminaire shall be earthed in accordance with Clause 13 of the Electrical Machinery Regulations of the OHSACT (Act 85 of 1993).

Metal parts of luminaires which may become live in the event of an insulation fault, which are not accessible when the luminaire is mounted but liable to come into contact with the supporting surface, shall

be permanently and reliably connected to an earthing terminal and shall withstand the test specified in IEC 60598-2-3.

Protection against electric shock shall be maintained for all methods and positions of installation in normal use. Protection shall also be maintained after removal of all parts which can be removed by hand.

Earthing terminals shall comply with sub-clause 7.2 of IEC 60598-1. All parts of an earth terminal shall be made of brass or other corrosion resistant metal, and the contact surfaces shall be bare metal and not painted or varnished surfaces.

All earth connections shall be affected by means of suitable lugs appropriately made to avoid all possibility of electrolytic corrosion.

An earth connection shall be provided in all instances, even if the luminaire is fully insulated and even if all conductive parts, which could become live in the event of an insulation fault, are not accessible. This is to facilitate future wiring should the luminaire be replaced by a unit which requires an earth connection.

Wiring

The internal wiring of the luminaires shall be flexible and suitably insulated to withstand the voltage and the temperature encountered in service. Wiring colours shall be live-brown (or red), neutral-blue (or black) and earth-green/yellow.

Wiring to the LED module compartment shall be suitably grommeted, ensuring a perfect seal between compartments and protection of the wiring.

The supply terminals shall accept 4mm^2 wires and be easily accessible. No part of the cover shall damage the supply wires when closed.

The electrical power supply shall automatically disconnect when the luminaire is opened, typically through the use of a blade/knife switch connector, allowing safe access to the inner components.

Optics

Although the LED streetlight luminaire shall be supplied with a specific and stated optic distribution, various different optic distributions shall be available as a standard, at no extra cost. This is to ensure that specific distributions may be considered, per project type, for upgrading of existing installations as well as new installations.

Markings

Each luminaire shall be distinctly marked in clear lettering on the outside of the control gear compartment, with the following information:

Rated wattage of luminaire in accordance with the description specified, e.g. 50 W *LED*;

The name of supplier followed by the luminaire model, e.g. *SUPPLIER X, LUMINAIRE MODEL NAME*

Each luminaire shall bear the name or trade mark of the manufacturer and the date of manufacture

Luminaires delivered without the specified markings shall be rejected.

Packaging

Each luminaire shall be delivered completely assembled ready for use and shall be individually packed in suitable containers such as cardboard boxes. The containers shall be marked with appropriate description and stock code of the luminaire contained within.

Documentation and test report to be submitted with the offer

Full technical and descriptive details, relating to all the items offered in this enquiry shall be submitted so the offer can be fully evaluated. Failure to provide the documents & test reports below may result in the rejection of the Bid: This shall include:

- Name of LED luminaire.
- Luminaire product sheet stating all relevant information ie, weight, aerodynamic resistance, wattage, output lux, ect.
- LM-80-08 test report for the LED's used in the luminaire
- Type test according to IEC 60598-1:2004 and IEC 60598-2-3:2003
- IP rating test reports for all items offered in accordance with SANS 60529.
- Impact resistance report of all luminaires offered
- Bidders shall submit a metallurgical report confirming the grade of aluminium of the aluminium housings.
- ISO 9001:2015 certificate of the factory producing the luminaires
- The test reports shall be issued by SANS or IEC accredited test authority.

Samples

When samples are requested for evaluation, properly labelled samples (Contract/Enquiry number, the item number and the bidding company name) shall be delivered to Langeberg Municipality

Langeberg Municipality reserves the right to submit samples to such tests as deemed reasonable and necessary.

Guarantee

All luminaires offered shall have a minimum guarantee period of five years. If luminaires are found to have failed within this period as a result of poor manufacturing processes and/or poor materials it shall be replaced free of charge by the manufacturer.

17 (b) LED: Post Top Luminaire (with circuit breaker)

The LED Luminaire requirements shall be the same as item 17(a) above but for a Post Top Luminaire.

17 (c) LED: Decorative Bell Type Luminaire (with circuit breaker)

The LED Luminaire requirements shall be the same as item 17(a) above but for a Decorative Bell Type Luminaire.

ITEM 18: FLOODLIGHT LUMINAIRE (with circuit breaker)

General

The luminaires shall be delivered completely assembled with housing, driver, LED module and lens.

Luminaires shall be Class 1 of IEC 60598-1 and be of the totally enclosed type.

The luminaire output shall be provided as output flux at Tq of 25°C, Nominal flux will not be considered.

The colour temperature of the luminaires shall be neutral white, 4 000K. No other colour temperature will be accepted.

The colour rendering index of the luminaires shall be 70 (minimum).

The performance of LED luminaires shall be verified by designing the lighting of the appropriate road as per SANS ARP 035 on request.

The luminaires shall deliver 90% of the initial lumens, when installed for 100 000 hours with a 10% maximum LED failure rate (L90B10). The bidder shall provide a lumen depreciation graph by means of the IES LM 80-08 data of the LEDs.

The LED light source test data shall provide the expected data for at least 25% of rated LED light source lifetime, i.e.15 000hrs

The following information and conditions shall be met, and the manufacturer shall supply test data that includes, but is not limited to, the following:

- The LED light source(s) have been tested according to LM-80-08.
- The LED drive current specified by the luminaire manufacturer is less than or equal to the drive current specified in the LM-80 test report.
- The LED light source(s) manufacturer prescribes/indicates a temperature measurement point (Ts) on the light source(s).
- The Ts is accessible to allow temporary attachment of a thermocouple for measurement of in-situ temperature. Access via a temporary hole in the housing, tightly resealed during testing with putty or another flexible sealant is allowable.
- For the hottest LED light source in the luminaire, the temperature measured at the Ts is less than or equal to the temperature specified in the LM-80 test report for the corresponding drive current.

Temperature sensors shall be fitted as protection devices to the luminaire, placed directly next to the LEDs. These shall not switch off the luminaire completely. Full details of how the luminaire manages its temperature through the use of sensors and the effect on lumen maintenance shall be supplied.

The luminaire shall be designed in such a manner that there is a thermal separation between the optical and gear compartments. This will allow air to freely flow through and ensure optimal cooling of the luminaire especially during possible daytime maintenance.

Lifespan estimation deterioration curves of LED to be submitted for various design currents, e.g. 350 mA, 500 mA, 700 mA, etc. on request.

The complete assembly and testing of the LED luminaire/s shall be undertaken in South Africa, within an ISO 9001 certified factory.

Luminaires shall further comply with the following standards:

- IEC 55015 “Limits and methods of measurements of radio disturbance characteristics of electrical lighting and similar equipment”
- IEC 5502 “Information technology equipment. Radio disturbance characteristics.”
- IEC 61000-4-5 “Electromagnetic compatibility (EMC) - Surge immunity test”

IP Rating

The luminaires shall have minimum rating of IP 66 in accordance with SANS 60529 for both the control gear (driver) and optical (LED engine) compartments, when normally mounted as per SANS 475.

Construction of Luminaires

The housing shall be robustly constructed, weatherproof, hail proof, insect proof, corrosion proof, ultra-violet light resistant and vandal resistant. Luminaires shall be suitable for operation at an ambient temperature, Ta, of 35^{o} C. Fixing devices, junctions, lips and the like shall be designed to shed water. Pockets and ledges in which condensation may accumulate shall be avoided.

The luminaires shall contain a heat sink with no fans, pumps or liquids, and the design of the heat sink shall prevent the accumulation of dirt and nesting of insects or ants, thus ensuring effective heat dissipation. Heat from the LED source should take the shortest path to the exterior by direct conduction or any other reliable form of cooling that will not compromise the useful life of the LEDs.

Luminaires shall have three separate compartments being: the optical compartment with LED engine, the control gear compartment and the spigot compartment, and shall have a minimum degree of protection of IP66 for the optical and control gear compartments.

The cooling fins shall be designed in such a manner to prevent the accumulation of dirt, thus ensuring the continuous effective cooling.

The luminaires shall have die-cast aluminium housings and shall be of grade EN1706 AC44300, (or higher) aluminium alloy. Bidders shall submit a metallurgical report from an independent metallurgist confirming the grade of aluminium for all the luminaires offered. The Municipality reserves the right to submit luminaires for metallurgical testing when necessary.

The luminaires shall be supplied in raw aluminium finish. i.e. The finish shall be unpainted.

Ferrous components shall be hot-dip galvanised and shall withstand the test specified in the current edition of SANS 121 for heavy duty application.

Small components (such as toggle clips, bolts, screws, nuts, washers) shall be manufactured of stainless steel (grade 304 or better)

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, or other such simple method which does not require tools, to allow integration of future technological development of LEDs and power supply.

The driver shall be mounted internally and be replaceable with the aid of commonly available hand tools.

The luminaire housing shall incorporate an IP 68 rated air pressure relief valve to ensure longevity and reliability on the total luminaire IP rating as well as reducing potential condensation on the glass protector.

Mounting

The stirrup shall be manufactured from a minimum 6mm x 60mm hot-dipped galvanized steel.

A minimum of three pre-drilled mounting holes shall be provided in the stirrup.

Protector

The photometrical lens, covering each individual LED, shall not be exposed directly to the elements of nature and will have a separate high impact, toughened, clear flat glass protector covering the complete optical (LED) compartment.

The protector shall form a seal completely preventing the entry of moisture, dust and insects into the optical (LED) compartment. A one-piece gasket of silicon sponge material shall be used for this purpose. Gaskets shall not deteriorate or suffer permanent deformation due to light, heat or compression, to which they will be exposed in practice, during the life of the luminaire.

The gasket shall be fitted into a groove in the housing and shall be seated in a manner ensuring the integrity of the IP66 rating and shall not work loose during maintenance of the luminaire.

Allow for impact resistance of IK10.

Power Supply or Driver Requirements

LED module(s) drivers shall be housed fully within the body of the luminaire and be suitable for operation with the specified rating of luminaire.

The output frequency of the drivers shall be 100 Hz or greater, to avoid visible flicker.

The LED module driver(s) shall be equipped with 1-10V dimming feature for further energy savings if required via a preprogramed step dimming scene if and when required.

The LED module driver(s) shall operate at a power factor of 0,95 or greater, and the total harmonic distortion levels shall be less than 20% to not cause interference on the electrical network and shall comply with the limits given in SANS 61000-3-2.

The control gear (or driver) compartment shall form a seal completely preventing the entry of moisture, dust and insects into the optical (LED) compartment. A one-piece gasket of silicon sponge material shall be used for this purpose. Gaskets shall not deteriorate or suffer permanent deformation due to light, heat or compression, to which they will be exposed in practice, during the life of the luminaire. The gasket shall be fitted into a groove in the housing and shall be seated in a manner ensuring the integrity of the IP66 rating and shall not work loose during maintenance of the luminaire.

The control gear (or driver) compartment shall be so designed that there is sufficient space to permit repairs, replacement of components and reassembly without difficultly and without the removal of the luminaire from its mounting.

The power supply or driver shall be able to withstand surges of up to 10kV/10kA by means of an external, inline fused surge protection device. This surge protection device shall be easily replaceable, and it shall fail in an open circuit mode to protect the luminaire from further surges.

The lifetime of the power supply (driver) shall be 100 000hrs with 90% survival over the lifetime.

The power supply (driver) shall incorporate a thermal switch to prevent exceeding the case temperature for maximum lifetime of equipment.

Earthing

The luminaire shall be earthed in accordance with Clause 13 of the Electrical Machinery Regulations of the OHSACT (Act 85 of 1993).

Metal parts of luminaires which may become live in the event of an insulation fault, which are not accessible when the luminaire is mounted but liable to come into contact with the supporting surface, shall be permanently and reliably connected to an earthing terminal and shall withstand the test specified in IEC 60598-2-3.

Protection against electric shock shall be maintained for all methods and positions of installation in normal use. Protection shall also be maintained after removal of all parts which can be removed by hand.

Earthing terminals shall comply with sub-clause 7.2 of IEC 60598-1. All parts of an earth terminal shall be made of brass or other corrosion resistant metal, and the contact surfaces shall be bare metal and not painted or varnished surfaces.

All earth connections shall be affected by means of suitable lugs appropriately made to avoid all possibility of electrolytic corrosion.

An earth connection shall be provided in all instances, even if the luminaire is fully insulated and even if all conductive parts, which could become live in the event of an insulation fault, are not accessible. This is to facilitate future wiring should the luminaire be replaced by a unit which requires an earth connection.

Wiring

The internal wiring of the luminaires shall be flexible and suitably insulated to withstand the voltage and the temperature encountered in service. Wiring colours shall be: live-brown (or red), neutral-blue (or black) and earth-green/yellow.

Wiring to the LED module compartment shall be suitably grommeted, ensuring a perfect seal between compartments and protection of the wiring.

The supply terminals shall accept 4mm^2 wires and be easily accessible. No part of the cover shall damage the supply wires when closed.

Optics

Although the LED luminaire shall be supplied with a specific and stated optic distribution, various different optic distributions shall be available as a standard, at no extra cost. This is to ensure that specific distributions may be considered, per project type, for upgrading of existing installations as well as new installations.

Markings

Each luminaire shall be distinctly marked in clear lettering on the outside of the control gear compartment, with the following information:

Rated wattage of luminaire in accordance with the description specified, e.g. 50 W *LED*;

The name of supplier followed by the luminaire model, e.g. *SUPPLIER X, LUMINAIRE MODEL NAME*

Each luminaire shall bear the name or trade mark of the manufacturer and the date of manufacture

Luminaires delivered without the specified markings shall be rejected.

Packaging

Each luminaire shall be delivered completely assembled ready for use and shall be individually packed in suitable containers such as cardboard boxes. The containers shall be marked with appropriate description and stock code of the luminaire contained within.

Documentation and test report to be submitted with the offer

Full technical and descriptive details, relating to all the items offered in this enquiry shall be submitted so the offer can be fully evaluated. Failure to provide the documents & test reports below may result in the rejection of the Bid: This shall include:

- Name of LED luminaire.
- Luminaire product sheet stating all relevant information ie, weight, aerodynamic resistance, wattage, output lux, ect.
- LM-80-08 test report for the LED's used in the luminaire
- Type test according to IEC 60598-1:2004 and IEC 60598-2-3:2003
- IP rating test reports for all items offered in accordance with SANS 60529.
- Impact resistance report of all luminaires offered
- Bidders shall submit a metallurgical report confirming the grade of aluminium of the aluminium housings.
- ISO 9001:2015 certificate of the factory producing the luminaires
- The test reports shall be issued by SANS or IEC accredited test authority.

Samples

When samples are requested for evaluation, properly labelled samples (Contract/Enquiry number, the item number and the bidding company name) shall be delivered to Langeberg Municipality

Langeberg Municipality reserves the right to submit samples to such tests as deemed reasonable and necessary.

Guarantee

All luminaires offered shall have a minimum guarantee period of five years. If luminaires are found to have failed within this period as a result of poor manufacturing processes and/or poor materials it shall be replaced free of charge by the manufacturer.

ITEM 19.1: LAMPS 230 VOLT

Mercury, sodium and Metal Halide lamps as specified on the pricing schedule. Energy saver lamps must have a minimum life of 8000 hours and must comply to the relevant SANS/SABS standards

ITEM 19.2: LED LAMPS 230 VOLT

Energy saver lamps as specified on the pricing schedule must have a minimum life of 20 000 hours and must comply to the relevant SANS/SABS standards

ITEM 20: STREET LIGHT POLES (STEEL AND GLASS FIBRE)

20 (a) Galvanised Steel Poles (Tenderers must provide detail of their poles)

Hot dipped galvanised steel poles 75mm diameter top. The cable entry shall be 400mm below ground level and the access opening 600 mm above ground level with backboard for the mounting of circuit breakers and an earthing lug shall be provided. ***All poles in item 20 shall be supplied with base- plates, hook bolts and fitted with a corrosion sleeve.***

20 (a) (1) The poles shall be 4 m long, 3 m mounting height for post top fittings;

20 (a) (2) The poles shall be 7.2 m long, 6 m mounting height and shall be used with street light brackets.

20 (a) (3) For the mounting of 250 watt and 400-watt (or equivalent) luminaries. The poles shall be of the long radius type with an overhang of 2 and 3 meters. The rake angles shall be 5^{o} and a 40mm spigot.

The height of luminaries above ground level shall be 10m.

20 (b) Reinforced Glass Fibre Poles (Tenderers must provide detail of their poles)

The pole shall be constructed by the filament winding process to achieve optimum results for strength and rigidity. The filament winding process shall be continuously applied with uniform tension onto a rotating mandrel and shall result in a minimum mass glass to resin ratio of 70:30. The surface shall be seamless, smooth and tapered. The material of the finishing coat shall be a gel coat that shall comply with the requirements of SABS 141 and shall be applied to a uniform thickness of between 250 and 500 microns. It shall provide a weather-proof, UV resistant, flame resistant and impact strong surface in the colour specified.

A standard pole supporting a luminaire with a wind surface of 0.20m_ shall not have a pole top deflection of more than 5% of its height above ground when subjected to a basic wind pressure of 500 Pa. A safety factor of 2.5 times the total maximum wind load shall be applicable.

The pole shall be manufactured in accordance with SABS 1749 under the ISO 9002 quality system.

If an access opening is required, the cut-out shall be covered by a **heavy-duty access door cover** manufactured from glass filled nylon impregnated in the same colour as that of the surface coat. It shall be secured to the pole by two stainless steel Allen head captive screws into M4 brass inserts embedded in the pole. A cable entry with a minimum diameter of 34mm shall be provided at a minimum depth of 400 mm below the ground surface.

A hot dipped galvanised gland plate, suitable for gland no. 0 or 1, complete with terminal block and DIN rail for a miniature circuit breaker, shall be provided and shall be mounted to a bolt provided in the access opening. Poles for direct embedment in the ground shall be provided with a 300 x 300 x 1.6 mm hot dipped galvanised base plate complete with 2 x hot dipped galvanised steel hook bolts and nuts. Base mounted poles shall have a hot dipped galvanised flange plate that can be bolted to a foundation which shall be designed to withstand the forces the pole will experience in service. Reinforced glass fibre poles 75mm diameter top.

The cable entry shall be 400mm below ground level and the access opening 600 mm above ground level with backboard for the mounting of circuit breakers and an earthing lug shall be provided. All inspection covers must be of the **heavy-duty type**.

20 (b) (1) The poles shall be 4 m long, 3 m mounting height for post top fittings;

20 (b) (2) The poles shall be 7.2 m long, 6 m mounting height and shall be used with street light brackets.

20 (b) (3) For the mounting of 1 x 150-watt, 1 x 250 watt or 1 x 400-watt (or equivalent) luminaries. The rake angles shall be 5^{o} and a 40mm spigot. The height of luminaries above ground level shall be 11m.

20 (b) (4) Heavy duty type for the mounting of 2 x 150, 2 x 250 watt or 2 x 400-watt (or equivalent) luminaries. The rake angles shall be 5^{o} and a 40mm spigot. The height of luminaries above ground level shall be 11m.

ITEM 21: TRANSMISSION POLES

Tubular transmission poles galvanised for L.T. overhead lines. Prices must be submitted for 9.25 m and 10.75 m poles with 90mm and 114mm tops. Poles must comply with the relevant SABS Standards. ***NB All poles in item 21 shall be supplied with base- plates, hook bolts, pole caps and corrosion sleeves.***

ITEM 22 (a), (b) and (c): POLE MOUNTED METERING TRANSFORMERS

The metering units must comply with following:

1. It should be pole mounted,
2. It should be oil filled or dry-type,
3. System voltage of 12 kV,
4. Lightning impulse (BIL) 95kV
5. Comply with IEC 60044-1 to 3
6. Short time current for 1s = 20kA
7. Insulation: Paper / Oil
8. Bushings / Creepage: 31mm/kV
9. 1 x VT: 11000/110-volt, 100 VA Class 0.5, 3 Phase / 5 Limb / Voltage factor 1.9 / HV neutral earthed inside for directional earth fault protection (as per Eskom requirements).
10. 3 x CT: 10 VA / Class 0.5. Standard CT Ratios of
    a. 10-50-80-100 / 1 amp (5 amp)
    b. 50-100-150-200 / 1 amp (5 amp)

11. LV fuses rated 10 amps, mounted inside the terminal box.
12. Six porcelain bushings.

Metering units must comply with the relevant SANS, NRS and SABS standards.

Tenderer must provide detail of their transformers.

ITEM 23: KWH AND KVA DEMAND METERS (PROGRAMMABLE POLYPHASE)

Meters must be fully programmable 1- or 5-amp CT operated, 110 or 230 Volt, Class 0.5.

Meters must comply with the relevant NRS, SABS and IEC standards.

Meters must be complete with GPRS modem.

Meters to be programmable for Time of Use (TOU)

Meter details to be provided by tenderer.

ITEM 24: SINGLE AND THREE PHASE METERS

Meters must be direct connected mechanical and electronic single (20 – 80 amp) and three phase four wire (40 – 100 and 40 - 160 amp).

Electronic meters must be capable to be read remotely by internal (module) GPRS. Meters must comply with the relevant NRS, SABS and IEC standards. Meter details to be provided by tenderer.

ITEM 25: CURRENT TRANSFORMERS RING TYPE 10 / 15 VA

All current transformers must be ring type (Class 0.5) and comply with the relevant SANS, NRS and SABS standards

Moulded case measuring current transformers

To accommodate Bus bar sizes	From20 x 10 up to 40 x 10
Bus bar Diameter	23 - 32 mm
System voltage	> 720 volt
Primary Rating	30 - 1000 Ampere
Secondary Output	5 Ampere
Short circuit thermal	3 kA for 1 second
Overloads withstand	1.2 times rated current Cont.
Rated dynamic current	7.5 kA for 1 sec
Saturation coefficient	>6
Insulation class	BS2757 IEC85 Class E

Secondary Terminals	M5 Screw clamps up to 10 mm²
Operating Temperature	-20º C to + 85º C
Humidity	Up to 95% RH (non-condensing)
Enclosure	Flame retardant glass filled ABS IP40
Integral terminal cover	IP20B
Compliant with	IEC 60044-1:1999 or VDE404 and IEC185
Mounting hardware	Feet and bus bar screws

ITEM 26: PRE-PAID KWH METERS

(a) Tender allow for the BS Footprint, Split and Common Base (BASE INCLUDED) type single phase 80 ampere pre-paid meters. Meters must be STS compatible with tamper WITH Keypad included

(b) Tender allow for the power line and RF communication type single phase 60 ampere pre-paid meters complete with communication unit. Meters must be STS compatible with tamper.

(c) Tender allow for the power line and RF communication type single phase 60 ampere pre-paid meters complete with communication unit. Meters must be STS compatible with tamper.

(d) Tender allow for Standard and Split type three phase 100 ampere pre-paid meters. Meters must be STS compatible with tamper.

(e) Tender allow for the Power Line and RF Communication type three phase 100 ampere pre-paid meters complete with communication unit. Meters must be STS compatible with tamper.

Meter details to be provided by tenderer.

ITEM 27: INSULATORS (NRS 066)

27 (a) 11kV: All insulators must comply with the relevant SANS, NRS and SABS standards.

27 (b) 66kV: All insulators must comply with the relevant SANS, NRS and SABS standards.

ITEM 28: STAY ASSEMBLIES

28 (a) Stay assemblies complete, comprising of 1,8m x 20mm stay rods of the Turn Buck nil type and square plate 380 x 380 x 6mm to be hot dipped galvanised

28 (b) Stay assemblies complete, comprising of 2,4m x 20mm stay rods of the Turn Buck nil type and square plate 450 x 450 x 6mm to be hot dipped galvanised.

28 (c) Stay assemblies complete, comprising of 1,8m x 20mm stay rods of the Turn Buck nil type and square plate 390 x 380 x 6mm to be hot dipped galvanised.

28 (d) (i) Pole Top make-off for 7/2.65 galvanised stay wire and

(ii) Pole Top make-off for 7/4.06 galvanised stay wire

28 (e) (i) Dead-end for 7/2.65 galvanised stay wire and

(ii) Dead-end for 7/4.06 galvanised stay wire.

28 (f) (i) Galvanised stay wire - 7/2.65.

(ii) Galvanised stay wire - 7/4.06 - 45 t quality.

All pre-form material must be the PLP type or similar.

ITEM 29: ALUMINUIM CONDUCTOR

The conductor must be Aluminium Conductor Steel Reinforced (ACSR) type Gopher, Rabbit, Fox, Mink, Raccoon, Hare, and Wolf.

ITEM 30: PREFORM LINE MATERIAL

All preformed line material must be the PLP type or similar and comply with the relevant SANS, NRS and SABS standards.

ITEM 31: 11 KV THROUGH JOINT

All kits shall comprise of state-of-the-art high-quality components, each clearly marked in relation to a well-illustrated instruction manual, in colour, and bill of material.

31 (a) Compound filled through joints. Manufacturer of the joint must be provided.

All material must comply with the relevant SANS, NRS and SABS standards.

31 (b) Heat shrink through joints. Manufacturer of the joint must be provided.

All material must comply with the relevant SANS 1332, IEC 60055-1 and SANS 60502-standards.

ITEM 32: 11 KV TERMINATIONS

All kits shall comprise of state-of-the-art high-quality components, each clearly marked in relation to a well-illustrated instruction manual, in colour, and bill of material.

32 (a + b) Terminations must be of the heat shrink type.

Tenderer must name the manufacturer of the terminations.

All material must comply with the relevant SANS 1332, IEC 60055-1 and SANS 60502-4 standards.

32 (c) RCAB - Elastomeric insulating bushing boot for bushings up to 17.5 kV (Eskom Spec) **including reducing studs** Range: 35 - 300mm² cables.

Must be of High-performance insulation material, pre-moulded unscreened silicone

Track and erosion resistance

For inline and right-angle application.

Type tested to meet IEC60502-4 and GB12706.4-2008 standards.

32 (d) RICS – Insulated adapter termination system for Vacuum switchgear up to 24 kV

Pre-moulded, unscreened separable connectors (silicon) suitable for use on 12kV

RICS 5113 Range: 25 - 300mm² cables. (Including reducing studs)

Type tested to meet IEC60502-4 and NRS1332 standards.

(d.1) T-adapter for perpendicular connection of the termination to Vacuum switchgear.

Scope of supply (for three phases) Heat-shrinkable insulating sleeves, Insulator, plug, terminal stud, small accessories and installation instructions must be enclosed.

(d.2) T-adapter fitted with testing plug for perpendicular connection of the termination to Vacuum switchgear.

Scope of supply (for three phases) Heat-shrinkable insulating sleeves, Insulator, plug, terminal stud, small accessories and installation instructions must be enclosed.

(d.3) Straight adapter for vertical connection of the termination to Vacuum switchgear

Scope of supply (for three phases) Heat-shrinkable insulating sleeves, filler strip, small accessories and installation instructions. Terminal stud and lug must be enclosed.

(d.4) T-adapter for perpendicular connection of termination and surge arrester to Vacuum switchgear

Scope of supply (for three phases) Heat-shrinkable insulating sleeves, Insulator, plug, terminal stud, small accessories and installation instructions must be enclosed.

ITEM 33: LV THROUGH JOINTS

33(a) Through joints must be of the resin type for PVC SWA PVC cables.

All joints must comply with the relevant SANS, NRS and SABS standards.

33(b) Through joints must be of the heat shrink type for PVC SWA PVC cables.

Shrink ratio at least 3:1. Operating temperature: 55 to 110°C. Excellent impact, abrasion, environmental and UV resistance. High electrical insulation properties. Colour = black. Minimum full recovery temperature 120°C.

All joints must comply with the relevant SANS, NRS and SABS standards.

ITEM 34 – 35: CIRCUIT BREAKERS

All circuit breakers must comply with the relevant SANS, NRS and SABS standards.

ITEM 36: 11 KV DROP-OUT FUSES AND LINKS

Drop-out fuses must be the AB Chance type.

All drop-out fuses and fuse links must comply with the relevant SANS, NRS and SABS standards.

ITEM 37: LV AERIAL BUNDLE CONDUCTOR ACCESSORIES

All accessories must be for the LV neutral system. Accessories and must comply with the relevant SANS, NRS and SABS standards.

ITEM 38: LV ABC INSULATION PIERCING CONNECTORS

All connectors must be a top-quality product and comply with the relevant SANS, NRS and SABS standard.

ITEM 39: TRANSFORMER OIL

39(a) New transformer oil as per SANS 555.

39(b) Regenerated transformer oil which must comply with SANS 555 specifications

ITEM 40: RIPPLE CONTROL RECEIVERS

GENERAL

The Receivers to be supplied shall be designed for installation at the consumer's premises, at the street lighting centres or in the street light poles and for response to signals from the injection equipment to directly open and close the supply to the consumer's apparatus, or to the street lighting control contactors, the latter being fitted with 230-volt operating coils. In addition, receivers will be used for switching between tariffs in multi register meters, being introduced for Time of Use tariffs.

The Receivers shall be of the front connected type for board or panel mounting and must be capable of being set to respond to a definite ON and a definite OFF command. Provision shall be made for manual operation of the load contact, without any danger of touching any live parts. Some of the Receivers will be installed outdoors, generally on verandas, or protected otherwise against exposure to direct sunshine and rain.

The ambient temperature in locations where the Receivers will be installed will be as high as 50 ^{0}C in summer and as low as 2 ^{0}C in winter. The summer average would be 28 ^{0}C and the winter average 15 ^{0}C.

Full provision must be made in the design of the Receivers to facilitate testing, installation and repair.

The Receivers shall be capable of operating on supply voltages as specified in the schedule.

Documentation (formal specification) regarding your ripple receiver should be included with your tender. Please note that a sample may be requested from the successful tenderer

ed from the successful tenderer.

CASE

The Receiver shall be completely enclosed in a substantially dust-tight, moisture and insect-proof case of moulded synthetic material or other approved insulating material, with a transparent cover or a transparent window in the cover through which the position of all the load switches and the chosen command numbers are visible. The transparent cover or window shall not become milky when exposed to ultraviolet light, ie the material shall be resistant to UV light. The case shall be inflammable according to UL standard 94VI, ie when subjected to the flame test, dripping of burning material must not occur.

The load switch position must be clearly marked for any consumer to read. The chosen command number must be printed on or adjacent to the relevant output relay in a way that a consumer could easily read.

The Receiver will be mounted by three screws, the holes for which will be located: one on top of the Receiver and one at each side of the terminal base, the latter screws being concealed by the terminal cover.

Any exposed metal parts of the Receiver, such as cover screws or nameplates shall be protected against deterioration from exposure to moisture.

The terminal of the Receiver shall be suitable for conductor sizes of 1 mm² to 2 x 4 mm². The terminal screw must be captive and shall not directly screw into the strands of the connecting wires.

The terminals shall be constructed from a solid piece of metal, suitably drilled and tapped for the terminal screw. Sheet metal terminals constructed by folding over the two sides and then drilling and tapping through the top shall not be acceptable.

A separate cover of moulded synthetic material shall be provided for the protection of the terminals. All cover screws shall be of the captive type.

The terminal cover shall be of sufficient length to effectively cover all external conductors of the Receiver.

INSULATION

Insulation of the Receiver shall comply with the following requirements:

(1) The insulation resistance between all current carrying parts coupled together and any exposed metal parts which are accessible with the cover on or off, other than current carrying parts and any parts electrically connected thereto, shall not be less than 5 meg-ohms when tested at 500V DC.

(2) The insulation resistance between the load carrying circuit and the supply voltage circuit measured across the load contacts in the open position shall be at least 5 meg-ohms when tested at 500 V DC.

(3) The insulating material between any and every electrical circuit and also between all the electrical circuits taken together, any metal parts of the units which are accessible with cover on or off other than the current carrying parts and any parts electrically connected thereto, shall be capable of withstanding the prescribed voltage test of 4000V AC for a period of 1 (one) minute.

(4) The insulation between the load contacts in the open position shall be capable of withstanding a high voltage test of 4000V AC 50 Hz for 1 (one) minute.

(5) The Receiver shall withstand a full impulse test of 10 kV peak value to the input terminals.

ADDITIONAL RECEIVER FUNCTIONS

ADDITIONAL FUNCTIONS FOR DEMAND CONTROL

The Receiver relay must be capable of responding to any individual ON-OFF pair as well as a master command, which would operate several load groups simultaneously. Tenderers must state how many commands can be controlled by one master command and how long it would take to transmit a master command.

Each relay must be capable of being switched ON or OFF with a freely programmable time delay.

ADDITIONAL FUNCTIONS FOR TARIFF CONTROL

In order to provide 100% backup in the event of signal or mains failure the receivers must have back-up functions as described below:

The receivers shall be capable of storing the commands received in the last 24 hours and in the event of signal loss this stored program must continue to run automatically. (Learning function)

The receivers shall be programmable for time-based switching operations, which can run with or without the reception of control commands (time clock). It shall be possible to synchronise the time clock at least twice per day and twice per week with specific synchronisation commands.

An optional clock with back-up facilities for up to 36 hours (IEC 1038) of power interruptions shall be offered. No batteries will be considered as a power back-up device.

Under no circumstances must the tariff relay change state in the event of mains failure.

SIGNAL FAILURE

For geyser control, all receivers to switch on after a freely programmable time. The default setting should be 8 hours.

MAINS FAILURE

Each relay must be switched to the OFF position upon loss of power using internal energy storage. Every relay must be switched ON following a power failure with a freely programmable time delay but with a minimum duration of 15 minutes.

LOAD SWITCHES

The load contact must be bi-stable.

The Receiver shall have provision for up to three Load Switches.

The Receiver shall be delivered with one Load Switch installed.

Load Switches shall plug into the Receiver, and be indexed.

All three Load Switches must be able withstand a fault current of 400 A for 5 Seconds. Proof of fault current capacity must be submitted with the tender document

UNDER FREQUENCY LOAD SHEDDING

In terms of the latest Reserve Market contracts available with Eskom, there are two categories of response time into which the load shedding will fall. Eskom offers two categories of contract; one falls into the 10-minute response time and the other falls into the 10-second response time.

Receivers, which contain under-frequency detection, are required with the following minimum functionality.

*Detection time selectable from 20ms to 3000 ms

*Selectable frequency for triggering

*Programmable random switch on delay (similar to times used when power-up feature is activated)

*The random switch on time must be re-triggered in the event of a second low frequency event.

*Ability to deactivate or activate the under-frequency feature by means of a designated ripple command

*Ability to simulate an under-frequency situation by transmitting a designated ripple command.

RECEIVER STATUS

Receivers shall store the last ten Commands received and make these available for analysis via the programming Devices or Handheld Programming Devices.

Receivers shall indicate the following by visual means, that shall be clearly visible through the front cover window;

*Receiver operational and ready to accept commands.

*Receiver decoding Command

*No Commands received for the programmable period.
*Fault condition

TAMPER PROTECTION

Each Switch shall have the option of incorporating Load Switch confirmation switching (that is, switch confirms set position at regular intervals to discourage tampering).

Each relay must revert to its original position within 1 minute in the event that the contact was manually moved.

ADDITIONAL GENERAL RECEIVER FUNCTIONS

The last received commands must be saved in the receiver for analysis. These stored commands must be saved with time and bit pattern or command number.

It shall be possible to connect a device such as a Notebook computer to any receiver for logging with time and bit pattern of all received commands.

PROGRAMMING AND TESTING EQUIPMENT

Whilst the Receivers will have to be factory programmed and labelled as specified by the engineer, re-programming by the department's staff may be necessary.

Programming of Receivers shall be software based and no PROMS or other plug-in devices shall be accepted. The PC programming software shall be Windows based. The filter frequency and minimum operating level must be freely programmable in the range 250 to 1300 Hz. Receivers, which are factory programmed, and which cannot subsequently be freely re-programmed to a new frequency and new track, shall not be acceptable.

Reprogramming and diagnostics of the receiver shall be possible without removing any covers or seals via an optical port

At least one Desktop Programming Device is required that has the capacity to programme Receivers in a workshop situation.

Docking stations or mains adaptor units for safe connection to the 220V supply must be supplied for use in the workshop.

A handheld programming unit for re-programming on site must also be offered. The price for such programming equipment shall be stated in the price schedule

All Programming devices shall display all details of the Receiver being programmed (serial number, batch number, firmware version, date of manufacturing, etc.). This information shall be stored in a manner that is easily accessible and practically transferable to common business software

COMPONENTS AND MATERIALS

The rating of the output relay shall be for 40A (pf = 1) at 250V and the contact material must be silver tin oxide, or silver cadmium oxide.

Only high-pressure plug-in relays shall be accepted. All plug-in contacts shall provide positive connections and reversal of connections shall not be possible.

MARKINGS

The following markings on the Receiver must be clearly visible from the outside:

On the Receiver: Manufacturer's name

Type

Mains voltage and frequency

Audio frequency

Guaranteed voltage for operation

Serial number

For each relay (if Receiver is factory programmed)

- Code number

- Code for additional relay function

On each relay: Current rating of contact and the rated voltage of each contact.

- Code number
- Code for additional relay function

COMPATIBILITY WITH EXISTING SYSTEM

The receiver who will be supplied under this tender must be compatible with the existing Enermet Decabit encoded signal directly injected into reticulation system.

INJECTION SIGNALS

The receiver must be programmed to receiver a Decabit encoded signal directly injected into reticulation system with a minimum operating voltage programmable in the range of 0.3% to 3% of the Nominal voltage of 230 V AC.

QUALITY CONTROL

Only Receivers having high quality components will be considered. Full details about the precautions taken in the selection and storing of components and sub-assemblies and the manufacturing of Receivers to ensure performance and long life of the product must be provided. Only receivers offered by manufacturers with ISO 9001 certification will be considered.

The short circuit rating shall be 10 x nominal current for 5 seconds

INFORMATION TO BE SUPPLIED BY TENDERER

RECEIVERS	**REQUIREMENTS**	**MANUFACTURER'S GUARANTEE**
* **GENERAL:** 1. Type and Manufacturer's name		
2. Supply Voltage	230V + 15% - 20%	
3. Supply frequency	50Hz (-2%..+2%)	
4. Ambient temperature	-25□C...+70□C	
5. Test Voltage 50 Hz, 1 min 1,2/50□s	4kV 10kV	
6. Control Frequency		
7. Does the Receiver comply with IEC1037 (1990 - 10)	Yes	
8. Is the Receiver manufactured in accordance with ISO 9001		
9. Does the Receiver respond to definite ON and a definite OFF signal?	Yes	
10. Which codes ie coding tracks besides the offered code can the Receiver be programmed to respond to?	All known tracks	
* **RELAY** 11. Manufacturer's name and type designation		
12. Continuous current rating of relay contact at 250V AC, pf = 1	40 A	
13. Short circuit rating of output for 5 sec.	400 A	
14. Material of load contacts	Silver Tin Oxide	

ITEM 41: AUDITING, DISCONNECTION, RECONNECTION AND REPLACING OF PREPAID ENERGY METERS

The tender is for auditing, disconnection, reconnection and replacing of prepaid energy meters in the following towns and surrounding rural areas, namely; Ashton, Bonnievale, Montagu, McGregor and Robertson. All materials will be supplied by Langeberg Municipality. The tender is for labour and transport cost only. Tenderers must provide information of the processes they will follow for the auditing, disconnection, reconnection and replacement of prepaid energy meters. Tenderers must provide the relevant information of their previous experience in auditing, disconnection, reconnection and replacing of prepaid energy meters.

The following processes must be allowed for in the tender price, namely;

- Each meter must be inspected for possible tamper and tested to determine its condition and functionality.
- If found tampered, the electrical supply to the meter must be disconnected and reported to the Electrical Services Department.
- Electrical supply will only be restored after the necessary payment was made by consumer.
- Tenderer must complete the necessary, audit, inspection and meter change forms which must be handed in at the Electrical Services Department on a daily basis.
- All illegal meter connections must be removed and made safe.
- Tenderer must allow for the drilling of holes in the wall/fitting bars
- All backing plates must be attached to the walls with screws
- All meters must be mounted on the backing plate by screws
- The necessary tokens for new meters, to activate certain functions on the meter, must be obtained from the Municipal Finance Department and punched into the meter.
- The meter must be tested to determine if it is in good working order.
- All meters must be verified, sealed and the number recorded

Tenderer must explain the operation of the new meter to the consumer and hand over the meter ID card.

ITEM 42: AUDITING, PROGRAMMING AND INSTALLATION OF MAXIMUM DEMAND AND ENERGY METERS

The tender is for auditing, programming and installation of maximum demand and energy meters in the following towns and surrounding rural areas, namely; Ashton, Bonnievale, Montagu, McGregor and Robertson. All materials will be supplied by Langeberg Municipality.

The tender is for, labour accommodation and transport cost only. Tenderers must provide information of the processes they will follow for the auditing, programming and installation of maximum demand and energy meters. Tenderers must provide the relevant information of their previous experience in auditing, disconnection, reconnection and replacing of prepaid energy meters.

All meters must be installed to SANS specifications. The following make of meters are used by Council, namely; Actom, Actaris, Landis & Gyr, Conlog Schlumberger, Strike and Enlight.

NB: All meter points consist of 2 meters, the main meter and test meter.

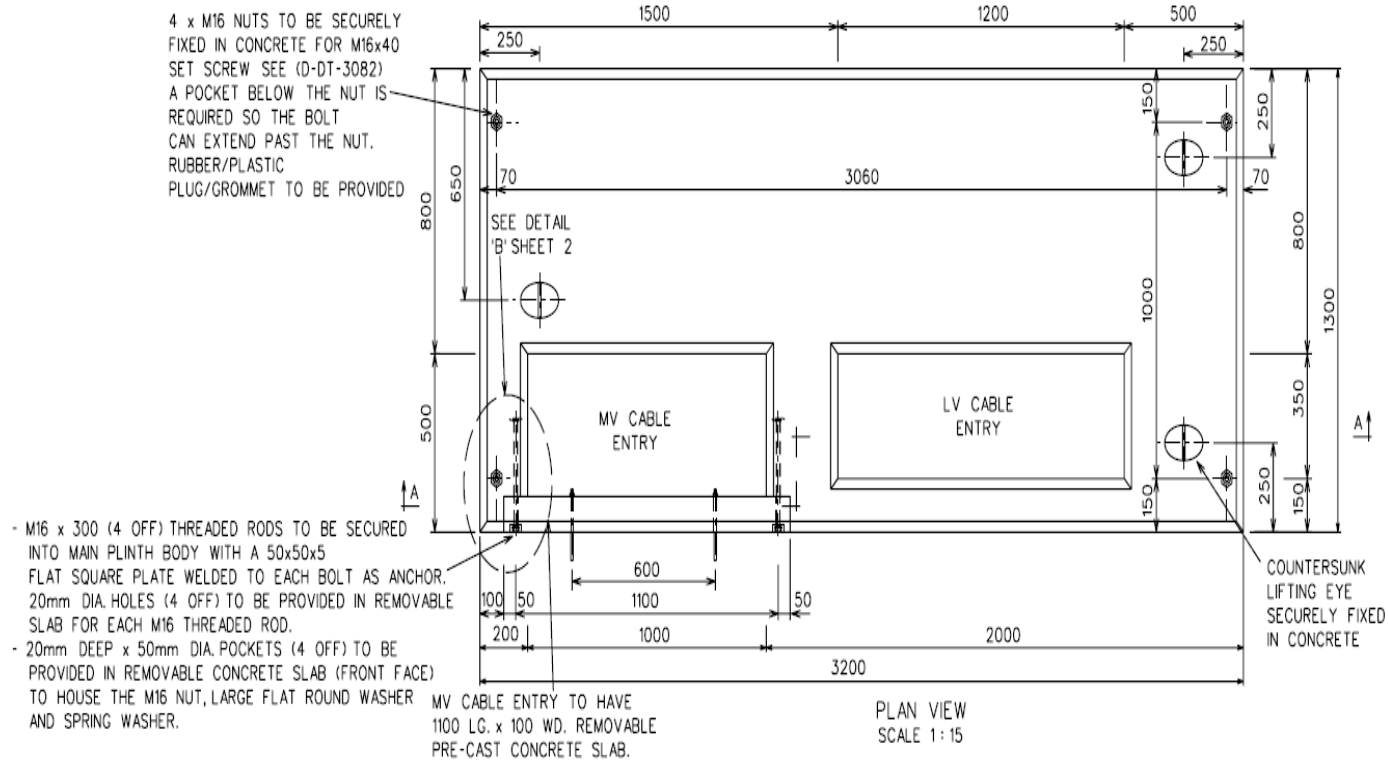
ITEM 43: PLINTHS

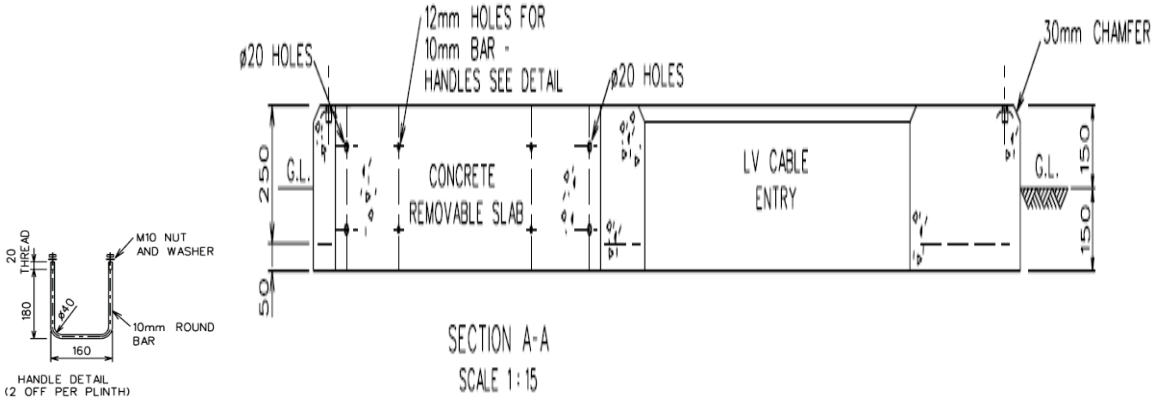
All plinths shall be pre-cast and delivered to the Municipality as a complete unit, as specified.

The tenderer should note that the sizes of the plinth are to fit the Miniature Substations and Ring Main Units as specified in this tender. The following minimum requirements shall be met:

- 25MPA concrete to be used. Concrete to be vibrated.
- Reinforcing and countersunk lifting eyes to be designed and detailed by the tenderer.
- All steel components (except reinforcing) to be stainless steel
- Concrete to be cured for at least 7 days with approved curing method
- Removable pre-cast concrete slab to have a 30mm chamfer.
- Gross mass to appear on plinth side wall

The tenderer to submit drawings and details of the proposal plinths. Concrete test certificates shall be provided with each plinth / batch of plinths. The following drawing (not to scale) is a typical drawing for a Miniature Substation plinth and is only provided as an indication / example of what is typically required for each of the plinths:





Plinths shall be provided for all sizes of the Miniature Substation as well all sizes of the Ring Main Units.

BID NO: 02/2025 THREE YEAR TENDER FOR THE SUPPLY AND DELIVERY OF ELECTRICAL MATERIAL 2025/2026 – 2027/2028

PRICING SCHEDULE

Tenderer must state whether their tender prices are firm for the period of three years.

If price variation occurs due to escalation and/or rates of exchange it will only be considered if it was pointed out in the Tenderers bid.

Escalation on the tendered price will only be considered if based on SIEFSA formula and the calculation of the escalation is attached to invoice, together with the proof of SIEFSA tables.

Price increases on the tendered price due to rates of exchange will only be considered if proof and the calculations of the rate of exchange are attached to invoice.

IN CASES WHERE DIFFERENT DELIVERY POINTS INFLUENCE THE PRICING, A SEPARATE PRICING SCHEDULE MUST BE SUBMITTED FOR EACH DELIVERY POINT

OFFER TO BE VALID FOR 120 DAYS FROM THE CLOSING DATE OF BID.

SCHEDULE OF QUANTITIES AND PRICES (TO BE COMPLETED BY BIDDER)

NB: An item will not be evaluated if changes has been made to an item's specification or description.

Pricing Schedule

LANGEBERG M U N I C I P A L I T Y

T E N D E R 02/2025: E L E C T R I C A L M A T E R I A L - 2025/2026 – 2027/2028

ITEM 1: MINIATURE SUBSTATION (VACUUM SWITCHGEAR)

ITEM NR.	DESCRIPTION	QUANTITY	PRICE (VAT INCLUDED)		DELIVERY PERIOD	MANUFACTURER
			Without 11 kV switchgear	With 11 kV switchgear		
1 (a)	315 kVA	1				
1 (b)	500 kVA	1				
1 (c)	630 kVA	1				
1 (d)	800 kVA	1				
1 (e)	1000 kVA	1				

ITEM 2.1: TRANSFORMERS (11000 / 420 / 231 VOLT)

ITEM NR.	DESCRIPTION	QUANTITY	PRICE (VAT INCLUDED)		DELIVERY PERIOD	MANUFACTURER
			Open Bushings	Cable Boxes		
2.1 (a)	25 kVA 1-phase	1		NA		
2.1 (b)	25 kVA 3-phase	1		NA		
2.1 (c)	50 kVA 3-phase	1		NA		
2.1 (d)	100 kVA 3-phase	1				
2.1 (e)	160 kVA 3-phase	1				
2.1 (f)	200 kVA 3-phase	1				
2.1 (g)	315 kVA 3-phase	1				
2.1 (h)	500 kVA 3-phase	1				
2.1 (i)	630 kVA 3-phase	1				
2.1 (j)	800 kVA 3-phase	1				
2.1 (k)	1000 kVA 3-phase	1				

ITEM 2.2: TRANSFORMERS WITH LT DISTRIBUTION BOX

ITEM NR.	DESCRIPTION	QUANTITY	PRICE (VAT INCLUDED)	DELIVERY PERIOD	MANUFACTURER
2.2 (a)	200 kVA 3-phase with LT Distribution box for outgoing feeders and streetlight panel	1			
2.2 (b)	315 kVA 3-phase with LT Distribution box for outgoing feeders and streetlight panel	1			
2.2 (c)	400 kVA 3-phase with LT Distribution box for outgoing feeders and streetlight panel	1			

ITEM 2.3: TRANSFORMERS (3300 / 420 / 231 VOLT)

ITEM NR.	DESCRIPTION	QUANTITY	PRICE (VAT INCLUDED)		DELIVERY PERIOD	MANUFACTURER
			Open Bushings	Cable Boxes		
2.3 (a)	25 kVA 1-phase	1		NA		
2.3 (b)	25 kVA 3-phase	1				
2.3 (c)	50 kVA 3-phase	1		NA		
2.3 (d)	100 kVA 3-phase	1				
2.3 (e)	160 kVA 3-phase	1				
2.3 (f)	200 kVA 3-phase	1				
2.3 (g)	315 kVA 3-phase	1				
2.3 (h)	500 kVA 3-phase	1				

ITEM 2.4: TRANSFORMERS (11000 / 3300 VOLT)

ITEM NR.	DESCRIPTION	QUANTITY	PRICE (VAT INCLUDED)		DELIVERY PERIOD	MANUFACTURER
			Open Bushings	Cable Boxes		
2.3 (a)	500 kVA 3-phase	1				
2.3 (b)	800 kVA 3-phase	1				
2.3 (c)	1000 kVA 3-phase	1				

ITEM 3: AUTOMATIC RECLOSER & SECTIONALIZER

ITEM NR.	DESCRIPTION	QUANTITY	PRICE (VAT INCLUDED)	DELIVERY PERIOD	MANUFACTURER
3(a)	11 kV Auto-recloser Oil Insulated 250 ampere complete with controller	1			
3(b)	11 kV Vacuum Auto-recloser complete with controller	1			
3(c)	11 kV Vacuum Sectionalizer with controller	1			

ITEM 4: RING MAIN UNIT (VACUUM NON-EXTENSIBLE)

ITEM NR.	DESCRIPTION	QUANTITY	PRICE (VAT INCLUDED)		DELIVERY PERIOD	MANUFACTURER
			KIOSK EXCLUDED	KIOSK INCLUDED		
4(a)	11 kV RMU 630 ampere Vacuum (2 x cable switches and 1 x fused switch) (CCF)	1				
4(b)	11 kV RMU 630 ampere Vacuum (3 x cable switches) (CCC)	1				
4(c)	11 kV RMU 630 ampere Vacuum (2 x cable switches and 1 x vacuum switch) (CCV)	1				
4(d)	11 kV RMU 630 ampere Vacuum (1 x cable switch and 2 x vacuum switches) (CVV)	1				
4(e)	11 kV RMU 630 ampere Vacuum (3 x vacuum switches and 1 x cable switches) (CVVV)	1				
4(f)	11 kV RMU 630 ampere Vacuum (3 x vacuum switches, 1 x cable switch and 1 x fused switch) (CVVVF)	1				
4(g)	11 kV RMU 630 ampere Vacuum (4 x vacuum switches and 1 x cable switch) (CVVVV)	1				

ITEM 5: RING MAIN UNIT WITH METERING UNIT (VACUUM)

ITEM NR.	DESCRIPTION	QUANTITY	PRICE (VAT INCLUDED)	DELIVERY PERIOD	MANUFACTURER
5(a)	11 kV RMU 630 ampere Vacuum (2 x cable switches, metering unit, 1 x fused switch and mounted in weather proof kiosk) (CCMF)	1			
5(b)	11 kV RMU 630 ampere Vacuum (2 x cable switches, metering unit, 2 x fused switches and mounted in weather proof kiosk) (CCMFF	1			
5(c)	11 kV RMU 630 ampere Vacuum (2 x cable switches, metering unit, 1 x vacuum switch and mounted in weather proof kiosk) (CCMV)	1			
5(d)	11 kV RMU 630 ampere Vacuum (2 x cable switches, metering unit, 2 x vacuum switches and mounted in weather proof kiosk) (CCMVV)	1			
5(e)	11 kV RMU 630 ampere Vacuum (1 x cable switch, 2 x vacuum switches metering unit, 1 x vacuum switches and mounted in weather proof kiosk) (CVVMV)	1			

ITEM 6: RING MAIN UNIT (VACUUM EXTENSIBLE) (Switches, bus bar and metering unit will be used in combinations)

ITEM NR.	DESCRIPTION	QUANTITY	PRICE (VAT INCLUDED)	DELIVERY PERIOD	MANUFACTURER
6 (a)	11 kV Cable switch 630 / 1250 A	1			
6 (b)	11 kV Fuse switch 630 A	1			
6 (c)	11 kV Vacuum switch 630 / 1250 A	1			
6 (d)	11 kV Bus bar Vacuum switch 630 / 1250 A	1			
6 (e)	11 kV Metering Unit	1			

ITEM 7: KIOSKs FOR FREE-STANDING RMUs FOR ITEM 4 (Classification IAC AB (IEC 62271-202): INTERNAL ARC 20 KA 0,5S.)

ITEM NR.	DESCRIPTION	QUANTITY	PRICE (VAT INCLUDED)	DELIVERY PERIOD	MANUFACTURER
7 (a)	Two-way Kiosk	1			
7 (b)	Three-way Kiosk	1			
7 (c)	Four-way Kiosk	1			
7 (d)	Five-way Kiosk	1			

ITEM 8.1: WOODEN POLES: CLASS A (PINUS RADIATA)

ITEM NR.	DESCRIPTION	QUANTITY	PRICE (VAT INCLUDED)	DELIVERY PERIOD	MANUFACTURER
8.1 (a)	7 m Long 140 – 160 mm tops	1			
8.1 (b)	9 m Long 140 – 160 mm tops	1			
8.1 (c)	10 m Long 140 – 160 mm tops	1			
8.1 (d)	11 m Long 140 – 160 mm tops	1			
8.1 (e)	12 m Long 140 – 160 mm tops	1			

ITEM 8.2: WOODEN POLES: CLASS A (PINUS RADIATA)

ITEM NR.	DESCRIPTION	QUANTITY	PRICE (VAT INCLUDED)	DELIVERY PERIOD	MANUFACTURER
8.2 (a)	9 m Long 160 – 180 mm tops	1			
8.2 (b)	10 m Long 160 – 180 mm tops	1			
8.2 (c)	11 m Long 160 – 180 mm tops	1			
8.2 (d)	12 m Long 160 – 180 mm tops	1			

ITEM 9: GALVANISED STEEL BRACKETS

ITEM NR.	DESCRIPTION	QUANTITY	PRICE (VAT INCLUDED)	DELIVERY PERIOD	MANUFACTURER
9 (a)	A-Frame Intermediate 22 kV	1			
9 (b)	A-Frame Strain 22 kV	1			
9 (c)	Special Strain	1			
9 (d)	Fuse Bracket	1			
9 (e)	Transformer platform single pole mounted	1			
9 (f)	Transformer platform 1.68 spacing between pole center's	1			
9 (g)	Street light bracket – length 500 mm with 40 mm diameter with pole mounting clamp	1			

ITEM 10(A): LOW VOLTAGE CABLE (PVC SWA PVC COPPER)

ITEM NR.	DESCRIPTION	QUANTITY/ Price per 100 m	PRICE (VAT INCLUDED)	DELIVERY PERIOD	MANUFACTURER
10 (a)	10 mm² x 2 core	100 m			
10 (b)	10 mm² x 4 core	100 m			
10 (c)	16 mm² x 2 core	100 m			
10 (d)	16 mm² x 4 core	100 m			
10 (e)	25 mm² x 4 core	100 m			
10 (f)	35 mm² x 4 core	100 m			
10(g)	50 mm² x 4 core	100 m			
10 (h)	70 mm² x 4 core	100 m			
10 (i)	95 mm² x 4 core	100 m			
10 (j)	120 mm² x 4 core	100 m			
10 (k)	150 mm² x 4 core	100 m			
10 (l)	185 mm² x 4 core	100 m			
10 (m)	240 mm² x 4 core	100 m			
10 (n)	300 mm² x 4 core	100 m			

ITEM 10(B): LOW VOLTAGE CABLE (PVC SWA PVC ALUMINIUM)

ITEM NR.	DESCRIPTION	QUANTITY/ Price per 100 m	PRICE VAT INCLUDED)	DELIVERY PERIOD	MANUFACTURER
10(a)	50 mm² x 4 core	100 m			
10 (b)	70 mm² x 4 core	100 m			
10 (c)	95 mm² x 4 core	100 m			
10 (d)	120 mm² x 4 core	100 m			
10 (e)	150 mm² x 4 core	100 m			
10 (f)	185 mm² x 4 core	100 m			
10 (g)	240 mm² x 4 core	100 m			
10 (h)	300 mm² x 4 core	100 m			

ITEM 11: LOW VOLTAGE CABLE WITH COMMUNICATION WIRES (Cu / XLPE / SWA / PVC + 2 X 1.5 PILOT)

ITEM NR.	DESCRIPTION	QUANTITY/ Price per 100 m	PRICE (VAT INCLUDED)	DELIVERY PERIOD	MANUFACTURER
11 (a)	10 mm² x 2 core	100 m			
11 (b)	16 mm² x 2 core	100 m			
11 (c)	16 mm² x 4 core	100 m			

ITEM 12. LOW VOLTAGE AERIAL BUNDLE CONDUCTOR (ALUMINIUM)

ITEM 12.1 SINGLE PHASE CONDUCTOR AND ONE NEUTRAL CONDUCTOR

ITEM NR.	DESCRIPTION	QUANTITY/ Price per 100 m	PRICE (VAT INCLUDED)	DELIVERY PERIOD	MANUFACTURER
12 (a)	25 mm² x 2 CORE	100 m			

ITEM 12.2: THREE-PHASE CONDUCTOR, ONE NEUTRAL CONDUCTOR AND ONE STREETLIGHT conductor

ITEM NR.	DESCRIPTION	QUANTITY/ Price per 100 m	PRICE (VAT INCLUDED)	DELIVERY PERIOD	MANUFACTURER
12 (a)	35 mm² with street lighting conductor	100 m			
12 (b)	50 mm² with street lighting conductor	100 m			
12 (c)	70 mm² with street lighting conductor	100 m			
12 (d)	95 mm² with street lighting conductor	100 m			
12 (e)	120 mm² with street lighting conductor	100 m			

ITEM 13: LOW VOLTAGE CABLE AIRDAC WITH COMMUNICATION WIRES (COPPER)

ITEM NR.	DESCRIPTION	QUANTITY/ Price per 100 m	PRICE (VAT INCLUDED)	DELIVERY PERIOD	MANUFACTURER
13 (a)	10 mm²	100 m			
13 (b)	16 mm²	100 m			

ITEM 14: MEDIUM VOLTAGE CABLE (PILC PVC GDSTA PVC T18 AND T19 COPPER)

ITEM NR.	DESCRIPTION	QUANTITY/ Price per 100 m	PRICE (VAT INCLUDED)		DELIVERY PERIOD	MANUFACTURER
			TABLE 18	TABLE 19		
14 (a)	35 mm² x 3 core	100 m				
14 (b)	70 mm² x 3 core	100 m				
14 (c)	95 mm² x 3 core	100 m				
14 (d)	120 mm² x 3 core	100 m				
14 (e)	150 mm² x 3 core	100 m				
14 (f)	185 mm² x 3 core	100 m				
14 (g)	240 mm² x 3 core	100 m				
14 (h)	300 mm² x 3 core	100 m				

ITEM 15(a): DISTRIBUTION BOXES (POLYETHYLENE)

ITEM NR.	DESCRIPTION	QUANTITY	PRICE (VAT INCLUDED)					DELIVERY PERIOD	MANUFACTURER
			2 Meter	**4 Meter**	**6 Meter**	**9 Meter**	**12 Meter**		
15 (a)(1)	Pillar boxes	1							
			2 Meter	**4 Meter**	**6 Meter**	**8 Meter**			
15 (a)(2)	Pole Mounted Boxes	1							

ITEM 15(b): DISTRIBUTION BOXES (3CR12 STEEL)

ITEM NR.	DESCRIPTION	QUANTITY	PRICE (VAT INCLUDED)				DELIVERY PERIOD	MANUFACTURER
			4 Meter	6 Meter	9 Meter	12 Meter		
15 (b)(1)	Pillar boxes	1						
			4 Meter	8 Meter				
15 (b)(2)	Pole Mounted Boxes	1						

ITEM 15(c): MARSHALLING KIOSK (GALVANISED OR 3CR12)

ITEM NR.	DESCRIPTION	QUANTITY	PRICE (VAT INCLUDED)				DELIVERY PERIOD	MANUFACTURER
15 (c)(1)	Marshalling Kiosk complete with concrete plinth and steel adaptor plate for concrete plinth 1200 x 460 x 450 mm	1						
15(c)(2)	Marshalling Kiosk complete with concrete plinth and steel adaptor plate for concrete plinth 1200 x 660 x 450 mm	1						

ITEM 16(a): METER BOXES (POLYETHYLENE)

ITEM NR.	DESCRIPTION	QUANTITY	PRICE (VAT INCLUDED)	DELIVERY PERIOD	MANUFACTURER
16 (a)(1)	450 X 600 mm	1			
16 (a)(2)	600 x 600 mm	1			
16 (a)(3)	600 x 900 mm	1			

ITEM 16(b): METER BOXES (GALVANISED OR 3CR12)

ITEM NR.	DESCRIPTION	QUANTITY	PRICE (VAT INCLUDED)	DELIVERY PERIOD	MANUFACTURER
16 (b)(1)	450 X 600 mm	1			
16 (b)(2)	600 x 600 mm	1			
16 (b)(3)	600 x 900 mm	1			

ITEM 17(a): LED: Roadway Luminaire

The following minimum requirements shall be met for each of the luminaires:

Minimum L value ≥ L95; Minimum B value ≤ B10; Minimum CRI > Ra70; Colour Temperature = 4 000K

OPTION A – Side Entry

Item Nr.	Details	Max Wattage	Offer	Min Lumin Output	Offer	L value	B value	Min CRI	Colour Temp.	Weight	PRICE (VAT INCLUDED)	DELIVERY PERIOD (WEEKS)	MANUFACTURER
17(a)1	Replaces 125W MV/70W HPS	<35W		>4450									
17(a)2	Replaces 150W HPS / 250W MV	<70W		>9000									
17(a)3	Replaces 250/400W HPS	<150W		>20500									

OPTION B – Bottom Entry

Item Nr.	Details	Max Wattage	Offer	Min Lumin Output	Offer	L value	B value	Min CRI	Colour Temp.	Weight	PRICE (VAT INCLUDED)	DELIVERY PERIOD (WEEKS)	MANUFACTURER
17(a)1	Replaces 125W MV/70W HPS	<35W		>4450									
17(a)2	Replaces 150W HPS / 250W MV	<70W		>9000									
17(a)3	Replaces 250/400W HPS	<150W		>20500									

OPTION C – Fitting with Spiggot

Item Nr.	Details	Max Wattage	Offer	Min Lumin Output	Offer	L value	B value	Min CRI	Colour Temp.	Weight	PRICE (VAT INCLUDED)	DELIVERY PERIOD (WEEKS)	MANUFACTURER
17(a)1	Replaces 125W MV/70W HPS	<35W		>4450									
17(a)2	Replaces 150W HPS / 250W MV	<70W		>9000									
17(a)3	Replaces 250/400W HPS	<150W		>20500									

ITEM 17(b): LED: Post Top Luminaire.

The following minimum requirements shall be met for each of the luminaires:

Minimum L value ≥ L95; Minimum B value ≤ B10; Minimum CRI > Ra70; Colour Temperature = 4 000K

Item Nr.	Details	Max Wattage	Wattage	Min Lumin Output	Lumin Output	L value	B value	Min CRI	Colour Temp.	Weight	PRICE (VAT INCLUDED)	DELIVERY PERIOD (WEEKS)	MANUFACTURER
17(b)1	Replaces 70W HPS	<35W		>4450									
17(b)2	Replaces 100W HPS	<55W		>6900									

ITEM 17(c): LED: Decorative Bell Type Luminaire.

The following minimum requirements shall be met for each of the luminaires:

Minimum L value ≥ L95; Minimum B value ≤ B10; Minimum CRI > Ra70; Colour Temperature = 4 000K

Item Nr.	Details	Max Wattage	Wattage	Min Lumin Output	Lumin Output	L value	B value	Min CRI	Colour Temp.	Weight	PRICE (VAT INCLUDED)	DELIVERY PERIOD (WEEKS)	MANUFACTURER
17(c)1	Similar or equal to the Beka Albany Maxi LED 48 LEDs, Optic 5103	<70W		>9000									
17(c)2	Alternative 1												

ITEM 18: FLOODLIGHT LUMINAIRES (LED)

The following minimum requirements shall be met for each of the luminaires:

Minimum L value ≥ L90 items 1 – 3, ≥ L70 items 4 – 6; Minimum B value ≤ B10; Minimum CRI > Ra70; Colour Temperature = 4 000K items 1 – 3, 5 700K items 4 – 6

Item Nr.	Details	Max Wattage	Wattage	Min Lumin Output	Lumin Output	L value	B value	Min CRI	Colour Temp.	Weight	PRICE (VAT INCLUDED)	DELIVERY PERIOD (WEEKS)	MANUFACTURER
18.1	Replaces 100W MH	<55W		>6300									
18.2	Replaces 250W MH	<140W		>18400									
18.3	Replaces 400W MH	<230W		>29400									
18.4	Replaces 1000W MH	<415W		>54500									
18.5	Replaces 2000W MH	<825W		>109200									
18.6	Replaces 2000W MH	<1450W		>160000									

ITEM 19.1 LAMPS

ITEM NR.	DESCRIPTION	QUANTITY	PRICE (VAT INCLUDED)	DELIVERY PERIOD	MANUFACTURER
19.1 (a)	70 ES SON / E 230 Volt	1			
19.1 (b)	80 ES MBF/V 230 Volt	1			
19.1 (c)	100 ES SON / E 230 Volt	1			
19.1 (d)	125 ES MBF/V 230 Volt	1			
19.1 (e)	250 GES MBF/V 230 Volt	1			
19.1 (f)	400 GES MBF/V 230 Volt	1			
19.1 (g)	150 GES SON / E 230 Volt	1			
19.1 (h)	150 GES SON / T 230 Volt	1			
19.1 (i)	250 GES SON / E 230 Volt	1			
19.1 (j)	250 GES SON / T 230 Volt	1			
19.1 (k)	400 GES SON / E 230 Volt	1			
19.1 (l)	400 GES SON / T 230 Volt	1			
19.1 (m)	1000 GES SON / T 230 Volt	1			
19.1 (n)	400 GES HPT-T-V 230 Volt	1			

ITEM 19.2: ENERGY SAVER LAMPS (LED)

ANY DEPARTURES FROM THE REQUIREMENTS OF THE SPECIFICATIONS SHALL BE STATED NEXT TO THE ITEM

	DESCRIPTION	QUANTITY	PRICE (VAT INCLUDED)		WATTAGE	LUMIN OUTPUT	DELIVERY PERIOD	MANUFACTURER
			BASE					
			E27	B22				
19.2 (a)	LED, replaces 15-watt CFL; 230 Volt; Cool white	1						
19.2 (b)	LED, replaces 25-watt CFL; 230 Volt; Cool white	1						
19.2 (c)	LED, replaces 32-watt CFL; 230 Volt; Cool white	1						
19.2 (d)	LED, replaces 35-watt CFL; 230 Volt; Cool white	1						
19.2 (e)	LED, replaces 45-watt CFL; 230 Volt; Cool white	1						
19.2 (f)	LED, replaces 55-watt CFL; 230 Volt; Cool white	1						

ITEM 20(a): GALVANISED STREET LIGHT POLES

ITEM NR.	DESCRIPTION	QUANTITY	PRICE (VAT INCLUDED)	DELIVERY PERIOD	MANUFACTURER
20 (a.1)	4 m – 3 m mounting height	1			
20 (a.2)	7.2 m – 6 m mounting height	1			
20 (a.3)	10 m mounting height: Long radius with 2 m overhang	1			
20 (a.4)	10 m mounting height: Long radius with 3 m overhang	1			

ITEM 20(b): REINFORCED GLASS FIBRE STREET LIGHT POLES

ITEM NR.	DESCRIPTION	QUANTITY	PRICE (VAT INCLUDED)	DELIVERY PERIOD	MANUFACTURER
20 (b.1)	4 m – 3 m mounting height	1			
20 (b.2)	7.2 m – 6 m mounting height	1			
20 (b.3)	11 m mounting height single spigot	1			
20 (b.4)	11 m mounting height double spigot	1			

ITEM 21: GALVANISED TRANSMISSION POLES

ITEM NR.	DESCRIPTION	QUANTITY	PRICE (VAT INCLUDED)	DELIVERY PERIOD	MANUFACTURER
21 (a)	9.25 m with 90 mm top	1			
21 (b)	9.25 m with 114 mm top	1			
21 (c)	10.75 m with 90 mm top	1			
21 (d)	10.75 m with 114 mm top	1			

ITEM 22: POLE MOUNTED METERING TRANSFORMERS

ITEM NR.	DESCRIPTION	QUANTITY	PRICE (VAT INCLUDED)		DELIVERY PERIOD	MANUFACTURER
			Ratio 10 – 50 – 80 - 100 / 5 or 1 amp	Ratio 50 – 100 – 150 - 200 / 5 or 1 amp		
22(a)	3 Phase Metering Transformer 11000 / 110 Volt. 1- and 5-Amp secondary current	1				

ITEM 23: KWH AND KVA DEMAND METERS (PROGRAMMABLE POLY PHASE)

ITEM NR.	DESCRIPTION	QUANTITY	PRICE (VAT INCLUDED)		DELIVERY PERIOD	MANUFACTURER
			1 Amp	5 Amp		
23 (a)	kWh and kVA Demand Meters 110 Volt	1				
23 (b)	kWh and kVA Demand Meters 230 Volt	1				

ITEM 24: KWH METERS SINGLE AND THREE PHASE (ELECTRONIC AND/OR PROGRAMMABLE)

ITEM NR.	DESCRIPTION	QUANTITY	PRICE (VAT INCLUDED)	DELIVERY PERIOD	MANUFACTURER
24 (a)(i)	Single Phase kWh Meter 80 ampere range 230 Volt: Must be able to register forward and reverse flow of energy in two separate registers displayed on a LCD and the meter must have a function to be read remotely. The meter must be programmable to operate as a prepaid or credit meter.	1			
24 (a)(ii)	Single phase kWh 20-100 ampere range 230 Volt (dimension 120 x 124 x 50mm)	1			
24 (b)	Three Phase kWh Meter 40-100 ampere 3 phase 4 wire: Must be able to register forward and reverse flow of energy in two separate registers displayed on a LCD and the meter must have a function to be read remotely. The meter must be programmable to operate as a prepaid or credit meter	1			
24 (c)	Three Phase kWh Meter 40-160 ampere 3 phase 4 wire: Must be able to register forward and reverse flow of energy in two separate registers displayed on a LCD and the meter must have a function to be read remotely. The meter must be programmable to operate as a prepaid or credit meter	1			

ITEM 25: CURRENT TRANSFORMERS RING TYPE 10 / 15 VA

ITEM NR.	DESCRIPTION	QUANTITY	PRICE (VAT INCLUDED)	DELIVERY PERIOD	MANUFACTURER
25 (a)	Ratio 50/5 amp 10 VA Class 0.5	1			
25 (b)	Ratio 100/5 amp 10 VA Class 0.5	1			
25 (c)	Ratio 150/5 amp 15 VA Class 0.5	1			
25 (d)	Ratio 200/5 amp 15 VA Class 0.5	1			
25 (e)	Ratio 300/5 amp 15 VA Class 0.5	1			
25 (f)	Ratio 500/5 amp 15 VA Class 0.5	1			
25 (g)	Ratio 800/5 amp 15 VA Class 0.5	1			

ITEM 26(a): PRE- PAID KWH METERS SINGLE PHASE (STS)

ITEM NR.	DESCRIPTION	QUANTITY	PRICE (VAT INCLUDED)			DELIVERY PERIOD	MANUFACTURER
			BS Foot Print (Extra Keypad included)	Wire-Split (Keypad Included)	Common Base (Base Included)		
26 (a.1)	Single Phase 80 Ampere	1					

ITEM 26(b): PRE- PAID KWH METERS SINGLE PHASE (STS)

ITEM NR.	DESCRIPTION	QUANTITY	PRICE (VAT INCLUDED)	DELIVERY PERIOD	MANUFACTURER
26 (b.1)	Single Phase 80 Ampere (Power Line Communication)	1			
26 (b.2)	Single Phase 60 Ampere (Radio Frequency Communication)	1			
26 (b.3)	Single Phase 100 Ampere (Radio Frequency Communication)	1			

ITEM 26(c): PRE- PAID KWH METERS THREE PHASE (100 Ampere) (STS)

ITEM NR.	DESCRIPTION	QUANTITY	PRICE (VAT INCLUDED)		DELIVERY PERIOD	MANUFACTURER
			Standard	Wire-Split (keypad incl)		
26 (c.1)	Three Phase 100 Ampere	1				

ITEM 26(d): PRE- PAID KWH METERS THREE PHASE (STS)

ITEM NR.	DESCRIPTION	QUANTITY	PRICE (VAT INCLUDED)	DELIVERY PERIOD	MANUFACTURER
26 (d)	Three Phase 100 Ampere (Radio Frequency Communication)	1			

ITEM 27: INSULATORS 11 kV (Pin & Post & Strain & Long rod)

ITEM NR.	DESCRIPTION	QUANTITY	PRICE (VAT INCLUDED)	DELIVERY PERIOD	MANUFACTURER
27 (a)	Pin porcelain with 217 x 19 – 50 spindles (spindle, bolts, washers, and nuts included)	1			
27 (b)	Post 12.5 kN porcelain with spindles (spindle, bolts, washers, and nuts included)	1			
27 (c)	Disc brown glazed clevis type	1			
27 (d)	Line composite (Long rod) 11 kV Silicon	1			

ITEM 28: STAY ASSEMBLIES

ITEM NR.	DESCRIPTION	QUANTITY	PRICE (VAT INCLUDED)	DELIVERY PERIOD	MANUFACTURER
28 (a)	Stay Rods 16 mm 1.8 meter – With 380 x 380 Base Plate	1			
28 (b)	Stay Rods 20 mm 2.4 meter – With 450 x 450 Base Plate	1			
28 (c)	Stay Rods 20 mm 1.8 meter – With 380 x 380 Base Plate	1			
28 (d)(i)	Pole Top Make-off for 7/2.65 Stay wire	1			
28 (d)(ii)	Pole Top Make-off for 7/4.06 Stay wire	1			
28 (e)(i)	Dead Ends for 7/2.65 Stay wire	1			
28 (e)(ii)	Dead Ends for 7/4.06 Stay wire	1			
28 (f) (i)	Galvanised Stay Wire 7/2.65	Per coil			
28 (f)(ii)	Galvanised Stay Wire 7/4.06	Per coil			

ITEM 29: ALUMINIUM CONDUCTOR

ITEM NR.	DESCRIPTION	QUANTITY	PRICE (VAT INCLUDED)	DELIVERY PERIOD	MANUFACTURER
29 (a)	Gopher 6/1/2.36 (26.25 mm²)	1000 m			
29 (b)	Fox 6/1/2.79 (36.66 mm²)	1000 m			
29 (c)	Rabbit 6/1/3.35 (52.88mm²)	1000 m			
29 (d)	Mink 6/1/3.66 (63.17 mm²)	1000 m			
29 (e)	Raccoon 6/1/4.09 (78.83 mm²)	1000 m			
29 (f)	Hare 6/1/4.72 (104.98 mm²)	1000 m			
29 (g)	Wolf 30/7/2.59 (158.06 mm²)	1000 m			

ITEM 30: PREFORM LINE MATERIAL FOR ALUMINIUM CONDUCTOR

ITEM NR.	DESCRIPTION	QUANTITY	PRICE (VAT INCLUDED)					DELIVERY PERIOD	MANUFACTURER
			Wrap lock Ties "AWT"	Dead-ends "ADE"	Line Splice "ALS FT"	Line Splice Repair Kit	Automatic Line Splice		
30 (a)	Gopher 6/1/2.36 (26.25 mm²)	1							
30 (b)	Fox 6/1/2.79 (36.66 mm²)	1							
30 (c)	Rabbit 6/1/3.35 (52.88mm²)	1							
30 (d)	Mink 6/1/3.66 (63.17 mm²)	1							
30 (e)	Raccoon 6/1/4.09 (78.83 mm²)	1							
30 (f)	Hare 6/1/4.72 (104.98 mm²)	1							
30 (g)	Wolf 30/7/2.59 (158.06 mm²)	1							

ITEM 31(a): 11 KV COMPOUND THROUGH JOINT FOR PILCDSTA CABLES

ITEM NR.	DESCRIPTION	QUANTITY	PRICE (VAT INCLUDED)	DELIVERY PERIOD	MANUFACTURER
			CAST IRON **(Compound)**		
31 (a.1)	35 mm²	1			
31 (a.2)	70 mm²	1			
31 (a.3)	95 mm²	1			
31 (a.4)	120 mm²	1			
31 (a.5)	150 mm²	1			
31 (a.6)	185 mm²	1			
31 (a.7)	240 mm²	1			
31 (a.8)	300 mm²	1			

ITEM 31(b): 11 KV HEAT SHRINK THROUGH JOINT FOR PILCDSTA CABLES

ITEM NR.	DESCRIPTION	QUANTITY	PRICE (VAT INCLUDED)	DELIVERY PERIOD	MANUFACTURER
			HEAT SHRINK		
31 (b.1)	35 mm²	1			
31 (b.2)	70 mm²	1			
31 (b.3)	95 mm²	1			
31 (b.4)	120 mm²	1			
31 (b.5)	150 mm²	1			
31 (b.6)	185 mm²	1			
31 (b.7)	240 mm²	1			
31 (b.8)	300 mm²	1			

ITEM 32: 11 KV TERMINATION KITS FOR PILCDSTA CABLES

ITEM NR.	DESCRIPTION	QUANTITY	PRICE (VAT INCLUDED)							DELIVERY PERIOD	MANUFACTURER
			(a) INDOOR HEAT SHRINK	(b) OUTDOOR HEAT SHRINK	(c) Elastomeric insulating bushing boot (RCAB)	(d.1) T-adapter for perpendicular connection of the termination to Vacuum-insulated switchgear (RICS)	(d.2) T-adapter fitted with testing plug for perpendicular connection of the termination to Vacuum insulated switchgear. (RICS)	(d.3) Straight adapter for vertical connection of the termination to Vacuum-insulated switchgear (RICS)	(d.4) T-adapter for perpendicular connection of termination and surge arrester to Vacuum-insulated switchgear (RICS)		
32 (1)	35 mm²	1									
32 (2)	70 mm²	1									
32 (3)	95 mm²	1									
32 (4)	120 mm²	1									
32 (5)	150 mm²	1									

ITEM NR.	DESCRIPTION	QUANTITY	PRICE (VAT INCLUDED)							DELIVERY PERIOD	MANUFACTURER
			(a) INDOOR HEAT SHRINK	(b) OUTDOOR HEAT SHRINK	(c) Elastomeric insulating bushing boot (RCAB)	(d.1) T-adapter for perpendicular connection of the termination to Vacuum-insulated switchgear (RICS)	(d.2) T-adapter fitted with testing plug for perpendicular connection of the termination to Vacuum insulated switchgear. (RICS)	(d.3) Straight adapter for vertical connection of the termination to Vacuum-insulated switchgear (RICS)	(d.4) T-adapter for perpendicular connection of termination and surge arrester to Vacuum-insulated switchgear (RICS)		
32 (6)	185 mm²	1									
32 (7)	240 mm²	1									
32 (8)	300 mm²	1									

ITEM 33(a): RESIN THROUGH JOINTS FOR LOW TENSION COPPER PVC CABLES

ITEM NR.	DESCRIPTION	QUANTITY	PRICE (VAT INCLUDED)	DELIVERY PERIOD	MANUFACTURER
33 (a.1)	6 mm² Resin	1			
33 (a.2)	10 mm² Resin	1			
33 (a.3)	16 mm² Resin	1			
33 (a.4)	25 mm² Resin	1			
33 (a.5)	35 mm² Resin	1			
33 (a.6)	50 mm² Resin	1			
33 (a.7)	70 mm² Resin	1			
33 (a.8)	95 mm² Resin	1			
33 (a.9)	120 mm² Resin	1			
33 (a.10)	150 mm² Resin	1			
33 (a.11)	185 mm² Resin	1			

ITEM 33(b): HEAT SHRINK THROUGH JOINTS FOR LOW TENSION COPPER PVC CABLES

ITEM NR.	DESCRIPTION	QUANTITY	PRICE (VAT INCLUDED)	DELIVERY PERIOD	MANUFACTURER
33 (b.1)	6 mm² Heat shrink	1			
33 (b.2)	10 mm² Heat shrink	1			
33 (b.3)	16 mm² Heat shrink	1			
33 (b.4)	25 mm² Heat shrink	1			
33 (b.5)	35 mm² Heat shrink	1			
33 (b.6)	50 mm² Heat shrink	1			
33 (b.7)	70 mm² Heat shrink	1			
33 (b.8)	95 mm² Heat shrink	1			
33 (b.9)	120 mm² Heat shrink	1			
33 (b.10)	150 mm² Heat shrink	1			
33 (b.11)	185 mm² Heat shrink	1			

ITEM 34: CIRCUIT BREAKERS SINGLE AND THREE PHASE COMPLETE WITH COVER

ITEM NR.	DESCRIPTION	QUANTITY	PRICE (VAT INCLUDED)		DELIVERY PERIOD	MANUFACTURER
			Single Phase 5 kA Curve 1	Single Phase 5 kA Curve 2		
34 (a.1)	40 Ampere	1				
34 (a.2)	45 Ampere	1				
34 (a.3)	50 Ampere	1				
34 (a.4)	60 Ampere	1				
34 (a.5)	70 / 75 Ampere	1				
34 (a.6)	80 Ampere	1				
34 (a.7)	100 Ampere	1				

ITEM 35(a): CIRCUIT BREAKERS THREE PHASE (Small Frame)

ITEM NR.	DESCRIPTION	QUANTITY	PRICE (VAT INCLUDED)	DELIVERY PERIOD	MANUFACTURER
			Three Phase 5 kA Curve 2 (Magnetic)		
35 (a.1)	40 Ampere	1			
35 (a.2)	45 Ampere	1			
35 (a.3)	50 Ampere	1			
35 (a.4)	60 Ampere	1			
35 (a.5)	70 / 75 Ampere	1			
35 (a.6)	80 Ampere	1			
35 (a.7)	100 Ampere	1			

ITEM 35(b): CIRCUIT BREAKERS THREE PHASE Moulded Case Small Frame (Hydraulic Magnetic and Thermal)

ITEM NR.	DESCRIPTION	QUANTITY	PRICE (VAT INCLUDED)		DELIVERY PERIOD	MANUFACTURER
			Hydraulic Magnetic Three Phase 20 kA Curve 2	Thermal Three Phase 20 kA Curve 2		
35 (b.1)	125 Ampere	1				
35 (b.2)	150 Ampere	1				
35 (b.3)	200 Ampere	1				
35 (b.4)	225 Ampere	1				
35 (b.5)	250 Ampere	1				

ITEM 35(c): CIRCUIT BREAKERS THREE PHASE Moulded Case Large Frame (Hydraulic Magnetic and Thermal)

ITEM NR.	DESCRIPTION	QUANTITY	PRICE (VAT INCLUDED)		DELIVERY PERIOD	MANUFACTURER
			Hydraulic Magnetic Three Phase 30 kA Curve 2	Thermal Three Phase 30 kA Curve 2		
35 (c.1)	200 Ampere	1				
35 (c.2)	225 Ampere	1				
35 (c.3)	250 Ampere	1				
35 (c.4)	300 Ampere	1				
35 (c.5)	500 Ampere	1				
35 (c.6)	600 Ampere	1				
35 (c.7)	800 Ampere	1				
35 (c.8)	1000 Ampere	1				

ITEM 36(a): 11 kV DROP-OUT FUSES

ITEM NR.	DESCRIPTION	QUANTITY	PRICE (VAT INCLUDED)	DELIVERY PERIOD	MANUFACTURER
36 (a.1)	11 kV Drop-out fuses (AB Chance Type or similar)	1			
36 (a.2)	11Kv Lightning Arrestors (Silicon Type)	1			
36 (a.3)	Solid Link Brass 24kV 200 Amp	1			

ITEM 36 (b): 11 kV DROP-OUT FUSE LINKS

ITEM NR.	DESCRIPTION	QUANTITY	PRICE (VAT INCLUDED)	DELIVERY PERIOD	MANUFACTURER
36 (b.1)	Drop-out fuse Links & 3 Amp	1			
36 (b.2)	Drop-out fuse Links & 5 Amp	1			
36 (b.3)	Drop-out fuse Links 10 – 20 Amp	1			
36 (b.4)	Drop-out fuse Links 25 – 40 Amp	1			
36 (b.5)	Drop-out fuse Links 50 Amp	1			
36 (b.6)	Drop-out fuse Links 60 – 80 Amp	1			
36 (b.7)	Drop-out fuse Links 100 Amp	1			

ITEM 37: ABC LOW VOLTAGE NEUTRAL CONDUCTOR ACCESSORIES

ITEM NR.	DESCRIPTION	QUANTITY	PRICE (VAT INCLUDED)	DELIVERY PERIOD	MANUFACTURER
37 (a)	Strain Assembly (54.6 – 70 mm²)	1			
37 (b)	Strain Clamp (54.6 – 70 mm²)	1			
37 (c)	Suspension Assembly (35 – 70 mm²)	1			

ITEM 38: ABC LOW VOLTAGE INSULATION PIERCING CONNECTORS

ITEM NR.	DESCRIPTION	QUANTITY	PRICE (VAT INCLUDED)	DELIVERY PERIOD	MANUFACTURER
38 (a)	Insulation Piercing Connector Type PZ (25 – 95 mm² to 1.5 – 35 mm²)	1			
38 (b)	Insulation Piercing Connector Type PZ (25 – 95 mm² to 35 – 95 mm²)	1			
38 (c)	Insulation Piercing Connector Type PC2-1 (25 – 95 mm² to 4 – 35 mm²)	1			
38 (d)	Insulation Piercing Connector Type DZ-2F (25 – 95 mm² to 6 – 35 mm²)	1			
38 (e)	Insulation Piercing Connector Type DZ-3F	1			

	(25 – 95 mm² to 25 – 95 mm²)				
38 (f)	Insulation Piercing Connector Type PC3WP2F (25 – 95 mm² to 25 – 95 mm²)	1			
38 (g)	Insulation Piercing Connector Type PC3WP1CF (25 – 95 mm² to 25 – 95 mm²)	1			
38 (h)	Insulation Piercing Connector Type PC4WP1F (50 – 175 mm² to 6 – 35 mm²)	1			

ITEM 39: TRANSFORMER OIL

ITEM NR.	DESCRIPTION	QUANTITY	PRICE / LITER (VAT INCLUDED)	DELIVERY PERIOD	MANUFACTURER
39 (a)	Transformer Oil New	210 L			
39 (b)	Transformer Oil Regenerated	210 L			

ITEM 40: RIPPLE RECEIVERS WITH SWITCH (Enermet or similar)

ITEM NR.	DESCRIPTION	QUANTITY	PRICE (VAT INCLUDED)	DELIVERY PERIOD	MANUFACTURER
40(a)	Ripple receivers with switch	1			
40(b)	Ripple Load Relay, rated at 220V, 50Hz, 40A (switch only)	1			

ITEM 41: AUDITING, DISCONNECTING, RECONNECTING AND REPLACING OF PREPAID ENERGY METERS (price must include own transport and overnight cost)

ITEM NR.	DESCRIPTION	QUANTITY	PRICE PER METER (VAT INCLUDED)				
		Minimum	Audit Cost	Disconnection Cost	Reconnection Cost	Re-visit Cost	Meter Replacing Cost
41 (a)	Single Phase	50					
41 (b)	Three Phase	5					

ITEM 42: AUDITING, PROGRAMMING AND INSTALLATION OF MAXIMUM DEMAND AND ENERGY METERS

ITEM NR.	DESCRIPTION	QUANTITY /	PRICE (VAT INCLUDED)				
		Minimum	Travelling Cost		Accommodation Cost	Labour Cost	Fixed Cost (If break up of costs are not available)
			Labour per Hour	Transport per kilometre	Per Day	Labour per Hour	Labour and Transport
42 (a)	Auditing of Meters	25					
42 (b)	Programming of Meters	1					
42 (c)	Installation of Meters (SANS)	1					

ITEM 43 (a): PLINTHS FOR FREE-STANDING RMUs

ITEM NR.	DESCRIPTION	QUANTITY	PRICE (VAT INCLUDED)	DELIVERY PERIOD	MANUFACTURER
43 (a.1)	Two-way Kiosk	1			
43 (a.2)	Three-way Kiosk	1			
43 (a.3)	Four-way Kiosk	1			
43 (a.4)	Five-way Kiosk	1			

ITEM 43 (b): PLINTHS FOR MINIATURE SUBSTATIONS

ITEM NR.	DESCRIPTION	QUANTITY	PRICE (VAT INCLUDED)	DELIVERY PERIOD	MANUFACTURER
43 (b.1)	315 kVA	1			
43 (b.2)	500 kVA	1			
43 (b.3)	630 kVA	1			
43 (b.4)	800 kVA	1			
43 (b.5)	1000 kVA	1			

15. CERTIFICATION OF CORRECTNESS OF INFORMATION SUPPLIED IN THIS DOCUMENT

I/We the undersigned is/are duly authorised to do so on behalf of the firm certify that:

1. The information supplied is correct.
2. All copies of relevant information are attached.
3. The BBBEE points claimed are correct and based on owners/shareholders who are actively involved in the day to day management of the enterprise
4. I take note that payment will be effected 30 days after delivery was affected if delivered with an original invoice.
5. If I am classified as a dependant service provider/labour broker as stated in the fourth schedule of the Income Tax act I hereby authorise the LM to deduct PAYE and supply me with a yearly IRP 30 (only if no valid Labour Broker Certificate can be supplied).
6. None of the owners, directors, managers, shareholders or stakeholders of this entity is in the service of the state, or has been in the service of the state in the previous twelve months.
7. In case of a dispute the wording of the original approved Bid Specification Committee Document would prevail.

_____ _____

Signature of authorised person Date

Personal information in block letters

Name	
Surname	
Telephone No	
Capacity	
ON BEHALF OF THE (SUPPLIER'S NAME)	

Signed and sworn to before me at …….. on this the ……..

day of …….

By the Deponent, who has acknowledged that he/she knows and understands the contents of this Affidavit, that 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